

# Formalization of **MICRO FOOD PROCESSING** Enterprises in Punjab



## Baseline Study on **One District One Product (ODOP)**

by  
**PUNJAB AGRO INDUSTRIES CORPORATION**  
(State Nodal Agency)

## PREFACE

Punjab Agro Industries Corporation is the ‘State Nodal Agency’ to implement ‘PM Formalization of Micro Food Processing Enterprises Scheme’ in Punjab. PAIC has compiled the Baseline study on ‘One District One Product’. The potential of each and every produce/product of the district was assessed and compared amongst the shortlisted ones to arrive at the most suitable product for that district. In view of the quantum of production of agriculture produce and the number of micro food processing enterprises, Punjab has been placed under the ‘Big State’ category in the scheme.

PAIC has now started working on the State Level Up-gradation Plan (SLUP) for ODOP Products wherein details of units, level of processing, infrastructure available, gaps and what work should be done under the scheme to fill the gaps including hygiene standards, marketing, branding etc. would be mapped.

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## 1.0 Executive Summary

### Introduction

- 1.0.1 As part of Atmanirbhar Bharat Abhiyan, Government of India has launched a new Centrally Sponsored Scheme ‘PM Formalization of Micro Food Processing Enterprises’ to be implemented over a period of 5 years starting 2020-21. The total outlay of the scheme is Rs. 10,000 Cr. to be shared between Govt. of India and States/UTs. in the ratio of 60:40.
- 1.0.2 The unorganized food processing sector in the country comprises nearly 25 lakh food processing enterprises which are unregistered and informal. With only 7% of investment in plant & machinery and 3% of outstanding credit, the unorganized enterprises contribute to 74% of employment (a third of which are women), 12% of output and 27% of value addition in the food processing sector. Nearly 66% of these units are located in rural areas and about 80% of them are family-run enterprises. Most of these units fall under the category of micro manufacturing units in terms of their investment in plant & machinery and turnover.
- 1.0.3 The unorganized food processing industry in India faces challenges that limit its development and weaken performance. These challenges include i) lack of productivity and innovation due to limited skills and access to modern technology and machinery for production and packaging; ii) deficient quality and food safety control systems, including lack of basic awareness on good hygienic and manufacturing practices; iii) lack of branding & marketing skills and inability to integrate with the supply chains, etc.; iv) capital deficiency and low bank credit.
- 1.0.4 Unorganized micro food processing units need intensive hand holding support for skill training, entrepreneurship, technology, credit and marketing across the value chain.
- 1.0.5 The scheme is designed to address the challenges faced by the micro enterprises and to tap the potential of Farmer Producer Organisations, women’s Self Help Groups and cooperatives in supporting the upgradation and formalization of these enterprises.

- 1.0.6 The aims of 'PM FME' Scheme is to enhance the competitiveness of existing individual micro-enterprises in the unorganized segment of the food processing industry and promote formalization of the sector, and support FPOs, SHGs and Producers Co-operatives along their entire value chain.
- 1.0.7 The objectives of the scheme is to build capability of microenterprises enabling increased access to credit; integration with organized supply chain; transition into formal framework and increased access to common services like common processing facility, laboratories, storage, packaging, marketing and incubation services.
- 1.0.7 The scheme envisages to directly assist 2,00,000 micro food processing units with credit linked subsidy. Adequate supportive common infrastructure and institutional architecture will be supported to accelerate growth of the sector.
- 1.0.8 The scheme adopts One District One Product (ODOP) approach to reap the benefit of scale in terms of procurement of inputs, availing common services and marketing of products. ODOP for the scheme will provide the framework for value chain development and alignment of support infrastructure.
- 1.0.9 With respect to support to existing individual micro units for capital investment, preference would be given to those producing ODOP products. However, existing units producing other products would also be supported. In case of capital investment by groups (FPOs/Producer Cooperatives), predominately those involved in ODOP products would be supported.
- 1.0.10 Support to groups processing other products in such districts would only be for those already processing those products and with adequate technical, financial and entrepreneurial strength.
- 1.0.11 New units, whether for individuals or groups would only be supported for ODOP products.
- 1.10.12 Support for common infrastructure and marketing & branding would only be for ODOP products. In case of support for marketing & branding at State or regional level, same products of districts not having that product as ODOP could also be included.

1.0.13 Individual micro food processing units would be provided credit-linked capital subsidy @ 35% of the eligible project cost with a maximum ceiling of Rs. 10 lakh per unit. Under group category, FPOs/SHGs/Producer Cooperatives would also be provided credit linked subsidy @35% with a maximum ceiling to be prescribed by MoFPI. SHG members undertaking food processing activity would be provided seed capital @ Rs. 40,000/-per member for working capital and purchase of small tools. FPOs/SHGs/Cooperatives/any government agency or private enterprise willing to create common infrastructure viz. premises for assaying of agriculture produce, sorting, grading, warehouse and cold storage at farm gate for other units and public to utilize on hiring basis would be given credit linked grant @35% with maximum limit of grant to be prescribed. Assistance under branding & marketing would be 50% of the total expenditure.

## 1.1 Scenario of Punjab

There are over 66,000 small and micro food processing enterprises in Punjab engaged in the production of pickles & murraba, jaggery, savouries, bakery products, mustard oil, milk products, meat/fish/poultry products, fruit pulp & juice, sherbet, ready-to-eat/ready-to-cook products, sweet meat, honey, papad, wadiyan, amchoor etc. Besides, FPOs/SHGs/Registered Co-operatives are also engaged in cleaning, grading and direct selling of fresh fruits and vegetable. Some of the micro enterprises and co-operatives have taken proper training from institutions like PAU as to how to make food products in a hygienic manner, but majority of them are running their age old enterprises using primitive ways. Today, many small and micro enterprises have to put in more effort and money to sustain in business as the consumer look for safe and hygienically packed products. The Scheme envisages formalizing over 6,672 un-organized enterprises in Punjab over a period of five years starting 2020-21. Department of Food Processing, Punjab and Punjab Agro Industries Corporation have been designated as the 'Nodal Department' and 'State Nodal Agency' respectively to implement the 'PM FME Scheme' in Punjab.

## 1.2 One District One Product

- 1.2.1 The geographical area of the state is 50.33 Lakh hectare, of this the net sown area is nearly 82% (41.25 Lakh hectare). The area sown more than once is 37.00 Lakh hectare resulting a cropping intensity of over 190% as against the national average of 142%. Punjab is amongst the top three states having highest cropping intensity in India. The other being Tripura and Haryana. Wheat and paddy are the two major rabi and kharif crops occupying over 84% of the total cropped area. The third major crop is cotton followed by maize and potato. Area under vegetables has reported a cumulative growth of over 11% in last three years with 2,73,253 Hectare (54,42,220 MT) during 2018-19. During the same period the area under fruits has grown by 8% with 86,673 Hectare (18,50,269 MT) during 2018-19. Kinnow is the main fruit occupying over 61% of the total area under fruit crops.

Milk has reported a cumulative growth of about 13% in last three years with production of 133.47 Lakh kilo liters during 2019-20. Fish farming is also picking up and reported a cumulative growth of about 11% in last three years with 1,51706 MT during 2019-20. The number of commercial layer and broiler farms has also increased in last three years.

1.2.2 The baseline study for ODOP started with a desk review of district wise secondary data of area and production of all food crops with special reference to fruits & vegetables, milk, fish, meat and poultry products during last three years followed by interaction with individual micro enterprises, FPOs, SHGs, Registered Co-operatives etc. undertaking food processing activities. Data was sourced from the concerned departments of the state government and feedback on the present status of processing etc. was obtained by making phone calls and holding Video Conference meetings with over 500 small and micro enterprises, FPOs, SHGs, subject experts, farmers, Krishi Vigyan Kendras etc.

1.2.3 On the basis of secondary research it was observed that the major categories of food processing that can have a large contribution from micro enterprises and FPOs/SHGs/Registered Co-operatives are:

- ❖ Grain and oilseed processing
- ❖ Fruits and vegetables processing
- ❖ Dairy product processing
- ❖ Poultry, Meat and Fish processing
- ❖ Packaged food items such as bakery, savouries, etc.

1.2.4 There are 22 districts in the state. Category wise produce/products of the district were shortlisted and then the same were analyzed amongst each other and rated as having high/medium/low potential from the point of view of 'ODOP'.

The produce/product falling in the high potential bracket was again assessed and then the most suitable one has been recommended for that district.



1.2.5 The following table depicts the name of the district, list of high potential produce/products and the ‘One Product’ recommended:

S. No.	District	Potential Products	ODOP
1.	Amritsar	Pickle & Murabba; Peas; Poultry, Meat and Fish products	Pickle & Murabba
2.	Barnala	Poultry, Meat & Fish products	Poultry, Meat & Fish products
3.	Gurdaspur	Basmati; Cauliflower;	Cauliflower & allied products
4.	Hoshiarpur	Jaggery; Peas	Jaggery & allied products
5.	Pathankot	Litchi; Poultry, Meat & Fish products	Litchi
6.	Jalandhar	Potato; Musk Melon, Poultry, Meat & Fish products	Potato
7.	Kapurthala	Musk Melon; Tomato	Tomato
8.	SBS Nagar	Peas	Peas
9.	Bathinda	Honey	Honey
10.	Sri Mukatsar Sahib	Milk, Poultry, Meat & Fish products	Milk & Milk products
11.	Mansa	Milk; Capsicum	Milk & Milk products
12.	Fatehgarh Sahib	Jaggery; Potato; Cauliflower; Cabbage	Jaggery
13.	Roopnagar	Mango	Mango
14.	Sangrur	Onion	Onion
15.	SAS Nagar	Milk & Milk Products	Milk & Milk products
16.	Fazilka	Kinnow; Poultry, Meat & Fish products	Kinnow
17.	Faridkot	Milk & Milk Products	Milk & Milk products
18.	Ferozpur	Chillies, Milk & Milk products	Chillies
19.	Tarntaran	Pear	Pear
20.	Patiala	Gauva; Poultry, Meat & Fish products	Gauva
21.	Ludhiana	Bakery Products, Okra; Poultry, Meat & Fish products	Bakery Products
22.	Moga	Garlic, Pulses; Potato	Potato

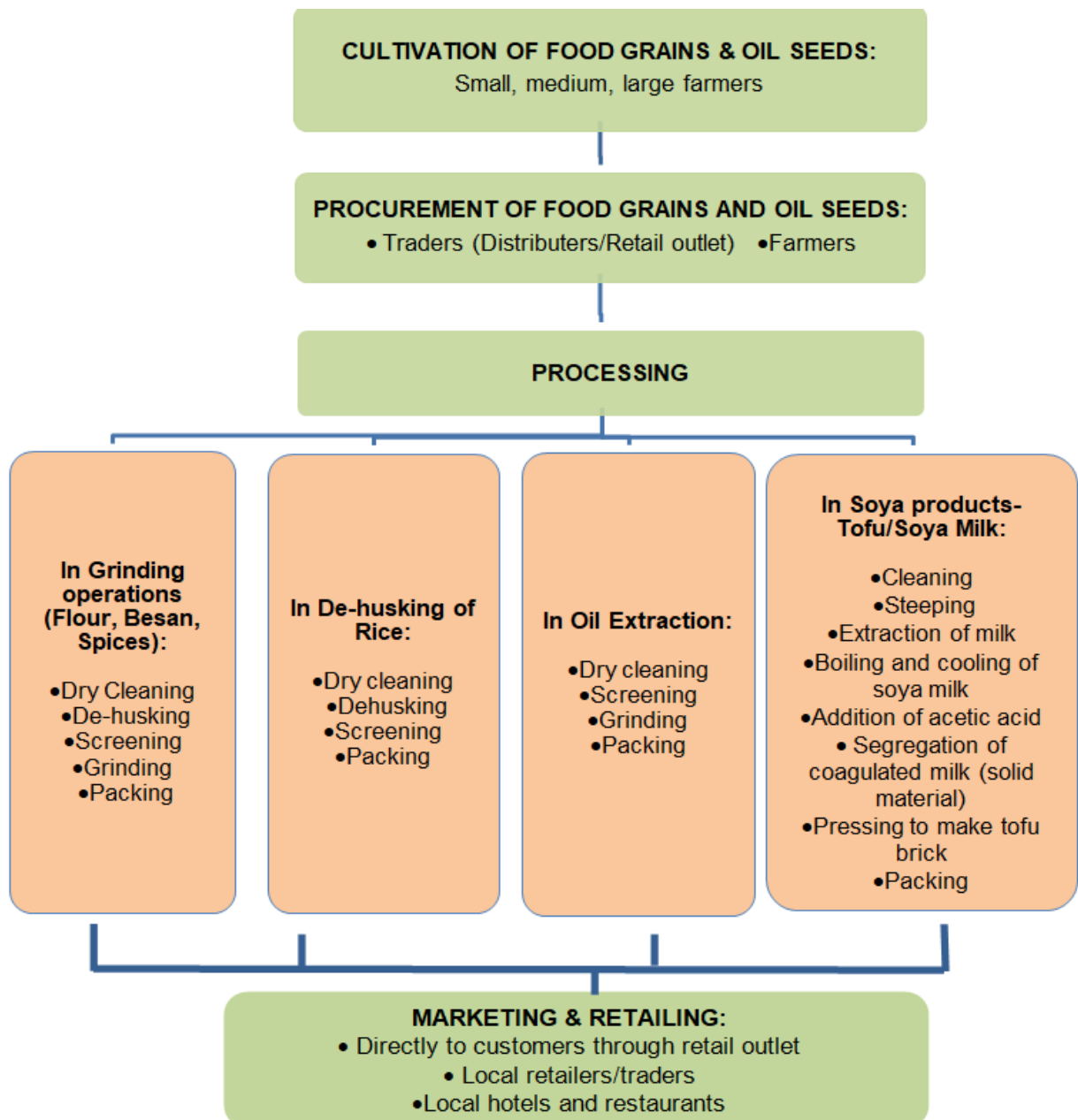


## **2. Value Chain of major categories of Food Processing**

### **2.1 Grain & oilseeds processing**

#### **2.1.1 Value Chain**

- ❖ Approximately 90% of grains undergo primary processing, with wheat being the primary processed grain largely used for wheat flour. Milling of rice and oilseeds/pulses makes up the remainder of the grain processing sector. Most grain processing is carried out in the unorganized or informal sector; however, of late some medium sized units have come up in the market and sell processed grains in branded retail packs.
- ❖ The major actors in the rice and wheat value chains are farmers/producers; a large number of intermediaries (traders/ commission agents/state govt. procurement agencies); wholesalers; processors (rice and flour millers); and retailers.
- ❖ Majority of farmers producing wheat and oilseeds/pulses have small land holding. Farmers store and sell their marketable surplus after each cropping season.
- ❖ This is followed by a spectrum of aggregators (small collectors and larger traders). Initial contact with farmers is made at the market, where farmer brings a sample of product, or at the farm gate, where a collector travels to arrange a sale before harvest.
- ❖ The processors purchase the raw material from the most efficient market source which is present in their vicinity.
- ❖ The grains are processed, sold loose or packaged with / without labelling, mainly to cater to the domestic consumption demand.

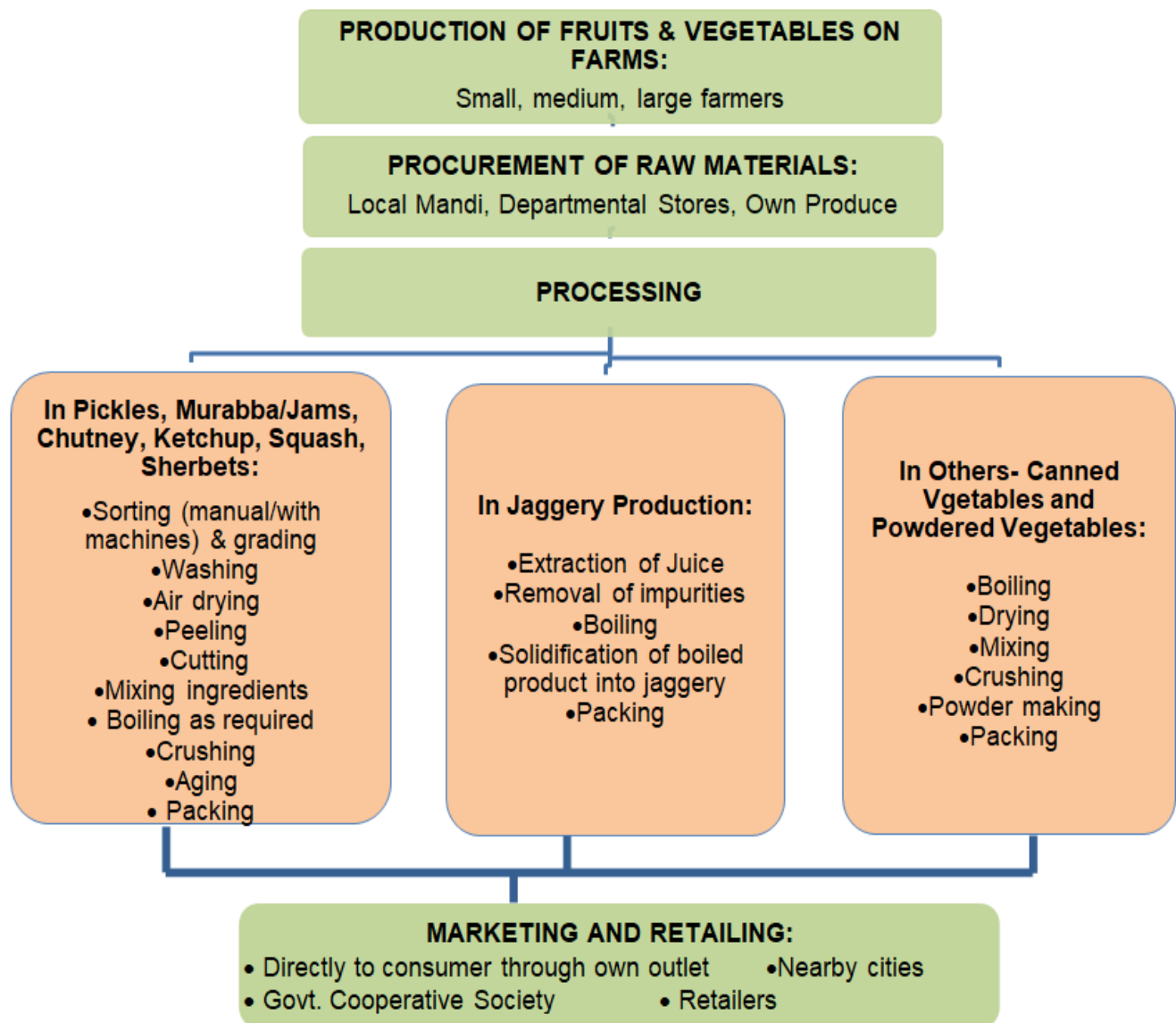


## 2.2 Fruits & vegetable processing

### 2.2.1 Value Chain

- ❖ The unorganized retail sector dealing in fruits & vegetable follows a traditional procurement model. In this model farmers bulk sell to agents and auctioneers, who in turn sell to wholesalers. The processing industry procures mainly from agents and wholesalers whereas the consumers procure from individual sellers who are supplied by wholesalers. This model is characterized by number of inefficiencies with it. Cane baskets and jute or gunny bags are used in handling vegetables. Loading and unloading are carried out manually. Vegetables are not cleaned and washed of dirt and soil. No sorting, grading and packaging of any kind is being done. No temperature controlled storage or warehousing is used across the chain. Information technology and advanced management techniques are not deployed. Also the distribution of selected commodities in the traditional market channel involves multiple intermediaries and high cycle times (Reddy, 2009). A large chunk of fresh fruits and vegetables is lost because of inadequate post-harvest handling and lack of cold storage, processing facilities and convenient marketing channels (Reddy, 2010). All these factors also contribute to quality degradation and higher cost.
- ❖ The organized sector as well as hypermarket/ supermarket stores dealing in sale of fresh fruits and vegetable usually adopt the following approach: i) when procurement is undertaken through dedicated vendors, then orders with vendors are placed daily and the produce is received early in the morning to ensure freshness. These vendors have small storage facilities which aren't refrigerated and thus wastage rates are high. The wastage further increases during heavy rains, especially in the case of leafy vegetables. The procuring brand may have its own refrigerated storage but in limited capacity. Transportation cost is usually borne by vendors while packaging cost and other costs (if any) are borne by the store. ii) as a direct sourcing option, farmers transport vegetables from farming location to the buying centers (also known as collection centers). Small farmers and contract farmers are the primary source of supply of vegetables. Vegetables are transported from buying centers to distribution center (or city processing centers) in

both temperature-conditioned and unconditioned trucks. A distribution centre is served by one or more buying centre and a buying centre serves one or more distribution centre. Vegetables are cleaned and then sorting and grading is undertaken at the distribution centre. Distribution centre also buys small volume of vegetables from the local wholesale market (mandi) to balance demand supply gap. Fresh vegetables are then transported from distribution centre to stores in small trucks. A store is served by only one distribution centre



## 2.3 Dairy products processing

### 2.3.1 Value Chain

The average milk yield in Punjab increased by 50.14 per cent between years 2012 and 2019. Currently, the state produces 345 Lakh litre/day of milk. Significantly, the annual milk yield in the state went up from 107.74 Lakh kilo litres in 2016 to 133 Lakh kilo litre in 2020. The state now has the highest per capita milk availability in the country at 1,181 gm per day against the national average of 394 gm. The main reason has been the emergence of high-tech commercial dairy farming in the past decade. The state has more than 10,000 high-tech dairy farms.

Milk is highly perishable and handling of raw milk is the most critical activity of entire dairy value chain. Poor handling of raw milk at village level with no-existent or inadequate chilling facilities impacts subsequently the quality and safety of processed milk and milk products.

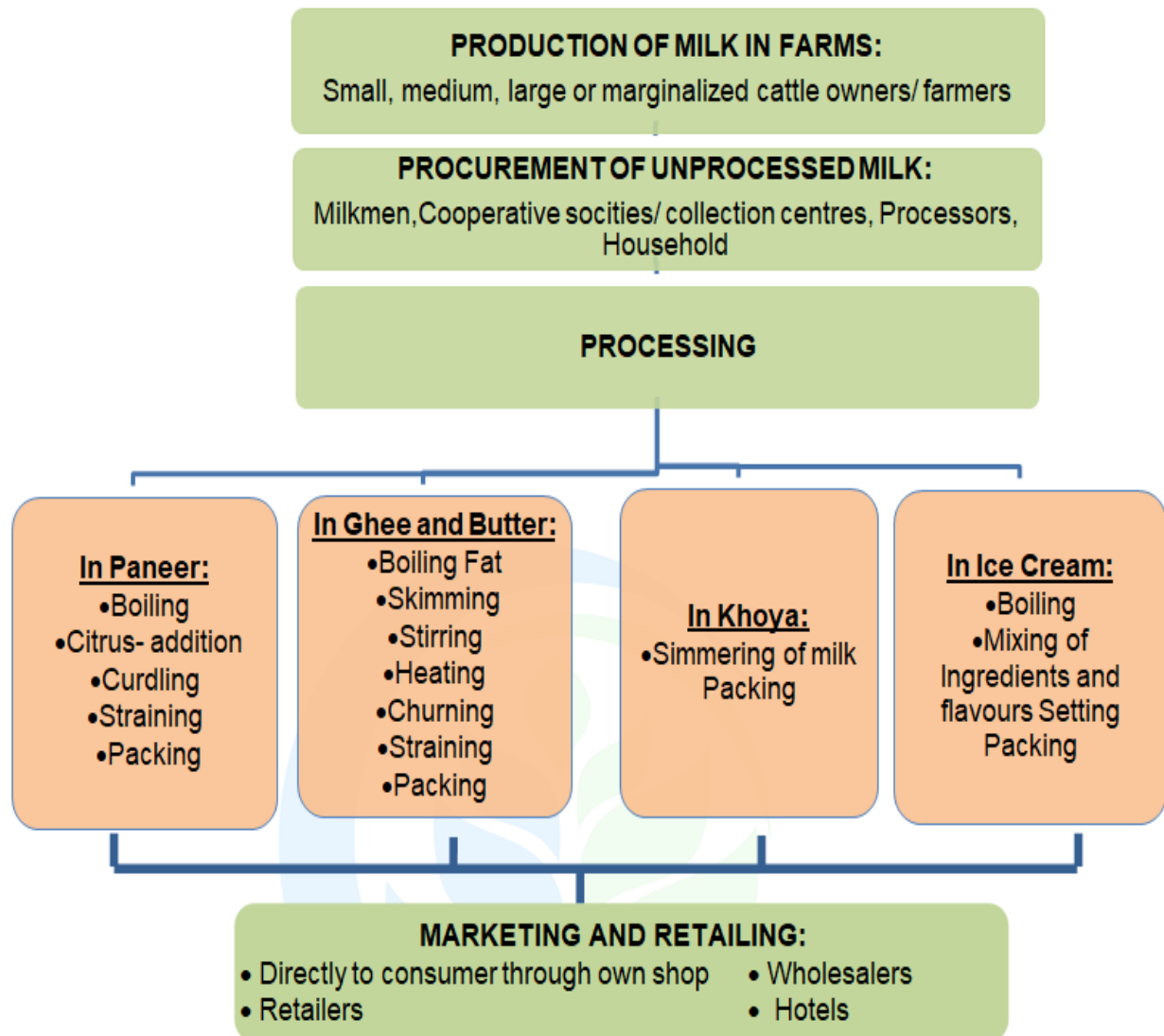
Raw milk should be cooled immediately to the temperature of 4-6°C or lower and maintained at the same temperature until processed. Milk should be carried in Stainless Steel utensils/Stainless Steel Cans.

The chilled milk should be transported in insulated tankers to the processing plants. The first thing which should be done at reception is to determine the quality of milk.

Post reception, the milk is skimmed of fat content, pasteurized and packed to be sold as packed liquid milk or processed further into different milk products.

For further processing, milk is either spray dried, desiccated (removal of water to obtain a condensed residue), coagulated to form cottage cheese and similar products, fermented to form curd and similar products or producing the fat rich content by simmering clarified butter.

The final product is packaged and then sold as per the applicable packaging and temperature requirements.

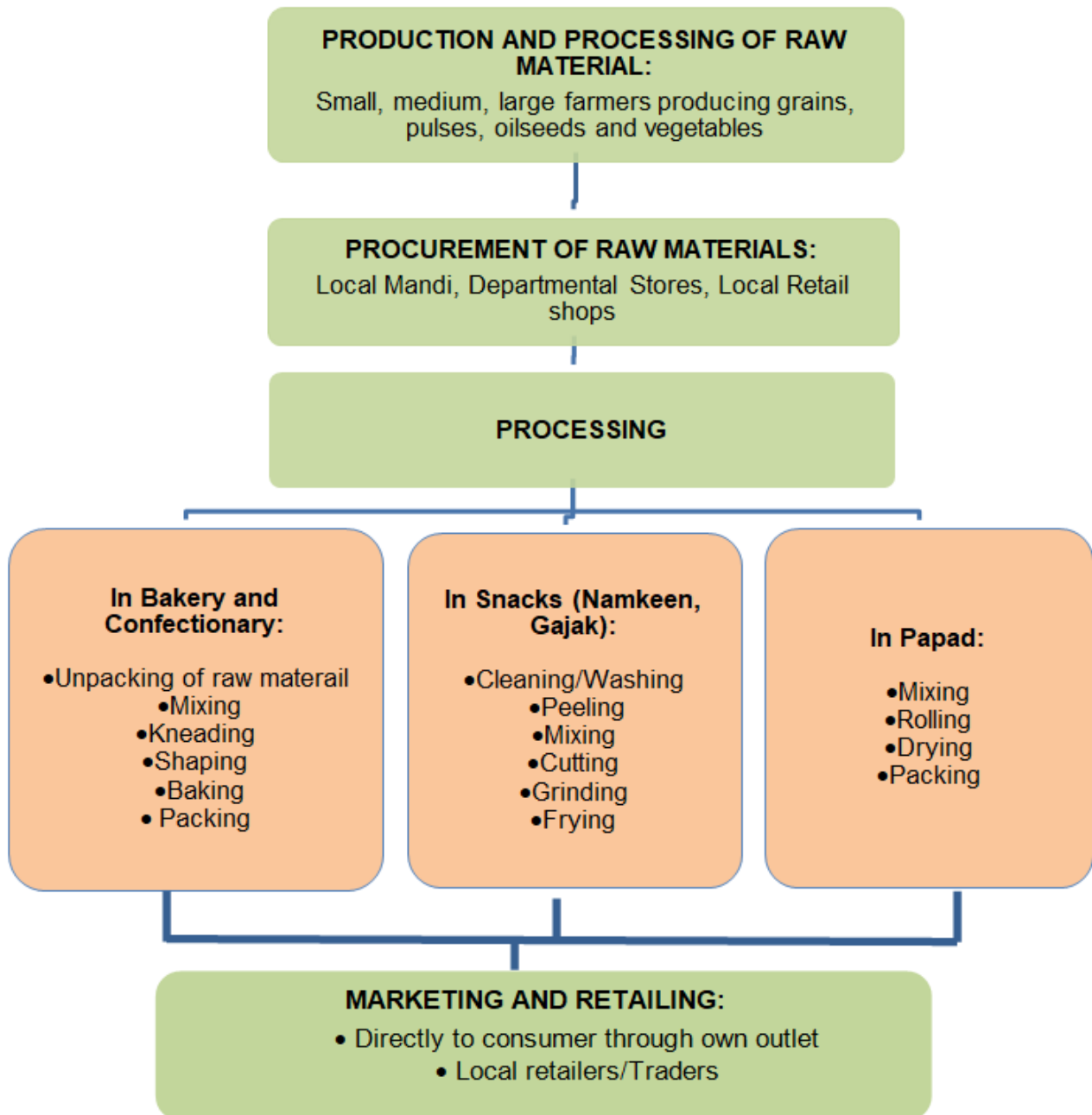




## 2.4 Packaged food

### 2.4.1 Value Chain

- ❖ The value chain for packaged foods is dependent on other food industries as well.
- ❖ The raw material required for packaged food industry consists of :
  - ✓ Eggs or Ready-to-eat products (e.g. butter, cream, icing, mayonnaise, mousse, condensed milk).
  - ✓ Dry ingredients like wheat flour, sugar, milk powders, minor ingredients and cocoa powder.
  - ✓ Wet ingredients like oils and fats.
  - ✓ Specialty Ingredients like nuts and dry fruits.
  - ✓ Fresh, whole, processed and semi-processed fruits and vegetables.
  - ✓ Salt, sugar and spices.
- ✓ The major differentiator in organized vs unorganized industry in this segment is procurement of raw material.
- ✓ Wherein organized sector have established a dedicated value chain for procurement and quality testing of raw material and packaging products, the unorganized sector is dependent on availability and prices that are offered in the local domestic market by individual traders or other unorganized industries.
- ✓ The sector has considerable growth potential and few of the segments like bakery, snacks, savouries, breakfast cereals and organic snacks have been identified as high growth segments.



## **2.5 Poultry, Meat and Fish processing**

### **2.5.1 Value chain (poultry)**

About 70% of the commercial poultry farms in Punjab deal in broilers. 60% of them do contract farming for major national and state players like Venky's, Sugana, Godrej, Sampurna, Indian Agro etc.; 30% do contract farming for small integrated local groups and the remaining 10% for themselves. The companies provide day old chicks, feed, medicines etc. as well as daily care for growing chicks and then they take back grown up broilers by paying growing charges (prevailing rate Rs. 6 per piece). These companies sell broilers in bulk to slaughtering units. Integrated groups also pay growing charges, but they generally pay more than what companies pay to their contracted poultry farms. Small contractors buy broilers from integrated groups and individual farmers and sell them to daily fresh chicken micro enterprises/shops situated in urban areas as well as individuals operating in rural areas. The demand of such enterprises may vary from 50 to 500 broilers per day. It was observed that micro enterprises/individuals selling 200 to 300 daily fresh chickens daily do have fridge, stainless steel knives and other tools. These shops have tiled floors. Whereas, the individual units culling and selling broilers in small numbers say 20 to 50 per day may have primitive set up.

### 3. One District One Product (ODOP)

#### 3.1 PATIALA

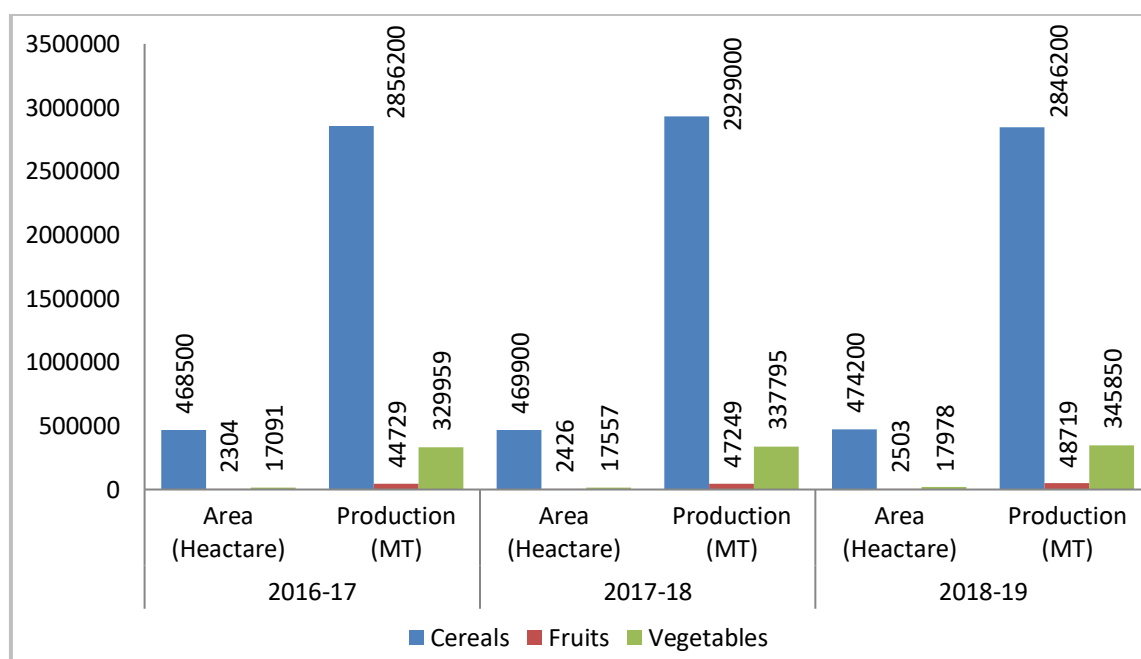


**3.1.1** The district Patiala is bounded by district Fatehgarh Sahib, district S.A.S Nagar and Union Territory of Chandigarh in the North; district Sangrur in the West and Jind (Haryana State) in the South and district Ambala (Haryana State) in the East. The district Patiala forms a part of the Indo-Gangetic plain. The **major stations of the district are Patiala, Sanaur, Rajpura, Samana and Ghagha**. The district has 894 inhabited villages. As per 2011 Census, the population of the district was 18,95,000 persons, Wout of which 60% lived in rural area and the remaining in urban. The Gross District Domestic Product (GDDP) and Per Capita Income (PCI) at current prices (2015-16) was Rs. 1,28,896/- and Rs. 1,15,290/-, below the state average of Rs.1,32,467/- and Rs.1,18,858/-respectively.

The geographical area of the district is 3,22,000 Hectare, out of which net sown area is about 80% (2,57,000 Hectare). About 2,54,000 Hectare is sown more than once, thus recording a **cropping intensity of 199%**, which is one of the highest. The whole area of the district is covered by Indo-Gangetic alluvium. Soil is rich in nutrients

and suitable for growing foodgrains and vegetables. Paddy and wheat constitute the main Kharif and Rabi crops. **The district has eight fruits and vegetable mandis situated at Patran, Samana, Dakala, Dudhan Sadhan, Patiala, Nabha, Rajpura and Ghanaur.**

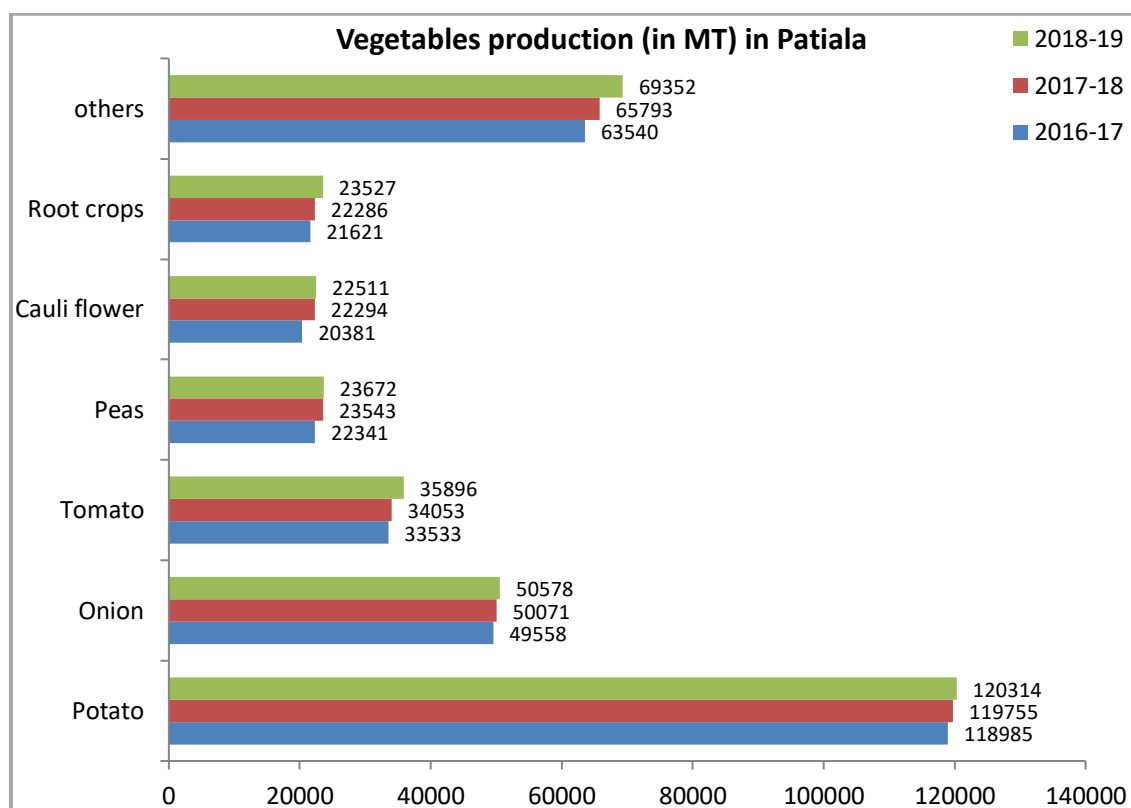
### 3.1.2 The trend in area and production of foodgrains including maize, sugarcane etc. and fruits & vegetables in the district is discussed hereunder.



*\*Source: Department of Agriculture/Horticulture*

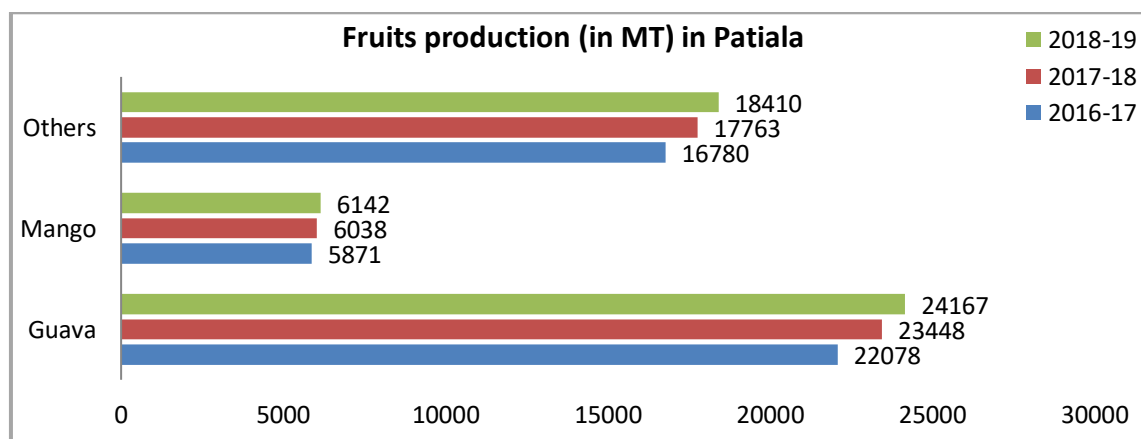
The district Patiala is **third largest producer of paddy and wheat amongst all the districts** of the state. During last three years, area under paddy and wheat remained consistent at 2,34,000 Hectare (13,73,000 MT) and 2,33,000 Hectare (12,75,000 MT) respectively. The district also grew sugarcane, maize, sarson and barley during 2018-19 on 2,000 Hectare (1,89,000 MT), 800 Hectare (2,000 MT), 700 Hectare (1,200 MT) and 400 Hectare (1,200 MT) respectively. However, the area under these crops remained more or less same in past three years. Area under sunflower reduced from 2,000 Hectare (3,600 MT) in 2016-17 to 1,000 Hectare (1800 MT) in 2018-19.

**There is, therefore, no crop from this category worth pursuing further for the present study.**



*\*Source: Department of Horticulture, Punjab*

The district produces a wide range of vegetables like potato, tomato, peas, chillies, onion, vine crops, root crops, etc. **Amongst all districts, district Patiala has maximum area under onion with 2,106 Hectare (50,578 MT) during 2018-19.** However, cumulative growth in area during last three years has been less than 2%. Area under potato (4,706 Hectare), tomato (1,386 Hectare), peas (2,207 Hectare) & chillies (906 Hectare) also recorded a marginal increase of 3 to 5% in last three years. There is a dedicated market in Samana for peas. Traders/IQF units from other districts source their part requirement of peas from here. **So, onion & peas are selected for further study.**



*\*Source: Department of Horticulture, Punjab*

The major fruits being produced in the district are guava, mango, pear, ber, etc. **The district Patiala tops in the production of guava in Punjab. During 2018-19, it produced 24,167 MT from an area of 1,056 Hectare.** Guava grows well in almost all the districts of the State. It is a hardy and prolific bearing fruit plant. It bears fruit twice in a year i.e. during rainy season and winter season. Experts say that the climate and soil of district Patiala is best suited for producing good quality Guava. **Growers earn Rs. 7 to 8 lakh/hectare from guava orchard.** It starts giving fruit from 2nd year of its transplantation. ‘Allahabad Safeda’, ‘L-49’, ‘Shweta’ and ‘Punjab Pink’ are the varieties of guava largely grown in the district. The area under guava is increasing year after year. **The state government has recently established a Guava Estate in district Patiala to promote plantation and processing of this fruit. So, guava is selected for further studies.**

### 3.1.3 Grain and oilseed processing

Over the years, more than 700 rice mills (avg. capacity 2 MT/hr) have been set up in the district, shelling common variety of paddy for state procurement agencies. Like rice mills, there are over 1,200 atta chakkis by micro enterprises/individuals engaged in job work. Then, there are about 25 mini flour mills manufacturing non-branded wheat flour and other products. Both rice mills and wheat flour mills/atta chakkis are engaged in primary processing of foodgrains. The rice and atta chakkis owners are interested to up-grade their facilities under the Scheme.

There are about 10/12 micro enterprises/individuals processing sarson (oil expellers) to mustard oil and cotton seed to crude edible oil. These enterprises are sourcing their part requirement of sarson from Rajasthan, Haryana, etc. These enterprises are interested to enhance their production capacities under the Scheme.

**It has been observed that there is a need to encourage existing atta chakki owners and oil expelling units to up-grade their processing facilities under the scheme.**

### 3.1.4 Fruits and Vegetable processing

There are number of FPOs/SHGs and individual micro enterprises in the district engaged in the manufacture of pickles, murraba, haldi, sherbet, chutneys, rose water, fruit wine etc. Some of them are also engaged in cleaning, grading and marketing of fresh vegetables. We spoke with some FPOs/individuals to understand their existing activities and interest to enhance production operations.

Mr. Hardeep Singh runs a FPO under the name and style of **Punjab Organic Vegetable and Fruit Producer Company**, village Ghagga. The FPO has 400 members engaged in growing, processing and marketing of organic vegetables, fruits (mainly guava), haldi and atta (maize, wheat, bajra etc.). They have constructed a pre-cooler (3.5 MT capacity) at Ghagga where they store fresh vegetables for sale to their regular customers. They sell guava (grade A & B) in Chandigarh, Ludhiana, Patiala, Ambala, etc. The C & D grade could be used for making pulp and extracting guava juice for which they are proposing to set up a small processing unit. Guava pulp could be further used to make 'burfi' (sweet meat).

**Shergill Farms Fresh** are growing rose flower and processing it to make rose sherbet and rose water. The products are sold in Ludhiana, Patiala and other places.

**NS Berry Orchid, Sanur** grows strawberries and processes it to manufacture jam, crush, squash, burfi etc.

**Miraaj Wines** are making wine using feedstock like ginger, grapes, rose, apple, plum & kiwi.

There are about 250 farmers engaged in the business of honey. **Mr. Kamalbir Singh, village Sirkapra** runs a FPO in the name of '**Noujwan Farmer Producer**

**Organization**' engaged in honey processing. They have set up a small unit for vacuum packing of honey. They also export honey and bee pollen.

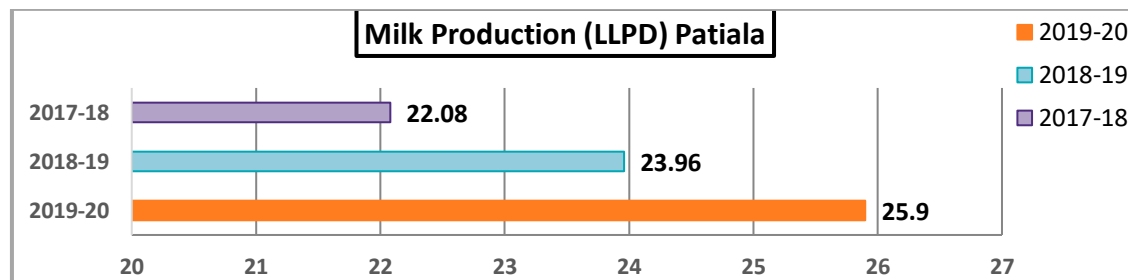
**Royal Sugarcane, Rajpura** are manufacturing and selling sugarcane juice in glass bottles.

There are half a dozen enterprises manufacturing soya milk and its related products. **There is a good scope for FPOs/SHGs and micro enterprises to set up units for processing fruits & vegetable and honey in the district.**



### 3.1.5 Dairy product processing

**District Patiala is the highest producer of milk with 26 lakh litre/day, amongst all districts of the state.** There are 3/4 medium sized milk processing plants manufacturing pasteurized milk, butter, paneer, curd and other value added products. These units have installed bulk milk chillers in villages for collection of milk. Besides, there are over 200 micro enterprises/individuals processing 500 litre to 5,000 litre per day of milk to manufacture paneer, pasteurized milk, khoya, curd, cream, sweet meat, etc. for local sale. We spoke with a couple of micro enterprises to understand their line of business etc.



*\*Source: Directorate of Dairy Development, Punjab*

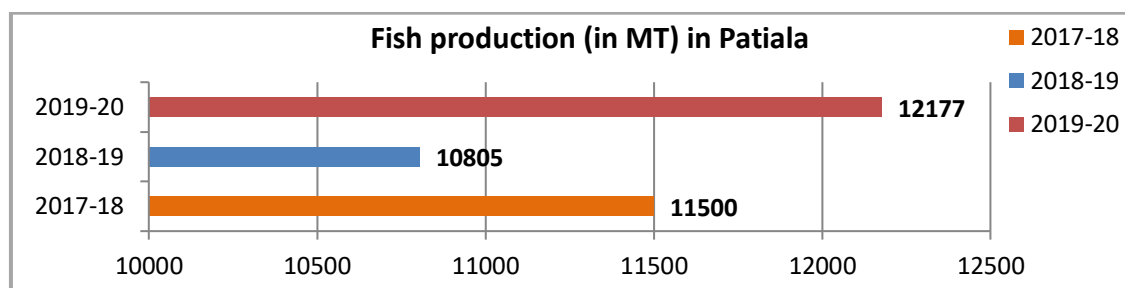
**Gaurav Agro Products, Patiala** are processing 500 litre/day of milk and manufacturing kulfi, ice-cream, khoya, cream, kheer, sweet meat, etc. They have their own retail outlet. They have developed their clientele by maintaining purity and quality of products. They now want to expand and avail the benefit of credit linked subsidy scheme. **‘Gopal Sweets’ and ‘Jaggi Sweets’**, known for their variety and quality production of sweet meat, are from this district.

The supply chain of these micro enterprises needs to be studied in detail for their up-gradation and formalization. Ruhaani and Banni are milk producers association promoted by big corporate houses namely TATA and NDDB are operating in district Patiala. They promote backward linkages by connecting farmers with milk processing plants.

**It has been observed that there is a scope to encourage exiting milk producer and processors to modernize and expand their businesses under the scheme.**

### 3.1.6 Poultry, Meat and Fish processing

The district has over 10 lakh bird each commercial layer (egg) and broiler farms. Eggs are sold as it is within the district as well as exported to J&K and Southern states. The broilers are sold within the district as well as out side the district including Delhi. There is no modern slaughtering and dressing plant in the district. However, there are a large number of daily fresh meat shops/individuals. Over 90% of these shops do not have infrastructure to cut broilers/goats/pigs hygienically. Their operations are highly un-organised. These individual/micro enterprises might take the advantage of this facility to upgrade their facilities by purchasing deep freezer, hot water de-feathering system, chilling unit etc. **There is, therefore, a need to encourage existing micro enterprises to modernize their meat shops selling daily fresh meat.**



*\*Source: Fisheries Department, Punjab*

The district Patiala is the **highest producer of fish amongst all districts in the state with production of 12,177 MT during 2019-20**. During last three years, the district recorded a cumulative growth of 6%. The farmers grow ‘carp’ and ‘pangas’ varieties of fish. They earn Rs.1 lakh to Rs. 2 lakh per acre from fish farming. The consumption of fish in the district is also very high. At times, traders/individuals bring fish from neighbouring districts for sale in this district. **The experts say that there is an ample opportunity for adding value to this produce by promoting setting up of processing units comprising of de-boning machine, descaling machine, blast freezer etc. to manufacture ready-to-eat and halved cooked products. At present, there is no unit manufacturing these products in an organised manner.**

### 3.1.7 Packaged food items

It is learnt that there are over 300 bakeries and savouries units adding value to ‘maida’ (refined wheat flour) and manufacturing cakes, cookies, bread, biscuits, buns, pizza base, namkeens, etc. Over 95% of these units are unorganized and informal. Majority of the units are being run from residential areas and doing job work. Very few have

installed electric ovens and baking equipments. A detailed study of such units is required to pin point the technological gaps etc. An excerpt of the discussion held with one of many bakers with whom we interacted is here under:

**Banana Peel Enterprises, Nabha** is a partnership firm engaged in the manufacture of cakes and cookies. Chandigarh is their main market. Lately, they have also started supplying cakes to Ludhiana market. They now want to upgrade and enhance production capacity by installing more equipment.

**There is a good scope to promote existing packaged food micro enterprises to modernize their facilities.**

### 3.1.8 The analysis of the secondary data and interaction held with microenterprises/FPOs/SHGs/Experts dealing in the five major food categories is summarized in the following table:

Major Food Category	Produce shortlisted based on secondary data research	Products/produce shortlisted based on interactions held with micro enterprises/ FPOs/ SHGs& experts	Products/ produce finalized	Status of finalized products/ produce from ODOP point of view (High/ medium/ low)
Grains& oilseed processing	-	Atta & Vegetable oil	Atta & Vegetable oil	Medium
Fruits & vegetable processing	Onion Peas Guava	Honey	<b>Guava</b> Onion <b>Peas</b> Honey	<b>High</b> Medium <b>High</b> Medium
Dairy Product processing	Milk	Milk & milk products	Milk & milk products	Medium
Poultry, Meat & Fish Processing	Fish Broiler Meat	Poultry, Meat and Fish processing	Daily fresh meat/chicken/ fish <b>Processed meat products</b>	Medium  <b>High</b>
Packaged food	-	Bakery products Savouries	Bakery products Savouries	Medium

The study shows ‘Guava’, ‘Peas’ and ‘processed Non-vegetarian products’ have maximum potential for growth in the district. **Guava**, being perishable and focused fruit crop declared by the state government for this district, is recommended as **‘One Product’ for district Patiala**. Candidate industries may include ‘fruit burfi’, ‘guava candy’, ‘guava pulp/juice’ etc.

## 3.2 HOSHIARPUR



**3.2.1** Hoshiarpur district is located in the North East of Punjab. The district is sub-mountainous and stretches to river Beas in the North West. In North East, it shares boundaries with district Kangra & district Una of Himachal Pradesh and district Jalandhar & district Kapurthala in South West. District Gurdaspur is in the North West of Hoshiarpur. As per 2011 Census, the population of the district was 15,86,000 persons, out of which 79% was living in rural area and the remaining in urban. The Gross District Domestic Product (GDDP) and Per Capita Income (PCI) at current prices (2015-16) was Rs. 1,41,927/- and Rs. 1,29,478/- against state average of Rs. 1,32,467/- and Rs. 1,18,858/- respectively. **The geographical area of the district is 3,39,000 Hectare, the second highest after district Ludhiana. Of this, net sown area is about 60% (2,04,000 Hectare).** About 1,33,000 Hectare is sown more than once, thus recording a **cropping intensity of 165%.** **The district has five fruits & vegetable markets being maintained by the state agency Punjab Mandi Board. These are situated in Hoshiarpur, Tanda Urmur, Dasuya, Mukerian and Garhshanker.**

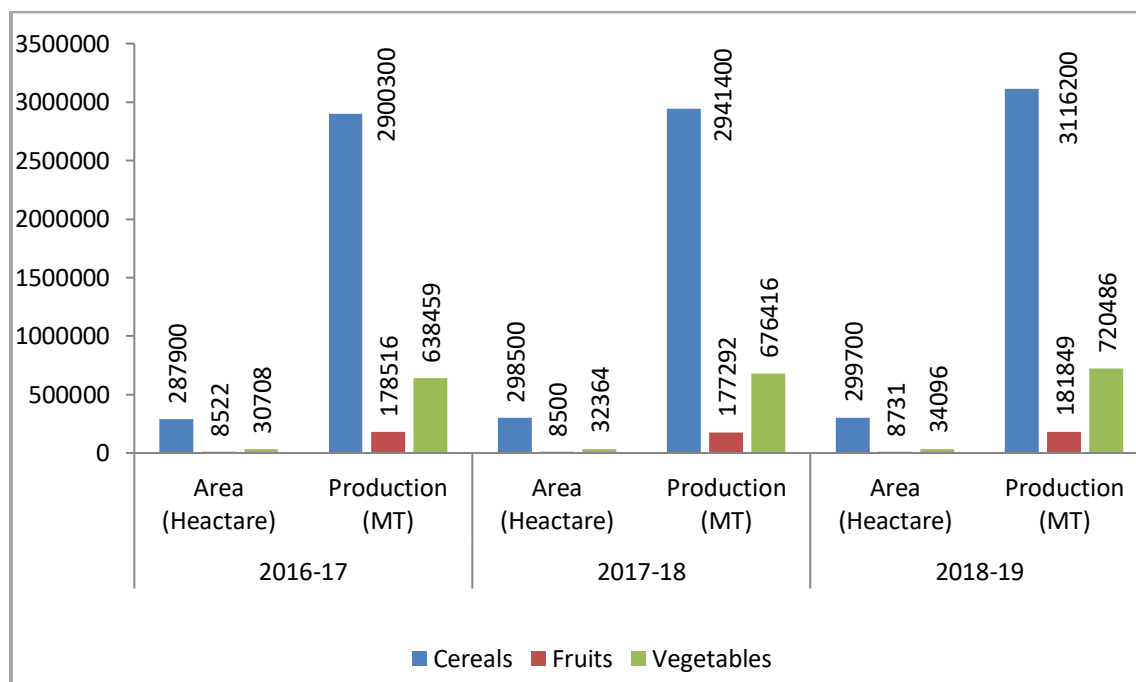
Topographically, the district can be divided into three broad regions. The first region constitutes flood plains comprising of blocks of Dasuya, Tanda and Mukerian. This is the most fertile area covering one-fourth of the geographical area of the district. It has widespread irrigational facilities. The soil is heavy and best suited for cultivation of

sugarcane. **Hoshiarpur district is the largest producer of sugarcane in the state.** It has over 25,000 hectares under this crop mainly from this region. Two of three largest cane crushing mills in the state are in this region i.e. A B Sugars Ltd., Dasuya (7,000 TCD) and Indian Sucrose Ltd., Mukerian (6,500 TCD). There is also a cluster of Jaggery ('Gur') manufacturing units in this region.

The second region is Kandi area located at the foot of Shivalik Hills. This belt comprises of Hajipur, Talwara, Bhunga & Hoshiarpur-2 blocks. There is an acute shortage of water in this area and this area faces high incidence of soil erosion during the rainy season. Maize is the major crop here. A medium sized fruits & vegetable processing unit of Punjab Agro Juices Ltd. is located here. PAIC has also set up a primary processing centre of its Ladhawal Mega Food Park in this region. The unit of a leading registered co-operative of Punjab 'Unati' is also located here.

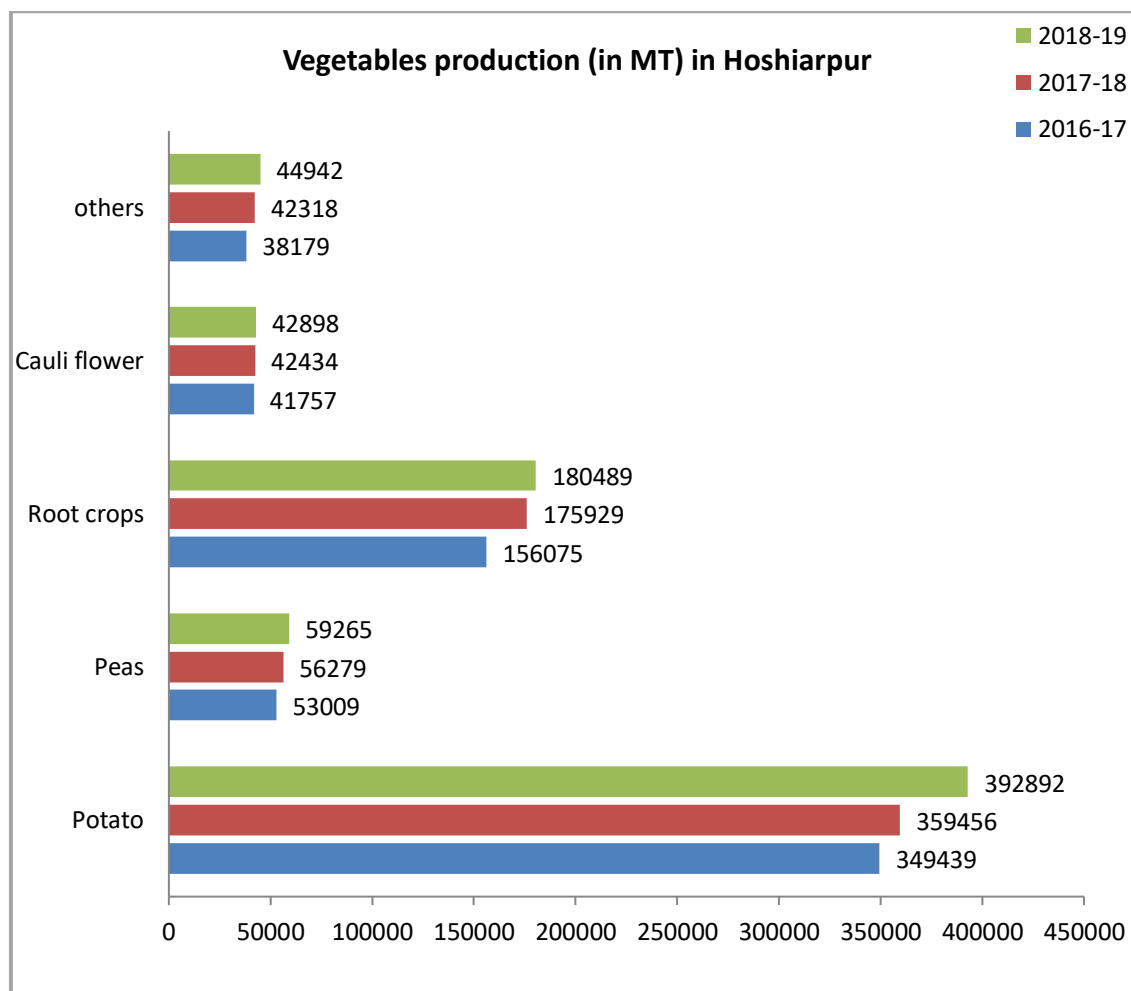
The third region comprises of Hoshiarpur-1, Mahilpur and Garhshankar blocks located on the beds of lower Shivalik Hills. These are undulating plains. This belt also faces water shortage. This area is suitable for Maize, Peas, Carrot, Potato etc. crops.

### 3.2.2 The trend in area and production of foodgrains including maize, sugarcane etc. and fruits & vegetables in the district is discussed hereunder.



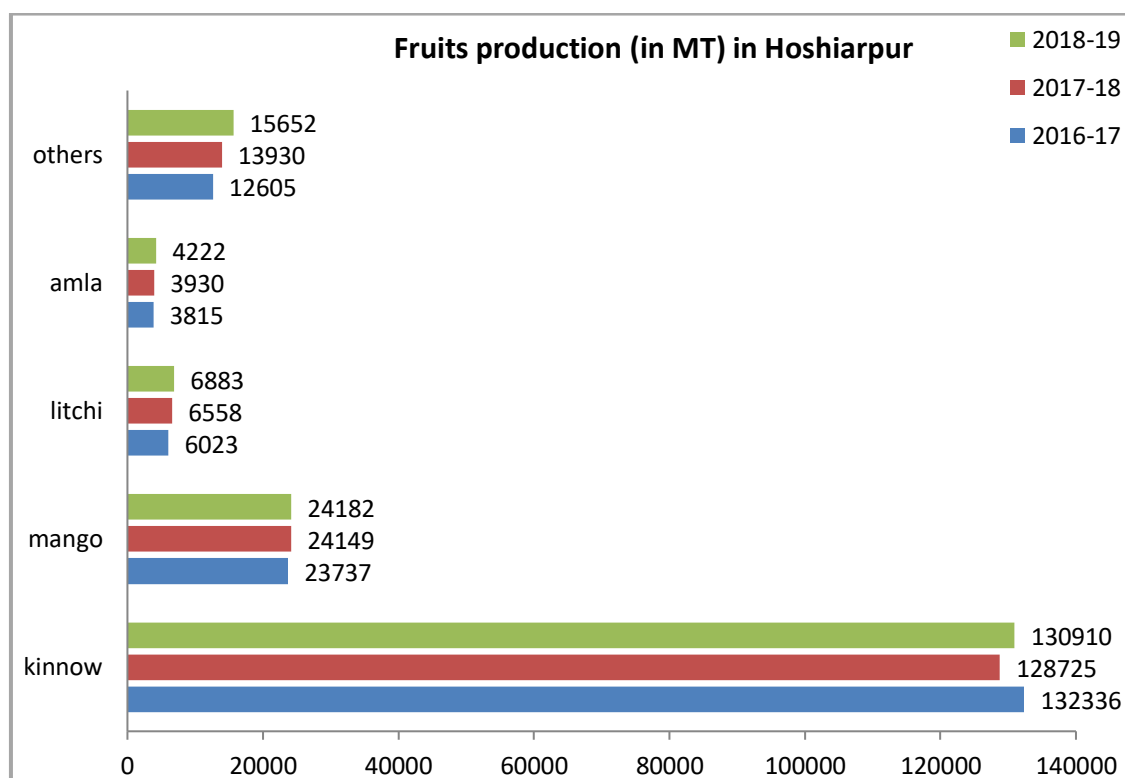
\*Source: Department of Agriculture/Horticulture

Wheat and paddy are the main kharif and rabi crops of the district. The area under these crops is more or less consistent at 1,44,000 Hectare (6,11,000 MT) and 75,000 Hectare (4,17,000 MT) respectively. **The district is single highest producer of maize in the state. During 2018-19, it produced 2,01,000 MT (54,900 Hectare) of maize, which is nearly 51% of state's production.** The area under maize is more or less consistent in last two years. However, the area under maize reported a jump of 22% from 46,000 Hectare in 2016-17 to 56,000 Hectare in 2017-18. **Area under sugarcane is consistently growing at about 5% each year in last three years. During 2018-19, the area under sugarcane was 24,000 Hectare with production of 18,84,000 MT. Maize and Sugarcane are the stronghold of the district.** The district also grows groundnut, seaamum, sarson, taramira, gram and massar on an area of 1,300 Hectare (2,600 MT), 300 Hectare (100 MT), 2,700 Hectare (3,100 MT), 1,100 Hectare (1,200 MT), 100 Hectare (100 MT) and 100 Hectare (less than 50 MT) respectively.



*\*Source: Department of Horticulture, Punjab*

The district produces a wide range of vegetables like potato, peas, cauliflower, root crops, etc. **It is one of highest producers of peas after district Amritsar. The area under peas has recorded a cumulative growth of 11% in past three years with 6,106 Hectare (59,265 MT) during 2018-19.** It is largely grown in and around Chabbal. Chabbal has a dedicated mandi for peas. **The district Hoshiarpur is the second highest producer of potato, after Jalandhar. The area under potato is gradually growing at an average of 4 % per year from 13,820 Hectare (3,49,439 MT) in 2016-17 to 15,106 Hectare (3,92,892 MT) in 2018-19.**It also leads in production of cauliflower, after district Gurdaspur. However, the area has been more or less consistent between 2,235 to 2,295 Hectare (41,757 MT to 42,898 MT) in last three years. So, peas are the best bet for district Hoshiarpur.



*\*Source: Department of Horticulture, Punjab*

The major fruits being produced in the district are kinnow (citrus), mango, litchi and amla. **District Hoshiarpur is the third highest producer of kinnow in Punjab after Fazilka and Shri Mukatsar Sahib.** During 2018-19, the production of kinnow was 1,30,887 MT (5,673 Hectare). **The district also tops in production of ‘amla’.** There has been gradual increase in area under ‘amla’. Between 2016-17 and 2018-19, the



**district recorded a cumulative increase of 10% in area under ‘amla’ at 306 Hectare during 2018-19. The district is the third highest producer of ‘litchi’ after district Pathankot and Gurdaspur.** The area under ‘litchi’ is also showing upward trends. It reported a cumulative growth of 13% in last three years to 430 Hectare (6,883 MT) during 2018-19. However, quantity of production of litchi is much less from the production figures of this fruit in Pathankot and Gurdaspur districts.

**So, ‘kinnow’ and ‘amla’ are the best option amongst fruits in the district.**

### 3.2.3 Grain and oilseed processing

There are 25 rice shelling units (average capacity 2 MT/hr.) doing custom milling of common paddy for government agencies.

There are three medium sized roller flour mills manufacturing non-branded/branded wheat flour, semolina, refined flour, dalia, choker, etc. Besides, there are about ten mini flour mills manufacturing non-branded atta and other products. Then, there are +700 atta chakkis doing job work. We spoke with number of micro enterprises and came to know that atta chakki owners would like to upgrade their facilities to start manufacturing non-branded atta in addition to the job work.

Maize (dried) is used by atta chakkis to manufacture ‘makki da atta’. A part of maize produced in the district is bought by cattle and poultry feed millers. Poultry feed contains over 80% maize. There is no maize processing unit in the district. A large sized maize processing unit of Sukhjitsarch sources its part requirement of maize from Hoshiarpur.

### 3.2.4 Fruits and Vegetables processing

There are large numbers of individuals/FPOs/Registered Cooperatives manufacturing pickles, murraba, sherbet, chutney, juice etc. in the district.

**‘The UNATI Co-operative Marketing-cum-Processing Society Ltd.’ (UNATI),** a registered co-operative, based out of Talwara, was formed in 2003 to collect and process agricultural and natural bio-resource of lower Himalayas. It has over 1,000 members with annual turnover of over Rs. 28 Cr. They process Amla, Karela, Giloye, Tulsi, Harar, Bhera, Carrot, Apple, Mango, Bamboo Shoots etc. to manufacture Amla juice, Murabba, Honey, Pickle, Chutney, Juice, Mango leather, Gur, Jaggery etc. The products

are marketed and sold under the brand name ‘UNATI’. They also process about 800 MT of Amla for Dabur. A good number of their members are processing sugarcane to manufacture ‘Jaggery’ and ‘Shakkar’. They are packing these products for Markfed and Apollo Pharmacy. The General Manager of UNATI (Mr. Jyoti Saroop) informed that given the opportunity under the ‘PM FME’ scheme they and their members would like to enhance their existing infrastructure for production of Amla juice, Honey & Jaggery.

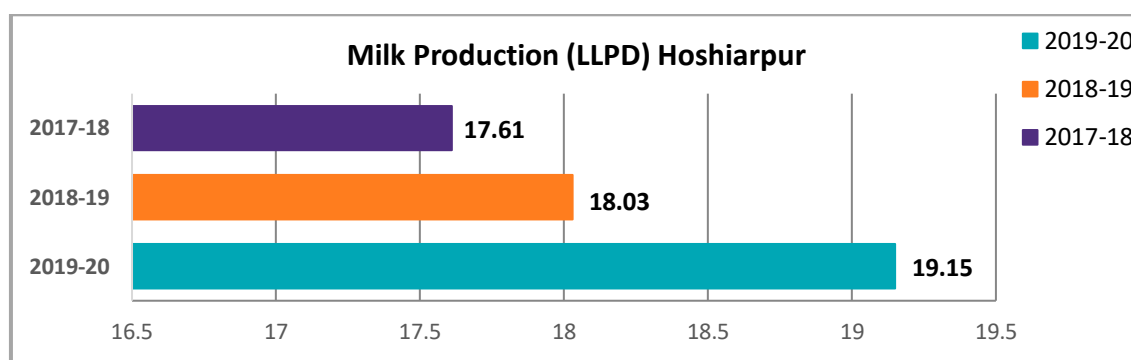
**Farm Produce Promotion Society (FAPRO)**, a registered co-operative, based out of village Ghugial, Haryana district Hoshiarpur, was formed in 2001. FAPRO has more than 300 farmers and agriculture technocrats manufacturing and marketing products like Turmeric, Honey, Gram flour, Pluses, Juices, Jaggery and other seasonal farm products. They own 12 retail outlets. The Turmeric & Honey processing plants were set up in 2008 under Rashtriya Sam Vikas Yojana scheme of GoI. FAPRO has over 12 members dealing in manufacture and marketing of Jaggery and Shakkar. The senior functionary of FAPRO (Dr. Vashisht) informed that their members will make use of the opportunity of ‘PM FME’ scheme to modernize their Gur manufacturing facilities.

**Kandi Area Fruit & Herbal Processing Society (KAFRO)**, a Self-Help Group, based out of village Ramgarh Sikri district Hoshiarpur. The senior functionary of KAFRO (Ms. Rekha) informed that they have about 300 members. Their common processing centre at Ramgarh Sikri manufactures products like Pickles, Murabba, Amla Candy, Fruit Juices etc. The products are marketed and sold under the brand name ‘KAFRO’. She informed that they would like to modernize their existing common infrastructure so that they could improve upon the quality and supply processed products at competitive rates. The members of KAFRO would also be interested to set up their individual units under the ‘PM FME’ scheme.

**Ex-Director, Department of Horticulture, Punjab** informed that Kinnow is available in abundance in Hoshiarpur. ‘A’ and ‘B’ grade Kinnow is sold in the market whereas ‘C’ and ‘D’ grade becomes a serious problem and the growers have to sell it to pulping/juicing units at a very less price impacting their overall margin. Globally skid mounted machines have been developed that separate seed, peel and pulp from Kinnow (‘C’ and ‘D’). Pulp is sent to juicing plants and the peel (being antioxidant) is

used as one of the ingredients by confectionary units. John Bean Technology, USA is one of the manufacturers of such machines. The government could think of sourcing such a machine as pilot project. This shall go a long way in tackling the long standing problem of Kinnow growers of Hoshiarpur, Fazilka etc. He further suggested that looking at the abundant availability of green peas in Chabewal Mandi, Hoshiarpur, an IQF for peas and carrots could be considered for that area. He further suggested that there is a need to up-grade and modernize the existing Jaggery and Shakkar manufacturing units of district Hoshiarpur. Institutions like PAU, Ludhiana and Indian Institute of Sugarcane Research, Lucknow can provide technical inputs in this regard.

### 3.2.5 Dairy product processing



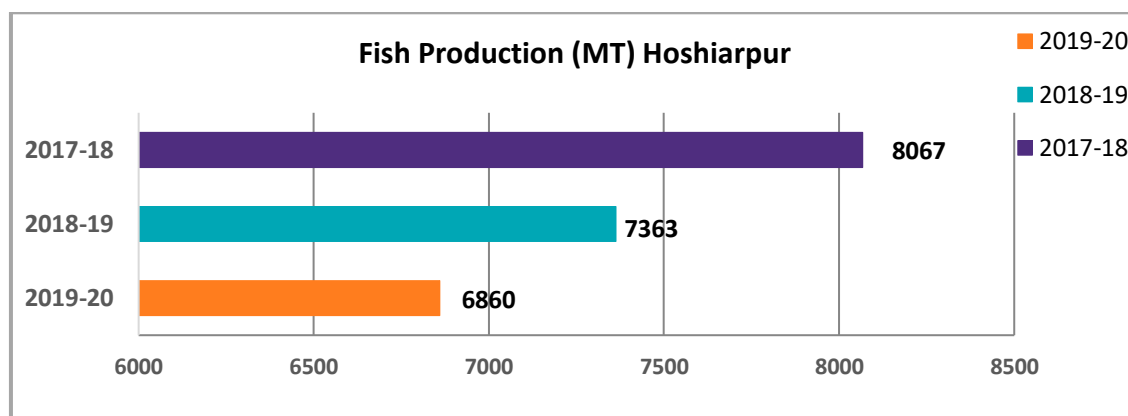
*\*Source: Directorate of Diary Development, Punjab*

**Production of milk in the district has increased in last three years at an average rate of 4.5% per annum with 19.15 lakh litre/day during 2019-20.** Milkfed has a milk processing unit in Hoshiarpur. The unit processes over 60,000 liter/day of milk. Nestle, Moga has a milk collection center and they source about 20,000 liter/day from here. There are many contractors who buy milk and make value added products. We spoke with some milk producers and processors to understand their line of business.

**My Cows, Hoshiarpur,** is owned by one Mr. Maninder Singh Cheema of Hoshiarpur. He owns a dairy farm and has set up a milk processing unit to manufacture desi ghee, pastuerized milk, cream, khoya, paneer etc. He also sources milk from others. At present, he processes over 2,000 liter/day and intends to enhance the capacity to 30,000 liter. As per him, there is no surplus milk in the district.

### 3.2.6 Poultry, Meat and Fish processing

There are over 90 commercial layer (eggs) and broiler farms. There is no modern slaughtering plant in the district. However, there are +500 shops/individuals who are engaged in manual culling of birds/animals for selling daily fresh meat. We spoke with some poultry farm owners.



*\*Source: Fisheries Department, Punjab*

**Deol Farms**, Hoshiarpur runs a day old chick farm, a commercial hatchery, a feed mill and a commercial broiler farm. At present, they deal in eggs and live birds. Mr. Satpal Singh Deol, owner of the farm, expressed his interest to add value to his operations by setting up a broiler slaughtering and dressing unit. To start with, he has proposed to set up a batch unit which shall have bird culling equipment, drying/spinning unit, a blast freezer and a vacuum packing machine. He has estimated that the said unit may cost him Rs. 30 lacs.

The production of fish is going down year after year. In last three years, the production has decreased by 15% from 8,067 MT (2017-18) to 6,860 MT (2019-20). Experts say that fish farming in the district is yet to pick up. The fall in production may be due to poor off take of fish from the district. So, the scope to encourage fish processing in the district is limited at this stage.

### 3.2.7 Packaged food items

There are over over100 micro enterprises manufacturing bakery products, including namkeen etc. Over 90% of them are very conventional. Response of some micro enterprises is as under.

**Cake Studio**, a sole proprietorship firm of Mr. Vicky Sahni, based out of Mukerian, is engaged in the manufacture of eggless bakery products viz. biscuits, cakes, pastries etc. The automatic plant has been set with an investment of about Rs. 30 lacs. The products are supplied not only in Mukerian but also in adjoining stations like Hazipur (13 km), Kamidevi (30 km) etc. The representative has expressed his interest to avail the opportunity under 'PM FME' Scheme.

**Uma Shakti**, is engaged in manufacture of breads and confectionary items. They have modern equipments like industrial oven, dough mixer etc. to bake these products. At present, they are catering to the needs of their clients in Hoshiarpur and are looking forward to expanding their production capacities to supply/retail bakery products to other major cities. The representative has expressed her interest to make use of this opportunity of availing credit linked subsidy scheme of 'PMFME'.

### 3.2.8 Sugarcane processing

Besides sugar, sugarcane is widely used in the district to manufacture Jaggery and Jaggery products. Jaggery is traditional Indian Sweetener without any chemical. **More than 70% of world Jaggery production is done in India.** Jaggery is predominantly sucrose with traces of mineral salts. It has many health benefits as compared to sugar. Of late, Jaggery and Jaggery based products are in big demand.

The process to manufacture Jaggery involves crushing of freshly cut Sugarcane. The juice is then subjected to evaporation in pans to remove water. The mass is then transferred to wooden cooling pans and then to trays (Stainless steel) to make cubes/Pesi of Jaggery. It is then packed in PET Jars or Pouches. In PET Jars, it has a shelf life of 6 months whereas 2 to 3 months in pouches. The quality and shelf life of Jaggery depends on the content of reducing sugar (glucose) present in it. Higher the content of reducing sugar lesser the shelf life. The waste of sugarcane (bagasse) after extraction of juice is used as fuel for heating boiling pans.

There are about 145 Jaggery units in district Hoshiarpur. Majority of these units are located on the Dasuya – Tanda, Hoshiarpur - Haryana roads. Baring a couple of units,

all these units need technological up-gradation to enhance quality and shelf life of their products.

According to Ayurveda, sugarcane juice helps strengthening one's liver and thus suggested as a remedy for jaundice. Sugarcane juice contains carbohydrates, protein, iron, potassium and other essential nutrients that make it an ideal energy drink. It builds up plasma and body fluids and helps countering dryness and fatigue.

We spoke with number of enterprises engaged in the manufacture of Jaggery in the district.

**PratapsheelNutricare** is setting up a medium sized “state-of-the-art” Jaggery Unit (20 MT/day) on Hoshiarpur – Haryana road. While the main plant is under construction, they have set up and commissioned a 3 MT/day Jaggery and Shakkar unit based on conventional technology, but maintaining all hygiene standards i.e. covered shed for cane crushing unit, three pan boiling system installed inside the building, proper and safe vent of flue gasses from boiler etc. Mr. Rohit Kapila, the promoter, informed that Jaggery and Shakkar are in great demand not only in India but also in Western Countries. The exporters and agents prefer to source these products from Hoshiarpur primarily due to quality. That is why many small timecontractors have started manufacturing these products in front of their farms.

**Mr. Amarinder Singh**, an engineer by profession, has set up a Jaggery and Shakkar manufacturing unit in village Dusarka, Hoshiarpur. During the season starting mid October to mid May, he exports about 400 to 500 MT of Jaggery and Jaggery based products (Peanuts/Cashew nuts/Walnuts/Almonds/Ginger/Ajwain/Coconut added Jaggery, Liquid inverted Jaggery etc.). He has **expressed his interest to expand his production capacities with the help of the ‘PM FME’ Scheme.**

**Kartik Agro Industries**, a partnership firm, has set up a Jaggery and Shakkar manufacturing unit in Village Kurangna, Hoshiarpur. Their daily production is 5 MT per day. They export about 400 MT of these products directly through their own firm namely Sethi International.

**3.2.9 The analysis of the secondary data and interaction held with unorganized microenterprises/FPOs/SHGs/Experts dealing in the five major food categories is summarized in the following table:**

Major Food Category	Produce shortlisted based on secondary data research	Products/produce shortlisted based on interactions held with micro enterprises/ FPOs/ SHGs& experts	Products/ produce finalized	Status of finalized products/ produce from ODOP point of view (High/ medium/ low)
Grains& oilseed processing	Sugarcane Maize	Jaggery Makki-da-atta	<b>Jaggery</b> Makki-da-atta	<b>High</b> Medium
Fruits & vegetable processing	Peas Amla Kinnow	Honey Pickle & murabba Haladi	<b>Peas</b> Honey Kinnow Pickle & murabba	<b>High</b> Medium Medium Medium
Dairy Product processing	Milk	Milk & milk products	Milk & milk products	Medium
Poultry Meat & Fish Processing	Fish Broiler Meat	Poultry, Meat and Fish processing Processed meat products	Poultry, Meat and Fish processing Processed meat products	Medium Medium
Packaged food	-	Bakery products& Savouries	Bakery products& Savouries	Medium

It may be seen that the growth potential of two produce/products namely ‘peas’ and ‘sugarcane juice & allied products’ is maximum in the district. Keeping in view the volume of business and the number of micro enterprises involved in the line, PAIC recommends ‘**Sugarcane juice & allied products**’ as ‘**One Product**’ for district **Hoshiarpur**. The candidate units may include ‘gur’, ‘shakkar’, ‘bottled cane juice’, ‘sugarcane cubes’, etc.

### 3.3 GURDASPUR



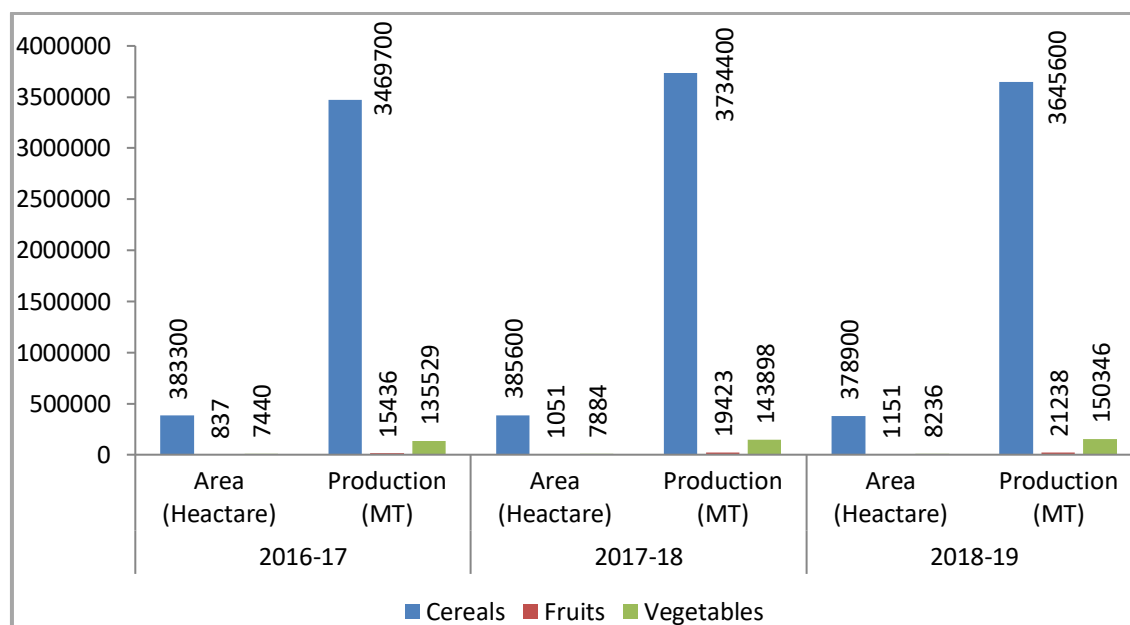
**3.3.1** District Gurdaspur is the Northern most district of Punjab. It falls in the Jalandhar division and is sandwiched between river Ravi and river Beas. It shares common boundaries with district Pathankot in the North, district Hoshiarpur in the South-East, district Kapurthala in the South, district Amritsar in the South-West and Pakistan in the North-West. According to the 2011 Census, the population of district was 16,21,000 persons. The district has 1,153 inhabited villages, the second highest after district Hoshiarpur. **The Gross District Domestic Product (GDDP) and Per Capita Income (PCI) at current prices (2015-16) was Rs. 85,730/- and Rs. 76,983/- much below than the state average of Rs.1,32,467/- and Rs.1,18,858/- respectively.**

The geographical area of the district is 2,57,000 Hectare, out of which **net sown area is over 81% (2,09,000 Hectare)**. About 2,03,000 Hectare is sown more than once, thus recording a **cropping intensity of 197%**. Gurdaspur, Dinanagar, Dhariwal, Kahnuwan, Kalanaur and some parts of Sri Har Gobindpur and Dera Baba Nanak of the district have undulating plain region. Soil of this region is medium to heavy in texture. Mild to moderate alkalinity problems prevail in soils of Kalanaur and Dera Baba Nanak. **Wheat, Paddy and Sugarcane are the major field crops whereas Mango, Litchi and Citrus are the important fruit crops of this region.** Batala, Fatehgarh Churian, Quadian, some



parts of Dera Baba Nanak, Shri Hargobindpur and Dhariwal blocks have central plain region. This region has homogenous land with gentle slope and therefore it is free from wind and water erosion. Soil of this region is medium to heavy in texture. Moderate Alkaline problem exist in Dera Baba Nanak and FatehgarhChurian blocks. Paddy-Wheat is the major crop rotation of this region. Sugarcane is another important crop. **There are nine fruits and vegetable markets run by the state agency i.e. Punjab Mandi Board. These are located in Dina Nagar, Gurdaspur, Dhariwal, Kalanaur, Batala, Quadian, S. Hargobindpur, Fatehgarh Churian and Dera Baba Nanak.**

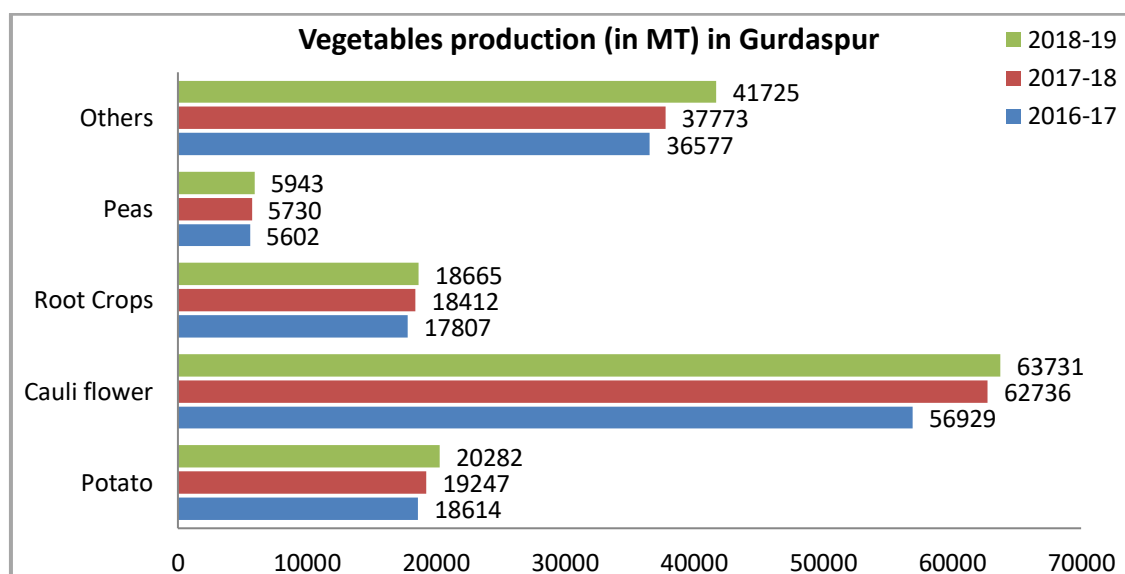
### 3.3.2 The trend in area and production of foodgrains including sugarcane etc. and fruits &vegetable in the district is discussed hereunder.



*\*Source: Department of Agriculture/Horticulture*

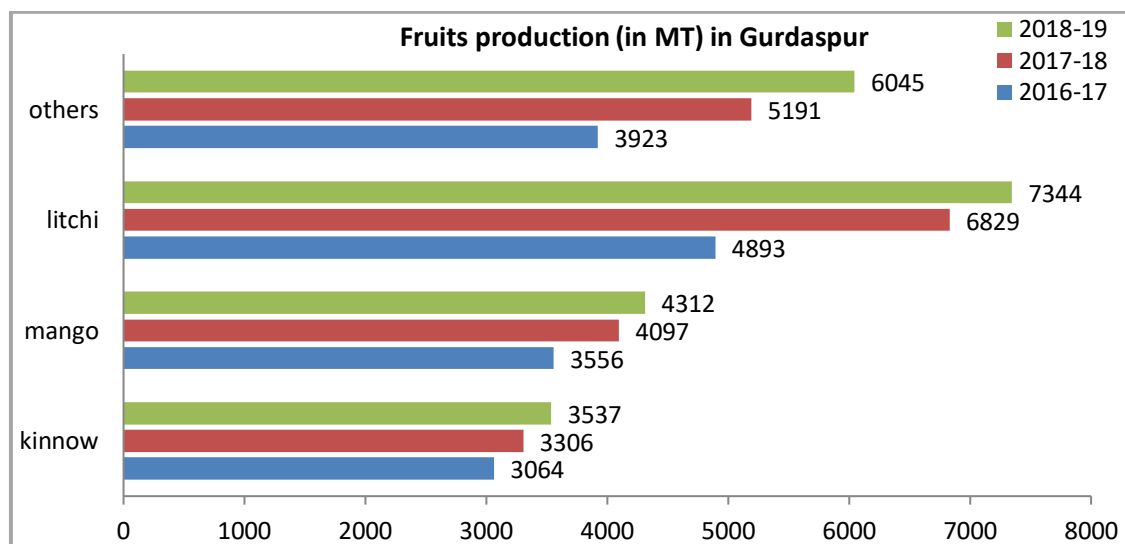
The district is one of the lead producers of wheat and paddy in the state. During last three years the area under these crops has been more or less consistent at 1,84,000 Hectare (8,68,000 MT) and 1,72,000 Hectare (9,44,000 MT) respectively. **Sugarcane is the third major crop and the area under this crop is also consistent at 22,000 Hectare (18,32,000 MT).** In fact, district **Gurdaspur is the second highest producer of sugarcane** after district Hoshiarpur. It also grows maize, mash (pulses), sarson, sesamum and massar in marginal quantities.

**Of all these crops, sugarcane and basmati varieties of paddy are the best options.**



*\*Source: Department of Horticulture, Punjab*

The district produces a wide range of vegetables like cauliflower, potato, peas, root crops, etc. **It is largest producer of cauliflower amongst all districts of the state. The crop has reported a cumulative growth of 12% in last three years with 3,367 Hectare (63,731 MT) during 2018-19.** The cumulative growth during the same period in root crops, potato and peas varied between 3 to 5%. **So, cauliflower is the best select amongst all the vegetables grown here.**



*\*Source: Department of Horticulture, Punjab*

The major fruits being produced in the district are litchi, mango, kinnow, amla, etc. The district Gurdaspur has good production of litchi as compared to other fruits. **It reported a spectacular increase in production of litchi from 4,893 MT in 2016-17 to 7,360**

**MT in 2018-19.** It is observed that the area under litchi in district Gurdaspur is 25% of the area under the same crop in district Pathankot. Area and production of mango and kinnow is not significant in the district. So, litchi is best option for further study.

### 3.3.3 Grain and oilseed processing

There are over 50 small sized conventional rice mills (average capacity 2 MT/hr) shelling regular varieties of paddy for state procurement agencies. The district is known for growing best quality basmati varieties of paddy. Over the period, about six medium sized state-of-the-art basmati paddy shelling units have come up in the district exporting graded and polished basmati to Middle East, EU Nations etc. However, a unit or two have become NPA in last two years due to lack of demand and fluctuating price of basmati in overseas markets. We spoke with a couple of such small sized rice mills to find out whether they would be interested to upgrade their production facilities so that they could process basmati varieties of paddy, to which most of them refused. This is due to the fact that basmati shelling requires a lot of working capital. There are over 800 atta chakkis doing job work. About 300 of them have also installed oil expellers. These are mainly by micro enterprises. We spoke with some of them and were given to understand that they would be interested to up-grade their facilities under the 'PM FME' Scheme.

**Jagdish Flour Mill, Batala** deals in non-branded flour. They purchase wheat and jowar in small quantities directly from farmers.

**It has been observed that at this stage, there is a need to encourage modernization and capacity building of existing atta chakki and oil expelling units.**

### 3.3.4 Fruits and Vegetables processing

**District Gurdaspur has made significant achievement in horticulture sector.** However, there is no unit in the district processing fruits and vegetable in the organised sector. However, there are number of individuals/FPOs/SHGs/Registered Co-operatives engaged in processing and marketing of fruits and vegetable. The products being manufactured include pickles, murraba, chutney, juice, haldi, etc. We spoke with number of micro enterprises and FPOs/SHGs to understand their businesses.

**Salopur Foods Farmers**, a FPO based out of Salopur. They informed that the FPO was registered in 2015 & it has more than 200 members. The FPO deals in processing and

marketing of Haldi, Honey, Pickles, Murbbas etc. having annual turnover of about Rs. 20 lacs. The products are sold under the brand of ‘Solapur Foods’. They participate in ATMA Kissan Bazaar, PAU Kissan Melas etc. to build client base for their products. As the FPO does not have its own honey processing unit, they get the raw honey processed & packed from Krishi Vigyan Kender, Gurdaspur. They propose to buy equipment for honey processing including pouch packaging machine under the credit linked subsidy scheme of ‘PM FME’.

**Mr. Rakeshwar Kondal**, a litchi orchard owner, informed that as litchi has a short life, so the day it is harvested, it is sent to consumer markets. They send it to Delhi (trucks) and Kolkata (through trains) markets. Punjab is the 3<sup>rd</sup> largest producer of this fruit after Bihar and Uttarakhand being at number one and two. Within Punjab, Pathankot district is the largest producer of Lichi. There is a need to deploy scientific methods to clean and pack this fruit so that its shelf life is enhanced as is done in South African countries.

A number of FPOs are engaged in the activity of collection, sorting, cleaning and packing of vegetables. **Quadian FPO** has 60 members who are growing vegetables like green peas, cauliflower, leafy vegetables etc. and pulses (rajma etc.). They are assisted by a NGO. Last season, they cooked saag in a traditional way and sold it to their clients in Amritsar. It was a big hit. The FPO is now looking forward to do similar activities in the coming winter season. They are interested to purchase proper equipment and are considering preparing a proposal to set up a proper common processing facility for sorting, grading and primary processing of vegetables.

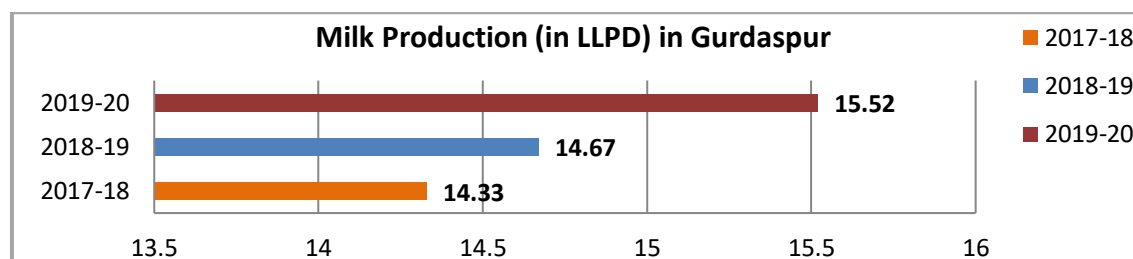
**Mr. Kapil Behl** grows a wide range of vegetables like cauliflower, broccoli, cabbage, lettuce, basil etc. He sells his produce in various mandis of Punjab. Pathankot offers a big market as the vegetable received here go further to Himachal and J&K. He also supplies lettuce and cabbage to QSRs. The Dera Baba Nanak area of the district is ideal for growing cauliflower. It is sown two times in a year i.e. in July and December. The crop is harvested in September to November and the second one in April. So, the cauliflower, broccoli, cabbage etc. are available for at least 6 to 7 months in a year.

**Mr. Avtar Singh**, a farmer from Dera Baba Nanak, informed that he grows cauliflower in 35 acres. He also grows celery as an intercrop with cauliflower. He mentioned that they sell cauliflower to all over Punjab and J & K. At times, they have to sell the

produce at a ‘throw away’ price. The price being realized varies from Rs. 3 to Rs. 15 per Kg. He emphasized that the government should study the entire supply chain and take appropriate interventions so that they could sell their produce to distant markets at remunerative prices. Cauliflower is grown in abundance in a radius of 30 to 40 km around Gurdaspur.

### 3.3.5 Dairy product processing

**The district produces over 15 lakhlitre/day of milk. After adjusting the quantity for home consumption (about 55% of total production), the surplus production computes to about 6.75 lac litres.** There are three milk processing plants in the organized sector. The Co-operative Milk Producers’ Union (Milkfed), Gurdaspur is running a 1,50,000 litres/day capacity milk processing plant to manufacture Milk powder, Ghee, pasteurized Milk, Namkeen Lassi etc. There are two medium sized plants in private sector namely Sekhri Milk Products, Batala and Vishwas Milk Products Pvt. Ltd., FatehgarhChurian have installed capacity to process 2,00,000 litres/day of milk each.



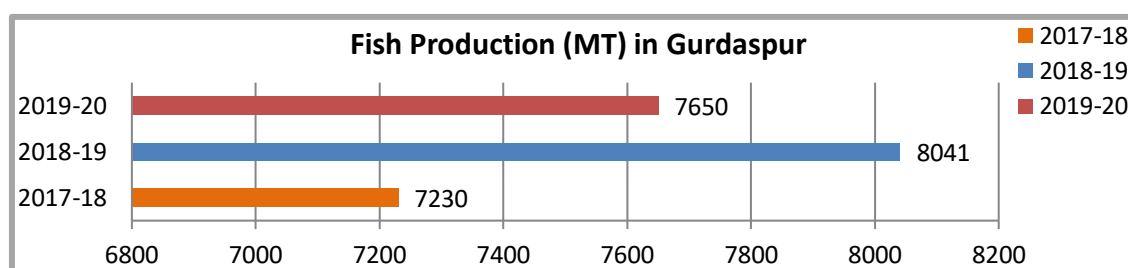
*\*Source: Directorate of Dairy Development, Punjab*

In the unorganized sector, there are more than 50 milk processing units using local equipment and conventional process to manufacture paneer, butter, cream, khoa, sweet meat etc. We spoke with ‘**Bhaian Di Hatti**’, Batala and they process over 3,000 litre/day of milk. Some are processing upto 10,000 litre/day. There are a few FPOs, who are into collection and processing of milk. **Dhariwal Young Innovative, an FPO** has over 200 members. Lately, the FPO purchased latest agricultural implements worth Rs. 35 lacs with part financial support of the department of Agriculture & Family Welfare, Punjab. The FPO now wants to expand and sets up a small milk processing unit (3,500 ltrs./day) to manufacture paneer, khoa, curd, kheer etc. for which they have purchased land. They propose to make use of the ‘PMFME’ Scheme to set up this unit. As part of their mandate to increase income of small and marginal farmers, the Department of

Horticulture has supported about 30 Mushroom units in the district. **It was observed that there is a need to encourage existing milk producers and processors to up-grade their facilities under the scheme.**

### 3.3.6 Poultry, Meat and Fish processing

There are good number of poultry farms both broiler and commercial. There is no slaughter house in the district. There are many individuals/shops engaged in manual culling and supplying of daily fresh meat to consumers. There is a need to up-grade their facilities. There shall be more than 350 such individuals doing this job.



*\*Source: Department of Fisheries, Punjab*

The production of fish in the district is fluctuating between 7,000 to 8,000 MT in last three years. Mr. Harjit Singh of Riar Fish Farm informed that majority of the fish farms in the district are on panchayati land. Last year, some pockets of panchayati land was not given on contract, so the production of fish dropped during 2019-20. Mr. Sarwan Sing, Extension Research Officer, Fish Breeding Farm, Gurdaspur informed that around 2,000 acre should be under fish cultivation in the district, including panchayati waste land of over 1,000 acres. Their breeding farms supply seeds of five varieties of fish namely rahu, katla, marak, common carp and grass carp. There is no fish processing unit in the district. Fish is harvested from farms by daily vendors in small quantities and by contractors in big quantities say 10 to 20 quintals. It is sold within the district and in neighbouring districts of Jalandhar and Amritsar. There is a good demand for fish. Indian army camped in the district offers a big market for this produce. At present farm owners are not interested to enter into fish processing business.

### 3.3.7 Packaged food items

There are over 200 micro enterprises engaged in bakery and bakery products. Majority of the units are conventional using brick kilnovens for making biscuits, rusks, cakes etc.

and doing job work. About 30 of them would have modern ovens. **The conventional bakeries may be promoted to up-grade and enhance their capacities.**

### 3.3.8 Sugarcane processing

The district is the second highest producer of sugarcane after Hoshiarpur in Punjab. The district has two sugar mills in co-operative sector (one each at Village Panar (2,000 TCD) & Batala (1,500 TCD)) and one in private sector at Village Kiri Afghana (7,500 TCD). These mills operate during the season.

### 3.3.9 The analysis of the secondary data and interaction held with unorganized microenterprises/FPOs/SHGs/Experts dealing in the five major food categories is summarized in the following table:

Major Food Category	Produce shortlisted based on secondary data research	Products/produce shortlisted based on interactions held with micro enterprises/ FPOs/ SHGs& experts	Products/ produce finalized	Status of finalized products/ produce from ODOP point of view (High/ medium/ low)
Grains & oilseed processing	Sugarcane Basmati	Jaggery Basmati	Jaggery <b>Basmati</b>	Medium <b>High</b>
Fruits & vegetable processing	Litchi Cauliflower	Honey Pickle & murabba Haldi	Litchi <b>Cauliflower</b> Pickle & murraba Honey	Medium <b>High</b> Medium Low
Dairy Product processing	Milk	Milk & milk products	Milk & milk products	Medium
Poultry Meat & Fish Processing	Fish Broiler Meat	Poultry, Meat and Fish processing Processed meat products	Poultry, Meat and Fish processing Processed meat products	Medium  Medium
Packaged food	-	Bakery products & Savouries	Bakery products & Savouries	Medium

Basmati and Cauliflower are the promising produce of this district. However, basmati is a grain whereas cauliflower is a perishable, PAIC, thus, recommends ‘**Cauliflower and allied produce like Broccoli, Cabbage, Lettuce etc.**’ as ‘**One Product**’ for district Gurdaspur.

### 3.4 FATEHGARH SAHIB

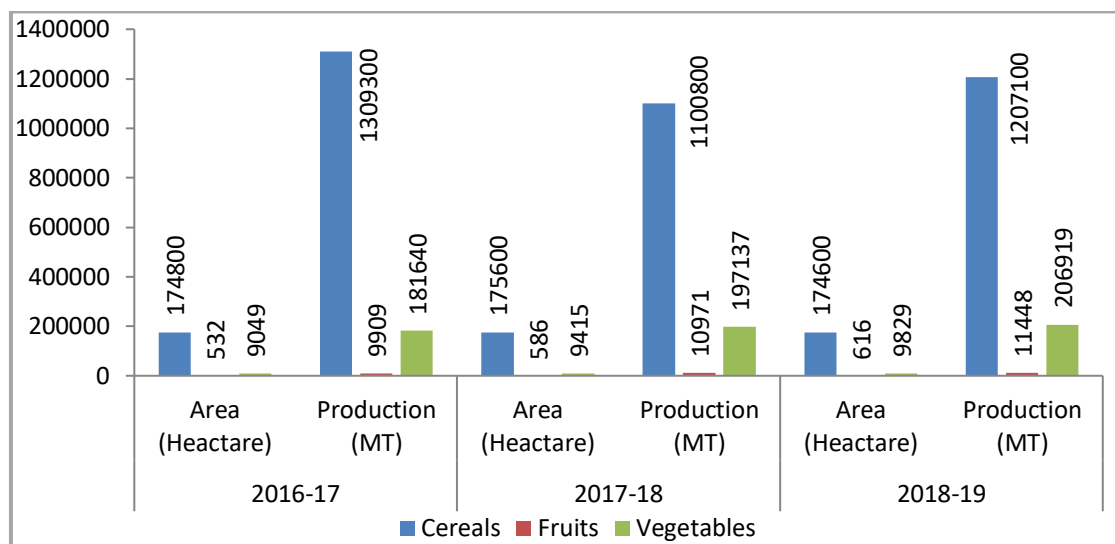


**3.4.1** The district came into existence with effect from 13.4.1992. It is bound by Ludhiana and Rupnagar in the North; Patiala in the South; SAS Nagar (Mohali), Rupnagar and Patiala in the East; and Ludhiana and Sangrur in the West. It is 50 Kms towards the West of Chandigarh, the capital of Punjab. **According to the 2011 Census, the population of district was 6,00,000 persons, lowest amongst all districts.** Of this, over 69% lived in rural area and balance in urban area. **The district has 433 inhabited villages. The Gross District Domestic Product (GDDP) and Per Capita Income (PCI) at current prices (2015-16) was Rs. 1,55,174/- and Rs. 1,37,764/- much above the state average of Rs.1,32,467/- and Rs.1,18,858/- respectively.**

The geographical area of the district is 1,15,000 Hectare, **the second smallest district** after Pathankot. Of this, **the net sown area is over 89% (1,02,000 Hectare).** About 89,000 Hectare is sown more than once, thus recording a **cropping intensity of 187%.** **The major stations of the district include Fatehgarh Sahib, Bassi Pathana, Amloh, Khamano, Mandi Gobindgarh, Chanarthal Kalan, Khera and Sirhind.** The economy of the district depends mainly on agriculture, industry and allied activities. The topography of the district is even. It is mostly a plain of alluvial type. It also has loam to heavy loam and sand to sandy loam soils in certain parts of the district. Soil is rich in nutrients and suitable for crops like wheat, Paddy, Oil seeds, Sugar Cane, Potato and vegetables etc.

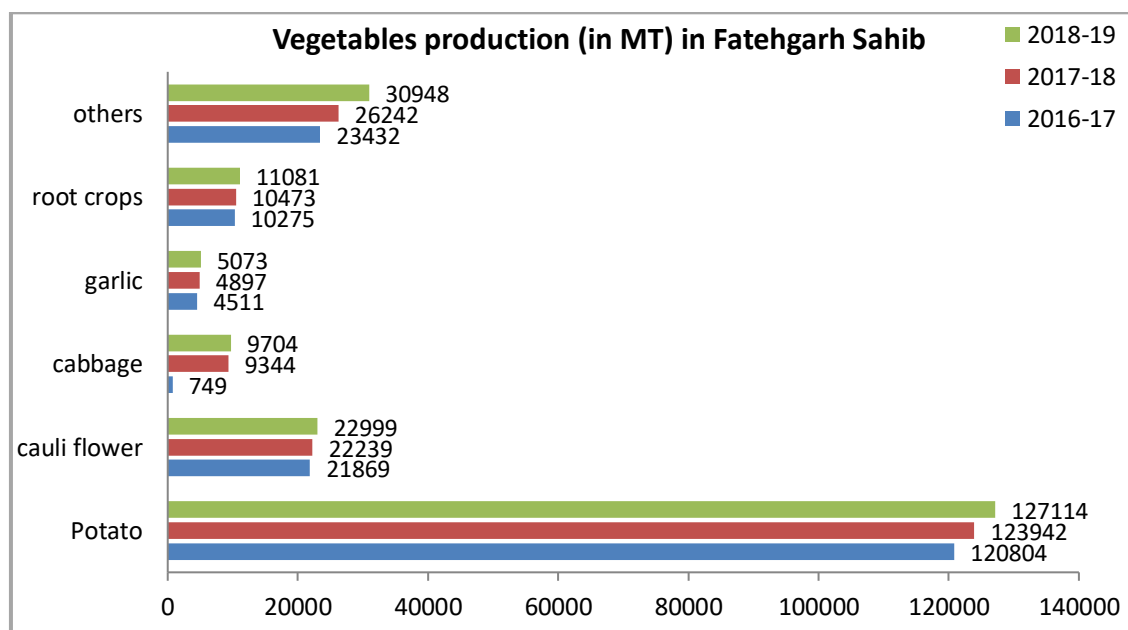


### 3.4.2 The trend in area and production of foodgrains including maize, sugarcane etc. and fruits and vegetables in the district is discussed hereunder.



\*Source: Department of Agriculture/Horticulture, Punjab

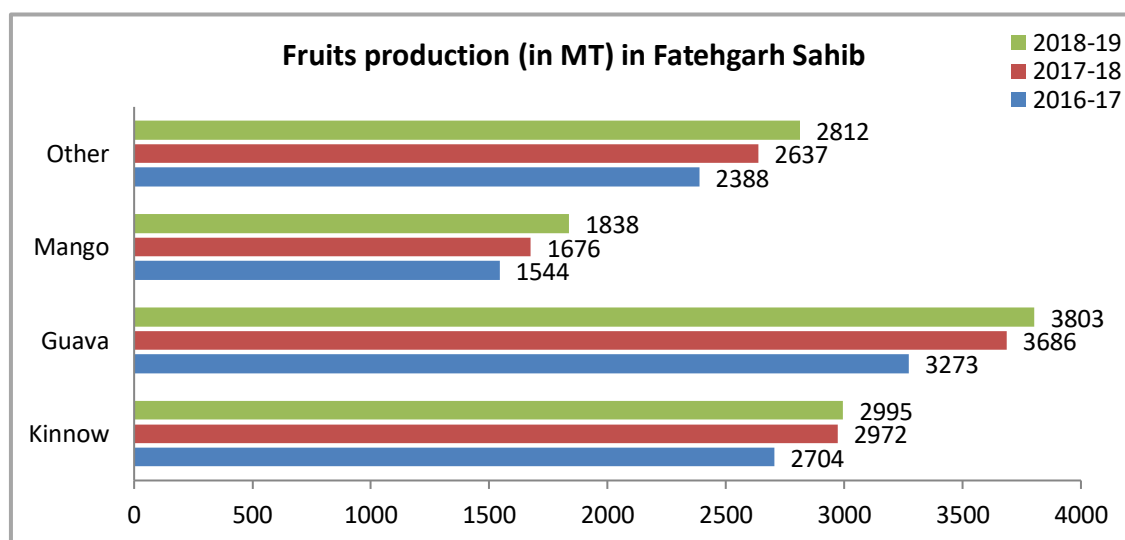
The area and production of paddy and wheat in past three years was consistent at 86,000 Hectare (5,17,000 MT) and 85,000 Hectare (4,40,000 MT) respectively. The third major crop is sugarcane with a consistent area of 3,000 Hectare (2,48,000 MT). The district also grows sunflower, sarson, barley and maize on an area of 2,000 Hectare (4,300 MT), 600 Hectare (1,000 MT), 300 Hectare (1,000 MT) and 300 Hectare (1,100 MT) respectively. **There is nothing significant in production of food grains and oilseeds in the district.**



\*Source: Department of Horticulture, Punjab

The district produces a wide range of vegetables like potato, peas, cauliflower, root crops, etc. Out of all vegetables, maximum area is under potato and it is growing gradually with 4,886 Hectare (1,27,114 MT) during 2018-19. Area under root crops, cabbage, garlic & cauliflower also recorded a marginal increase of 5 to 6% in last three years at 525 Hectare (19,572 MT), 408 Hectare (749 MT), 372 Hectare (4,511 MT) and 1,185 Hectare (21,869 MT) respectively.

Amloh, Khamano and Bassi Pathana are the main areas growing potato, cauliflower and cabbage respectively in the district. Farmers of the district have started growing organic vegetables in a big way.



*\*Source: Department of Horticulture, Punjab*

**The district produces limited variety of fruits viz. guava, kinnow, mango, peach and pear.** However, the area under these fruits is not significant at 166 Hectare, 146 Hectare, 126 Hectare, 46 Hectare and 33 Hectare respectively.

### 3.4.3 Grain and oilseed processing:

There are two medium sized roller flour mills manufacturing wheat flour, maida, suji, choker, dalia etc. Besides, there are about 15 mini flour mills manufacturing non-branded wheat flour and maida. Then, there are over 600 atta chakkis doing job work. There are over 150 mills shelling common paddy for government agencies. There are three medium sized solvent extraction plants (two in Amloh and one on Sirhind Patiala road) and a number of oil expellers. These units import oilseeds from Rajasthan,

Haryana, etc. for processing. The cotton seed available from neighbouring districts of Punjab is sourced and processed from October to December.

**Talwar Industries, Sirhind**, a proprietorship firm of Mr. Talwar, is engaged in the manufacture of non-branded atta, choker and ‘makki da atta’ (during winters). He is interested to purchase an automatic packaging line (costs approx. Rs. 15 lacs) for his unit. He informed that most of the flour mills have manual packaging system and they would like to shift to the automatic one due to labor problem.

There is a limited scope for micro enterprises to enter into grain and oilseed processing.

#### 3.4.4 Fruits and Vegetables Processing

There are four medium sized vegetable processing units (Pagro Foods (2 units); Punjab Agri Venture, Sirhind and Malls Field, Amlah) in the district. These companies do contract farming of vegetables including cauliflower, white onion, potato, carrot, peas etc. They have set up IQF plants and frozen stores. Over the years, more farmers have started growing vegetables. Further, there are number of Self Help Groups and FPOs engaged in the processing and packing of pickles, chutneys, murraba, haldi etc. These groups are also into organic cultivation of vegetables. We spoke with a couple of SHGs and FPOs.

**Mr. Manjeet Singh, Village Dadiana** is a progressive farmer. He has 3.5 acres and is growing organic vegetable & fruits and processing them to make pickles and jams. His farm is under drip irrigation. He prepares vermi compost and organic manure at his farm. He is keen to make use of the facility of credit linked subsidy under ‘PMFME’ Scheme to install jaggery unit.

**Mr. Baljinder Singh, a farmer** has 2.5 acre under poly house for cultivating marigold flowers. He also grows vegetables like cucumber, peas & potato for local markets. He is keen to make use of the facility of credit linked subsidy under ‘PM FME’ Scheme to install vegetables packing unit.

**Deepika Sindhvani, Kharar** running a Self Help Group by the name MKS Guru Gobind Singh. The SHG has 10 members in district Fatehgarh Sahib engaged in the manufacture of pickles, chutney & murrabas. She is keen to make use of the facility of credit linked subsidy under ‘PMFME’ Scheme to purchase commercial machinery.

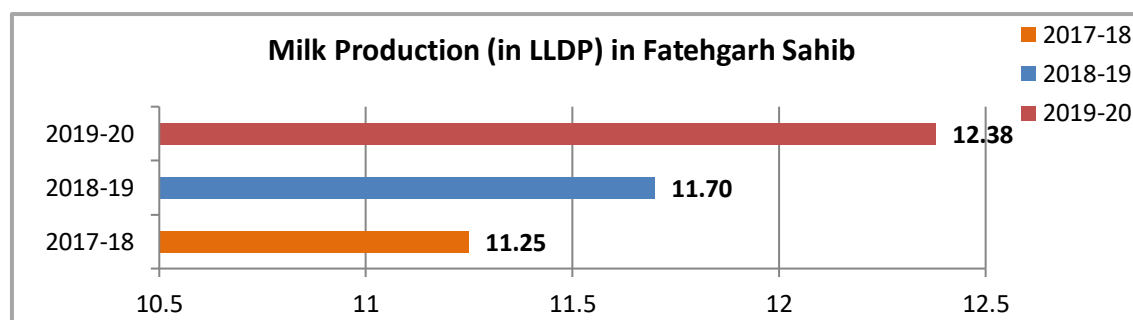
**Kulwant Kaur, Amarala** has a jaggery unit and a turmeric unit. She is also running a Self Help Group named Nirmal Aarti having 20 members. ‘Nirmal Aarti’ manufactures pickles, murrabas, turmeric, chutneys, aloverajuce, panjiri etc. She is keen to make use of the facility of credit linked subsidy under ‘PM FME’ Scheme to increase their business.

**Guru Nanak Self Help Group** of Ms Jaspreet Kaur, deals in spices like tea masala, parantha masala, meat masala, vinegar and pickles.

**Mr. Balwinder Singh, Village KotlaBajwara** grows haldi in 5 acres. He has his own processing and packaging unit. Crop is sown in April/May and harvested in January. He is earning over Rs. 1 lac per acre. He also produces haldi seed for sale.

### 3.4.5 Processed dairy and milk

The district produces about 12.5 lac litre/day of milk. There are two medium sized milk plants (Chanakya Dairy Products, Mandi Gobindgarh and PRS Milk Products, Chunni - Morinda Road ) manufacturing pasteurized milk, paneer, curd, butter, sweet meat, skimmed milk powder etc.). There will be +50 micro and small dairy processing units. There are about 15 cattle feed mills in the district. We spoke with some of them.



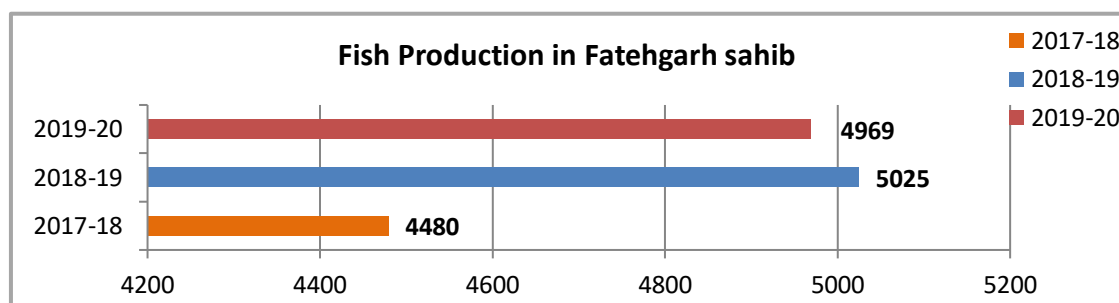
*\*Source: Directorate of Dairy Development, Punjab*

**Gur Partap Mill, Fatehgarh Sahib – Patiala Road** is owned by one Mr. Surinder Singh. He manufactures cattle feed. At present, he sells cattle feed in loose form and he is interested to set up a pellet manufacturing unit (costs about Rs. 12 lac). Pellet feed fetches better price.

### 3.4.6 Poultry, Meat and Fish processing

There are about 25 commercial layer poultry farms and over 20 commercial broiler farms in the district. Many poultry farms have their own feed mills. The eggs and broiler

are sold to contractors who in turn sell them to processors/wholesalers/retailers. There is no modern slaughtering and chicken dressing plant in the district. Slaughtering is done manually and there would be over 600 persons/shops engaged in this business. There are a couple of micro and small units processing meat/chicken into ready-to-eat and ready-to-cook products.



*\*Source: Fisheries Department, Punjab*

The production of fish in the district varied between 4,500 MT to 5,000 MT in past three years. The district has around 1,300 acre under fish cultivation. The varieties being cultivated include katla, rohu, marak and exotic varieties like silver carc, grass carc, common carc etc. The state fishery department provides subsidy to farmers for cultivating fish in the state. Mr. Gurpreet Singh from Nagra Fish Farm informed that they would be interested to set up fish processing facility to fetch better price for their produce.

### 3.4.7 Packaged food items

There is one medium sized bread and biscuits manufacturing unit in MandiGobindgarh. There are over 300 bakeries and savouries units run by micro enterprises doing job work. They manufacture biscuits, rusks, cakes, panjiris, burfis, mathis, etc. About 75% of the bakeries are using brick kiln ovens to bake products. **These units require up-gradation.**

### 3.4.8 Sugarcane processing

Due to demand of jaggery and jaggery products and proximity of the district to major urban areas like Chandigar, Patiala, Ambala, Ludhiana etc., farmers have started manufacturing these products in a big way. At present, there shall be over 60 units manufacturing jaggery on the road sides and many more are in the pipeline. Bhudehwal Sugar Mill near Ludhiana has also set up a state-of-the-art jaggery plant to meet the

demand. Farmers informed that due to increase in demand of jaggery, the cultivation of sugarcane has grown in the district.

**Mr. Dharamjit Singh, Village Main Majri**, is a teacher and farmer. He grows sugarcane organically on 5 acre and Haldi on 1 acre. He gets his sugarcane processed from others, to jaggery and shakkar. He sells the same at premium.

### 3.4.9 The analysis of the secondary data and interaction held with unorganized microenterprises/FPOs/SHGs/Experts dealing in the five major food categories is summarized in the following table:

Major Food Category	Produce shortlisted based on secondary data research	Products/produce shortlisted based on interactions held with micro enterprises/ FPOs/ SHGs& experts	Products/ produce finalized	Status of finalized products/ produce from ODOP point of view (High/ medium/ low)
Grains& oilseed processing	Sugarcane	Jaggery	<b>Jaggery</b>	<b>High</b>
Fruits & vegetable processing	Potato Cauliflower Cabbage	Honey Pickle & murabba Haldi	Potato Cauliflower Pickle & murraba Honey Cabbage	Medium Medium Medium Medium Medium
Dairy Product processing	Milk	Milk & milk products	Milk & milk products	Medium
Poultry Meat & Fish Processing	Fish Broiler Meat	Poultry, Meat and Fish processing Processed meat products	Poultry, Meat and Fish processing Processed meat products	Medium Medium
Packaged food	-	Bakery products & Savouries	Bakery products & Savouries	Medium

Organic vegetables and Jaggery are the potential future products of the district. Keeping into view the demand and availability of sugarcane within the district, **PAIC ‘Sugarcane juice & allied products’ as ‘One Product’ for district Fatehgarh Sahib.** The candidate units may include ‘gur’, ‘shakkar’, ‘bottled cane juice’, ‘sugarcane cubes’, etc.

### 3.5 MOGA

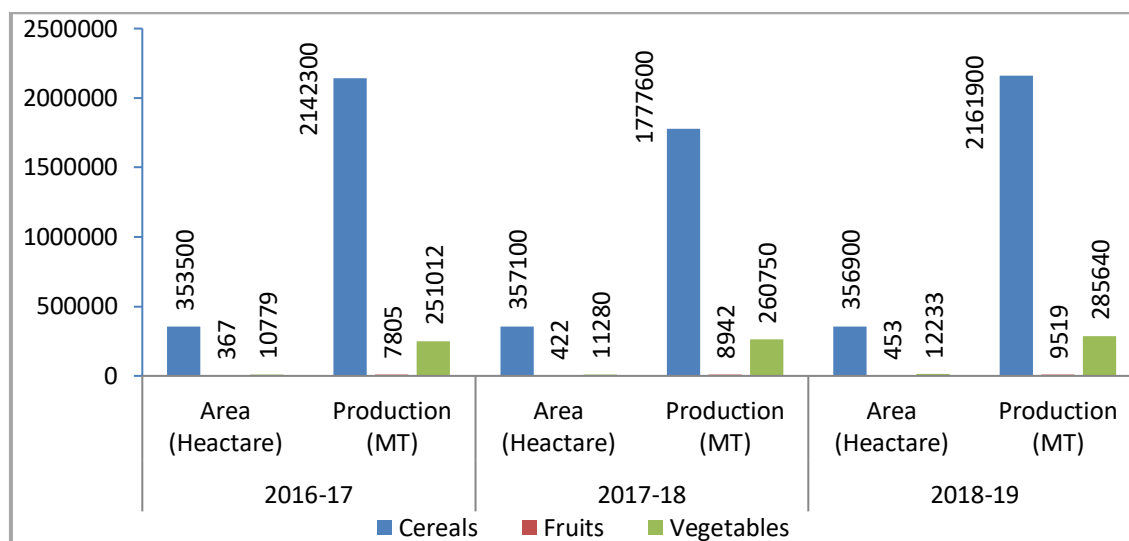


**3.5.1** The district Moga falls in Western plain zone. It is located somewhat in the centre of Punjab. In the North and North East, it is bounded by district Jalandhar, in the West by district Ludhiana, in the South East by district Barnala, in the South by district Bathinda, in the South West by district Faridkot and in the West by district Ferozepur. **Nihal Singh Wala, Ajitwal, Fatehgarh P. Toor, Badhni Kalan, Bagha Purana, Dharamkot, Kot Isse Khan and Moga are the main stations having fruit and vegetable mandis run by the state agency i.e. Punjab Mandi Board.** According to the 2011 Census, the population of district was 9,95,000 persons, of this over 77% lived in rural area and balanced in urban area. **The district has 318 inhabited villages.**

**The Gross District Domestic Product (GDDP) and Per Capita Income (PCI) at current prices (2015-16) was Rs. 1,47,252/- and Rs. 1,31,391/- much above the state average of Rs.1,32,467/- and Rs.1,18,858/- respectively.**

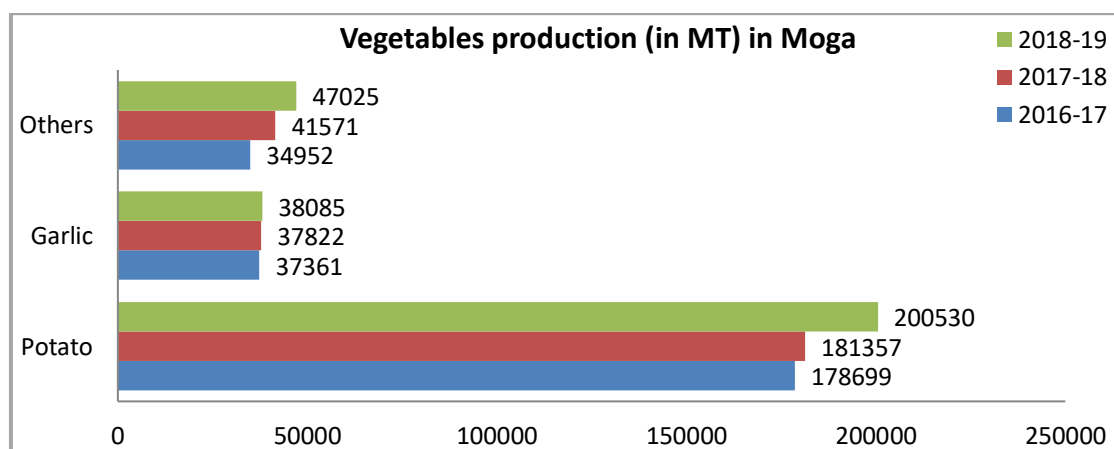
The geographical area of the district is 2,23,000 Hectare, out of which the net sown area is over 87% ( 1,94,000 Hectare). **The entire sown area is sown more than once, thus recording a cropping intensity of 200%.** The area forms a part of Indo-Gangetic alluvium. It is practically flat except for occurrence of small scattered sand-dunes.

### 3.5.2 The trend in area and production of foodgrains including maize, sugarcane etc. and fruits and vegetables in the district is discussed hereunder:



\*Source: Department of Agriculture/Horticulture, Punjab

Wheat and paddy are the principal crops of the district. Area and production of these crops in past three years has been more or less consistent with 1,80,500 Hectare (9,41,000 MT) and 181,000 Hectare (12,19,000 MT) during 2018-19 respectively. Maize, moong, arhar, barley and sarson are also grown in small quantities in 100 Hectare (400 MT), 200 Hectare (890 MT), 300 Hectare (400 MT), 300 Hectare (1,200 MT) and 500 Hectare (800 MT) respectively. **There is nothing significant increase in the area and production of these crops except moong in last three years.**

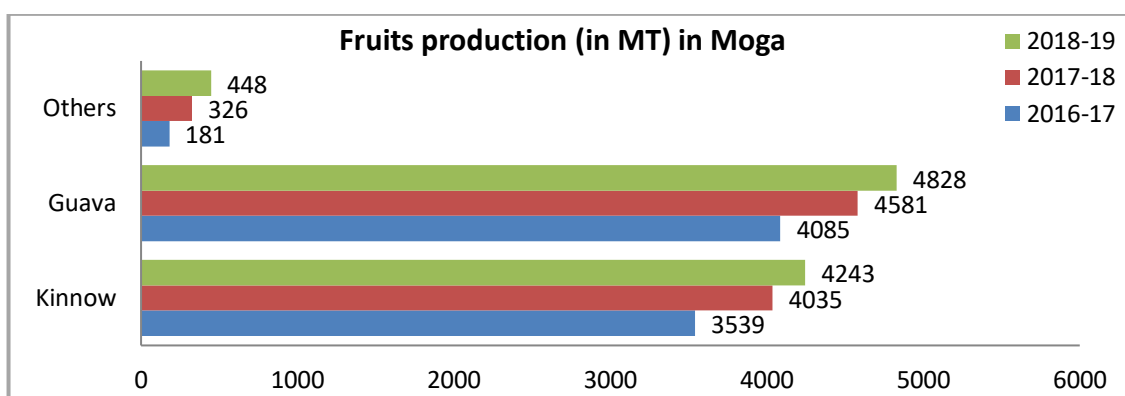


\*Source: Department of Horticulture, Punjab

The district produces a wide range of vegetables like potato, garlic, cauliflower, vine crops, root crops, tomato, chillies, etc. **Out of all vegetables, maximum area is under potato**



and the area has shown cumulative growth of 11% in last three years with 7,506 Hectare (2,00,530 MT) during 2018-19. It is mentioned that the district produces large quantities of potatoes used by French Fries manufacturing companies like Mc Cane, Iscon Balaji, Hyphen etc. Farmers also sow this crop for multiplying seed potato for industry. Companies have signed contracts with farmers for supply of ‘diamond’ variety of potato, which is good for processing. Garlic is next to potato in area with 1,696 Hectare (38,085 MT) during 2018-19. In fact, **the district tops in the production of garlic amongst all districts**. However, the cumulative growth in area under garlic in past three years has been merely 2%. The area and production of remaining vegetables has not been that significant. **So, potato and garlic are the potential crops amongst vegetables.**



*\*Source: Department of Horticulture, Punjab*

The district produces kinnow and guava, but in limited quantities. However, there has been good cumulative growth of 18 to 19% in area under these crops during past three years at 206 Hectare (4,243 MT) and 216 Hectare (4,828 MT) during 2018-19 respectively. However, the area and production is marginal as compared to the corresponding figures in other districts. **So, there is nothing from the fruit side for this study.**

### 3.5.3 Grain and oilseed processing:

There are over 1,000 atta chakkis and about 15 modern wheat flour mills in the district. The atta chakkis are mainly from micro enterprises, doing job work. They also make ‘Makki da Atta’ during winter season. There are about 300 small sized conventional rice mills (average capacity 2 MT/hr) shelling mainly common variety of paddy for state government procurement agencies, who in turn supply rice to FCI for

Public Distribution System (PDS). It was observed that the millers can consider setting up facilities to manufacture value added rice based products like rice flour (gluten free alternative to wheat flour), rice noodles, poha, idli, rice vinegar, etc. in their existing premises provided they are given subsidy under the 'PM FME' Scheme. We spoke with some micro enterprises and FPOs to understand their business and requirements.

**Harjot Agro & Organic Producers Company Ltd.** is a FPO engaged in the processing of produce of their member farmers. At present, they have about 40 farmers registered with them. The company's works are located in Village Samadh Bhai. Mr. Jagmohan Singh is looking after the functioning of the unit and he is one of the directors on the Board of the company. The company has a grading line for pulses, an atta chakki and a rice polishing line. They informed that they would like to avail the opportunity to enhance their production capacities.

Mr. Rajnish Mittal of **Gee Emm Overseas, Village Singhawala** informed that many small millers may not be interested to modernize their operations for processing Basmati varieties of paddy as the subsidy amount under 'PM FME' Scheme is very less.

Mr. Vinod Bansal, President, **Moga Rice Millers Association** and Owner of **Surya Agro Tech, Village Fatehgarh Penth** informed that they would be willing to diversify to make value added products from rice provided the cost of the project is not very high and the marketing of the product is taken care of by some institution.

Mr. Jasvir Singh of **Rattu Atta Chakki, Moga** informed that many Atta Chakki owners have already got their facilities upgraded and the ones who have not modernized their Chakkis could be interested to make use of the scheme to buy additional machinery to broaden their product mix.

**Zimidara Processing Mill**, based out of village Manoke Gill, Moga, engaged in processing of wheat (for flour), oil extraction (for mustard oil), rice, turmeric and spices. They source wheat from Moga, mustard oilseeds from Rajasthan, turmeric from Tamil Nadu and spices from Moga for processing in their unit.

**Tharaj Agro Industries** located at village Tharaj, Moga, is engaged in the production of flour (wheat, maize & barley), mustard oil, besan and spices. They are interested to expand their operations under the 'PM FME' Scheme.

**Andata Foods**, a company based out of Moga engaged in the purchase of pulses, oilseeds etc. directly from farmers and getting it processed from others and then selling it through their retail stores. The profit so earned by them is shared with the farmers. Major products processed and sold include pulses (Moong, Masar&Channa dal), Wheat flour, Canola oil, Jaggery, Rice. They are considering setting up a pulse processing unit in Moga. Mr. Karan Bir Singh, a food technologist and owner of Andata Foods informed that there has been increase in the area under summer ‘Moong’ in Moga district over the past few years. ‘Moong’ is sown in March and harvested in June/July (after 60 days). ‘Moong’ (also called summer ‘Moong’) is generally sown after wheat is harvested in March. The yield per acre is about 4 Qtl. District Moga and the adjoining station of Jagraon (district Ludhiana) is the major producer of summer ‘Moong’ in Punjab. Jagraon has a mandi where pulses, including ‘Moong’ are traded in a big way. Jagraon has 4 to 5 units engaged in the cleaning, de-husking, processing and grading of pulses. The growers of ‘Moong’ in district Moga take their produce to Jagraon mandi for auction and/or processing. Kissan Vigyan Kender (KVK), Moga has a demo grading unit for pulses. Some farmers/entrepreneurs get their produce graded from KVK.

Mr. Ramesh Kukku of **Nanak Chand Shri Ram, Moga**, a 50 year old firm dealing with pulses, informed that before the Wheat-Paddy rotation, cultivation of ‘Dal Channa’, ‘Gram’ and ‘Moong’ were very common in district Moga. At that time, Moga was the main center for pulses. There are over six big traders in Moga carrying out the wholesale business of pulses. He informed that the farming community of Moga district has the potential to go back to pulses provided they are assured of the same return as one gets from Wheat-Paddy rotation He suggested that the paddy millers can set up pulse milling units in their existing set ups.

Mr. Aman Sing Brar of **KVK, Moga** informed that in order to promote cultivation of pulses in the district, they have set up a demo pulse cleaning and grading facility at their centre. He confirmed that the cultivation of summer ‘Moong’ has picked up over the years. The Kharif ‘Moong’ (July to October) is rear here. The cultivation of ‘Gram’ and ‘Dal Channa’ could be taken up as main crops like wheat and paddy, provided remunerative price is assured. Pulses are good for the soil as they require very less water and secondly their roots have nodules (rhizobia) that fix atmospheric nitrogen in the soil. So, it helps in increasing the organic content of the soil.

### 3.5.4 Fruits and Vegetables Processing

As per District Industries Center, there are over 22 large, medium and small food processing units registered with them. Of it, 14 units are into paddy shelling. Nestle and Paras Spices are the main ready-to-cook and ready-to-eat food processing units. There are a large number of individual unregistered micro and small food processing units engaged in the manufacture of pickles, vinegar, sharbet, squash, spices, murraba etc. We spoke with some micro enterprises, FPOs etc. to take their views on the scheme.

**Kumar & Company**, a proprietorship firm manufacturing sharbet, pickles, vinegar, jaljeera etc. in Moga city (Sardar Nagar) for the past 50 years. They have a license from FSSAI. Their requirement of fruits and vegetable is met from local mandis. The products are sold under the brand ‘Kumar’. They have their own retail outlet in the main market. They would like to make use of the opportunity of the ‘PM FME’ Scheme to expand their production base.

**A.P. Enterprise**, a proprietorship firm manufacturing sharbet, tomato sauce, sweat meat (murraba), pickles, jam, etc. They are also meeting their requirement of fruits and vegetables from local mandis. They are earning about Rs 7 lac per annum from this business. They are looking forward to take advantage of the scheme.

**Hariawal World**, based out of Village Khosa Pandu, Moga, is engaged in the manufacture of pickle, sweat meat, chutney, mustard oil, pulses(graded), haldi and spices. They are sourcing their requirement of Moong locally and Rajasthan for other pulses. Finished products are sold mainly through mobile shop using tempo. Mr. Gurpreet of Hariawal World informed that they want to expand and set up a unit to manufacture these products in a scientific manner.

**Ekta Self Help Group**, who is based out of Village Raunta, has 11 members. They are manufacturing pickle and chutney under their common brand ‘Ekta’. Ekta was established in 2017 under National Rural Livelihood Mission (NRLM Moga). Their members have taken training from Krishi Vigyan Kendra (KVK), Moga to manufacture these products. They have their own retail counter at Raunta. They also participate in exhibitions and Kisan melas for establishing their brand in the market. They want to make use of the opportunity of FME scheme to setup a composite unit to manufacture juice, wadiyan, papad etc.

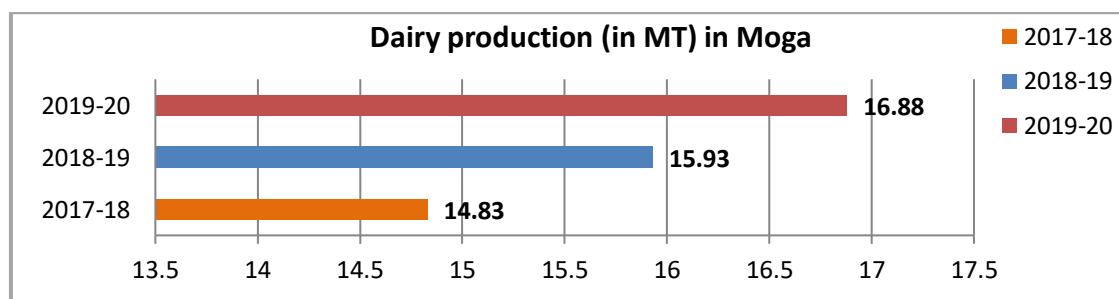
**Setia Self Help Group**, village Land Ke, is run by one Mrs Sunita, who has prior experience of manufacturing pickle, chutney and spices. The group was created in 2019 with the help of Krishi Vigyan Kendra (KVK) Moga, who gave them training in pickle processing. They meet their requirement of fruits and vegetable from local mandis. The products are sold through their own retail counter at D.C. Office, Moga and by taking space in Kisan Melas. They want to increase their production volume by making use of the credit linked subsidy under the ‘PM FME’ Scheme.

**Mr. Nirpender, President, Beekeeper Association of Punjab** informed that there is a cluster of over 50 persons engaged in the business of honey in the district. Some of them have set up small units to clean and pack honey. They produce mustard honey and multi flower honey. They even collect ‘Bee Pollen’ and ‘Royal Jelly’ for exports. There are very excited to know about the ‘PM FME’ Scheme for small food processors.

### 3.5.5 Processed dairy and milk

**There has been consistent increase in the production of milk in the past three years at 16.88 lakh liter/day during 2019-20. It recorded a cumulative growth of 14% during this period.** Nestle, Moga is procuring large quantities of milk produced in the district. The district has over 1,500 dairies, majority of them are located in rural areas.

Moga alone has around 200 dairies processing a variety of products like butter, curd, lassi and cream to meet the daily demand of urban population. Some of the dairies with greater influx of population are using state-of-the-art equipments.



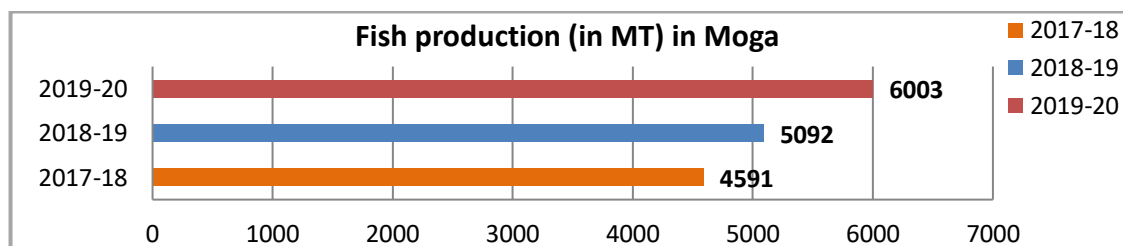
*\*Source: Directorate of Dairy Development, Punjab*

In view of the large number of small dairies, there is little scope for new comers to enter into this business. However, **there is immense opportunity for the small dairy owners to up-grade and enhance their production capacities.**

### 3.5.6 Poultry, Meat and Fish processing

There are about 100 poultry farms in the district, out of which 14 deal in commercial layer (eggs) and the remaining in broiler. There are over 500 shops/individuals slaughtering broilers/meat manually and selling fresh chicken/meat. There is no modern slaughtering unit in the district. We spoke with a couple of individuals dealing in slaughtering and sale of fresh chicken/meat.

There is a big demand for processed meat i.e. chicken salami, sausages, chicken fingers etc. amongst urban residents of Moga city. Janata Chicken, Moga informed that their business is booming with the start of above processed products in the market. There is a frozen store in Moga which stores fresh water fish (sanghara and mali varieties) transported directly from Harike, district Tarn Taran.



*\*Source: FisheriesDepartment, Punjab*

**There has been consistent increase in the production of fish in the district. The cumulative growth in last three years was 31% with production of 6,003 MT during 2019-20.** There is a good demand for fish in the district. The fishery department of the state provides subsidy to farmers interested to start fish farming. However, there is no processing unit for fish in the district. **At this stage there is a dire need to upgrade the existing facilities of micro enterprises/individual dealing in this business.**

### 3.5.7 Packaged food processing (Bakery, Snacks & Savories)

There are number of micro enterprises engaged in the business of manufacturing and selling bakery products, namkeen, gajak, etc. They are catering to the demand of residents of the district. We spoke with a couple of such individuals and given to understand that there would be more than 300 bakeries in the district. Out of this, 90% of them are using brick kilns for baking products. They are into job work. Such units need to be encouraged under the scheme.

**Ginni Foods**, located in focal point, Moga, is engaged in the manufacture of namkeen and gajak. They are sourcing their requirement of besan, refined oil, peanuts, salt, chilli

powder, jaggery, sugar, til etc. from Ludhiana. They are interested to make use of the facility under the scheme to enhance production capacities of their products.

### 3.5.8 The analysis of the secondary data and interaction held with unorganized microenterprises/FPOs/SHGs/Experts dealing in the five major food categories is summarized in the following table:

After an in-depth study of secondary data and detailed interaction with farmers, FPOs and micro enterprises, it was observed that there is a dire need to provide need based support/intervention to support the effort of these agencies to market vegetables mainly cauliflower to distant markets by promoting setting up of cleaning and grading lines, packaging unit, pre-cooler/cold rooms etc. The same facility could also be used for other vegetables like carrot, lettuce, cabbage, chilli, broccoli etc. This shall also open avenues for growers to exports these vegetables. PAIC, thus, recommends **‘Cauliflower’** as **‘One Product’** for Gurdaspur district.

Major Food Category	Produce shortlisted based on secondary data research	Products/produce shortlisted based on interactions held with micro enterprises/ FPOs/ SHGs& experts	Products/ produce finalized	Status of finalized products/ produce from ODOP point of view (High/ medium/ low)
Grains& oilseed processing	Pulses	Pulses	<b>Pulses</b>	<b>High</b>
Fruits & vegetable processing	Potato Garlic	Honey Pickle & murabba Haldi Sherbet	<b>Potato Garlic</b> Pickle & murraba Honey	<b>High High</b> Medium Medium
Dairy Product processing	Milk	Milk & milk products	Milk & milk products	Medium
Poultry Meat & Fish Processing	Fish Broiler Meat	Poultry, Meat and Fish processing Processed meat products	Poultry, Meat and Fish processing Processed meat products	Medium Medium
Packaged food	-	Bakery products & Savouries	Bakery products & Savouries	Medium

Therefore, potato, garlic and pulses are the three produce having equal potential for growth in the district. Potato being perishable, PAIC recommends **‘Potato’** as the **‘One Product’** for district Moga. The candidate units include potato chips, bhujia, etc.



## 3.6 PATHANKOT



**3.6.1** Pathankot district was officially carved out of Gurdaspur district on 27.7.2011. The district has two tehsils i.e. Pathankot itself and Dharkalan, which is around 30 km from Pathankot and is in the foot of Shivalik hills. The district has six blocks namely NarotJaimal Singh, Bamial, Dharkalan, Pathankot, Gharota and Sujampur. Pathankot district is a meeting point of three Northern States & UT namely Punjab, Himachal Pradesh and Jammu and Kashmir. Due to its ideal location, Pathankot serves as a travel hub for these three northerly states & UT. It is the last city in Punjab on the National Highway that connects Jammu and Kashmir with the rest of India. Situated in the picturesque foothills of Kangra and Dalhousie with the river Chakki flowing close by, the city is often used as a rest-stop before heading into the mountains of Jammu and Kashmir, Dalhousie, Chamba, Kangra, Dharamshala, Mcleodganj, Jwalaji, Chintpurni and deep into the Himalayas. According to the 2011 Census, the population of district was 6,76,000 persons. The district has 358 inhabited villages. The Gross District Domestic Product (GDDP) and Per Capita Income (PCI) at current prices (2015-16) was Rs. 1,06,039/- and Rs. 97,294/- much below than the state average of Rs.1,32,467/- and Rs.1,18,858/-respectively.

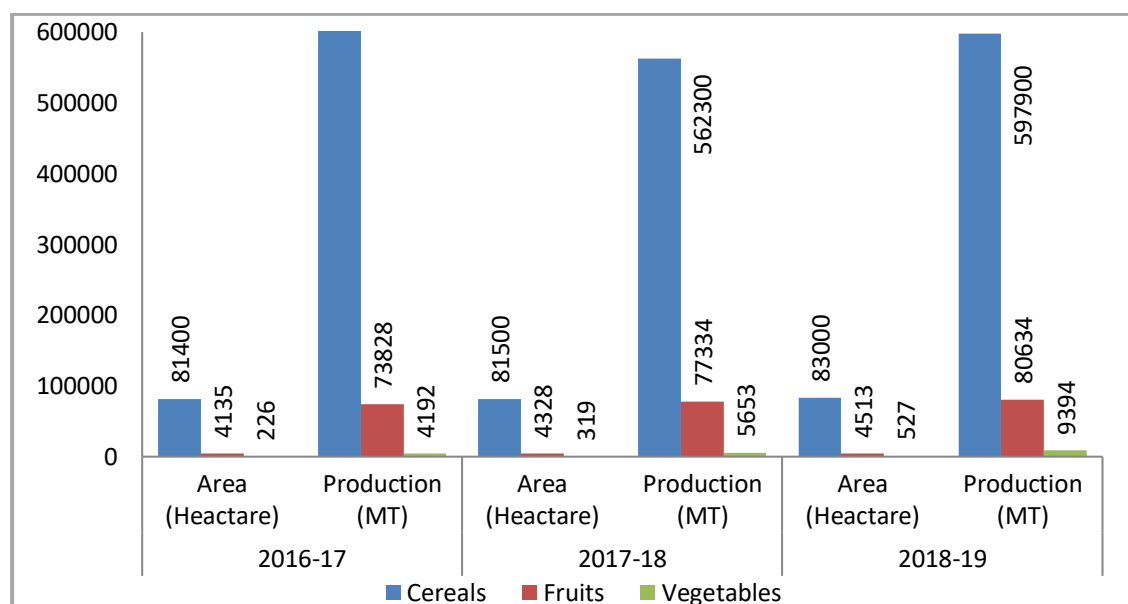
The geographical area of the district is 94,000 Hectare, **the smallest amongst all the districts of the state.** Of this, the **net sown area is 50% (47,000 Hectare), which is the**



**lowest.** The area sown more than once is **44,000 Hectare**, thus recording a **cropping intensity of 193%.** The landscape of the district has varied topography comprising the hilly tract, undulating plains, the flood plains of the Ravi and Beas rivers and the up landplains. Of late, Pathankot has emerged as a commercial center of wholesalers and distributors of consumer goods and services, catering to Himachal Pradesh, J&K and North West Punjab. Many army and Air force personnel are stationed at Pathankot and in nearby areas. The Army and Air Force award contracts to local vendors for supply of consumables and services, contributing to local prosperity. Pathankot is also connected by air to Raja Sansi Airport (Amritsar). Recently, flights have been introduced to Delhi via Ludhiana's newly built Sahnewal Airport. The airport of Pathankot is jointly shared by Defence and civilians and is the glory of this district.

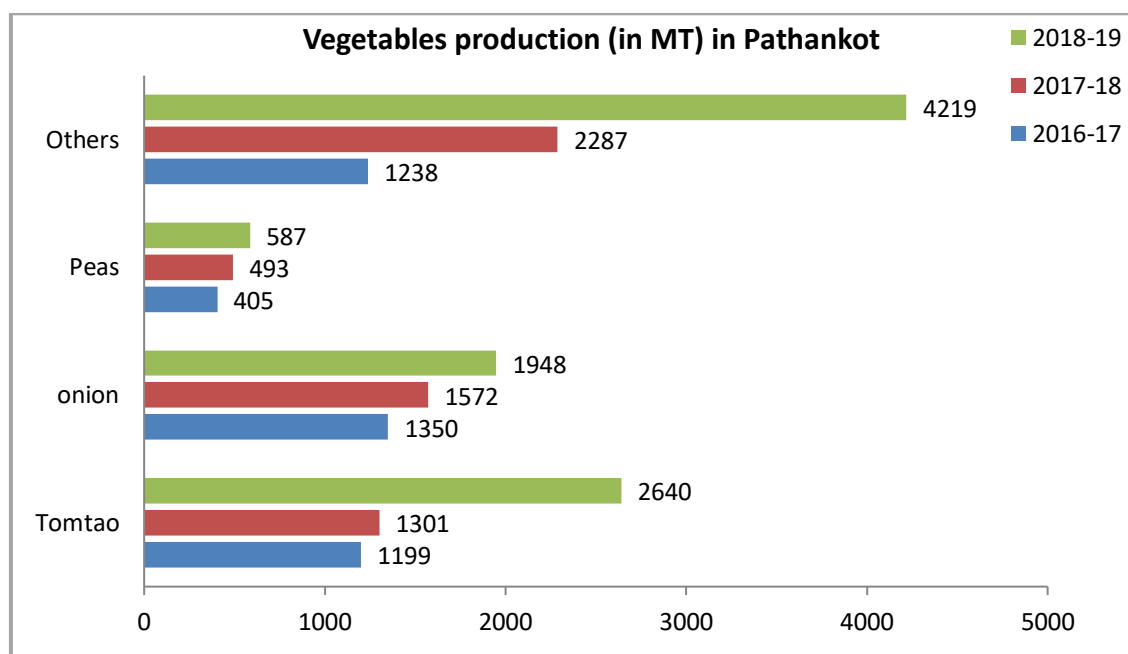
Majority of industries in the district are small scale and household industries. There are very few medium to large sized food processing industries manufacturing edible oil, wheat flour, rice, gluten, aerated drinks, vanaspati ghee, Indian Made Foreign Liquor, country liquor, etc. These units are located in either of the Industrial Focal Point or the Industrial Growth Center developed by the state govt. There is a great scope for development of Food processing industries like juices, pickles, sauces jam etc. in the district.

### 3.6.2 The trend in area and production of foodgrains including maize, sugarcane etc. and fruits& vegetables in the district is discussed hereunder.



*\*Source: Department of Agriculture/Horticulture, Punjab*

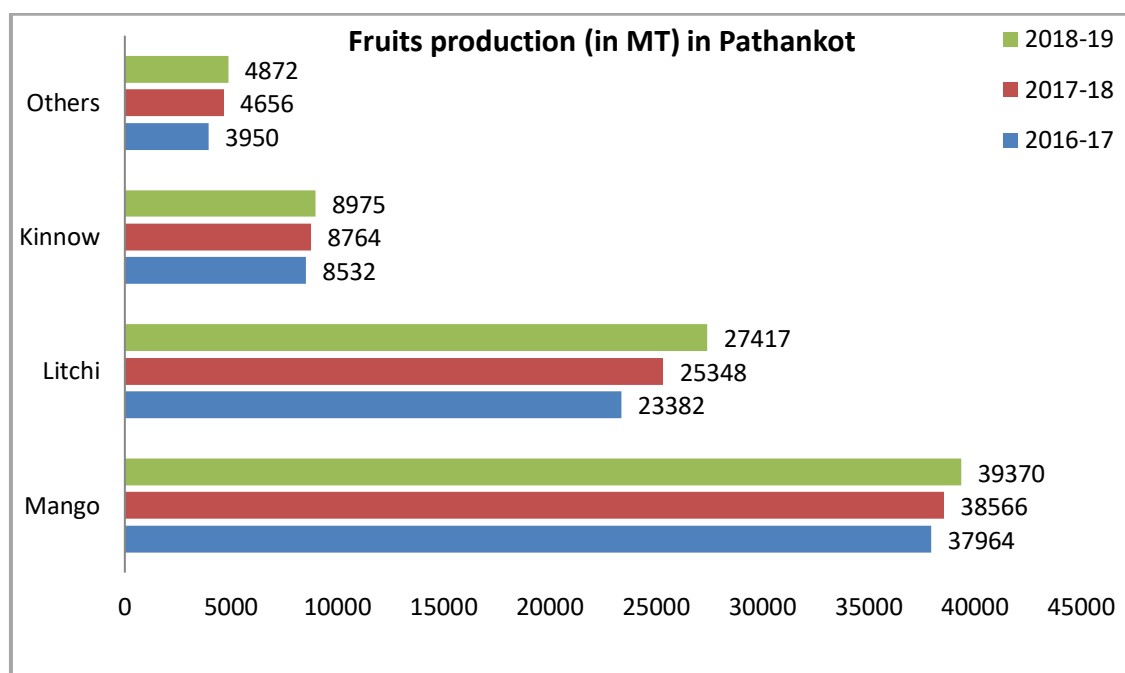
Agriculture is prominent in the district. Paddy,wheat, maize and sugarcane are the main crops. The area under these crops has been absolutely consistent during last three years at 28,000 Hectare (1,36,000 MT),41,000 Hectare (1,63,000 MT),8,100 Hectare (16,500 MT) and 4,000 Hectare (2,81,000 MT) in 2018-19 respectively. Kharif pulses (mash), kharif oilseed (sesamum), rabi oilseed (sarson) and rabi pulses (gram) are also grown in small quantities at 1300 Hectare (600 MT),500 Hectare (100 MT),900 Hectare (1,100 MT) and 100 Hectare (100 MT). **There is, therefore, no scope for further study for any of the above produce.**



*\*Source: Department of Horticulture, Punjab*

The district produces a wide range of vegetables like tomato, onion, cauliflower, peas, okra, vine crops, root crops,etc. **Out of all vegetables, maximum area is under tomatoand this has recorded a spectacular cumulative growth of 125% in last three years with 106 Hectare (2,640 MT) during 2018-19.**The second highest in area is onion and the cumulative growth in last three years was 39% at 85 Hectare (1,948 MT) during 2018-19. **It is observed that though there is good growth in the area under tomato and onion, but the production is insignificant as compared to production of same crops in other districts.**

**So, none of the vegetables has any scope for further study for the present assignment.**



*\*Source: Department of Horticulture, Punjab*

The district produces a wide range of fruits like mango, litchi, kinnow, amla, sweet orange, peach, plum, guava cherry, etc. **It tops in the production of mango and litchi in the state.** Area under mango and litchi recorded a cumulative growth of 4% and 16% in past three years with 1,616 Hectare (27,417 MT) and 2,066 Hectare (39,370 MT) respectively during 2018-19.

**Out of two, litchi is more promising** as litchi owners have been sending this fruit to far of places in the country as well as overseas markets for many years.

### 3.6.3 Grain and oilseed processing:

There are a number of conventional atta chakkis and about 2/3 medium sized modern roller flour mills in the district. Atta chakkis have been set up by micro enterprises and are doing job work. Some atta chakkis have also installed oil expellers in their premises for producing mustard oil etc. There are limited numbers of rice mills shelling common paddy for state procurement agencies.

**The existing atta chakki owners are interested to up-grade and enhance capacity of their units.**

**Therefore, at this stage, we may focus to modernize the existing facilities.**

### 3.6.4 Fruits and Vegetables Processing

There are number of individuals, FPOs and SHGs who are in the business of packing litchi, mango etc. for export to other states. Besides, there are individuals and FPOs who are processing fruits and vegetables to manufacture pickles, honey, sherbet, murraba, fruit pulp, etc. There are a couple of units cultivating mushroom. We spoke with number of micro enterprises, FPOs etc. to understand as to how they would make use of the scheme.

**Virsa Agro Foods & Pickles**, a proprietorship firm owned by Ms. Madhu Mohan of Pathankot. They deal in manufacture and supply of pickles and fruit jams. They are known for their chicken and chuk (red) pickles. They are the only manufacturer of chuk pickle in the district. Ms. Madhu works from home with five employees. They have FSSAI registration. They procure raw material from local mandis and send products to Maharashtra, Delhi, and Bangalore markets.

**Shiv Shakti**, a Self Help Group based out of village Hara, Dharkalan. Ms. Sudarshana Devi started this group in 2002. The group is registered with DIC, Batala and is FSSAI approved. They are into mango processing to make pickle, murabba, chutney, fruits jam, mango powder and mango leather. They also process amla to make candies. They are also processing turmeric into powder. Mr. Sudarshana grows organic rice on her own land and processes them and makes 'phulwadian'. She also makes 'wadian' from urad dal and ash guard.

The products are sold under the brand name 'Shiv Shakti'. The group is very excited to make use of the new 'PM FME' Scheme to modernize their production facilities.

**Mr. Yashpal of Samanch Mushroom Farm, village Akhwana** produces 200 to 250 Quintals of mushroom per season. He is in this business for the past over five years. It is an unregistered unit. The requirement of compost etc. is met from Kangra, H.P. (Ravi Agro Mushroom Compost, Village Bhol, Kangra). The packaged mushroom is marketed in Jammu & Pathankot. Mr. Yashpal is interested to make use of the credit linked subsidy under 'PM FME' to expand his operations by adding his own compost manufacturing unit.

**Mr. Onkar, village Lahri Brahmana,** runs a mushroom and compost production unit and producing over 500 Quintal of mushroom per season (August to June). He has built six rooms for the purpose, out of which two have temperature control system. Installation of similar control system in remaining four rooms is pending. The unit is in operation for the last three years and is registered with Horticulture department. They purchase raw material (spawns) from Haryana State. The packaged mushroom is marketed in Jammu and Pathankot. Mr. Onkar wants to raise funds under the new 'PM FME' Scheme for the installation of ACs in four rooms. He also proposes to set up a canning facility.

**Glacier Products India Pvt. Ltd.,** Defense Road, Pathankot are leading manufacturer and supplier of tomato sauce, fruit jam, apple juice, litchi juice, squash, etc. They have orchards of mango, litchi and orange. The products are sold in local markets and defence canteens.

**Pathankot Fruits and Vegetable Co-operative Society,** is a registered society of over 120 litchi and mango growers of district Pathankot. Mr. Rajiv Mahajan, President of the society informed that over the years they have brought 7,500 acres and 5,000 acres under litchi and mango trees. The litchi is harvested in the month of June and is sold in distant domestic markets viz. Delhi, Jaipur, Chennai, Bangalore etc. They even export litchi and mango to Dubai. For exports, firstly litchi is discoloured, waxed, graded and then packed in cartons. The productivity is about 13 MTs/acre (assuming 3qtl/tree and 45 trees /acre). Peach/plum is also grown as intercrop with litchi. They have installed small chillers of 500 Kg capacity each where Litchi could be stored (at 5 degree Celsius) safely for 10/12 days. As they do not have waxing and grading line, they send litchi (discoloured) to Ludhiana for the purpose and from where it is sent to Amritsar airport for dispatch to Dubai. Pathankot litchi arrives in markets in June by the time supply of litchi from Bihar is over. This stretches the availability period of the fruit in the markets.

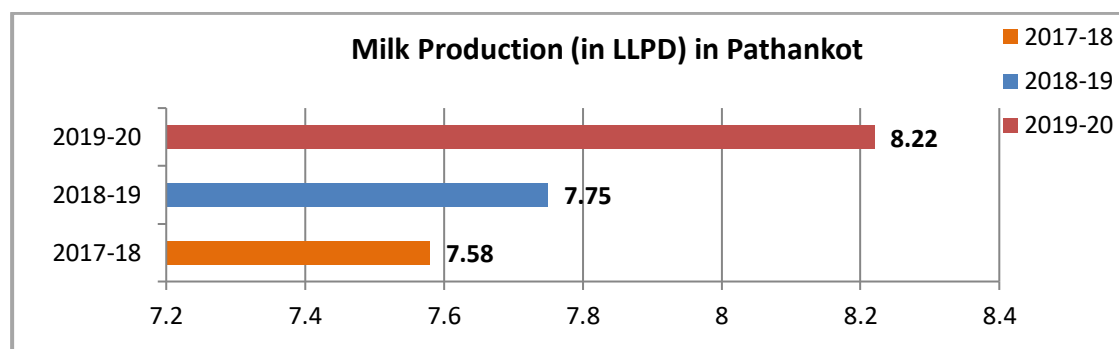
There is dire need to set up a model common state-of-the-art waxing and grading line in Pathankot to facilitate export of litchi to Dubai and other places in a shortest possible time thereby allowing growers to get maximum return for their produce.

The society grows over 100 varieties of Mangoes (including Chossa, Dussehri, Malyika, Langra, etc.). Malyika variety of mango is exported to Dubai. Fruit cocktail of pineapple, cherry, peach & mango packed in 800 gms cans is in big demand from ice-cream manufactures/hotels etc. Litchi is separately canned.

**So, litchi and mango have good scope.**

### 3.6.5 Processed dairy and milk

The district is consistently improving milk production year after year. In comparison to other districts, it is at the bottom with 8.22 lakh liter/day during 2019-20.



*\*Source: Directorate of Diary Development, Punjab*

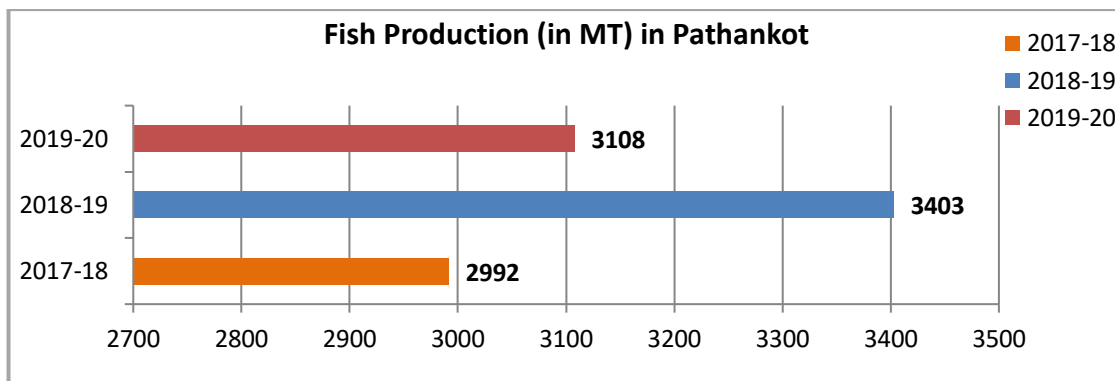
There are many dairy farms processing milk to manufacture paneer, curd, lassi, khoya, cream etc. However, there is limited scope for new micro enterprises, who do not own dairy farms, to enter in this line.

### 3.6.6 Poultry, Meat and Fish processing

The district has a fairly large number of poultry farms both commercial broiler and layer. However, there is no modern slaughter house in the district. There are individuals/shops who are engaged in manual culling and selling of daily fresh broiler/chicken/meat.

**Approv Foods** is the only plant engaged in culling/dressing and supply of frozen chicken. Mr. Vinod Salaria of this proprietorship firm informed that his is a semi automatic plant backed with a 2 MT blast freezer and a frozen store. He is supplying frozen chicken to Leh. He informed that there is a scope for rearing and slaughtering desi chicken (like Karaknath in M.P. state). This is a new concept for this part of the country. Karaknath has more nutritive value as compared to commercial farm chicken.

He is interested to make use of the opportunity to set up facility for slaughtering Karaknath or desi varieties of chicken.



*\*Source: Fisheries Department, Punjab*

The production of fish has been erratic during the past three years with 3,108 MT during 2019-20. The farmers maintaining fish farms are mostly interested in selling raw fish as they get good return due to increasing demand in the district as well as neighbouring J&K. About 300 acre is under fish cultivation in district Pathankot. As the district has stony soil texture, so farmers/individuals cultivate fish in pits. At this stage, the scope for fish processing is very limited.

### 3.6.7 Packaged food processing (Bakery, Snacks & Savories)

Pathankot city has about 40 bakeries. We spoke to one Mr. Ramesh Sharma of **Himalaya Bakers**, Pathankot, who informed that they bake and retail all range of products viz. pastries, cakes, biscuits, bread, cookies, burger, buns etc. The district Pathankot may have about 100 bakeries in all. Mr. Ramesh Sharma is interested to expand his operations by availing the benefit of the 'PM FME' Scheme. So, the existing bakeries are sufficient to meet the requirement/demand of residents of the district. However, they will be encouraged to up-grade their facilities under the scheme.

### 3.6.8 Sugarcane processing

Bambial&NarotJaimal Singh area of the district grow sugarcane. The cane goes for crushing in the co-operative sugar mill at Paniar and Chadda Sugar Mill at Kiri Afghana, district Gurdaspur. Some farmers/micro enterprises also make jaggery from sugarcane juice, but they are very few in numbers.

**3.6.9 The analysis of the secondary data and interaction held with unorganized microenterprises/FPOs/SHGs/Experts dealing in the six major food categories is summarized in the following table:**

Major Food Category	Produce shortlisted based on secondary data research	Products/produce shortlisted based on interactions held with micro enterprises/ FPOs/ SHGs& experts	Products/pr oduce finalized	Status of finalized products/ produce for ODOP (High/ medium/ low)
<b>Dairy Product processing</b>	Milk	Milk & allied products	Milk & allied products	Medium
<b>Fruits &amp; vegetables processing</b>	Litchi Mango	Litchi Mango Pickle & murraba	<b>Litchi</b> Mango Pickle & murraba	<b>High</b> Medium Medium
<b>Grains and oilseed processing</b>	Sugarcane Pulses	Pulses Atta Jaggery	Pulses Atta Jaggery	Medium Medium Medium
<b>Poultry Meat &amp; Fish Processing</b>	Broiler/chicken , fish	Poultry, Meat and Fish processing	<b>Poultry, Meat and Fish</b> processing	<b>High</b>
<b>Packaged food</b>	-	Bakery products	Bakery products	Medium

Litchi and daily fresh chicken/meat/fish are the promising products of the district. Litchi being more perishable, **PAIC, thus, recommends ‘Litchi’ as ‘One Product’ for district Pathankot. The candidate units may include litchi pulp/juice, candy, etc.**



### 3.7 SRI MUKTSAR SAHIB

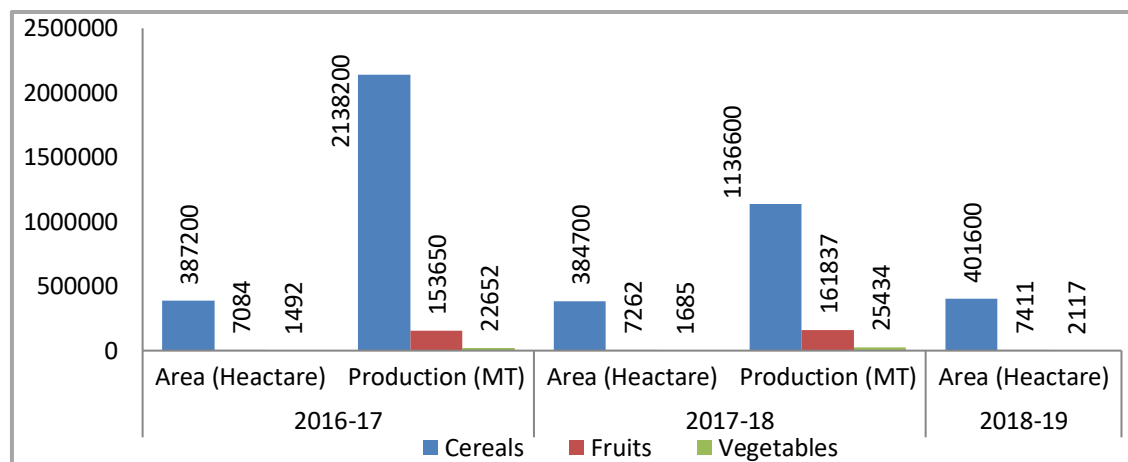


**3.7.1** The district Sri Muktsar Sahib touches Bathinda in the South, district Faridkot in East and district Ferozepur in North-West. It has four blocks namely Muktsar, Malout, Gidderbaha and Lambi. According to the 2011 Census, the population of district was 9,01,000 persons, out of which 72% resides in rural area and the balanced in urban area. The district has 233 inhabited villages. **The Gross District Domestic Product (GDDP) and Per Capita Income (PCI) at current prices (2015-16) was Rs. 1,19,983/- and Rs. 1,10,254/- much below than the state average of Rs.1,32,467/- and Rs.1,18,858/- respectively.**

The geographical area of the district is 2,64,000 Hectare, of this the **net sown area is 85% (2,24,000 Hectare)**. The area sown more than once is 2,29,000 Hectare, thus recording a cropping **intensity of 202%, the third highest after districts Kapurthala and Barnala**. The soil in the area is sandy loam with sand dunes at some places. The underground water is brackish which turns the upper layer of the soil into saline and alkali. 123 villages are not fit for agriculture due to salinity of the soil. Irrigation is mainly through canal water. The main crops grown during kharif are cotton and paddy and wheat in Rabi. There are orchard plantation of kinnow and guava. There are four regulated markets and 27 sub-yards for purchase of agricultural produce in the district. Cattle is the main animal wealth of the district and there are 2,88,964 animals. There are

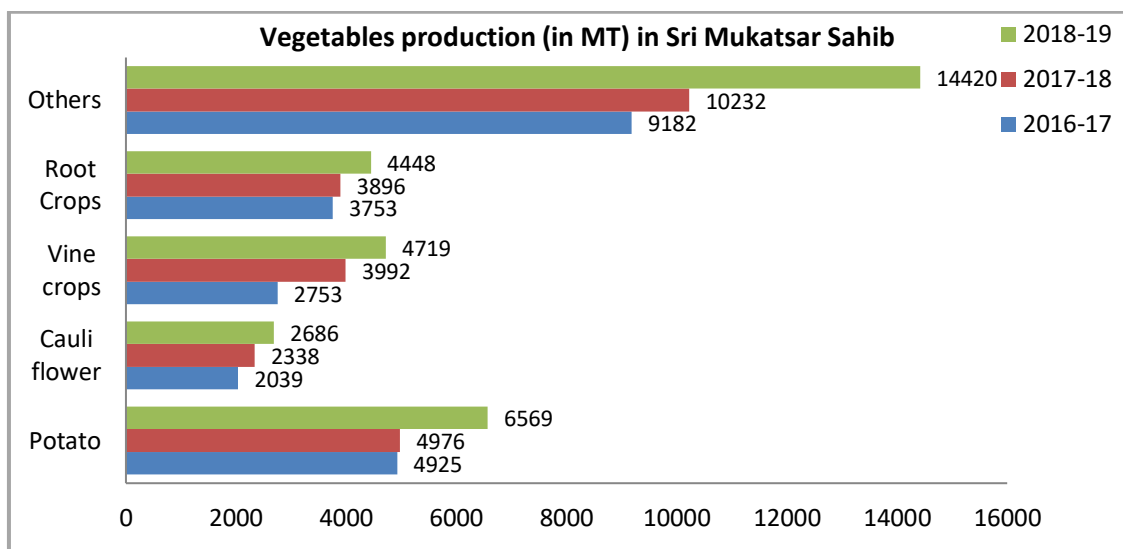
43 veterinary hospitals and 64 veterinary dispensaries and one polyclinic with diagnostic facilities at the block level in the district. The district has milk chilling centres at village Doda, Aulakh and Kingra.

### 3.7.2 The trend in area and production of foodgrains and fruits & vegetables in the district is discussed hereunder.



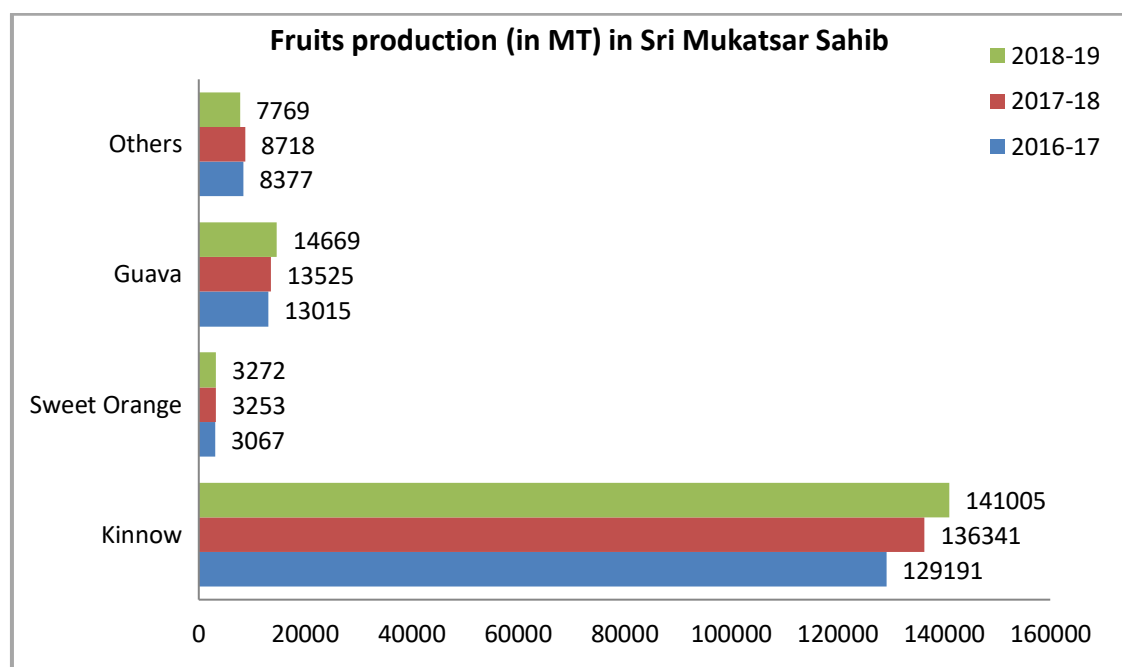
\*Source: Department of Agriculture/Horticulture, Punjab

Wheat and paddy are the main crops of the district. It has been observed that the area under these crops has been more or less consistent in last three years with 2,14,000 Hectare (11,92,000 MT) and 1,79,000 Hectare (10,87,000 MT) respectively during 2018-19. Kharif pulses (moong), kharif oilseed (guara seed), barley and rabi oilseed (sarson) are also grown in small quantities at 100 Hectare (100 MT), 1,200 Hectare (1,000 MT), 300 Hectare (1,100 MT) and 700 Hectare (900 MT). **As the area and production of above crops remain constant all along three years, there is, therefore, no scope to study them further for the present assignment.**



*\*Source: Department of Horticulture, Punjab*

The district produces a wide range of vegetables like vine crops, root crops, potato, brinjal, cauliflower, peas, cabbage, okra, garlic, etc. **Out of all vegetables, maximum area is under vine crops and that has recorded a spectacular cumulative growth of 71% in last three years with 385 Hectare (4,719 MT) during 2018-19.** The second highest in area is root crops with cumulative growth of 18% in last three years at 316 Hectare (4,448 MT) during 2018-19. **It is observed that though there is good growth in the area under these crops, but the production is insignificant as compared to production of same crops in other districts. The area under remaining vegetables was also minimal. So, none of the vegetables has any scope for further study at this stage.**



*\*Source: Department of Horticulture, Punjab*

The district produces a wide range of fruits like kinnow, guava, sweet orange, peach, ber, etc. **It is the second highest producer of kinnow and peach after district Fazilka and SBS Nagar respectively in the state.**Area under kinnow and peach recorded a cumulative growth of 4% and 5% respectively in past three years with 5,886 Hectare (1,41,005 MT) and 216 Hectare (3,759 MT) during 2018-19. It is observed that the growth in area under these crops is not significant. **The district tops in the area and production of sweet orange amongst all districts. However, the area remained nearly constant with 399 Hectare (3,272 MT) recorded during 2018-19.** The area under remaining fruits say guava etc. is marginal as compared to the area under same fruits in other districts. **So, the best choice for further study is sweet orange.**

### 3.7.3 Grains and oilseed processing

Being a leading cotton producing district, there are cotton ginning & pressing and yarn manufacturing mills. The bye-product cotton seed is further processed by small oil expelling units and medium sized solvent extraction units to manufacture crude edible oil. There are about 20 oil expelling units in the district. There is one medium sized integrated unit near Muktsar engaged in paddy shelling, solvent extraction of oil (from cotton seed & rice bran) and refining of edible oil. Markfed, Punjab had also set up one cotton seed solvent extraction plant near Malout, but the same was closed down due to

viability issues. There are about five to six papad manufacturing cottage units in the district. We spoke with the Krishi Vigyan Kender, Muktsar Sahib and found that they provide training to farmers for undertaking the activity of primary processing of pulses, oilseeds etc.

#### 3.7.4 Fruits and Vegetables processing

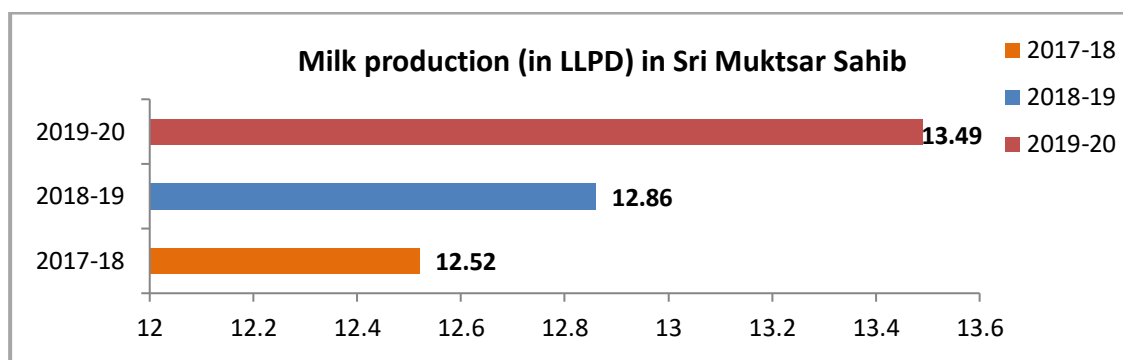
The district does not produce any vegetable in abundance. The production is sufficient to meet the requirement of the district. Kinnow is the main fruit followed by Guava. There is no medium or big sized fruit and vegetable processing plant in the district. There are honey bee keepers processing over 500 MT of raw honey. We spoke with some of micro enterprises and FPOs etc. of the district.

**Saanjh Farmer Producer Organization, a FPO** formed by Mr. Jagmeet Singh, Village Bhaliana engaged in the manufacture of pickle, murraba, spices and supply of fresh milk. Due to financial problem, the FPO is not operational for the last 2 years. However, he is manufacturing pickles (amla, tukke, haldi, dele, mango, chillies, lemon, alovera, ginger and mushroom). He sells the same under the brand 'Proud Farmer'. He sells in Kissan melas. He has got award from KVK. He is interested to take advantage of the scheme.

**Baba Dhiyan Dass Ji**, an unregistered FPO run by Mr. Baljinder Singh of Village Sahib Chand. The FPO has 20 members and all are engaged in production of honey. Mr. Baljinder is doing this business for the past 18 years. The FPO has about 5,000 bee boxes which they keep shifting between Punjab, Rajasthan and Haryana to collect honey. Their total collection is about 160 MTs. They process raw honey manually and get the same packed from a unit in village Tungvalli district Bathinda. They sell honey under the brand 'Kissan Honey'. According to Mr. Baljinder Singh there are about 150 beekeeper in Muktsar district. The FPO proposes to buy equipment for honey processing under the credit linked subsidy scheme of 'PM FME'.

**Mr. Malkit Singh**, a beekeeper from Mukatsar district, has 160 honey boxes and producing honey for the last 10 years. **Mr. Dharmbir Singh, Village Dodah** has over 200 honey boxes and producing mustard honey and tali honey. They sell honey in local markets.

### 3.7.5 Dairy product processing



*\*Source: Directorate of Dairy Development, Punjab*

**The district produces about 13.5 lakh litre per day of milk and the same is increasing year after year.** There is no good sized milk processing plant in the district. However, Verka, Nestle, Chanakya Dairy and others have installed their ‘Bulk Milk Chillers’ for collection of milk for processing in their respective plants located at Mohali, Faridkot, Moga, Mandi Gobindgarh etc.

As per Director, Dairy Development, there is a big scope for setting up a small to medium sized milk processing plant (say 1,25,000litres/day) near Muktsar. At farmer level, he suggested that there is a need to promote supply of clean milk directly to consumers by providing credit linked subsidy on purchase of 500 litre capacity Bulk Milk Chiller, a vehicle mounted with double jacket insulated tank having automatic milk dispensing system and a DG set. This set up is expected to cost about Rs. 20 lacs. This has been successfully tried in Mohali, Ludhiana, Jalandhar etc.

With this arrangement farmers could get better return for their produce as compared to the amount they get by supplying milk to milk plants. Farmers also keep a special variety of goat (beetle) for extracting milk.

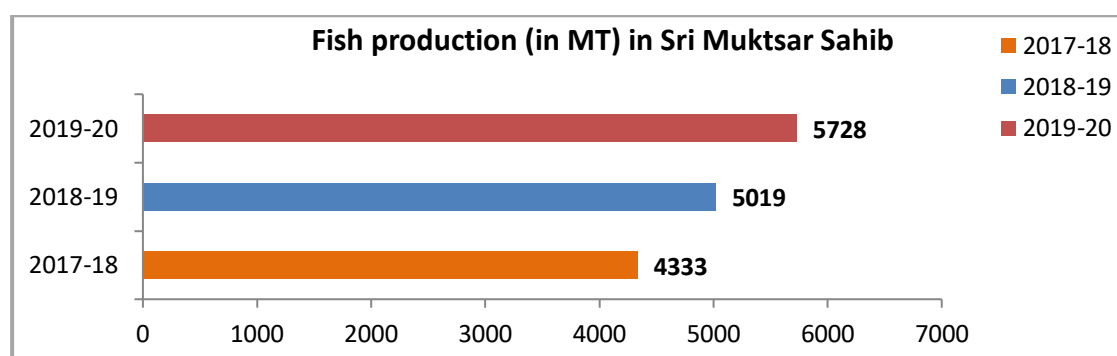
**Mr. Balwinder Singh**, District President, Progressive Dairy Farmers Association, has 50 HF breed cows producing over 1,000 litre per day of milk in winter and 500 litres in summer. He is pouring milk in a chiller maintained by Verka. They have 60 members in district Muktsar and they are interested to set up a small milk processing plant to manufacture pasteurized milk, curd, paneer, curd, etc. for local supply. Such a unit is likely to cost about Rs. 50 to 60 lacs.

**Mr. Gurpreet Singh, Village Middukhera, Mukatsar,** owns 60 HF cows and gets around 300 litre of milk daily. At present he pours milk in the Verka chilling plant.

**There is a potential to encourage milk producers to set up need based facilities to fetch better return for their produce.**

### 3.7.6 Poultry, Meat and Fish processing

There are no modern meat and poultry processing unit in the district. However, during interaction with farmers and micro enterprises, it was found that there are more than 400 small time meat and poultry products sellers. They manually cull the bird/animal and sell daily fresh chicken/meat. They do not follow required hygiene standards. They buy birds from contractors as per their daily requirement



*\*Source: Fisheries Department, Punjab*

There has been consistent increase in the production of fish in the district. The cumulative growth in production in past three years was 32% with 5,728 MT during 2019-20. **Fish Farming** is very prevalent in Muktsar district. Over the years a good number of farmers have shifted to fish farming for both Indian Major Carp (IMC) and Shrimp (Jhinga). At present, area under IMC is between 400 to 500 acres whereas 100 to 150 acres under Shrimp. IMC (Mrigal, Rohu, Katla etc. varieties of fish) grow in fresh water (canal) and Shrimp in saline water.

The IMC varieties are traded in Bathinda and Ludhiana fish markets. Shrimp is taken by traders of Andhra Pradesh, West Bengal etc. for further processing in their respective plants in these states and then exported to China, USA, Japan etc. Chinese importers prefer Shrimp weighing 3 to 12 gm per piece whereas USA and Japanese importer likes slightly heavier say 18 to 50 gm. It is a 120 days crop. It starts in March and by November a progressive farmer could get two of 2.5 MT/acre each. The total production

of Shrimp in the district is about 500 MT whereas the IMC production is over 1,000 MT.

A detailed joint meeting was held with six fish farmers. Mr. Raj Kumar of **Sharma Feed Supplements**, who is into this business for the past over 7 years, informed that there is a potential to add value to their produce by setting up a primary processing plant comprising of Shrimp de-heading and peeling unit, a grading line, a blast freezer and a frozen store. With this kind of facility, they can even tap importers and start exporting Shrimp directly from Punjab. He informed that Shrimp is also grown in Fazilka, Bathinda, Mansa and Ferozepur districts. It would be appropriate if a common facility as a pilot project for all the growers of Shrimp in these districts is set up under the 'PM FME' Scheme. They suggested that PPC site of Ladhawal Mega Food Park at Village Alamgarh would be best place for this common facility. He further informed that a new variety of IMC namely 'Pengas' has a very promising future as its yield is 6 to 10 MT/acre. 'Pengas' requires fresh water to grow.

### **3.7.7 Packaged food processing (Bakery, Snacks & Savories)**

The district has about 300 bakeries set up individuals/micro enterprises. 90% of them use brick kilns for manufacturing products like cookies, buns, biscuits pastries etc. There are many other micro enterprises who manufacture namkeens, methis, etc. Such units need to be up-graded before we encourage setting up of new bakeries by providing subsidy under the scheme.



**3.7.8 The analysis of the secondary data and interaction held with unorganized microenterprises/FPOs/SHGs/Experts dealing in the five major food categories is summarized in the following table:**

Major Food Category	Produce shortlisted based on secondary data research	Products/produce shortlisted based on interactions held with micro enterprises/ FPOs/ SHGs& experts	Products/ produce finalized	Status of finalized products/ produce from ODOP point of view (High/ medium/ low)
Grains& oilseed processing	Pulses	Pulses	Pulses	Medium
Fruits & vegetable processing	Sweet orange	Sweet orange Honey Pickle & murabba	Sweet orange Pickle & murabba Honey	Medium Medium
Dairy Product processing	Milk	Milk & milk products	<b>Milk &amp; milk products</b>	<b>High</b>
Poultry Meat & Fish Processing	Fish Broiler Meat	Poultry, Meat and Fish processing Processed meat products	<b>Poultry, Meat and Fish processing</b> Processed meat products	<b>High</b>  Medium
Packaged food	-	Bakery products & Savouries	Bakery products & Savouries	Medium

It may be noticed that both milk & milk products and fish/meat/poultry products have high potential to be declared as future products for district Sri Muktsar Sahib. As primary processing of fish requires a minimum investment of Rs. 75 lacs, no single farmer would be able to raise that much amount even after adjusting the benefit of credit linked subsidy of Rs. 10 lacs (max.), so it has been proposed that a common processing facility for fish farmers of the district and the adjoining districts cultivating shrimp may be considered separately. **Thus, PAIC recommends ‘Milk and milk products’ as ‘One Product’ for district Sri Muktsar Sahib.**

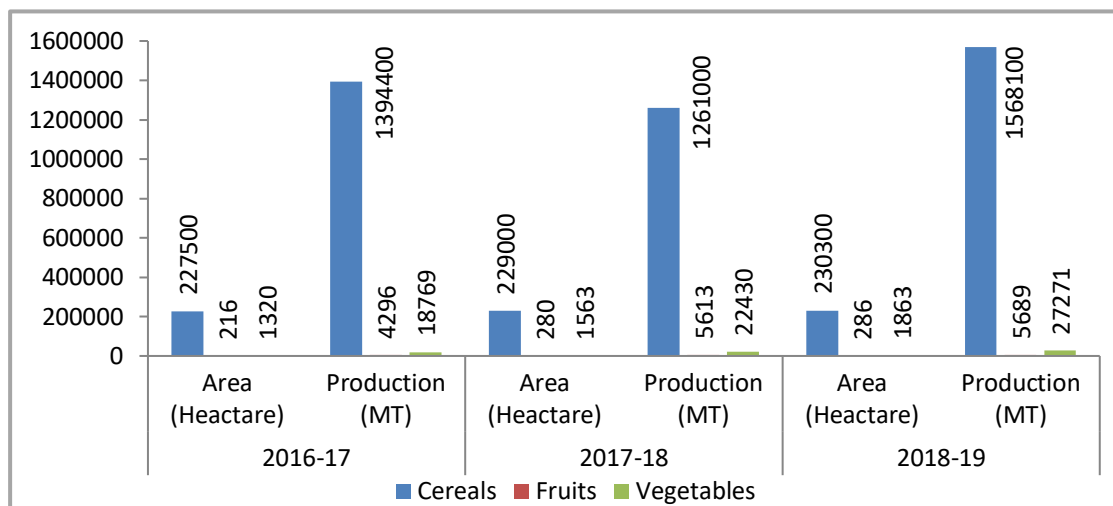
## 3.8 BARNALA



**3.8.1** District Barnala was carved out of Sangrur district on 19.11.2006. It is surrounded by districts of Ludhiana and Moga in the North, Mansa in the South, Sangrur in the East, Bathinda in the West. **According to the 2011 Census, the population of district was 5,95,000 persons, the lowest amongst of all districts of the state.** Of this, 68 % resides in rural area and the balanced in urban area. The district has 124 inhabited villages. **The Gross District Domestic Product (GDDP) and Per Capita Income (PCI) at current prices (2015-16) was Rs. 1,32,488/- and Rs. 1,20,254/-, marginally more than the state average of Rs.1,32,467/- and Rs.1,18,858/-respectively.**

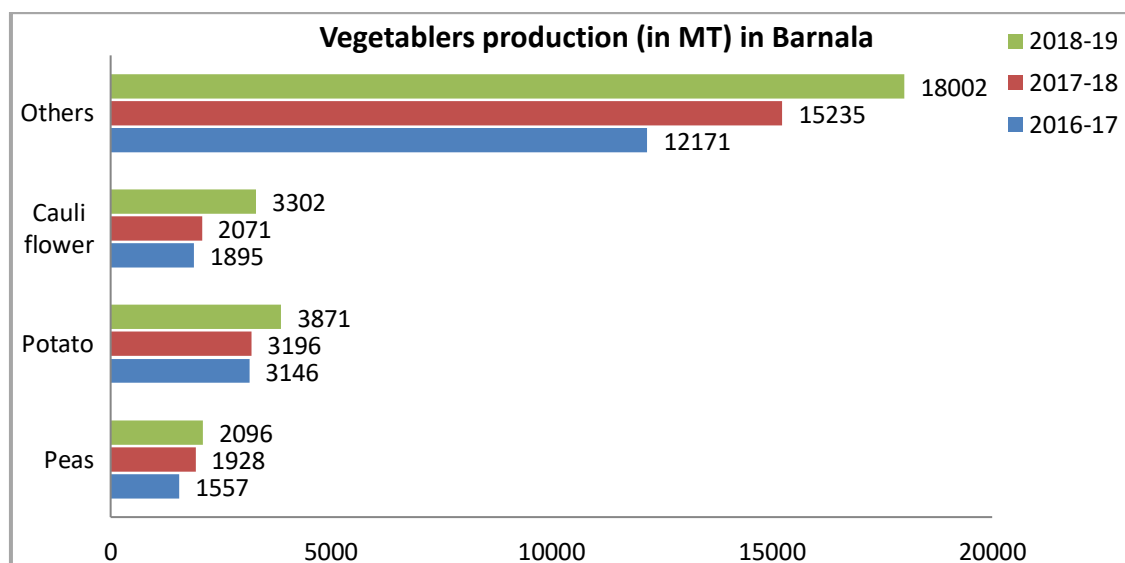
The geographical area of the district is 1,41,000 Hectare, of this the net sown area is 88% (1,24,000 Hectare). The area sown more than once is 1,30,000 Hectare, thus recording a **cropping intensity of 204%, the second highest after district Kapurthala.** The topography of the district is even. It is mostly a plain of alluvial type. It also has loam to heavy loam and sand to sandy loam soils in certain parts of the district. Soil is rich in nutrients and suitable for crops like wheat, paddy, fruits and vegetables. The district has four fruits and vegetable mandis run by the state agency Punjab Mandi Board. These are located at Barnala, Dhanaula, Mehal Kalan and Tapa.

### 3.8.2 The trend in area and production of foodgrains including sugarcane and fruits & vegetables in the district is discussed hereunder.



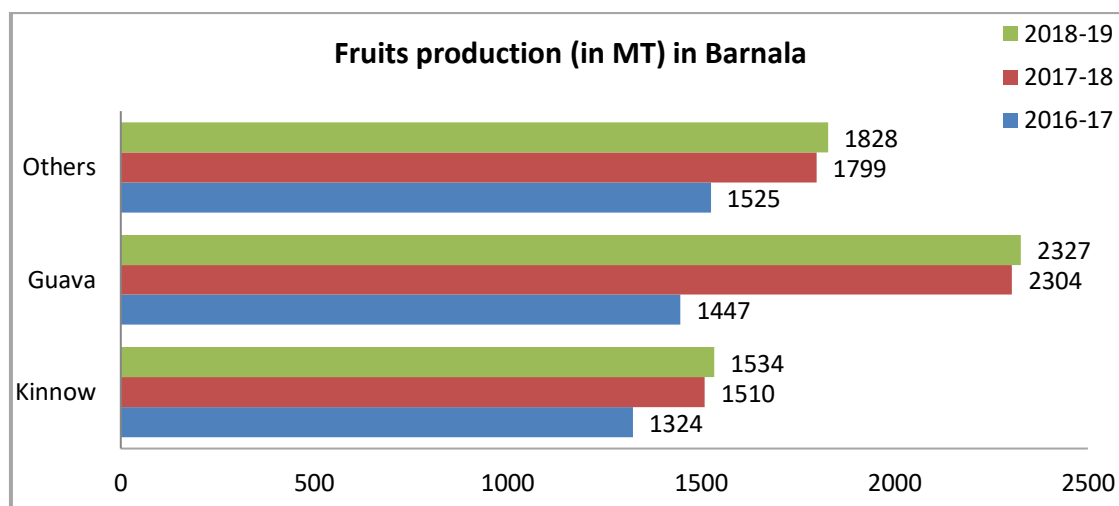
\*Source: Department of Agriculture/Horticulture, Punjab

Wheat and paddy are the main Rabi and kharif crops of the district. It has been observed that the area under these crops remained more or less consistent in last three years with 1,15,000 Hectare (6,41,000 MT) and 1,14,000 Hectare (8,46,000 MT) respectively during 2018-19. The district also grew sugarcane on 1,000 Hectare (80,000 MT) during 2018-19. Kharif pulses (moong & arhar), barley, rabi oilseed (sarson) and gram were grown in small quantities at 200 Hectare (200 MT), 300 Hectare (800 MT), 600 Hectare (800 MT) and 100 Hectare (100 MT) respectively during 2018-19. **There is no significant growth in area & production of above crops during the past three years, there is, therefore, no scope to study them further for the present assignment.**



\*Source: Department of Horticulture, Punjab

The district produces a wide range of vegetables like peas, vine crops, root crops, potato, brinjal, cauliflower, tomato, chillies, cabbage, okra, garlic, etc. **Out of all vegetables, maximum area is under peas. Peas recorded a cumulative growth of 34% in last three years with 215 Hectare (2,096 MT) during 2018-19.** It has observed that as the area & quantity of various vegetables, including peas produced in the district are marginal as compared to area & production of same crops in other districts. **Therefore, no produce is worth pursuing further for the present assignment.**



*\*Source: Department of Horticulture, Punjab*

The district produces a limited variety of fruits like kinnow, guava and ber and that too in small quantities. Guava occupies the maximum area at 106 Hectare (2,327 MT) during 2018-19. **So, there is no fruit crop from this district for further study for this assignment.**

### 3.8.3 Grains and oilseed processing

There are about 8 mini **flour mills** in the district manufacturing wheat flour, choker and multigrain atta and selling them as non-branded products. Besides, there are +500 atta chakkis engaged in job work. There is no roller flour mill in the district. The owners of mini flour mills could consider upgrading their units under the 'PM FME' Scheme.

There are 365 small **rice mills** processing paddy for government agencies. Rice milling is a seasonal industry (October to March). Mr. Anil Bansal, President of their association informed that a couple of millers have been thinking to diversify and set up units based on rice to manufacture poha, rice meal etc. They would be interested to take the benefit of the scheme.

The district has three medium sized solvent extraction units (Kaniya Solvent, Deep Solvent & Jai Shree Traders). These units are processing cotton seed and mustard seed. Besides, there are about six small and micro enterprises processing cotton seed & mustard seed using expellers to manufacture crude edible oil and mustard oil. Crude oil is sent to edible oil refineries. All these units are meeting their requirement of oilseeds from Rajasthan, Telengana, West Bengal and Punjab (October to December). Discussions were held with some enterprises to understand their business and interest to take advantage of the 'PM FME' Scheme.

**Shri Jawala Flour Mill, DhanulaHarigarh Road**, a sole proprietorship firm of Mr. Rashpal Garg. He deals in non-branded wheat/multi grain flour, choker and 'makki da atta'. He is interested to upgrade his milling unit by adding packaging machine and grain cleaning unit.

**Jai Shree Traders, DhanulaRajgarh Road**, a proprietorship firm of Mr. Bonny Bansal. He is setting up a new oil expelling unit to make crude edible oil (cotton seed) and mustard oil (sarson). To start with, he is putting up three expellers (6/44) and eventually he would expand to eight expellers. Each expeller costs Rs. 5 lacs. He shall source oilseeds from Rajasthan (sarsoan), Coimbatore (cotton seed) and Punjab (cotton seed). He is interested to apply for credit linked subsidy under the 'PM FME' Scheme.

#### 3.8.4 Fruits and Vegetables processing

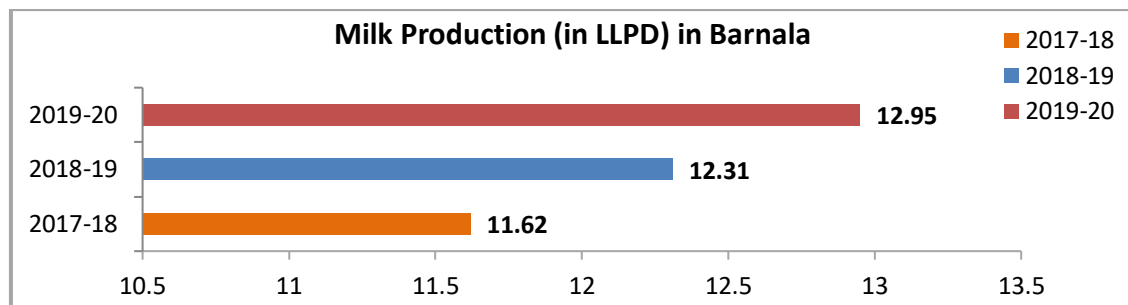
There is no fruits and vegetable processing unit in the organized sector in the district. However, many Self Help Groups and registered Co-operatives are engaged in the processing & marketing of 'haldi', dalia (Wheat/Jawar/Bajra), honey etc. The members of these groups are farmers & they are also growing certified organic vegetables.

**KhudratiKissan Hut, Lucky Colony, Barnalabelongs** to Mr. Amrit who is a farmer. He gets his produce processed from someone and then sells the products (Haldi, Dalia, Honey) from his hut. He also produces and sells organic vegetables. He is interested to be set up his own processing unit for haldi.

#### 3.8.5 Dairy product processing

The district produces about 13 lakh litre/day of milk. There is one milk plant in the organized sector by Aneja Foods Pvt. Ltd., Barnala. The plant has a capacity to process

4 lakh litre/day of milk to manufacture Desi Ghee, Butter, Curd, Cheese, Skimmed milk powder and Dairy cream.



*\*Source: Directorate of Dairy Development, Punjab*

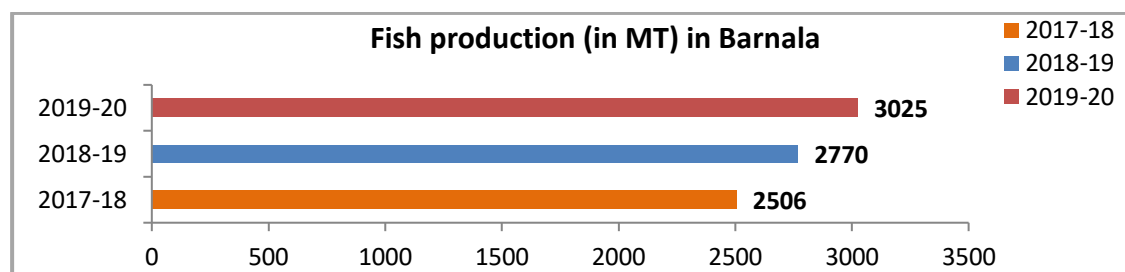
Then, there are two milk chilling centers of 10,000 litre capacity each installed near Tappa by a contractor (A category) who buys milk from B category contractors. The B category contractors own refrigerated vehicles and they in turn purchase and collect milk from farmers. The A category contractor sells milk to milk processors (having capacity less than 10,000 litre). The big milk plants buy milk directly from farmers by installing Bulk Milk Chillers (generally 1,000 litre) at village level. The experts say that to ensure remunerative return to farmers and to maintain quality of milk, the middle men (contractors) involved in procurement need to be bypassed. The farmers should be encouraged to go in for direct marketing of raw and chilled milk by subsidizing cost of Bulk Milk Chiller ( 500 litre), a vehicle mounted with double jacketed tank & milk dispensing machine, milking machine etc. Discussions were also held with cottage level milk processors.

**Sadar Dairy**, a firm owned by Mr. Amandeep Singh of Barnala. His unit is located on KC Road in Barnala. They make paneer, desi ghee, curd, cream etc. Their daily requirement of milk is 750 litres. They buy milk from farmers by paying extra amount on the reserve price fixed by Verka. He is interested to expand his operations by availing the benefits of ‘PM FME’ Scheme.

**Bikaner MisthanBhandhar, Bahadaur, Barnala**, is a unit of Mr. Sharavan Singh. He is into processing of milk for the past over 7 years. He purchases milk from local farmers and processes it to manufacture paneer, curd, khoya & sweet meat. His machinery has gone old and he wants to modernize the same by availing credit linked subsidy under the ‘PM FME’ scheme.

### 3.8.6 Poultry, Meat and Fish processing

There is consistent increase in the production of fish in last three years with 3,025 MT during 2019-20.



*\*Source: Fisheries Department, Punjab*

There are +50 commercial layer farms (about 50 lac birds) and broiler farms (about 20 lac birds) in the district. The eggs are sent mainly to J&K. There is no modern broiler slaughter and dressing plant in the district. There are a large number of meat shops in the district where live bird is cut manually, cleaned and sold to the consumer. Discussion held with entrepreneurs in the line is reproduced here under.

**Mr. Vijay Garg of Barnala** owns a commercial layer farm of 2.5 lac birds. He informed that none of the commercial layer farms in the district has cold storage facility. By keeping eggs in a cold store, the shelf life gets increased to about 6 months otherwise the same is max.10 days. Secondly, as the demand for graded and packaged eggs is increasing, there is a need to set up grading and packaging line at the farm gate itself. He has requested that the Government may consider extending the benefit of 'PM SME' Scheme to commercial layer farms for reducing wastage and adding value to eggs.

**Amar Poultry Farm, Tapa, Barnala** is registered firm of one Mr. Joginder Singh. He is in this line since 2012. He wants to modernize and enhance capacity of his poultry feed plant using credit linked subsidy under 'PMFME' Scheme.

There are 4 to 5 meat pickling units in the district.

### 3.8.7 Packaged food processing

There are many individual small and micro enterprises manufacturing ready-to-eat products, including sweet meat. There are about 50 bakery units in the district. We spoke with a couple micro enterprises to understand about their line of business etc.

**Jagdish Sweets, Barnala**, a proprietorship firm owned by Mr. RadheShyam. Mr. Diwanshu, son of Mr. RadheShyam informed that they manufacture a wide range of sweet meat. They are known for their quality in the area. They have a retail outlet in the city. They have a proposal to purchase a couple of machines viz. chocolate coating machine, nut roaster, mixer/grinder to mechanize their production facility of manufacturing Channa Burfi/Laddo, roasted dry fruits, chocolate coated nuts etc. There are very excited to learn about the ‘PM FME’ Scheme.

**Purna Baker**, Barnala is a registered unit of one Mr Vinod Kumar. He is in baking business for the last over 25 years. He purchases raw material from local market and other baking ingredients from Ludhiana and manufactures all types of products like Biscuits, Cakes, Pastries, Patties etc. He proposes to buy new machinery to upgrade the old ones under the credit linked subsidy scheme of ‘PM FME’.

### 3.8.8 The status of unorganized microenterprises in major food categories in district Barnala is summarized below:

Major Food Category	Produce shortlisted based on secondary data research	Products/produce shortlisted based on interactions held with micro enterprises/ FPOs/ SHGs& experts	Products/ produce finalized	Status of finalized products/ produce from ODOP point of view (High/ medium/ low)
Grains& oilseed processing	-	Atta	Atta	Low
Fruits & vegetable processing	-	Haldi Honey Pickle & murabba	Haldi Pickle & murabba Honey	Medium Low Medium
Dairy Product processing	Milk	Milk & milk products	Milk & milk products	Medium
Poultry Meat & Fish Processing	Fish Broiler Meat	Poultry, Meat and Fish processing Processed meat products	<b>Poultry, Meat and Fish processing</b> Processed meat products	<b>High</b>
Packaged food	-	Bakery products & Savouries	Bakery products & Savouries	Medium



The potential to promote meat and meat products is highest in the district. So, **PAIC recommends processing of ‘meat/fish/poultry products’ as ‘One Product’ for district Barnala.** The candidate units may include egg fruity, egg paneer, sorting/grading & packaging line for eggs, meat pickle etc.

## 3.9 FAZILKA

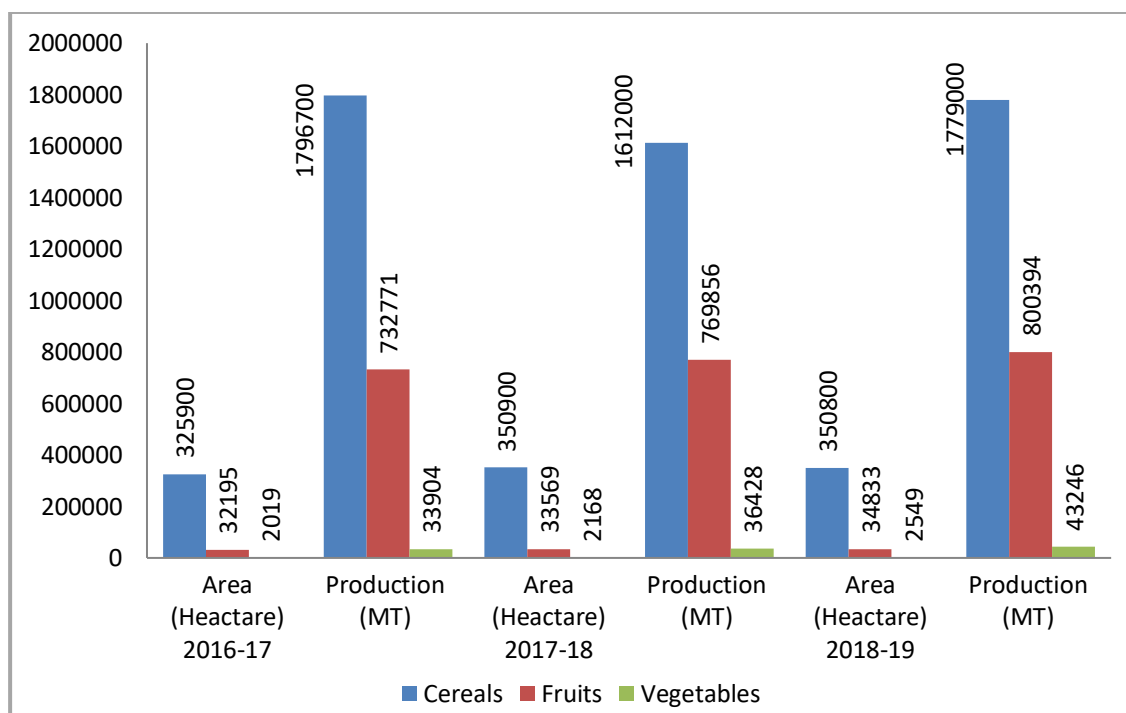


**3.9.1** District Fazilka is located in South-Western Punjab, about 325 km west of Chandigarh. Fazilka is near the India-Pakistan border which is 11 km away. The major stations of the district are Abohar, Fazilka, Jalalabad and Khuian Sarwar. According to the 2011 Census, the population of district was 10,26,000 persons, out of which 74% resides in rural area and the balanced in urban area. The district has 340 inhabited villages. **The Gross District Domestic Product (GDDP) and Per Capita Income (PCI) at current prices (2015-16) was Rs. 1,03,199/- and Rs. 94,291/-, much below than the state average of Rs.1,32,467/- and Rs.1,18,858/- respectively.**

The geographical area of the district is 2,87,000 Hectare, of this the **net sown area is 88% (2,53,000 Hectare)**. The area sown more than once is 2,20,000 Hectare, thus recording a **cropping intensity of 186%**.

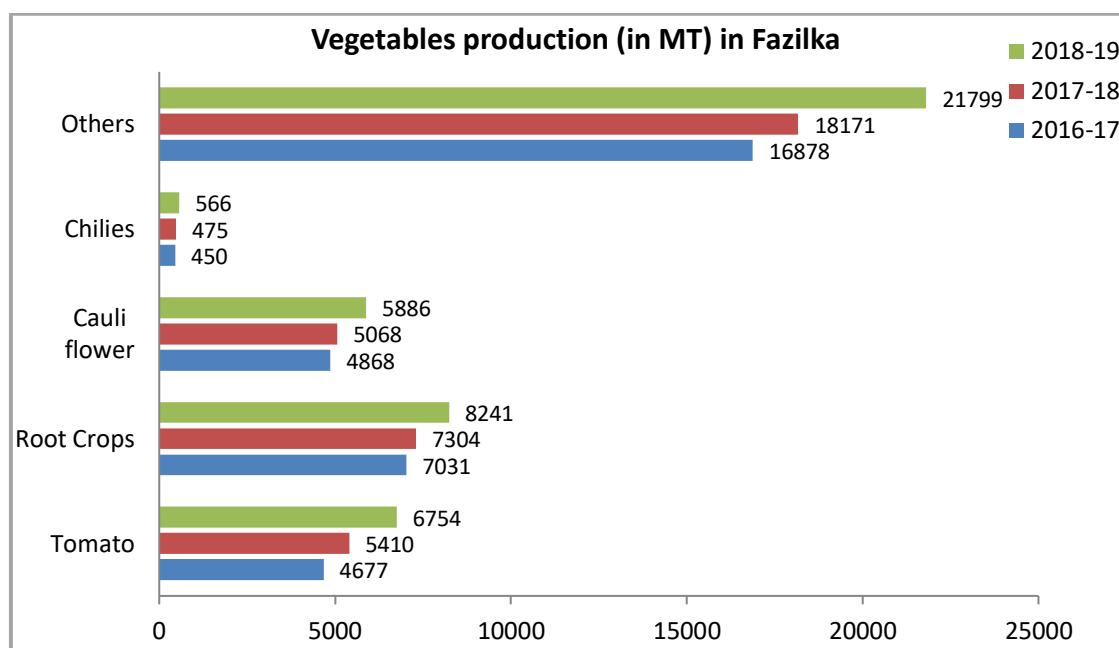
The district has two types of soil namely chestnut brown (alluvial) (69%) and desert soil (31%). Soil pH ranges from 7.5 to 8.8.

### 3.9.2 The trend in area and production of foodgrains including sugarcane, pulses, oilseeds etc. and fruits & vegetable in the district is discussed hereunder.



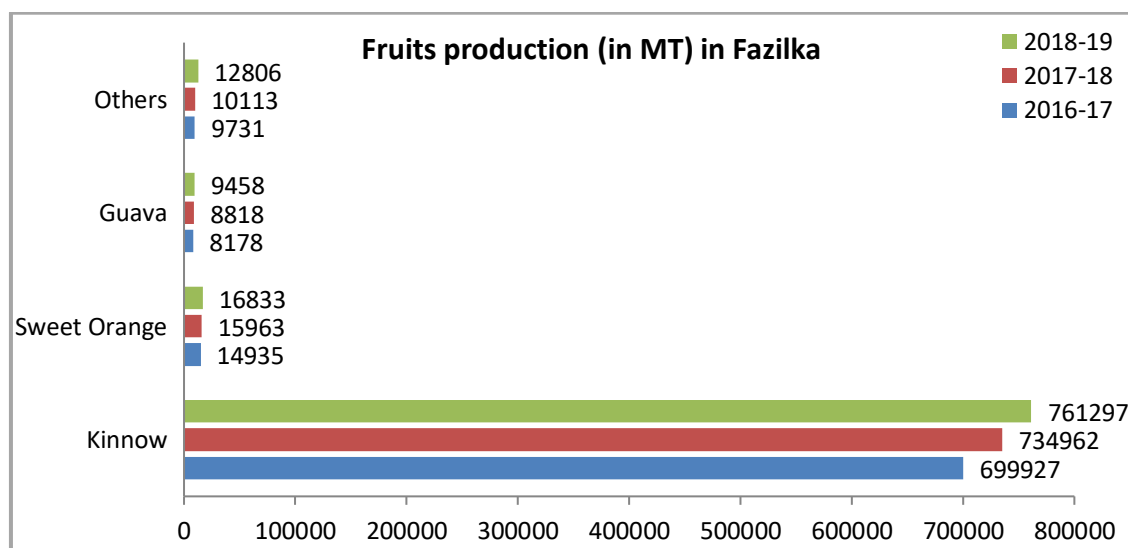
\*Source: Department of Agriculture/Horticulture, Punjab

Wheat & paddy/cotton are the main rabi and kharif crops of the district. It has been observed that the area under wheat and paddy has been more or less consistent in last three years with 2,08,000 Hectare (10,52,000 MT) & 1,14,000 Hectare (5,60,000 MT) respectively during 2018-19. The district also grows sarson, guara seed & sugarcane on sufficiently large areas at 5,100 Hectare (9,400 MT), 11,200 Hectare (8,500 MT) & 2,000 Hectare (80,000 MT) respectively during 2018-19. It also grows maize, bajra, moong, barley & gram on an average 900 Hectare (2,400 MT), 100 Hectare (100 MT), 800 Hectare (700 MT), 1,200 Hectare (4,800 MT) & 1,100 Hectare (1,500 MT) respectively. **Guara seed has shown tremendous growth in last three years with area increasing from 3,800 Hectare(3,000 MT) in 2016-17 to 11,200 Hectare (8,500 MT) in 2018-19, a cumulative growth of 195%. In fact, the district tops in the production of guara seed amongst all district of the state. It is found that guara seed finds ready market for industrial purposes in Rajasthan. So, there is no crop worth considering for further study.**



*\*Source: Department of Horticulture, Punjab*

The district produces a wide range of vegetables like peas, vine crops, root crops, potato, brinjal, cauliflower, tomato, chillies, cabbage, garlic, onion, etc. **Out of all vegetables, maximum area is under root crops (mainly carrot). These crops recorded a cumulative growth of 17% in last three years with 335 Hectare (8,241 MT) during 2018-19.** It is observed that the area and production of all these vegetables, including root crops produced in the district are marginal as compared to area & production of same crops in other districts, so no produce is worth pursuing further for the present assignment.



*\*Source: Department of Horticulture, Punjab*

Fazilka district falls in the irrigated zone of Punjab State. **Major fruit grown is Kinnow, with average productivity of 22.4 MT/hectare, the total production of Kinnow in the district is 7,75,195 MT.** Progressive Farmers of this district are producing Kinnow of high standards which is being exported to different countries. Apart from Kinnow there is a large scope of other cultivars in citrus diversification like sweet orange, lime & lemon, grape fruit etc. Newly released varieties like Daisy, W. Murcot, Early Gold and PAU Kinnow no-1 are getting popular among farmers and they are expanding area under these varieties. Sweet Orange occupies about 1,956 Hectare (16,833 MT). Amongst other fruit crops Guava is also gaining popularity as newly released varieties like Hisar Safeda, Shweta, Punjab Safeda and Punjab Kiran are in demand. Guava has total area 416 Hectare (9,458 MT). District has ample scope for area expansion in fruit crops which can contribute to crop diversification in agriculture sector. **The district tops in the production of kinnow and sweet orange amongst all districts of the state. The district is second highest producer of ber after district Bathinda at 306 Hectare (4,970 MT). So, kinnow, sweet orange and ber are the best options for further study.**

### 3.9.3 Grain and oilseed processing

There are more than 100 mini rice mills (average capacity 2 MT/hr.) doing shelling for government agencies. Besides, there are a couple of large sized rice mills processing basmati varieties of paddy for export. There are more than five solvent extraction plants in the district processing cotton seed, rice bran, mustard seed etc. into edible oil. There are number of oil expellers installed by micro enterprises and they are interested to expand their operations by availing subsidy under the scheme.

### 3.9.4 Fruits & vegetables processing

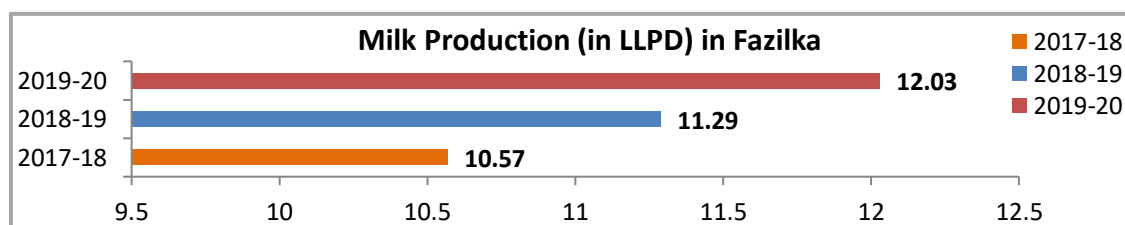
PAIC has set a large sized multi fruits and vegetable processing unit in Abohar. There are number of farmers who have set up their waxing and grading lines for distant marketing and export of kinnow. PAIC organised a video conference with a group of growers-cum-traders of Kinnow of this district on July 6, 2020. It was given to understand that on an average, they export 1,000 MT per day to Bangladesh and an equal quantity to domestic distant markets of Kerala, Tamil Nadu, Karnataka, Gujarat & West Bengal for three months from December to February. Depending on demand of different

markets, kinnow is waxed & graded (36/42/45/54/60/72/84/94) and packed in standard cartons before dispatch. There are over 80 waxing & grading units in the district mainly owned by growers. These units were set up way back in 2005. They are without colour sensing devices as a result extra manpower is deployed for proper and accurate grading of the fruit. This increases the overhead cost and making it unviable to export to European markets. Moreover, they do not have access to the special and quality wax available from Spain. Wax is applied to increase the shelf life of the fruit. Our growers are confident of the quality of the fruit and can easily compete with the Pakistani Kinnow in exporting to EU Nations provided they are given subsidy in replacing their old waxing/grading lines with the latest state-of-the-art lines (with sensors). The quality of Kinnow produced in Pakistan is low as compared to Punjab Kinnow, but they are able to export it to all over the world at competitive rates mainly due to the latest waxing/grading lines backed by cold store facilities installed there. The growers have also requested for providing subsidy on reefer trucks helping them to supply the produce afresh to nearby markets. We spoke with a couple kinnow growers and traders.

**Kinnow processing:** Mr. Vinod Jyani has 130 acres of land in which he cultivates kinnow in 20 acres & in remaining land he grows variety of fruits like pomegranate, guava, plum, grapes, amla, aloe vera & other crops like potato, pluses, maize etc. In his Jyani Natural Farm, he uses well equipped techniques like Drip Irrigation & Bed Plantation. He does 100% Organic Farming for which he has got several awards. Moreover, he prepares Kinnow Squash & Amla Juice, Achaar, jaggery & he has set up a small oil unit for making ‘kachighani oil’. He sells his product in the name of ‘Kudratihaar Parivar’. He wants to expand & set up a small juice processing unit & also wants to set up a walking cold room. He's interested to take advantage from this scheme.

### 3.9.5 Dairy product processing

The production of milk has been growing over the years with 12 lakh liter/day during 2019-20. There are many processors manufacturing paneer, curd, milk, khoya, cream etc.

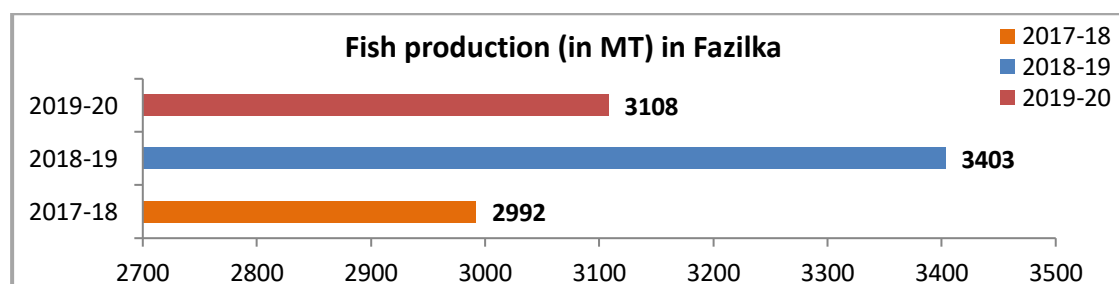


\*Source: Directorate of Dairy Development, Punjab

We spoke with some producer-cum-processors of milk.

**Mr. Mohinder Partap Dhingra**, Fazilka, he rears 132 Desi cows (Sahiwal & 1 Rathi). He is getting approx. 300 litres milk per day, out of which 200 liter is sent to local milk booths & home delivery at Rs. 52 per litre. He is producing Desi Ghee, Nasika Dhrit (nozzle medicine made from cow urine, cow dung, Lassi, cow Ghee), Lassi & make Phenyl from cow urine. He sells Desi Ghee on progressive Farmers Melas Delhi & Kisan mela, PAU, Ludhiana. He supplies Desi Ghee at Rs. 2500/- kg to Delhi & Ludhiana. He has 8 workers assisting him. He also does organic fruit farming; he grows Ber in 6 acres & Guava in 3 acres. The produce is marketed through wholesaler in local mandis. The animal waste from the dairy farm is used to prepare organic manure which he uses for farming. He is also trying to convert the farm into modern dairy plant. He has formed a FPO in the name of 'Madhav Gau Agro Organic Foundation' with 20 members. He proposes to buy equipment for milk processing including packo cooling machine, refrigeration system machine under the this scheme.

### 3.9.6 Poultry, Meat and Fish processing



*\*Source: Fisheries Department, Punjab*

The district has about 7 lakh birds layer farms and over 20 lakh birds broiler farm. There is no modern broiler slaughter and dressing plant in the district. There are a large number of meat shops in the district where live birds are cut manually, cleaned and sold to the consumer.

The district produces both IMC varieties of fish and Shrimp. The IMC varieties go to Bathinda and Ludhiana markets for auction whereas Shrimp is taken by traders from South for processing and export to China, USA etc.

### 3.9.7 Packaged food processing

There are many individual small and micro enterprises manufacturing ready-to-eat products, including sweet meat. There are about 150 bakery units and another 30 savoury units in the district. We spoke with a couple micro enterprises to understand about their line of business etc.

### 3.9.8 The analysis of the secondary data and interaction held with unorganized microenterprises/FPOs/SHGs/Experts dealing in the five major food categories is summarized in the following table:

Major Food Category	Produce shortlisted based on secondary data research	Products/produce shortlisted based on interactions held with micro enterprises/ FPOs/ SHGs& experts	Products/ produce finalized	Status of finalized products/ produce from ODOP point of view (High/ medium/ low)
Grains& oilseed processing	-	Atta	Atta	Low
Fruits & vegetable processing	Kinnow Sweet orange Ber	Haldi Honey Pickle & murabba	<b>Kinnow</b> Sweet orange	<b>High</b> Medium
Dairy Product processing	Milk	Milk & milk products	Milk & milk products	Medium
Poultry Meat & Fish Processing	Fish Broiler Meat	Poultry, Meat and Fish processing Processed meat products	<b>Poultry, Meat and Fish processing</b>	<b>High</b>
Packaged food	-	Bakery products & Savouries	Bakery products & Savouries	Medium

The potential to promote kinnow and fish is highest in the district. Over the years, the ecosystem for kinnow has been developed in the district and there is a need to facilitate growers for distant marketing of kinnow within the country as well as exporting to other nations. So, PAIC recommends ‘Kinnow& allied produce like sweet orange’ as ‘One Product’ for district Fazilka.



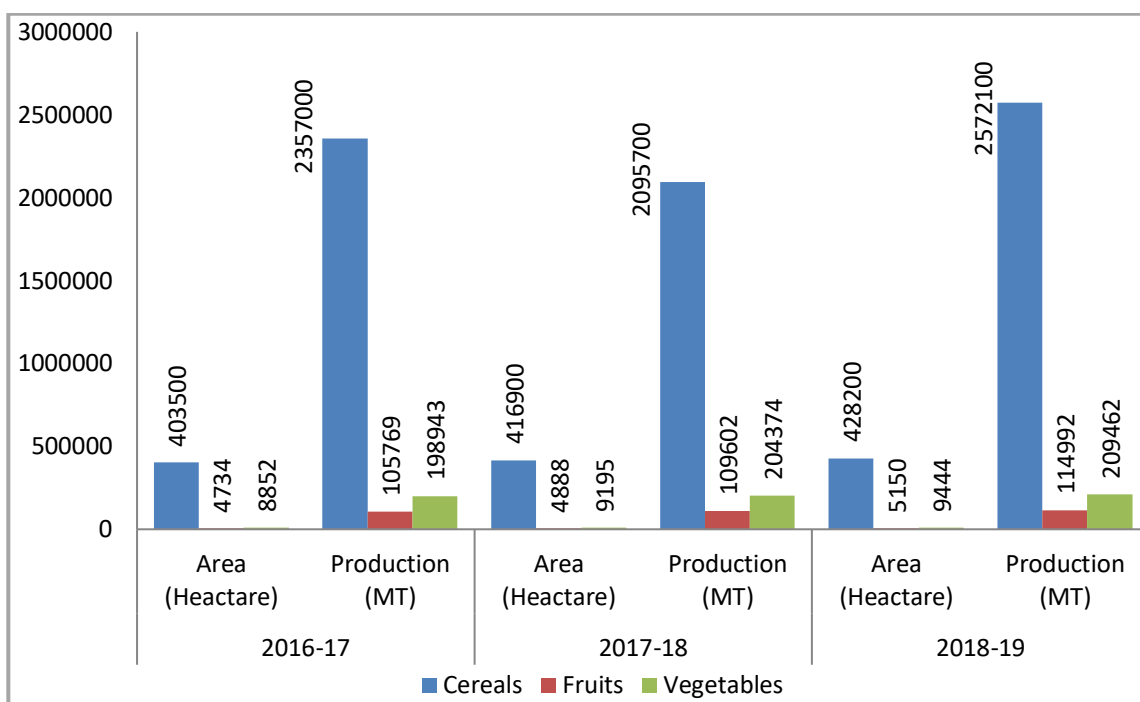
### 3.10 BATHINDA



**3.10.1** District Bathinda is situated in the Southern part of Punjab State in the heart of Malwa region. The district is surrounded with district Sirsa of Haryana State in the South; district Barnala and district Mansa in the East, district Moga in the North and district Faridkot and district Sri Muktsar Sahib in the North-West. The district has eight major towns, namely Bathinda, Rampura Phul, Maur, Raman, Bhuchu, Goniana, Kotfateh and Sangat. According to the 2011 Census, the population of district was 13,88,000 persons, out of which 64% resides in rural area and the balanced in urban area. The district has 268 inhabited villages. **The Gross District Domestic Product (GDDP) and Per Capita Income (PCI) at current prices (2015-16) was Rs. 1,09,836/- and Rs. 98,995/-, much below than the state average of Rs.1,32,467/- and Rs.1,18,858/-respectively.**

The geographical area of the district is 3,37,000 Hectare, of this the net sown area is 87% (2,93,000 Hectare). The area sown more than once is 2,63,000 Hectare, thus recording a **cropping intensity of 189%**. The whole of the district is a low-lying flat area.

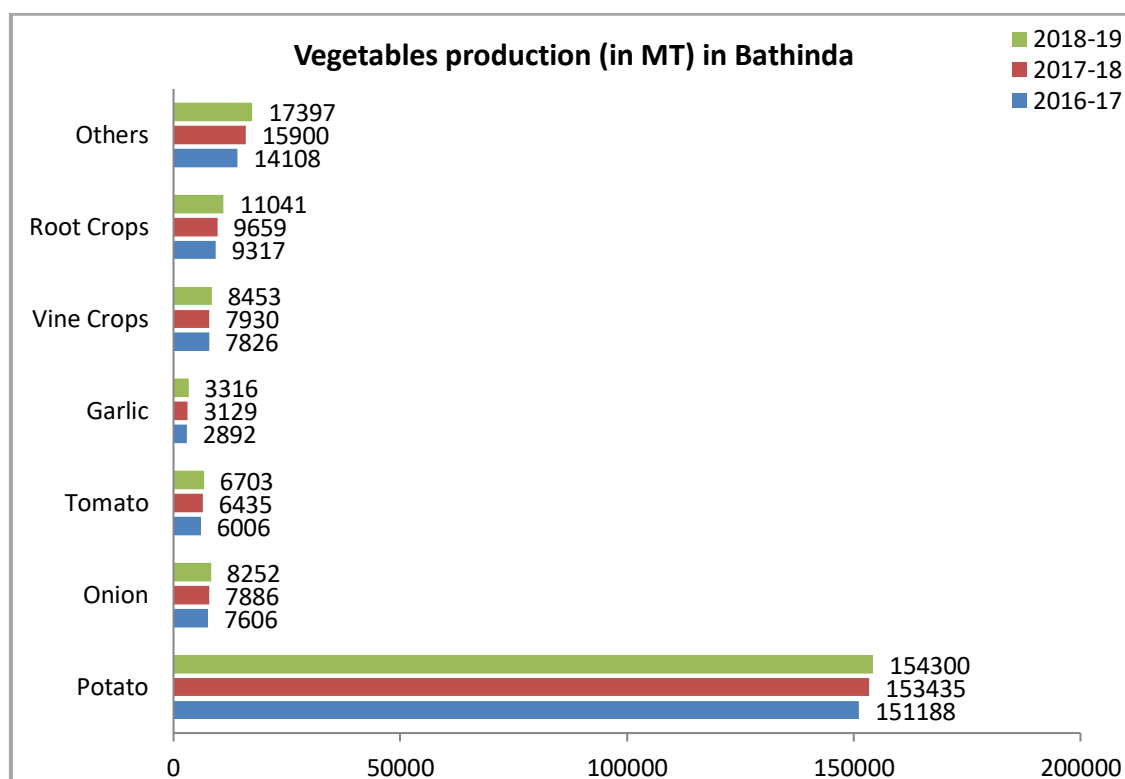
**3.10.2 The trend in area and WWd production of foodgrains including pulses, oilseeds etc. and fruits & vegetable in the district is discussed hereunder:**



*\*Source: Department of Agriculture/Horticulture, Punjab*

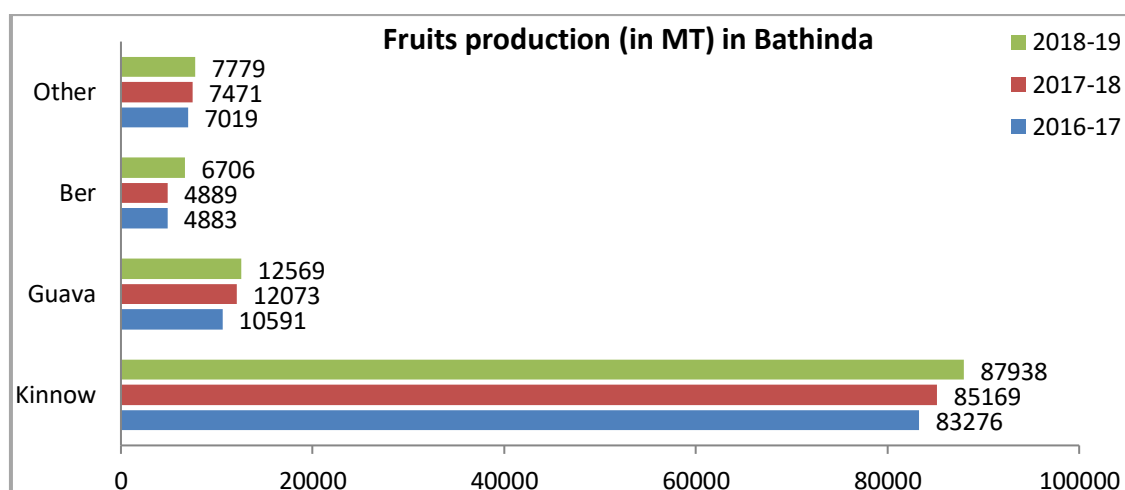
Wheat and paddy/cotton are the main Rabi and kharif crops of the district. **The district is the second biggest producer of wheat after district Sangrur, with production of 14,28,000 MT during 2018-19.** The area under wheat has been consistent for the past three years at 2,55,000 Hectare. The area under paddy increased in last three years from 1,52,000 Hectare (10,28,000 MT) in 2016-17 to 1,67,000 Hectare (11,37,000 MT) in 2018-19, a cumulative growth of 10%. The district also grows guara seed, sarson, barley and gram on sufficiently large areas with 4,900 Hectare (3,700 MT), 2,200 Hectare (3,700 MT), 700 Hectare (2,800 MT) and 200 Hectare (300 MT) respectively during 2018-19. It also grows bajra in small quantities for local consumption. Guara seed has been grown for the first time during 2018-19 in last three years. It was understood that guara seed finds ready market in Rajasthan state where it is used for industrial purposes.

**It was observed that there is no crop from above worth considering for the present assignment.**



*\*Source: Department of Horticulture, Punjab*

The district produces a wide range of vegetables like potato, peas, vine crops, root crops, brinjal, cauliflower, tomato, chillies, cabbage, garlic, onion, okra, etc. and that too in good quantities. **Out of all vegetables, maximum area is under potato at 5,906 Hectare (1,54,300 MT).** Potato recorded a marginal cumulative growth of 1.3% during last three years. Though the area and production of other vegetables is fairly good, but the same is not much in comparison to the area and production of same crops grown in other district. **So, the vegetable crop worth pursuing further in the district is potato.**



*\*Source: Department of Horticulture, Punjab*

The district produces a limited variety of fruits like kinnow, guava, peach, grapes and ber. **Of these, area under kinnow is maximum at 3,796 Hectare (87,938 MT). Though there has been consistent growth in the area under kinnow during last three years, yet the same is much below as compared to the area under the same crop in the districts of Fazilka, Sri Muktsar Sahib and Hoshiarpur. The district tops in the production of grapes and ber amongst all districts. The area under grapes has been consistent at 136 Hectare (3,939 MT) during last three years. The variety grown is perlette which is not widely accepted as table fruit. It is sold in Haryana and Rajasthan. The area under ber has shown a cumulative growth of 37% in last three years with 392 Hectare (6,706 MT) during 2018-19. Therefore, the fruit worth pursuing further is ber.**

### 3.10.3 Grains and oilseed processing

The district has about 195 small sized rice mills (avg. capacity 2 MT/hr) doing custom milling of common paddy for state government procurement agencies. Besides, there are two medium sized basmati paddy milling units engaged in domestic sale as well as export of rice. Then, there are five medium sized solvent extraction units processing rice bran and cotton seed (crude edible oil). There are over 50 cattle feed units processing locally available de-oiled cake (cotton seed). Of all the units mentioned above, micro enterprises are mainly into manufacture of cattle feed and expelling of oil from cotton seed and sarson. **These units would be interested to take advantage of the scheme to enhance production capacities of their plants.**

**Bhakar Organic Farm**, owned by Mr. Rajinder Pal Singh, is located at Talwandi Sabo Set up in 2001, the firm is engaged in manufacture of mustard oil, rose water, wheat flour, biscuits, basmati rice, pulses (moong & masar).

### 3.10.4 Fruits & vegetable processing

There is no unit in the organised sector in district Bathinda processing fruits and vegetables. However, there are number of individuals/ SHGs/FPOs etc. engaged in manufacture of pickles, murraba, haldi, squash, spices, etc. Besides, the farmers of district have considerable interest in bee keeping and honey processing. There are around 30 to 40 bee keepers from the district who have organized themselves in a FPO and are involved in honey processing. Progressive Bee Keepers Association has 350

members engaged in collection and extraction of mustard honey (season: December to March). We spoke with some of them. There are about 30 honey processors in district Bathinda.

**Mr. Gurbhej Singh, President, New Sona Self Help Group, Village Mandi Khurd,** Bathinda informed that they have 30 members and the members are involved in collection and extraction of honey. They are also into manufacture of pickles, murraba, dalia, haldi, mustard oil etc. These products are sold in the common brand name of 'New Sona'. They have 4 to 5 persons engaged in marketing of their products. Kissan Mandis, Kissan Melas etc. are the platforms where these products are sold. Their annual turnover is approx. Rs. 12 lacs. They are keenly looking forward to make use of the opportunity to set up an oil expelling unit under the 'PMFME' scheme.

**Zebra Smart Food**, a proprietorship firm owned by Ms. Balwinder Kaur. She took training from Khetri Research Centre in 2017. She manufactures pickle, chutney, sweat meat, squash, candy, spices, flouring of multigrain and millets flour. She purchases raw material from local mandis except millets which gets from Tamil Nadu state. Finished products are sold at retail counters owned by the firm. She has appointed distributors for sale of products in Abohar, Talwandi Sabo and Gurugram. She wants to expand and enter into baking line. Demand for squash, gluten free & millet flour is soaring.

**Lovely Bees** owned by Mr. Jasbir Singh, village Khemoana. Mr. Jasbir took training in honey from KVK, Faridkot in 2009. Thereafter, he started manufacturing products like honey, bee pollen, royal jelly, honey comb etc. Finished products are sold from the retail counter located in the processing unit premises. Subsidy amount will be spent on purchasing royal jelly collection kit.

**Khalsa Farm Products** owned by Mr. Nirbhay, village Sukha Singh Wala, Maur Mandi. He took training from Dept. of Food Processing & Engineering, PAU on jaggery processing. He now manufactures jaggery, milk badam, butter, milk based sweets, curd, lassi, sugarcane juice etc.. About seven micro enterprises in district Bathinda are working in jaggery processing. Subsidy amount would be spent on bottling of sugarcane juice and packaging machine for jaggery.

**GV Foods**, a proprietorship firm of Mr. Gursharan Singh located at Dera Baba Lakar Dass Road, village Rampura. He manufactures turmeric, red chilli powder, pickle,

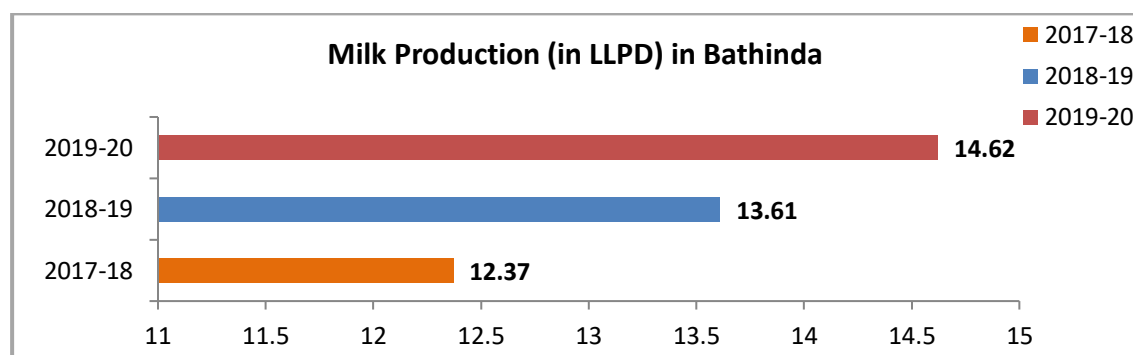
namkeen etc. Subsidy amount would be spent to purchase packaging, peeling, shredding, pulp, grinding equipments.

**B-Treat Natural Products Pvt Ltd, village Mandi Khurd, Maur** belongs to Mr. Jagtar Singh. He took training regarding bee keeping, honey processing and its packaging from PAU. He started his own business and is manufacturing honey, bee pollen drink, propolis, bee wax and royal jelly. As per him about 40 micro enterprises are working in honey processing.

Bees are dependent on flora for honey and Punjab bee farmers go to mustard oilseeds fields in the district as well as neighbouring Rajasthan and Haryana states. In winter season, farmers keep their boxes near cotton fields in the district. The cotton flower is perfect source of nectar for honey. As result of pollination, the yield of produce increases. Moreover, Bathinda is connected by 4 canals which lead to the growth of eucalyptus trees on the embankment which is also an excellent source of nectar for honey bees. Additionally the sandy loam structure of soil is good for the growth of ber and rosewood trees which in turn invites honey bees.

It is observed that these honey units need testing facilities enabling them to market quality products both in domestic and overseas markets. It is also observed that honey has unlimited scope for district Bathinda.

### 3.10.5 Dairy Product processing



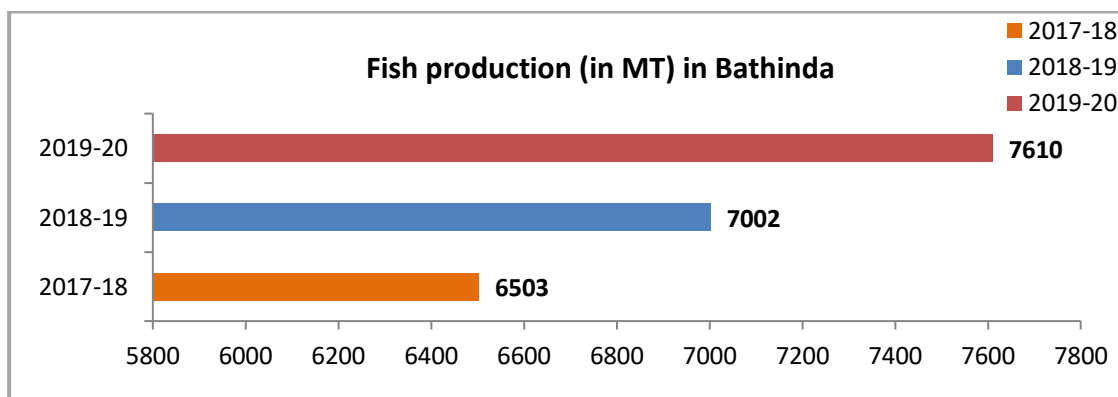
*\*Source: Directorate of Dairy Development, Punjab*

The production of milk in the district is increasing year after year with 14.62 lakh liter/day during 2019-20. The state co-operative Milkfed has recently set up a medium sized milk processing plant in the district. Besides, there are over 500 dairies run by

individuals and micro enterprises that process milk to manufacture paneer, curd, lassi, kulfi, etc. for local consumption. These units are would be interested to up-grade their facilities under the scheme.

### 3.10.6 Poultry, Meat and Fish processing

There are a good number of commercial layer and broiler farms in the district. However, there is no modern broiler/meat slaughter and dressing plant in the district. There are a large number of meat shops in the district where live birds are cut manually, cleaned and sold as daily fresh chicken/meat and there is good demand for these products there. It is informed that there would be over 500 individuals/micro enterprises in the district doing this business. **At this stage, there is a need to enhance the competitiveness of these micro enterprises by encouraging them to set up latest machinery etc.**



*\*Source: Fisheries Department, Punjab*

The area and production of fish is consistently increasing in the district for the past three years. The district produces both IMC varieties of fish and Shrimp. However, shrimp is in small quantities. The IMC varieties go to Bathinda and Ludhiana markets for auction whereas Shrimp is taken by traders from South for processing and export to China, USA etc.

### 3.10.7 Packaged food processing

There are many individuals, small and micro enterprises manufacturing ready-to-eat products, including sweet meat and bakery products in the district. There are about 400 such units. Depending upon their capacities, most of these units would be interested to take advantage of the scheme. There is a good demand for packaged food in the district.

The district is also known for making quality jaggery based products. It is observed that there is a good scope to encourage more enterprises to set up units to manufacture bakery products.

**3.10.8 The analysis of the secondary data and interaction held with unorganized microenterprises/FPOs/SHGs/Experts dealing in the five major food categories is summarized in the following table:**

Major Food Category	Produce shortlisted based on secondary data research	Products/produce shortlisted based on interactions held with micro enterprises/ FPOs/ SHGs& experts	Products/ produce finalized	Status of finalized products/ produce from ODOP point of view (High/ medium/ low)
Grains& oilseed processing	Guara seed	Atta	Guara seed	Medium
Fruits & vegetable processing	Ber	Honey	<b>Honey</b> Ber Kinnow	<b>High</b> Medium Medium
Dairy Product processing	Milk	Milk & milk products	Milk & milk products	Medium
Poultry Meat & Fish Processing	Fish Broiler Meat	Poultry, Meat and Fish processing	Poultry, Meat and Fish processing	Medium
Packaged food ww	-	Bakery products & Savouries	Bakery products & Savouries	Medium

The potential to promote honey is highest in the district. Thus, **PAIC recommends ‘Honey & allied products’ as ‘One Product’ for district Bathinda.**



### 3.11 TARN TARAN

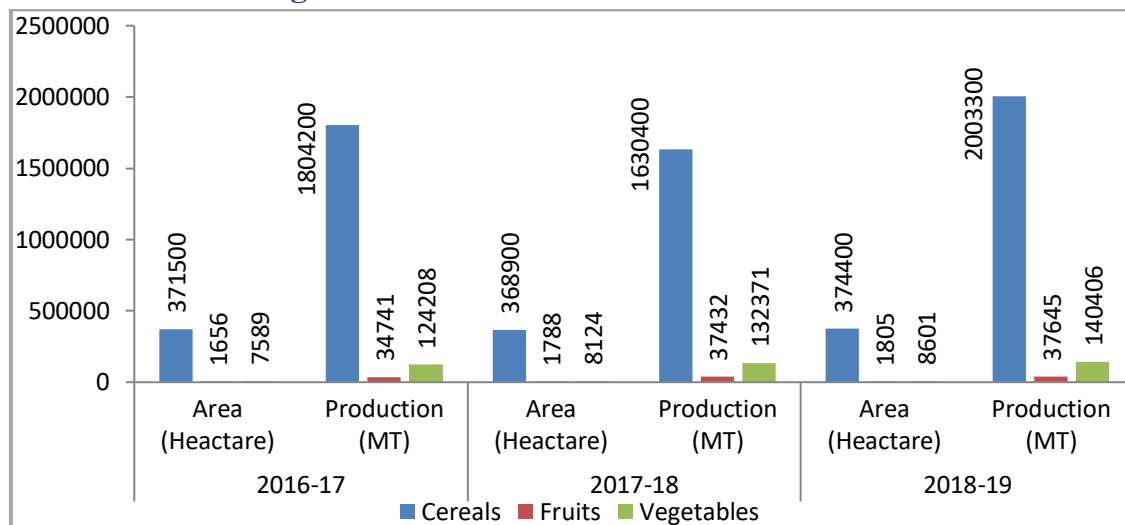


**3.11.1** Tarn Taran is one of the border districts which lies in the North West frontier of Punjab and is bounded by district Amritsar in the North East, district Kapurthala in the East and district Ferozepur in the South. The district shares international boundary with Pakistan. It is bounded by river Beas in the South Eastern side. **Harike Wetland, also known as ‘Hari-ke-Pattan’, is the largest wetland in Asia, falls in the Tarn Taran district.** The major towns in the district include Tarntaran, Patti, Khadur Sahib, Bhikhiwind, Chohla Sahib, Gandiwind, NausheraPannua and Valtoha. According to the 2011 Census, the population of district was 11,19,000 persons.

The district has 478 inhabited villages. **The Gross District Domestic Product (GDDP) and Per Capita Income (PCI) at current prices (2015-16) was Rs. 98,902/- and Rs. 89,894/-, much below than the state average of Rs.1,32,467/- and Rs.1,18,858/- respectively.**

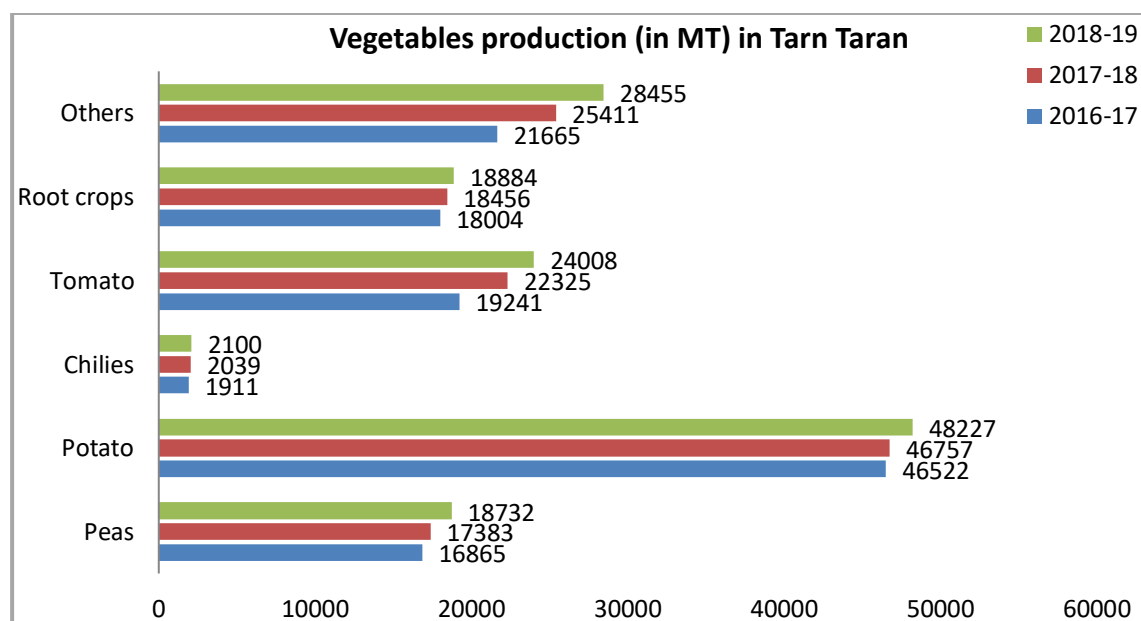
The geographical area of the district is 2,41,000 Hectare, of this the **net sown area is 90% (2,18,000 Hectare).** The area sown more than once is 1,80,000 Hectare, thus recording a **cropping intensity of 182%.**

### 3.11.2 The trend in area and production of foodgrains including pulses, oilseeds etc. and fruits & vegetable in the district is discussed hereunder:



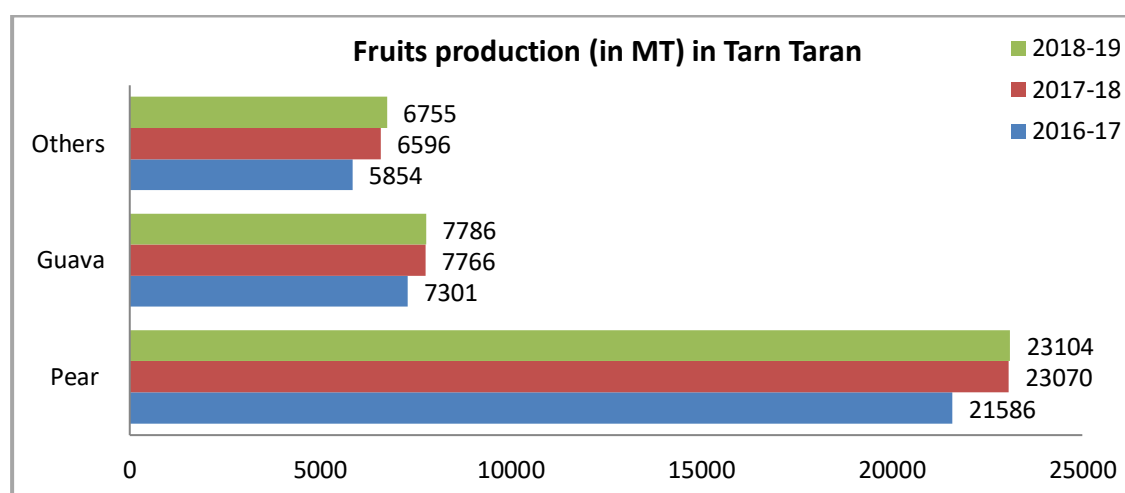
\*Source: Department of Agriculture/Horticulture, Punjab

Wheat and paddy are the main Rabi and kharif crops of the district. The area under these crops remained consistent during last three years with 1,87,000 Hectare (9,16,000 MT) and 1,86,000 Hectare (10,86,000 MT) respectively during 2018-19. The district also grows kharif pulses (moong & arhar), kharif oilseeds (sesamum) and Rabi oilseed (sarson) in small quantities with 600 Hectare (400 MT), 600 Hectare (200 MT) and 700 Hectare (1,000 MT) respectively during 2018-19. **There is no significant growth in area and production of above crops during the past three years, there is, therefore, no scope to study them further for the present assignment.**



\*Source: Department of Horticulture, Punjab

The district produces a wide range of vegetables like potato, peas, vine crops, root crops, cauliflower, tomato, chillies, cabbage, peas, okra, etc. and that too in good quantities. **Out of all vegetables, maximum area is under potato and peas with 1,896 Hectare (48,227 MT) and 1,895 Hectare (18,732 MT) respectively during 2018-19. Potato recorded a marginal cumulative growth of 4% in last three years. Whereas, peas reported a cumulative growth of 11% during the same period.** It was observed that the area and production of potato in the district was much less than the area and production of same crop in other districts of the state. **So, pea is the only crop worth pursuing further for the present assignment.**



*\*Source: Department of Horticulture, Punjab*

The district produces a wide variety of fruits like kinnow, lime lemon, mango, guava, pear, peach etc. **Of these, area under pear is maximum at 1,006 Hectare (23,104 MT). There has been consistent growth in the area under pear during last three years from 942 Hectare (21,586 MT) in 2016-17 to 1,005 Hectare (23,070 MT) in 2017- 2018 to 1,006 Hectare (23,104 MT) in 2018-19, a cumulative growth of 7%. The district tops in the production of pear amongst all districts. Pear of Patti fetches better price. Patti is the hub of pear in the district. Therefore, the fruit worth pursuing further is pear.**

### 3.11.3 Grains and oilseed processing

The district is one of the lead producers of paddy (mainly basmati) and wheat. There are over 25 units shelling paddy mainly for government agencies. Of this, three are medium sized units of bigger capacities and processing basmati varieties of paddy for export and

domestic markets and the remaining are small sized mills of average capacity of 2MT/hr. Though small millers may be interested to modernize their facilities, but they may not meet the requirement of the 'PM FMC' Scheme.

There are over 750 atta chakkis doing job work. And there are 3/4 mini flour mills selling non-branded wheat flour. We spoke with a couple of atta chakki owners and some have shown interest to expand their operations by upgrading to semi automatic plant if they are given the benefit of credit linked subsidy.

**Baba Raja Ram Flour Mill & Feed Factory, Village Dhotian**, is a partnership firm of Mr Jaswant Singh & Mr. Sukhraj Singh, engaged in processing and packaging of wheat flour and many type of animal feeds. They want to increase their business by adding automatic packaging line for the flour mill.

#### 3.11.4 Fruits and Vegetables processing

There are two vegetable processing plants in the organized sector in the district. One of them is at Khadoor Sahib by G.D. Foods Pvt. Ltd. They are manufacturing tomato sauce, pear paste etc. and selling them under the brand 'TOPS'. They are meeting their major requirement of tomatoes and pear from the district and the adjoining district of Amritsar. In the un-organized sector, there are number of individual farmers and FPOs/SHGs engaged in the manual cleaning, grading and selling of fresh vegetables and fruits (pear & guava). Some farmers/FPOs etc. have also set up micro units processing turmeric and spices.

**Mr. Bikram Singh, Village Mahmoodpur**, is a big farmer having Pear and Guava orchards in 32 acre and 4 acre respectively. He sells fruits in local market and to wholesalers. He informed that pear plant starts giving fruit in 9<sup>th</sup> year. After plucking, the fruit is graded manually in five grades. The first three grades are kept in cold stores (in Amritsar) and the fourth grade is dispatched immediately to Delhi markets and the last grade is sold to processors. The first three grades are then sent to Kolkatta markets in August/September. Due to increasing demand, the farmers have starting earning Rs.2.5 to Rs. 3 lakh per acre from pear orchard. There is a need for mechanical cleaning and grading line and cold stores for reducing wastage and fetching better return.

**Mr. Gurcharan Singh, Village Burj Deva Singh**, is a farmer engaged in milk processing, honey processing and growing & selling of vegetables. He owns five acre

and has taken 35 acre on lease. He grows wheat and paddy and vegetables. The vegetables are sold in local market. He also has 15 cows and 30 buffaloes. He is also maintaining 50 boxes of honey bees. He is interested to increase his vegetable selling and milk processing business.

**Mr Mukhtiar Singh, Village Rampur Nirotpur, Jalanabad,** has eight acre farm where he grows vegetables like broccoli, cabbage, brinjal, potato and sweet corn. He sells them in local market and to wholesalers. He has achieved rarest success in vegetable production by adopting latest technologies of PAU experts. He is an active member of PAU fruit and vegetable grower association.

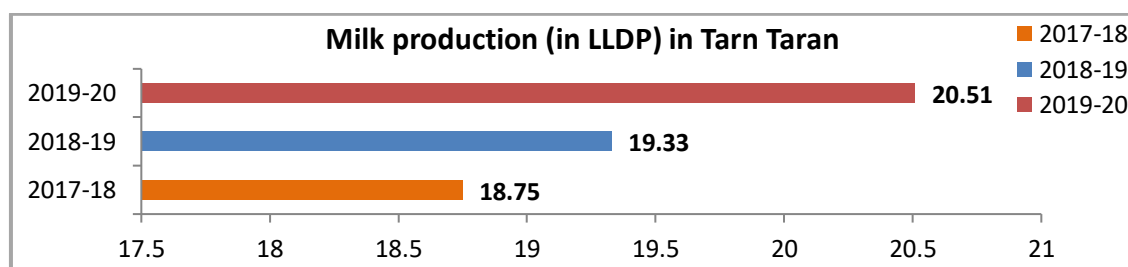
**Mr Sukhwant Singh, Patti,** runs an attachakki. He is also processing spices, turmeric, dalia and besan. His unit is 6 yr old. With the help of the credit linked subsidy, he wants to increase his spices and haldi business.

**Mr Raghbir Singh, Village Nagoke,** has a processing unit wherein he manufactures turmeric powder, pickle etc. He is also running a FPO (Progressive Farmers) of over 100 active members. The members are into processing of milk, jaggery, turmeric, spices, kulfi/ice cream etc. They are also maintaining pig and fish farms.

**Charry Foods Enterprises** is owned by Mr. Gursharan Singh of Tarn Taran city. He is manufacturing tomato sauce, chilli sauce and masalas. He established his business in 2016 and now he wants to expand.

From the foregoing, it is observed that farmers are more comfortable with pear fruit. Punjab Government has also set up a dedicated estate for promotion of pear in the adjoining district of Amritsar.

### 3.11.5 Dairy Product processing



*\*Source: Directorate of Dairy Development, Punjab*

The district is one of the largest producers of milk with daily production of over 20.50 lakh litre in 2019-20. There are two small to medium sized milk plants in private

sector. But, there are many dairy farmers processing milk to manufacture paneer, curd etc. for local distribution. We interacted with some of the dairy farmers and found that they would like to upgrade their facilities by taking advantage of the ‘PM FME’ Scheme.

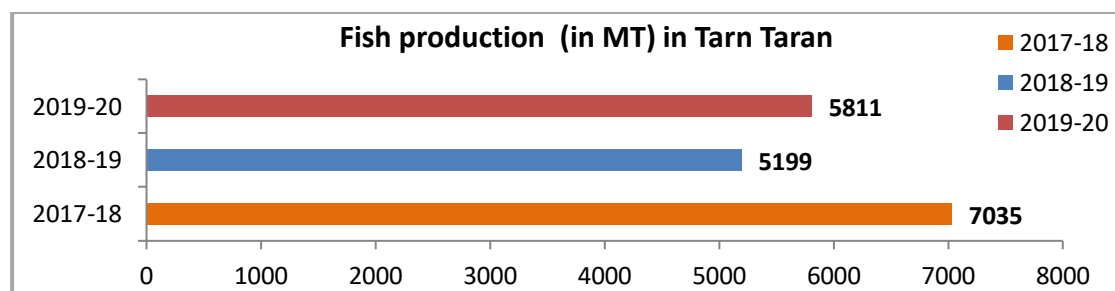
**Mr. Gurmukh Singh, Village Kairon**, is a dairy farmer and is this line for the past over 13 years. He took formal training from PAU, Ludhiana. He has about 100 cows and buffaloes. He sells milk as well as paneer and curd. His average daily milk collection is 1,000 litre. His annual turnover is nearly Rs. 1 Cr. He has won prestigious awards for his work.

**Mr. Gurpreet Singh, Village Kahlwan**, owns 120 HF cows with average daily milk production of around 1,400 litre. He supplies milk to Verka and Nestle. He also has an agriculture farm where he grows potato and peas.

**Mr. Gajjan Singh, BhailDhai Wala**, has a small dairy farm of ten cows and buffaloes. He makes curd and paneer and sells it in local market. He has invested about Rs. 10 lac in his dairy business. He also grows vegetables like cauliflower, peas & chilly in his farm.

### 3.11.6 Poultry, Meat and Fish processing

There are a good number of commercial layer and broiler farms in the district. However, there is no modern broiler/meat slaughtering and dressing plant in the district. There are a large number of meat shops in the district where live birds are cut manually, cleaned and sold as daily fresh chicken/meat and there is good demand for these products there. It is informed that there would be over 400 individuals/micro enterprises in the district doing this business. At this stage, there is a need to enhance the competitiveness of these micro enterprises by encouraging them to set up latest machinery etc.



*\*Source: Fisheries Department, Punjab*

The production of fish has decreased from 7,035 MT in 2016-17 to 5,811 MT in 2018-19, a cumulative fall of 17% in three years. The district produces IMC varieties of fish and the surplus production is sold in Jalandhar, Bathinda and Ludhiana markets. **It is observed that there is a limited scope for encouraging fish processing units in the district.**

### 3.11.7 Packaged food processing

There are many individuals, small and micro enterprises manufacturing ready-to-eat products, including sweet meat and bakery products in the district. There are about 350 such units. Depending upon their capacities, most of these units would be interested to take advantage of the scheme. There is a good demand for packaged food in the district. **It is observed that at this stage we may encourage existing micro enterprises to upgrade their facilities by taking advantage of the scheme.**

### 3.11.8 The analysis of the secondary data and interaction held with unorganized microenterprises/FPOs/SHGs/Experts dealing in the five major food categories is summarized in the following table

Major Food Category	Produce shortlisted based on secondary data research	Products/produce shortlisted based on interactions held with micro enterprises/ FPOs/ SHGs& experts	Products/ produce finalized	Status of finalized products/ produce from ODOF point of view (High/ medium/ low)
Grains& oilseed processing	Oilseeds	Atta	Oilseeds Atta	Medium Medium
Fruits & vegetable processing	Pear Peas	Pickle & murabba	<b>Pear</b> Peas Pickle & murabba	<b>High</b> Medium Medium
Dairy Product processing	Milk	Milk & milk products	Milk & milk products	Medium
Poultry Meat & Fish Processing	Fish Broiler Meat	Poultry, Meat and Fish processing	Poultry, Meat and Fish processing	Medium
Packaged food	-	Bakery products & Savouries	Bakery products & Savouries	Medium

The potential to promote pear is highest in the district. **So, PAIC recommends ‘Pear’ as ‘One Product’ for district Tarn Taran.**

### 3.12 AMRITSAR

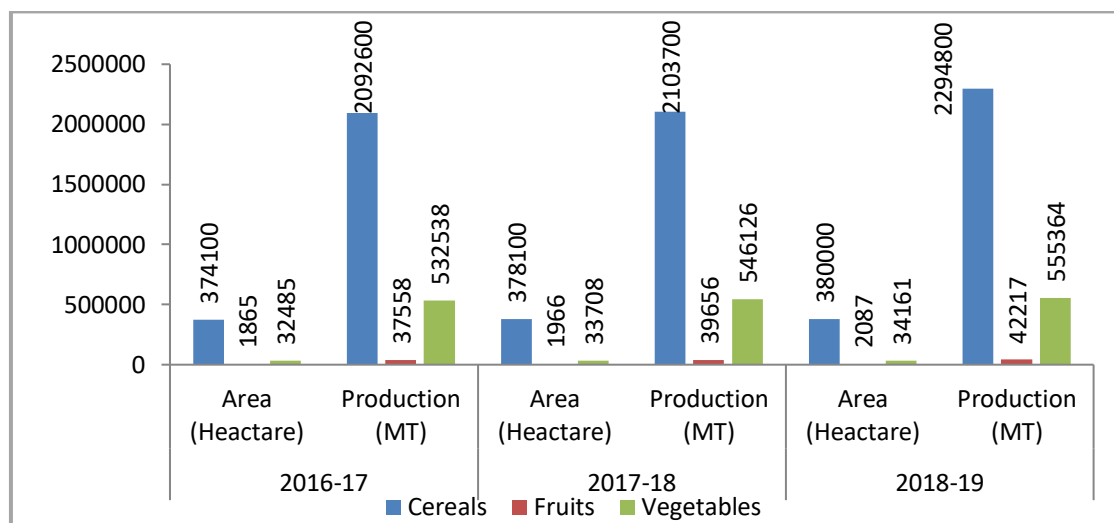


**3.12.1** The district Amritsar is situated in North of Punjab. Its Western side adjoins Pakistan, partly separated by the River Ravi. The North-Eastern side is bounded by the district Gurdaspur, and towards it South-East across the River Beas lie the districts of Kapurthala and Tarn Taran. The major towns of the district include Amritsar, Ajnala, Baba Bakala, Majitha, Attari, Tarsikka, Lopoke, Ramdas Rayya, Chogawaan, Patti, Verka, Jandiala Guru and Harsha China. All these places are connected by rail and road. **According to the 2011 Census, the population of district was 24,90,000 persons, the second most populated district after district Ludhiana.** The district has 708 inhabited villages. **The Gross District Domestic Product (GDDP) and Per Capita Income (PCI) at current prices (2015-16) was Rs. 1,16,112/- and Rs. 1,04,170/-, much below than the state average of Rs.1,32,467/- and Rs.1,18,858/-respectively.**

The geographical area of the district is 2,64,000 Hectare, of this the **net sown area is 83% (2,19,000 Hectare)**. The area sown more than once is 1,96,000 Hectare, thus recording a **cropping intensity of 189%**. Lying between the river Beas to the East and the river Ravi to the West, the district Amritsar is one of the inter pluvial tracts of the Punjab Plain.

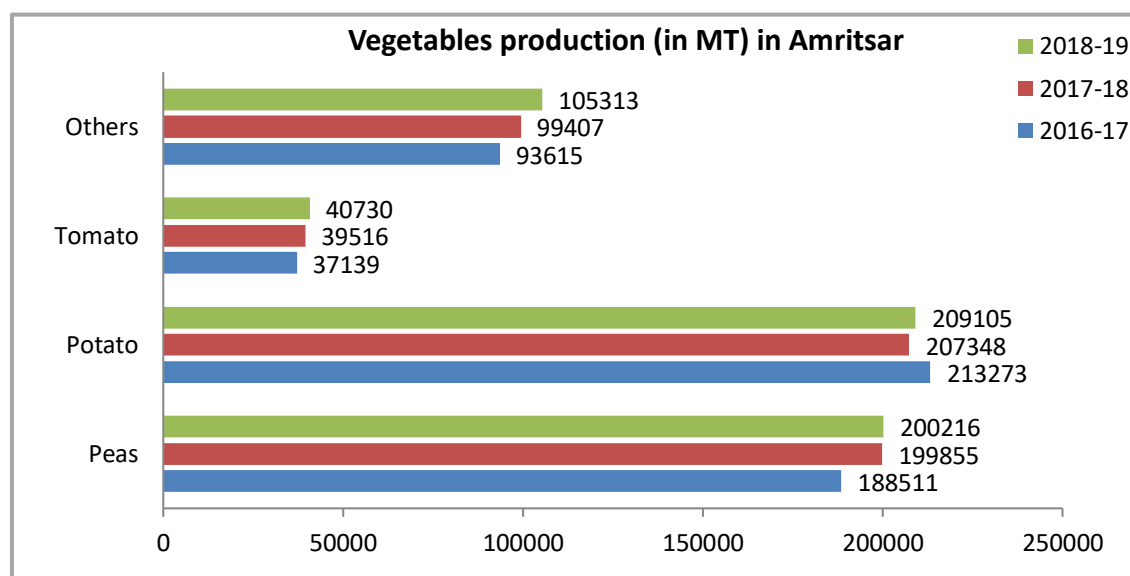


### 3.12.2 The trend in the area and production of food grains including sugarcane and fruits & vegetables in the district is presented here under:



\*Source: Department of Agriculture/Horticulture, Punjab

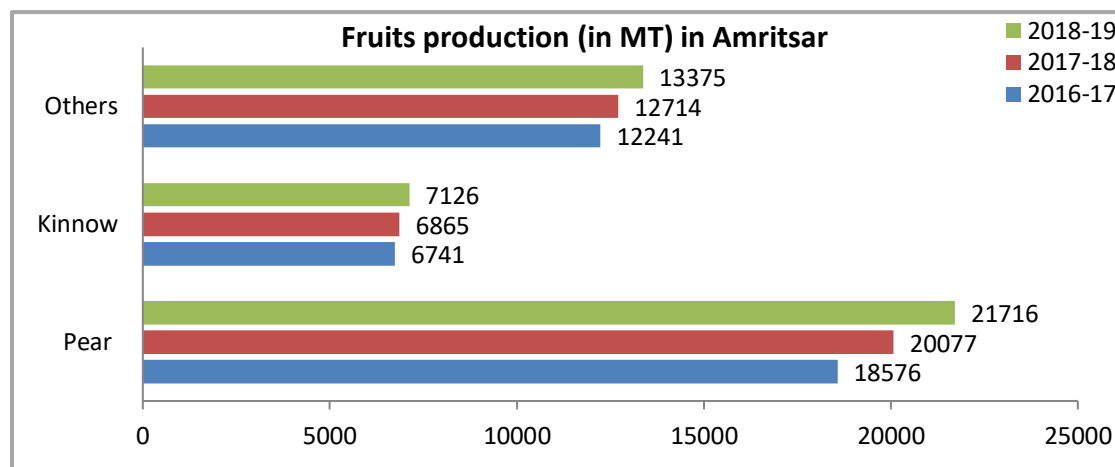
It has been observed that in three years, the area under wheat and paddy remained static at 1,89,000 Hectare and 1,80,000 Hectare respectively. **However, there has been noticeable increase of 75% in the area under sugarcane from 4,000 Hectare in 2016-17 to 7,000 Hectare in 2018-19.** There is some decrease in the area under minor crops like maize, kharif & Rabi pulses and Rabi oilseeds, which are grown in small quantities. **Therefore, sugarcane crop is worth pursuing further.**



\*Source: Department of Horticulture, Punjab

The district produces a wide range of vegetables like potato, peas, vine crops, root crops, cauliflower, tomato, chillies, cabbage, okra, etc. and that too in good quantities.

Out of all vegetables, maximum area is under peas with 18,308 Hectare (2,00,216 MT) during 2018-19. Peas recorded a marginal cumulative growth of 4% in last three years. The district tops in the production of peas amongst all districts of the state. It alone produces 49% of the total production of peas in the state. The district also tops in the production of tomato with 40,730 MT (1,595 Hectare) during 2018-19. It recorded a cumulative growth of 10% in last three years. So, peas and tomato are the promising vegetables for further study.



*\*Source: Department of Horticulture, Punjab*

The district produces a wide variety of fruits like kinnow, lime lemon, mango, guava, pear, peach, plum, litchi, etc. in limited quantities except pear. The district reported a cumulative growth of nearly 12% in area under all fruit crops taken together in last three years. **Pear recorded a jump of about 17% during the same period. The district is the 2nd biggest producer of pear, after district Tarn Taran.** The study has already recommended 'pear' as one product for district Tarn Taran, so Amritsar being adjacent to district Tarn Taran is not considered for the same fruit.

### 3.12.3 Grain and oilseeds processing

There are over 800 wheat flour mills in the district, out of which 8 to 10 are medium sized roller mills and over 20 mini automatic flour mills manufacturing branded/non-branded atta. The other products made by such mills include maida, rava, dalia etc. The remaining are atta chakkis (manual) manufacturing non-branded atta and doing job work. We spoke with some atta chakki owners and were given to understand that they would like to make their facilities semi-automatic for which the cost could vary from Rs. 5 lakh to Rs. 20 lakh. Many atta chakki owners would also like to install oil

expellers under the same roof to manufacture mustard oil. This would broaden their product-mix. About 50 atta chakki enterprises have installed such oil expellers in their premises. There are over 300 paddy shelling units doing milling common paddy for government procurement agencies. Their average capacity is 2 MT/hr. Then, there are about 20 medium sized automatic mills processing basmati varieties of paddy.

Primary processing of grains is common and the industry is already doing it in a big way. As government is making efforts to divert sizeable area from paddy to other crops, we may not consider encouraging this industry any further. Regarding wheat processing, **there is a need to support modernization of existing atta chakki units at this stage.**

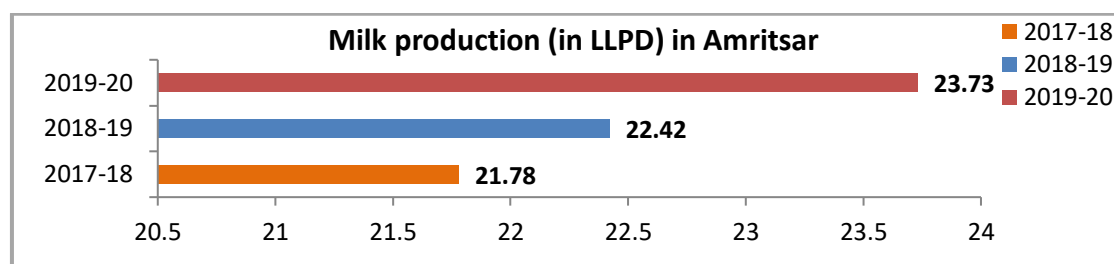
#### 3.12.4 Fruits and Vegetables processing

Traditionally, the district Amritsar is known as the hub of ‘pickle (achhar), murabba& sherbet’. There are more than 60 units, out of which 40 are from Amritsar alone manufacturing these products.

The owners of units in Amritsar have formed an association under the name ‘**Amritsar Achhar Murabba Association**’ with Mr. Pomesht Taneja as its President. They say that over the years the people of the Amritsar have developed great recipes and skills to make high quality and nutritious products. The processed food exporters and agents of Herbal and Unani products from various parts of the country source their requirement of achhar, murabba and sherbet from Amritsar. We spoke with a number of processors and they informed that they meet their requirement of fruits and some vegetables from Amritsar as well as from other states/UTs like Himachal (golden apple), J&K (royal & amri varieties of apple), amla (Hoshiarpur & UP) etc. Carrot, Tomato, Cauliflower, Pear, Mango etc. are sourced from within the district. They have proposed that a common infrastructure near Amritsar city be developed wherein these units may be given space on rental basis or otherwise to set up/ shift their respective units. The common infrastructure may have a cold store, a food testing laboratory etc. They are willing to make these products under one common brand, which could be promoted by the center/state government under the scheme.

#### 3.12.5 Dairy product processing

The district Amritsar is the 2nd biggest producer of milk at 23.73 lakh litres per day after Patiala.



*\*Source: Directorate of Dairy Development, Punjab*

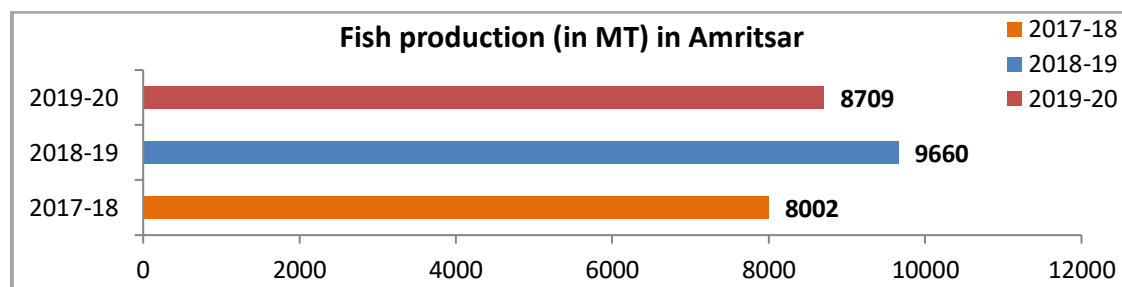
Milk has recorded a cumulative growth of about 9% from 2017-18 to 2019-20. There are 8 to 10 milk processing plants in the organized sector in the district. Many of these plants have their own arrangement for procurement of milk. They have provided 'Bulk Milk Chillers' of capacity 1,000 litre to 2,000 litre near the collection points in villages. The chilled milk is then shifted to plants with the help of specially designed tanks attached on trucks. Besides, there are 4 to 5 milk chilling centers having capacities ranging from 25,000 litres to 50,000 litres operated by sole proprietors and partnership firms. They collect milk directly from farmers as well as small time contractors and in-turn supply the same after chilling to private milk plants. Then, there are over 150 small and micro enterprises, including 'sweet meat' manufacturers processing 500 litre to 1,500 litre per day of milk to manufacture paneer, lassi, curd, ghee, khyoa, cream, kulfi, etc. We interacted with some firms and individuals and came to know that the owners of chilling centers would be interested to set up milk pasteurization units to enhance the shelf life of milk.

As a thumb rule, 50% of the production is retained by farmers and the remaining 50% is sold to milk plants and others. The processing capacity in the organized segment would be 12 to 13 lakh litres per day. **There is, therefore, not much scope to encourage small and micro enterprises to set up new milk processing units.**

### 3.12.6 Poultry, Meat and Fish processing

The district has over both 1.25 lakh commercial layer and about 3 lakh broiler commercial farms. The eggs are supplied to J & K in addition to local consumption. The layer farm owners generally have their own poultry feed mills. The broilers are consumed locally as well as sent outside the district depending upon the demand and production. There are two medium sized broiler slaughtering/dressing plants in the district. Besides, there are 3 to 4 small sized manual plants. These plants have set up their own processing units manufacturing nuggets, hams, sausages etc. In addition, there

are 3 to 4 individuals processing frozen chicken bought from the slaughter houses. The district has more than 200 individuals engaged in slaughtering and selling daily fresh chicken. During discussion with the dressing plant and processing unit owners, it was found that the small time individuals slaughtering chicken in unhygienic manner needs to be upgraded in the first place.



*\*Source: Fisheries Department, Punjab*

The production of fish recorded an erratic behaviour of up and down in last three years with 8,709 MT during 2019-20. We spoke with a couple of farmers engaged in fish farming to understand their business and interest to take benefit of the new scheme.

**Mr. Sharnjit Singh**, village Gadli, Jandiyala has taken 10 acre panchayat land on lease where he has developed fish farms. He uses Oxygen Operator which makes his farm latest and modern. He directly sells his produce to middle men in the local market. He has also done 2 weeks training on fish farming. He deals in a variety of fish like common carp, grass carp, American gold, silver carp, rohu and katla.

**Mr. Harwinder Singh**, village Bhainigill has developed fish ponds in 3 acre. He sells his produce at the farm gate. The middle men in turn sell the produce to restaurants and marriage places. Price depends upon the size & weight of the fish. He deals in different variety of fish like rohu, grass carp and katla.

**It was found that there is ample scope for fish farming in the district. Once the fish trade is organized then farmers shall start thinking to set up primary processing units.**

### 3.12.7 Packaged food items

The district Amritsar is known for a variety of packaged food products, including savouries, ready-to-eat veg. and non veg. products etc. The district also has over 500 bakery units, out which 80% are doing job work. People of the district are very fond of spicy food. The product **‘PapadWadyian’** was used to be synonymous with

**Amritsar.** Today, there are about 10 to 12 units engaged in this business. It was understood that many enterprises have either closed their units or shifted to Ludhiana. There is, therefore, a need to encourage existing packaged food units to upgrade and enhance their capacities.

**3.12.8 The analysis of the secondary data and interaction held with unorganized microenterprises/FPOs/SHGs/Experts dealing in the five major food categories is summarized in the following table**

Major Food Category	Produce shortlisted based on secondary data research	Products/produce shortlisted based on interactions held with micro enterprises/ FPOs/ SHGs& experts	Products/ produce finalized	Status of finalized products/ produce from ODOP point of view (High/ medium/low)
Grains& oilseed processing	Oilseeds Sugarcane	Atta Jaggery	Oilseeds Atta Jaggery	Medium Medium Medium
Fruits & vegetable processing	Peas Tomato	Pickle & murabba	Tomato <b>Peas</b> <b>Pickle</b> <b>&amp; murabba</b>	Medium <b>High</b> <b>High</b>
Dairy Product processing	Milk	Milk & milk products	Milk & milk products	Medium
Poultry Meat & Fish Processing	Fish Broiler Meat	Poultry, Meat and Fish processing	<b>Poultry, Meat and Fish processing</b>	<b>High</b>
Packaged food	-	Bakery products & Savouries	Bakery products & Savouries	Medium

The district has three high potential produce/products viz. Peas and Pickles & murraba and processed chicken. Processed chicken has a good shelf life and it requires a sizeable investment, which is largely not possible from a micro enterprise. Likewise, peas require IQF units, which require huge investments. So, for micro enterprises pickles & murraba is the best choice. **PAIC, thus, recommends 'Pickles & Murabba' as 'One Product' for District Amritsar.**

### 3.13 JALANDHAR

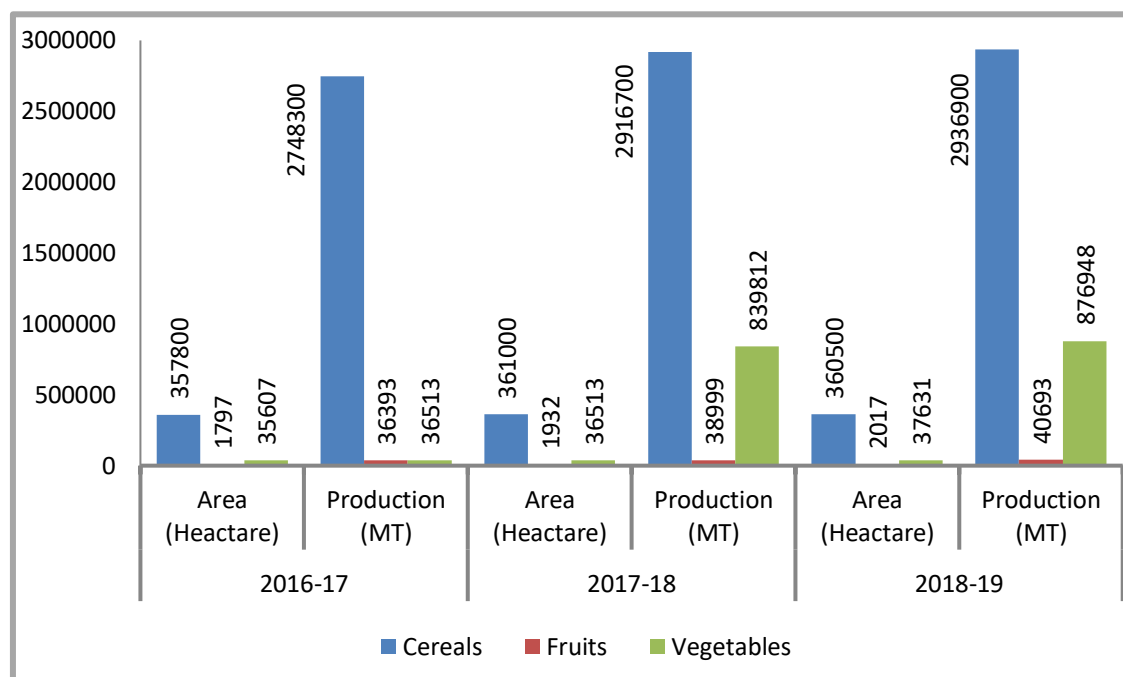


**3.13.1** District Jalandhar is situated between the fertile agricultural land of River Beas and Sutlej. The major towns of the district include Jalandhar, Bhogpur, Adampur, Nawanshahr, Banga, Aur, Nakodar, Shahkot, Phillaur, Nurmahal and Rurka Kalan. All these places are connected by rail and road. **According to the 2011 Census, the population of district was 21,93,000 persons, the 3rd most populated district after Ludhiana and Amritsar districts.** The district has 910 inhabited villages. **The Gross District Domestic Product (GDDP) and Per Capita Income (PCI) at current prices (2015-16) was Rs. 1,52,341/- and Rs. 1,36,583/-, much above than the state average of Rs.1,32,467/- and Rs.1,18,858/- respectively.**

The geographical area of the district is 2,66,000 Hectare, of this the **net sown area is 91% (2,43,000 Hectare)**. The area sown more than once is 1,67,000 Hectare, thus recording a **cropping intensity of 168%.**

The topography of the District is typical representative of an Alluvial plain. It is suitable for cultivating wheat and sugarcane.

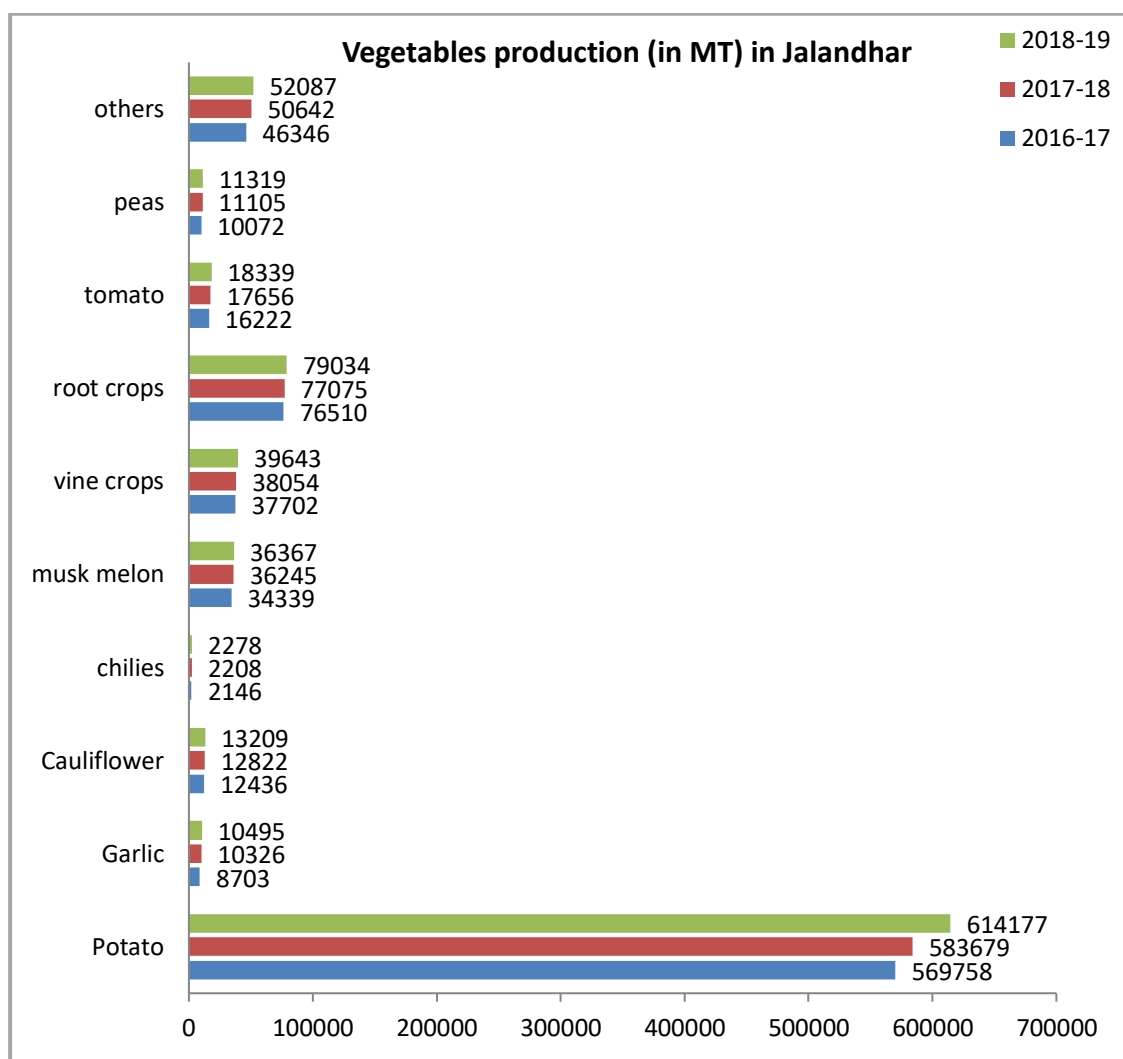
### 3.13.2 The trend in the area and production of food grains including sugarcane and fruits & vegetables in the district is presented here under:



\*Source: Department of Agriculture/Horticulture, Punjab

Wheat and paddy are the main rabi and kharif crops of the district. The area under wheat increased by over 2% from 1,66,000 Hectare (8,05,000 MT) in 2016-17 to 1,70,000 Hectare (8,61,000 MT) in 2017-18. Thereafter, it remained static at 1,70,000 Hectare in 2018-19. Whereas, there has been gradual increase in area under paddy from 1,70,000 Hectare (10,43,000 MT) in 2016-17 to 1,71,000 Hectare (10,67,000 MT) in 2017-18 to 1,73,000 Hectare (10,73,000 MT) in 2018-19, a cumulative increase of 2% in three years. The other major crops of the district include sugarcane and maize. **Area under sugarcane increased from 10,000 Hectare (8,56,000 MT) in 2016-17 to 11,000 Hectare (9,93,000 MT) in 2018-19, a cumulative growth of 10% in three years.** Maize recorded a decrease in area from 7,000 Hectare (39,000 MT) in 2016-17 to 5,100 Hectare (22,600 MT) in 2018-19, a cumulative fall of 27% in three years. The district also grows kharif pulses (arhar), kharif oilseeds (sesamum) and rabi oilseed (sarson) in small quantities on 300 Hectare (300 MT), 100 Hectare (100 MT) and 800 Hectare (1,100 MT) respectively during 2018-19. It is observed that except sugarcane, there is no significant growth in area and production of other crops during the past three years. **So, sugarcane is the crop from this group for further study.**

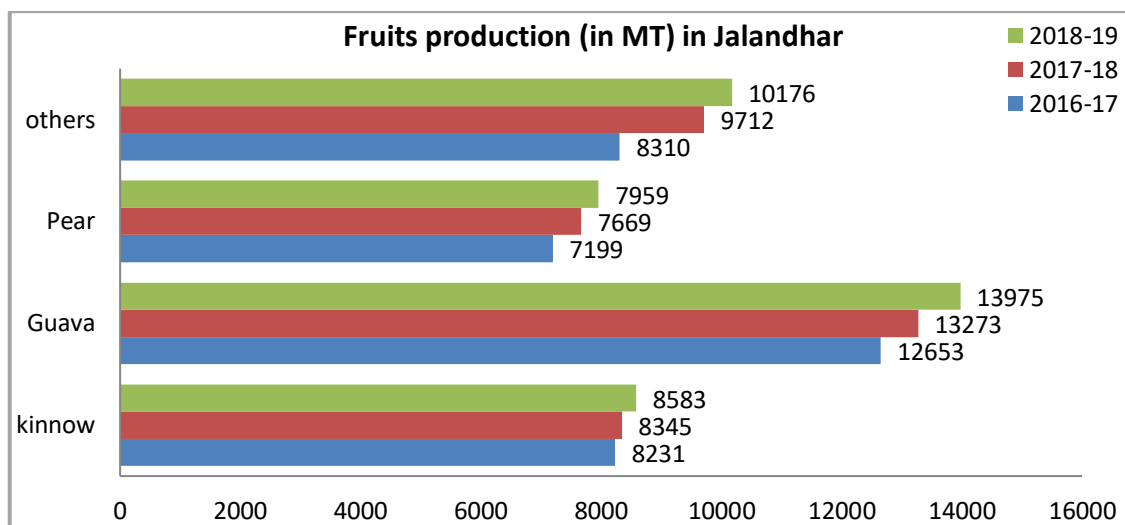




*\*Source: Department of Horticulture, Punjab*

The district produces a wide range of vegetables like potato, onion, garlic, brinjal, peas, vine crops, root crops, cauliflower, tomato, chillies, cabbage, okra, musk melon & water melon and that too in substantial quantities. Overall, there has been cumulative growth of over 5% in area under vegetables from 2016-17 to 2018-19. **Out of all vegetables, maximum area is under potato with 22,556 Hectare (6,14,177 MT) during 2018-19, a cumulative increase of over 4%.** The district is known for producing both seed and processing varieties of potato. **The district tops in the production of potato and musk melon amongst all district of the state. The area under musk melon recorded a cumulative growth of 6% in past three years at 1,985 Hectare (36,367 MT) in 2018-19.** Like district Jalandhar, the adjoining district Kapurthala also produces musk melon in large quantities. **Further, the district is the second biggest producer of root crops after district Hoshiarpur with 79,034 MT (3,288 Hectare) during 2018-19.** So, the

most promising vegetable crops for the district are potato, musk melon and root crops (turmeric etc.).



*\*Source: Department of Horticulture, Punjab*

The district produces a wide variety of fruits like kinnow, lime lemon, mango, guava, pear, peach, plum, ber, etc., but in limited quantities. The district reported a cumulative growth of nearly 12% in area under all fruit crops taken together in last three years. **Guava is the major fruit with area of 616 Hectare (13,975 MT) during 2018-19. Guava reported a cumulative growth of 10% in area in past three years. So, guava is selected from the fruit group for further study.**

### 3.13.3 Grain and oilseeds processing

There are over 1,000 wheat flour mills in the district, out of which 8 to 10 are medium sized roller mills and over 20 mini automatic flour mills manufacturing branded/non-branded atta. The other products made by such mills include maida, rava, dalia etc. The remaining are atta chakkis (manual) manufacturing non-branded atta and doing job work. Many atta chakki owners also process turmeric and mustard seed.

There are over 55 rice shellers milling common paddy for government procurement agencies. Their average capacity is 2 MT/hr. The district has a couple of solvent extraction plants manufacturing edible oil from rice bran.

The sugarcane produced in the district is processed in the sugar mill located at Bhogpur. Some farmers also process it to make jaggery.

We spoke with some micro enterprises to understand their business and interest to expand further.

**Mink Organics** is owned by Mr. Anurag Arora. They deal in mustard/groundnut/flex oil seeds and nigella oilseed (kalonji). They buy oilseeds in bulk quantities to extract oil. They also deal in organically grown pulses.

### 3.13.4 Fruits and Vegetables processing

There are 5 to 6 medium sized fruits and vegetable processing units in the district, including two units by the State Co-operative i.e. Marked. Then, there are many individuals/micro enterprises, FPOs/SHGs etc. who are engaged in the manufacture of products like honey, pickles, murraba, sauces, sherbet, haldi, tomato sauces, etc. We spoke with some micro enterprises and FPOs to find out their interest to take advantage of the scheme.

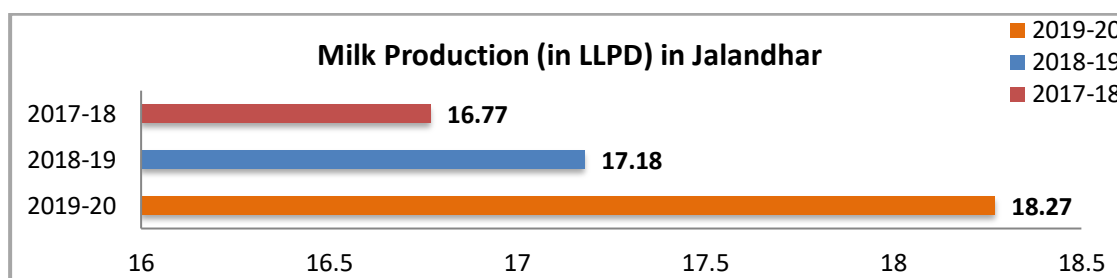
**Doaba Honey, Jalandhar** is owned by Mr. Charanjeet Singh of Adampur, Jalandhar. His FPO has 40 members. They have 8,000 honey boxes. Their annual production of honey is about 200 quintal. Under the scheme, they want to expand their business operations.

**Mr Sukhjinder Singh, Jalandhar City**, runs a murraba processing unit. He started his unit in 1990. He also makes sauces, sherbet, etc. The annual turnover of the unit is approx. Rs. 30 lac. He now wants to expand and diversify into bakery products.

**The Bhogpur FPO, Jalandhar**, started by Mr. Amarjeet Singh from Bhogpur. The FPO has 106 members. All members are active participants. The FPO manufactures turmeric, jaggery etc. They are also into rice and pulse processing. The raw material is received from group members. They also purchase raw material from local market. The turnover of the FPO is about Rs. 25 lakh. They want to make use of the credit linked subsidy to up-grade and expand their business operations.

### 3.13.5 Dairy product processing

**The district has reported consistent increase in the production of milk during past three years at 18.27 lakh liter/day.**



*\*Source: Directorate of Dairy Development, Punjab*

There are 3 to 4 medium sized milk processing plants in the district. Many of these plants have their own arrangement for procurement of milk. Then, there are over 500 small and micro enterprises, including ‘sweet meat’ manufacturers processing 500 litre to 1,500 litre per day of milk to manufacture paneer, lassi, curd, ghee, khyoa, cream, kulfi, sweet meat, etc. We interacted with some firms and individuals and came to know that the milk producers having good number of cows/buffalos would be interested to set up their own milk pasteurization units for the convenience of their customers. This would also ensure them a good return.

**Mr Jaswinder Singh**, VPO Gurre, Jalandhar, has 25 HF cows with average daily milk production of 200 liter/day. He is manufacturing paneer, butter and curd. He also sells milk in his neighbourhood. He wants to enhance capacity of his plant under the scheme.

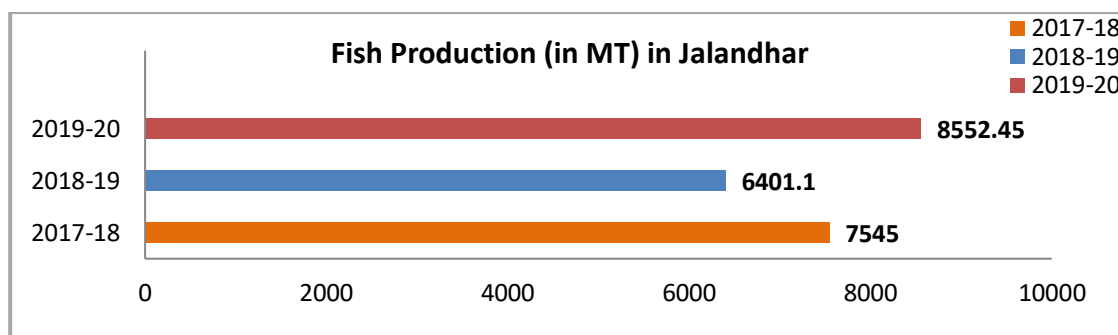
**Mr.Amandeep Singh Hayer**, VPO Litran, Jalandhar, is producing milk and also sells vegetables and animal feed. He has 200 cows. He has his land where he cultivates potatoes and maize. He has his own cold store. He also produces animal feed. He wants to make use of the scheme.

There is, therefore, scope for encouraging existing milk producer-cum-processors to upgrade and enhance production capacities of their plants.

### 3.13.6 Poultry, Meat and Fish processing

The district has over 25 lakh bird commercial broiler and layer farms. The broilers are consumed locally as well as sent outside the district depending upon the demand and production. There is no modern broiler/meat slaughtering/dressing plant in the district. However, there are meat/chicken processing plants manufacturing nuggets, hams, sausages, etc. The district has more than 500 individuals/micro enterprises engaged in slaughtering and selling daily fresh chicken/meat. It was found that the small

time individuals slaughtering chicken in unhygienic manner needs to be upgraded in the first place.



*\*Source: Fisheries Department, Punjab*

The production of fish was erratic in last three years. However, during 2019-10 the same improved to 8,552 MT. It was found that about 1,500 acres (both personal and panchayati land) is under fish farming in the district. There is good demand for IMC varieties of fish and the same is increasing year after year. There are people who maintain frozen stores for storage of fish etc.

**Mr Rohit Gupta of Arparn Fish Farm, VPO Lambran, Jalandhar** informed that his farm is based on aqua phonics wherein he cultivates varieties of fish viz. basa, marak, rohu etc. In the same ponds, he also grows vegetables like spinach, tomatoes and lettuce.

**So, there is good potential to promote processing of raw fish in the district.**

### 3.13.7 Packaged food items

The district Jalandhar has many units manufacturing packaged food, including savouries, bakery products, ready-to-eat veg. and non veg. products etc. The district also has over 400 bakery units, out which 80% are doing job work.

**Lovely Bake Studio, Nakoder Road, Jalandhar** is owned by Mr. Shaishav Mittal. He makes biscuits, cake, chocolates, pastry, patty and namkeens. He is interested to expand his manufacturing operations.

**Mansi Enterprises** is owned by one Mr. Ashok Kumar. He manufactures kids snacks. He informed that packaged namkeens is in big demand in the district.

**Verma ji Namkeen, Jalandhar Cantonment**, belongs to one Mr. Umesh. He manufactures namkeen, dried peas, mathi etc. He sells finished products from their own retail counter.

**3.13.8 The analysis of the secondary data and interaction held with unorganized microenterprises/FPOs/SHGs/Experts dealing in the five major food categories is summarized in the following table**

Major Food Category	Produce shortlisted based on secondary data research	Products/produce shortlisted based on interactions held with micro enterprises/ FPOs/ SHGs& experts	Products/ produce finalized	Status of finalized products/ produce from ODOP point of view (High/ medium/ low)
<b>Grains&amp; oilseed processing</b>	Oilseeds Sugarcane	Atta Jaggery	Oilseeds Atta Jaggery	Medium Medium Medium
<b>Fruits &amp; vegetable processing</b>	Potato Musk melon Water melon Turmeric	Pickle & murabba Haldi	<b>Potato</b> <b>Musk melon</b> Water melon Turmeric	<b>High</b> <b>High</b> Medium Medium
<b>Dairy Product processing</b>	Milk	Milk & milk products	Milk & milk products	Medium
<b>Poultry Meat &amp; Fish Processing</b>	Fish Broiler Meat	Poultry, Meat and Fish processing	<b>Poultry, Meat and Fish processing</b>	<b>High</b>
<b>Packaged food</b>	-	Bakery products & Savouries	Bakery products & Savouries	Medium

The district has three important produce/products having tremendous potential viz. potato, musk melon and daily fresh/meat/chicken/fish. Potato being more perishable of all, **PAIC, thus, recommends 'Potato' as 'One Product' for District Jalandhar.**

### 3.14 LUDHIANA



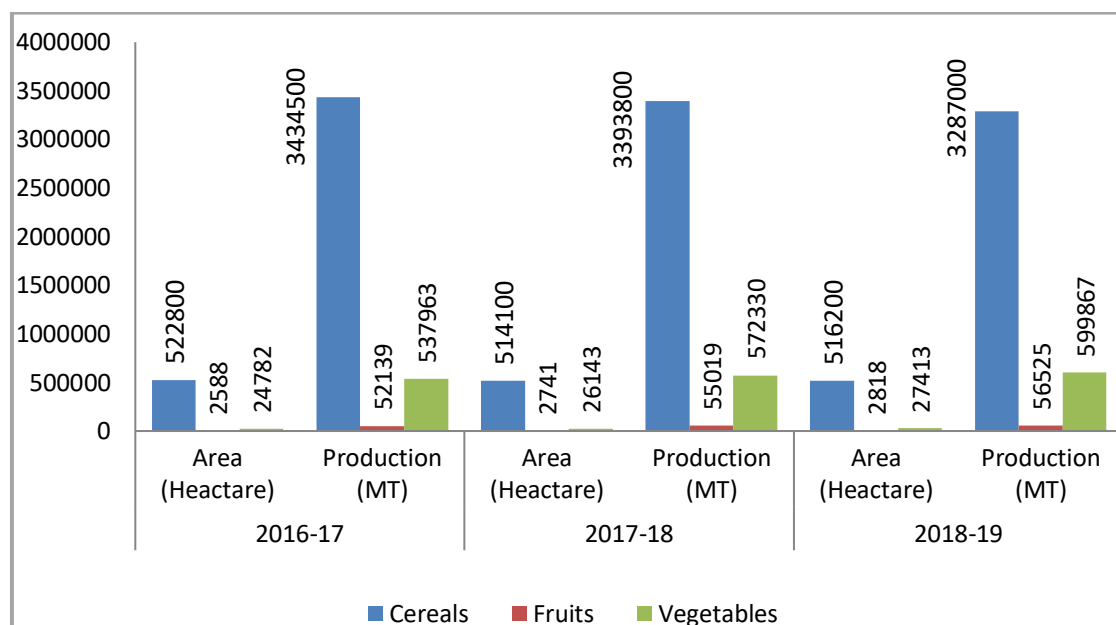
**3.14.1** Ludhiana district is in the central plain zone of Punjab. Ludhiana is blessed with fertile alluvial land and its ever growing industry. According to the 2011 Census, the population of district was **34,98,000 persons, the highest populated district amongst all districts of the state**. The district has 893 inhabited villages. The Gross District

Domestic Product (GDDP) and Per Capita Income (PCI) at current prices (2015-16) was Rs. 1,62,078/- and Rs. 1,42,543/-, much above than the state average of Rs.1,32,467/- and Rs.1,18,858/-respectively. **In fact, the district recorded highest GDDP during 2015-16.**

The geographical area of the district is 3,68,000 Hectare, the highest amongst all districts. Of this, the **net sown area is 81% (2,99,000 Hectare)**. The area sown more than once is 2,97,000 Hectare, thus recording a **cropping intensity of 199%**. The district has number of designated fruits & vegetable, fish/meat and grain markets run by the state agency i.e. Punjab Mandi Board. These mandis are located at Haibowal Road, Kassi Kalan, Gill Road, Sabzi Mandi Karabar Chowk, Fish Market Tajpur Road, Sidhwan Bet, Chara Mandi Tajpur Road, Mullanpur, Dakha, Sahnewal, Raikot and Samrala. The district also has considerable share in poultry and fish production.

Over the years, food processing has grown in the district. Besides, there are a number of leading ‘Sweet Meat’ and ready-to-eat manufacturing units. The district has a multi commodity Mega Food Park set up at Ladhowal. Godrej Tyson Foods, Iscon Balaji Foods, Meat Masters, Sharman Jain Sweets etc. have set up their food processing units in the food park. Del Monte has also taken a big plot there to set up a unit to manufacture tomato ketchup and mayonnaise.

### 3.14.2 The trend in the area and production of food grains including sugarcane and fruits & vegetables in the district is presented here under:

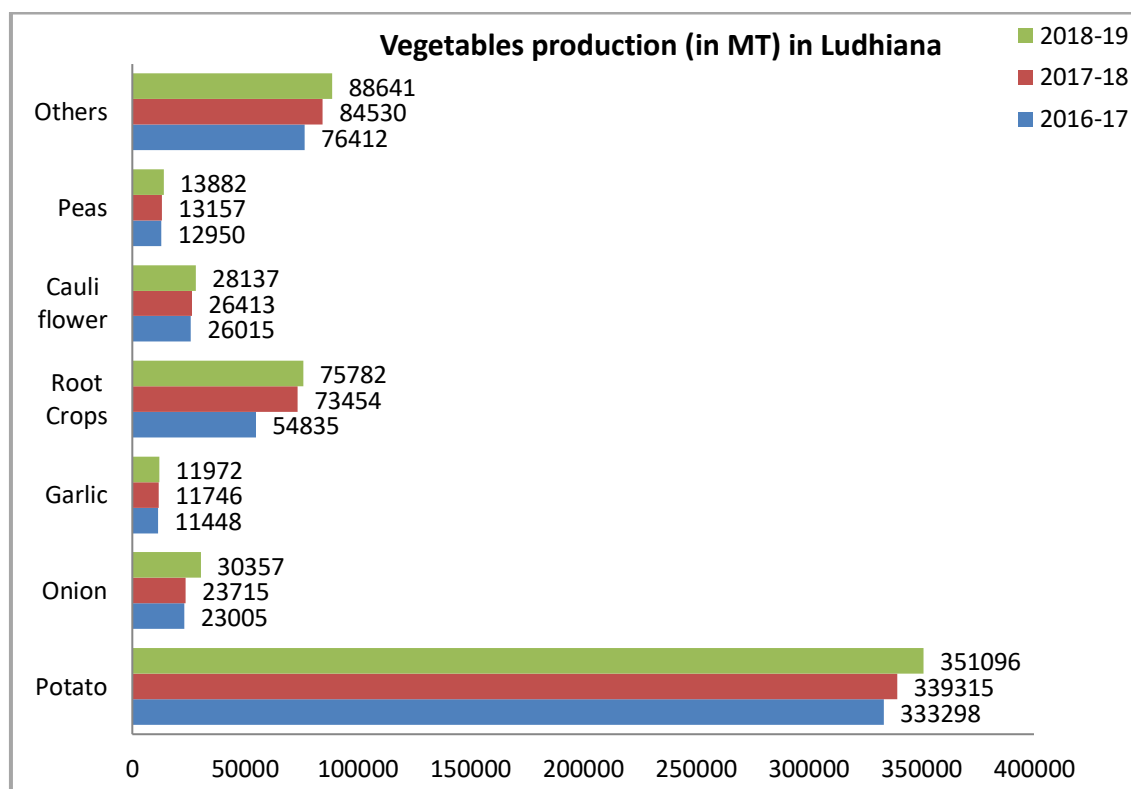


\*Source: Department of Agriculture/Horticulture, Punjab

Wheat and paddy are the main Rabi and kharif crops of the district. **The district is the second highest producer of paddy after district Sangrur, and third highest producer of wheat after districts of Sangrur and Bathinda.** The area under wheat and paddy remained more or less consistent during last three years with 2,51,000 Hectare (12,88,000 MT) and 2,59,000 Hectare (17,21,000 MT) in 2018-19. The other major crops of the district include sugarcane and maize. Area under sugarcane also remained constant in last three years at 3,000 Hectare (2,68,000 MT). The area under maize reported an erratic behaviour i.e. 8,000 Hectare (27,000 MT) in 2016-17 to 1,000 Hectare (4,000 MT) in 2017-18 to 1,300 Hectare (5,100 MT) in 2018-19, a cumulative fall of 84% in three years. The district also grows barley, kharif pulses (arhar& moong), sunflower and rabi oilseed (sarson) in small quantities on 1,200 Hectare (4,200 MT),

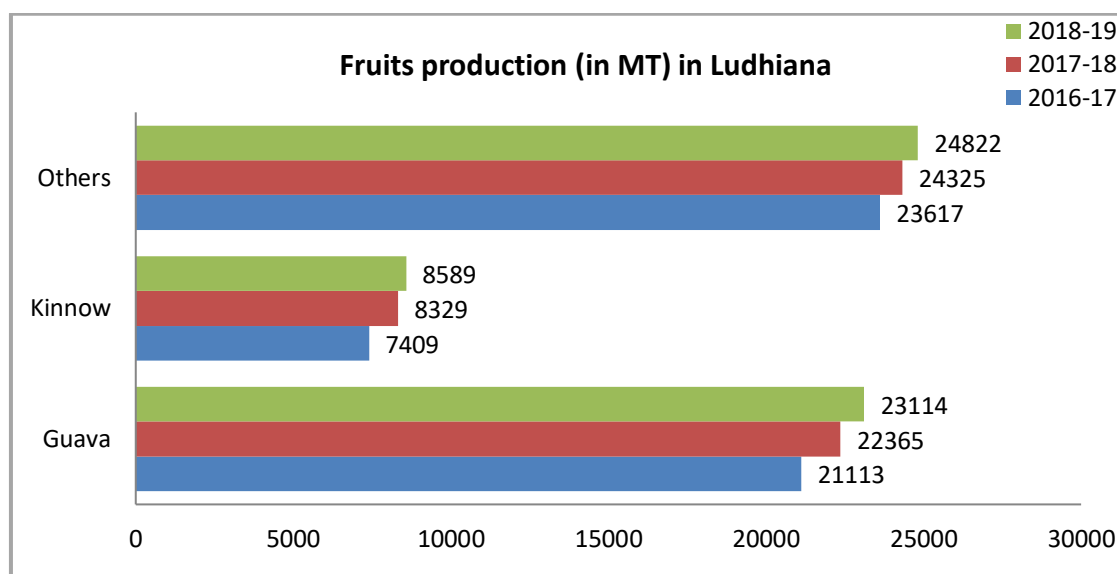


700 Hectare (700 MT), 1,000 Hectare (1,900 MT) and 1,300 Hectare (2,500 MT) respectively during 2018-19. It is observed that there is no significant growth in area and production of these crops during the past three years. **So, none of the above crop could be considered for further study.**



*\*Source: Department of Horticulture, Punjab*

The district produces a wide range of vegetables like potato, onion, garlic, brinjal, peas, vine crops, root crops, cauliflower, tomato, chillies, cabbage, okra and musk melon and that too in substantial quantities. Overall, there has been cumulative growth of over 11% in area under vegetables from 2016-17 (24,782 Hectare) to 2018-19 (27,413 Hectare). Out of all vegetables, maximum area is under potato with 13,216 Hectare (3,51,096 MT) during 2018-19, a cumulative increase of over 4%. It is observed that the area under potato in the district is much less than the area under the same crop in the districts of Jalandhar and Hoshiarpur. **The district tops in the production of okra amongst all districts. There has been consistent growth in the area under okra in past three years from 804 Hectare (8,492 MT) in 2016-17 to 865 Hectare (9,140 MT) in 2017-18 to 896 Hectare (9,477 MT) in 2018-19. a cumulative growth of 11% in past three years. Therefore, okra is selected for study from this group.**



*\*Source: Department of Horticulture, Punjab*

The district produces a wide variety of fruits like kinnow, lime lemon, mango, guava, pear, peach, ber, etc. The area and production of all fruits except guava is in limited quantities. Overall, there has been cumulative growth of about 9% in area under fruits from 2,588 Hectare in 2016-17 to 2,818 Hectare in 2018-19. **Out of all fruits, the area under guava is maximum. There has been consistent growth in the area under guava from 922 Hectare (21,113 MT) in 2016-17 to 1,006 Hectare (23,114 MT), a cumulative growth of 9%. So, guava is selected from the fruit group for further study.**

### 3.14.3 Grain and oilseeds processing

There are over 16 modern roller flour mills and +50 mini flour mills in the district engaged in the business of milling of wheat to manufacture branded/non-branded wheat flour, choker, suji, maida, dalia, etc. In addition, there are over 1,200 atta chakkis who are doing job work. It was found that atta chakkis are best suited to take advantage of the 'PM FME' Scheme to upgrade and automate their units.

There are over 250 small rice mills processing paddy for government agencies. During discussion, it was found that they would like to upgrade their mills by purchasing 'length grader' or colour sortex machines provided they would be eligible to apply under the 'PM FME' scheme.

The district has many micro enterprises processing oilseeds to make crude edible oil. They have installed standard expellers (33/6) and some of them may like to upgrade their facilities.

There are 4 to 5 pulse cleaning, grading and milling units in Jagraon. The ‘moong’ produced by farmers of Jagraon and parts of Moga is brought to Jagraon mandi for auction.

Discussion held with some micro enterprises and we were given to understand that they would be interested to make use of the credit linked subsidy under ‘PM FME’ Scheme.

### 3.14.4 Fruits and Vegetables processing

There are two medium/large sized vegetable processing units (Godrej Tyson Foods and Iscon Balaji Foods) in the district. A Spanish company CNN in collaboration with IFFCO is setting up a large sized vegetable processing plant in Machhiwara. Then, there large number of ready-to-eat/ready-to-cook food processing units from small and micro enterprises. There are many FPOs/SHGs who are manufacturing and packing pickle, chutney, sherbet, spices, lassi, honey etc. We interacted with a couple of them

**Atwal Agro Foods, Village Daitwal** owned by Mr. Tejinder Singh Atwal. He took training from PAU, Ludhiana for honey as well processing of other food items. He now manufactures and sells these products in Kissan melas and ATMA KissanBazaar. He wants to make use of the credit linked subsidy to purchase new equipment.

**Global SSG Farmer Produce Organization, Village Haibowal**, is run by Mrs Gurdev Kaur. They are into manufacture and marketing of pickle, murabba, chutney, etc.

**Good Food Boutique, Ludhiana** is a proprietorship firm of Mr Kawinder Pal Singh Bains. He is into preparation and distribution of fresh ready-to-eat food (both vegetarian & non-veg.). He has formed a Whatsapp group of his regular clients and depending on the order his men cook the required dishes during the day and then get the same delivered in the evening. Now, he wants to set up a retort and bigger kitchen appliances to expand his operations to cater to the need of his clients outside Ludhiana. He is also taking a build-up shed in Mega Food Park, Ladhawal for the purpose. He would like to make use of the opportunity to avail credit linked subsidy for buying new appliances.

**Roseberg Food, Ludhiana**, a sole proprietorship firm of Mr. Jeeshant Kalra of Ludiana. He has started a start-up to make snacks, including namkeen, makhana and

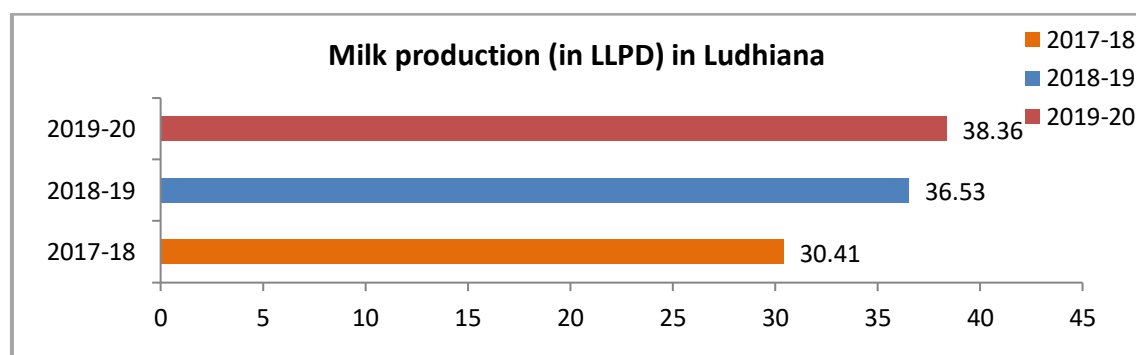
flavored multigrain seed. He has taken a build-up shed in Mega Food Park, Ladhawal. He is interested to expand his operations using the credit linked subsidy under 'PM FME' Scheme.

**Top Hill Honey** owned by Mr. Kanwardeep Singh. He took training for honey processing from PAU, Ludhiana. Now, he has his own processing unit wherein he manufactures honey, bee pollen and bee wax. He is selling these products to Dabur as well as his regular clients. He wants to add new machinery by availing subsidy under this scheme.

**Agri Helpaid Society, Mushkabad**, a registered society run by Mr Devinder Singh. The society has 350 members. They are engaged in producing and selling fresh fruits and vegetable. They maintain a pack house wherein the produce brought by member farmers is graded and kept in cold store where after it is sent to distant markets like Delhi to fetch better price. The district has one cold chain unit for fruits and vegetable approved by the Ministry of Food Processing Industries.

**There is tremendous scope for ready-to-eat and ready-to-cook products in the district.**

### 3.14.5 Dairy product processing

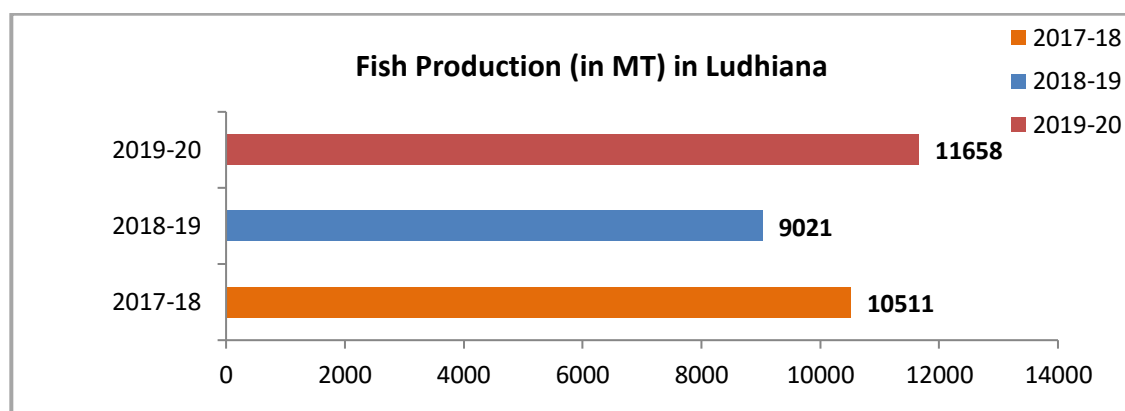


*\*Source: Directorate of Dairy Development, Punjab*

There are over eight medium sized milk processing plants manufacturing a wide range of milk products like pasteurized milk, curd, paneer, lassi, desi ghee, butter, khoa, cream etc. Besides, there are number of dairy farms processing 500 litre to 5,000 litre per day of milk to make standard milk products and sweet meat. There is a cold chain project of dairy approved by the Ministry for this district.

### 3.14.6 Poultry, Meat and Fish processing

There are many commercial layer and broiler farms in the district. A layer farm generally has +25,000 birds, whereas broiler farm has +5,000 birds. There are over 30 layer farms (+50,000 birds) in the district. They sell eggs to contractors who in turn send them to J&K and other places. There is a chicken slaughtering-cum-dressing plant and over 1,000 manual chicken/meat slaughtering shops by individuals/micro enterprises. We spoke with some small and micro enterprises and the discussion held is as under.



*\*Source: Fisheries Department, Punjab*

The production of fish was erratic in last three years. However, during 2019-20 the same improved to 8,335 MT. It was found that over 1,500 acres is under fish farming in the district. There is good demand for IMC varieties of fish and the same is increasing year after year. There are people who maintain frozen stores for storage of fish etc. There is a dedicated fish market run by the state agency i.e. Punjab Mandi Board. Fish offers a promising future for farmers and processors.

**Grewal Poultry, Kila Raipur** is a commercial layer farm of 85,000 birds. Mr. Gurinder Singh of this farm informed that they are proposing to set up an egg processing unit to manufacture egg concentrate, egg powder, egg jam etc. Many poultry farms are also considering setting up egg grading and packing lines (costs Rs. 20 lacs). All commercial layer farms have their own feed mills. A feed mill costs about Rs. 10 lacs. Mr. Gurinder is interested to make use of the scheme to set up an egg grading and packing line.

**Shiva Agro Industries** has set up a chicken slaughtering and dressing unit in the premises of Guru Angand Dev Veterinary University, Ludhiana. This is the only modern slaughtering and processing unit in the district.

### 3.14.7 Packaged food items

There are 3 to 4 medium sized units (Bonn, Kitty, etc) and a number of small and micro enterprises manufacturing breads, biscuits, cakes, dry cakes, buns, etc. Many women are also into commercial bakery and the number is increasing. These small enterprises would like to take maximum advantage of this scheme as most of them are operating from small and limited spaces in the residential areas. Discussion held with some units is reproduced below.

**Tripit Organics, Ludhiana**, a sole proprietorship firm of Ms. Harpreet Kaur, deals in bakery products made from raggi/malt/millet flour. She operates from her residence. The millets are sourced from Rajasthan, Haryana and South India. She wants to set up a proper unit by renting out some shed in Ludhiana.

**Singing & Kitchen**, a proprietorship firm of Ms. Manjit Kaur based out of Ludhiana. She took training from Department of Food & Nutrition, PAU, Ludhiana and thereafter she started her bakery and makes dry cake, birthday cake, biscuits, brownie, bread, doughnuts, pizza etc. Now, she wants to take a shed and purchase latest equipment to expand her business.

**Delicious Bites, Ludhiana**, a firm by Ms. Joyti Gambir, is engaged in the business of high end bakery products made out of millets. She has many awards to her credit. She too wants to shift her operations from residence to a proper place.

**Sweet Temptations, Ludhiana**, a firm by Ms. Rijuta Jain, is manufacturing vegan bakery products like breads, cake, dry cake, biscuits etc. She has taken a plot in Mega Food Park, Ladhowal where she would put up a state-of-the-art bakery. She has orders from EU Nations.

It evident that there are many women entrepreneurs who want to utilize their baking skills to make high end biscuits and other bakery products for export markets

There is excellent scope to strength existing bakery units and to promote new ones in the district.

**3.14.8 The analysis of the secondary data and interaction held with unorganized microenterprises/FPOs/SHGs/Experts dealing in the five major food categories is summarized in the following table:**

Major Food Category	Produce shortlisted based on secondary data research	Products/produce shortlisted based on interactions held with micro enterprises/ FPOs/ SHGs& experts	Products/ produce finalized	Status of finalized products/ produce from ODOP point of view (High/ medium/ low)
Grains& oilseed processing	Oilseeds Sugarcane	Atta Jaggery	Oilseeds Atta Jaggery	Medium Medium Medium
Fruits & vegetable processing	Okra Guava Potato	Pickle & murabba Haldi Honey Wadian& papad	<b>Okra</b> Guava Honey Wadian& papad Pickle & murabba	<b>High</b> Medium Medium Medium Medium
Dairy Product processing	Milk	Milk & milk products	Milk & milk products	Medium
Poultry Meat & Fish Processing	Fish Broiler Meat	Poultry, Meat and Fish processing	<b>Poultry, Meat and Fish processing</b>	<b>High</b>
Packaged food	-	Bakery products & Savouries	<b>Bakery products &amp; Savouries</b>	<b>High</b>

The district offers three products for future growth viz. **okra, bakery products and daily fresh chicken/meat/fish**. However, for the purpose of ODOP, PAIC recommends 'Bakery products' as 'One Product' for District Ludhiana.

### 3.15 FARIDKOT

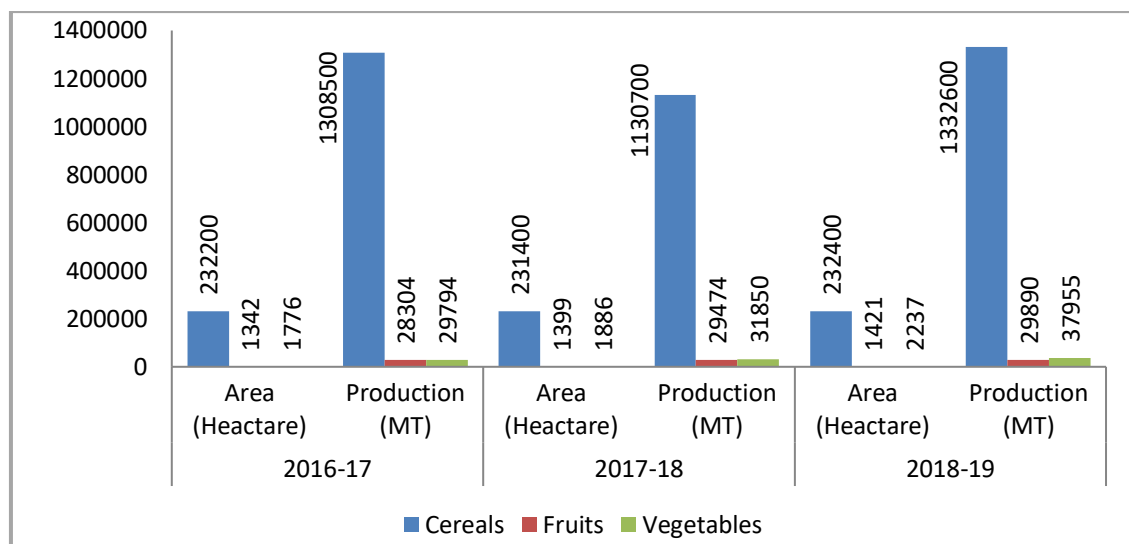


**3.15.1** The district Faridkot is located on the Punjab plain and forms a part of great Satluj Ganga plain. It lies in South West of the State and is surrounded by district Ferozpur in the North West, district Moga in the North East and district Bathinda on the South East and district Muktsar Sahib on the South West. It is a low lying flat area. The major towns of the district include Faridkot, KotKapura, Jaitu, Sadiketc. According to the 2011 Census, the population of district was 6,17,000 persons. **The district has 163 inhabited villages. The Gross District Domestic Product (GDDP) and Per Capita Income (PCI) at current prices (2015-16) was Rs. 1,32,146/- and Rs. 1,18,686/-, marginally below than the state average of Rs.1,32,467/- and Rs.1,18,858/- respectively.**

The geographical area of the district is 1,47,000 Hectare. Of this, **the net sown area is 87% (1,28,000 Hectare).** The area sown more than once is 1,20,000 Hectare, thus recording a **cropping intensity of 194%.**

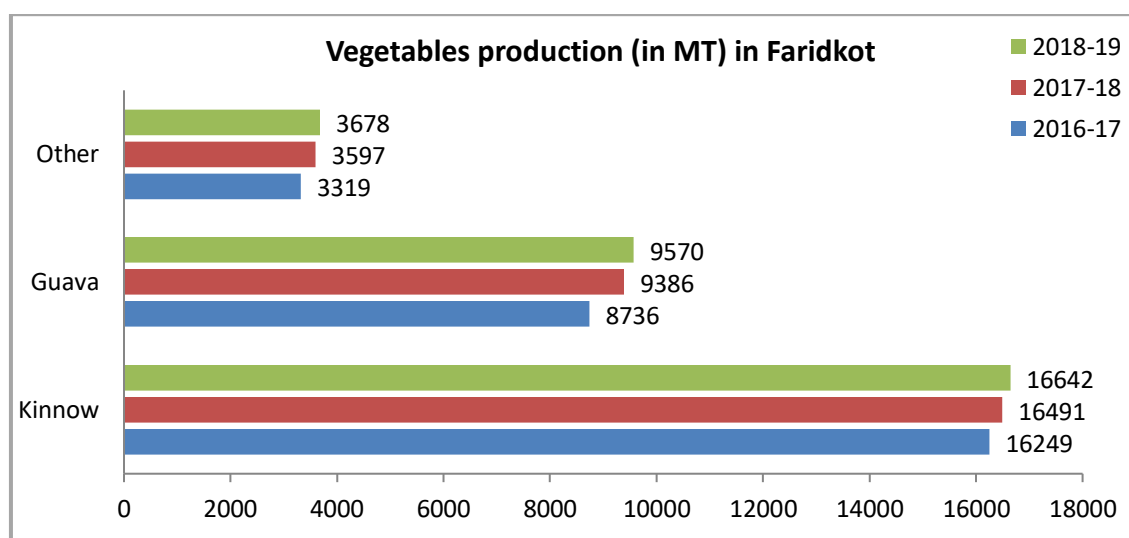


### 3.15.2 The trend in the area and production of food grains including sugarcane and fruits & vegetables in the district is presented here under:



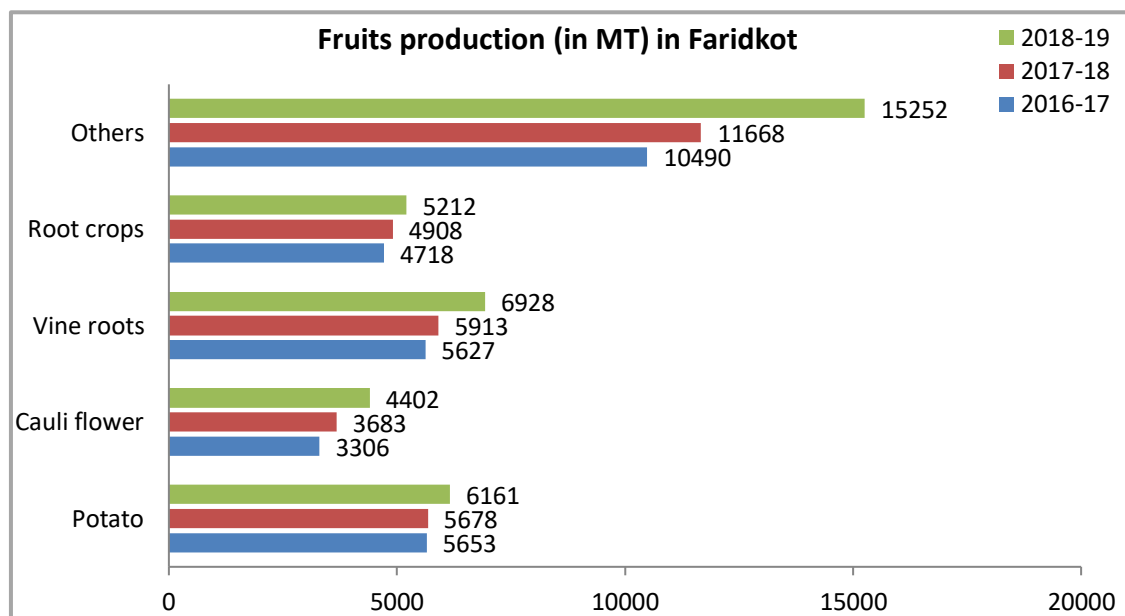
\*Source: Department of Agriculture/Horticulture, Punjab

Wheat and paddy are the main Rabi and kharif crops of the district. The area under wheat and paddy remained more or less consistent during last three years with 1,16,000 Hectare (6,20,000 MT) and 1,16,000 Hectare (7,12,000 MT) in 2018-19. The other major crop of the district is cotton. The district also grows barley and rabi oilseed (sarson) in small quantities on 100 Hectare (400 MT) and 400 Hectare (600 MT) during 2018-19 respectively. It is observed that there is no crop other than wheat and paddy grown in reasonable quantities. **So, none of the above crops could be considered for further study.**



\*Source: Department of Horticulture, Punjab

The district produces a wide range of vegetables like potato, garlic, brinjal, peas, vine crops, root crops, cauliflower, tomato, cabbage and okra and that too in limited quantities. **Overall, there has been cumulative growth of over 27% in area under vegetables from 1,776 Hectare in 2016-17 to 2,237 Hectare in 2018-19. Out of all vegetables, maximum area is under vine crops with 486 Hectare (6,928 MT) during 2018-19. It is observed that the area under vine crops in the district is much less than the area under the same head in other districts. There is, therefore, no crop for further study from this group.**



*\*Source: Department of Horticulture, Punjab*

The district produces a wide variety of fruits like kinnow, guava and ber. The area and production of all fruits except kinnow is in limited quantities. Overall, there has been gradual increase in the area under fruits from 1,342 Hectare in 2016-17 to 1,421 Hectare in 2018-19, a cumulative growth of 6%. **Out of all fruits, area under kinnow is maximum at 731 Hectare, which is very less as compared to other kinnow producing districts viz. Fazilka, Hoshiarpur, Sri Muktsar Sahib etc. There is, therefore, no fruit for further study from this group.**

### 3.15.3 Grain and oilseeds processing

The district has 94 rice mills of average capacity of 2 MT/hr. processing common paddy for state government procurement agencies. There are two solvent extraction plants processing cotton seed and rice bran to produce edible oil. Then, there are over 700 atta

chakkis manufacturing wheat flour etc. We spoke with some of the micro enterprises to understand their interest to take advantage of the scheme.

**Mr. Chaman Lal Sachdeva** is running a flour mill & an oil expeller. He is processing besan, flour, maize etc. He established his business in 1916 and today his annual turnover is Rs 50 lakh. Mr. Chaman Lal is interested to make use of the credit linked subsidy under ‘PM FME’ to expand his business & to start business of spices.

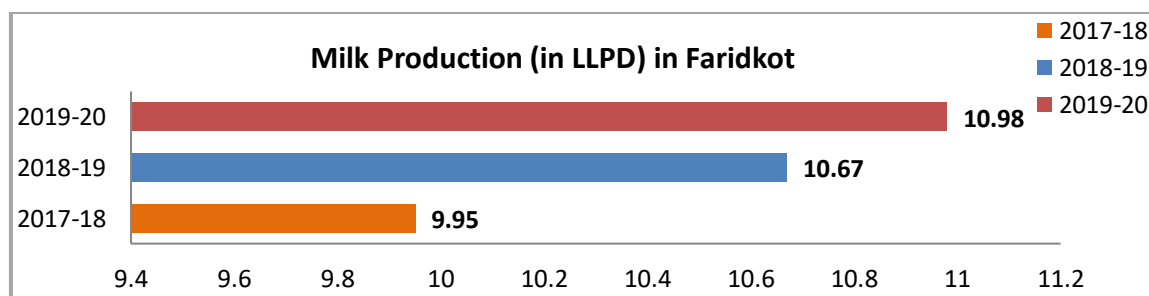
### 3.15.4 Fruits and Vegetables processing

There is no major unit in the district processing fruits and vegetable. However, there are number of individuals/micro enterprises, FPOs/SHGs etc. manufacturing and marketing products like honey, pickles etc. The response of some micro enterprises to the launch of the new scheme is discussed below.

**Mr. Harpreet Singh Faridkot**, Village Golewalais engaged in the business of honey. He has 150 boxes and produces around 40-50 quintal honey seasonally. Honey is sold to private companies, local markets and dealers. This farmer got best bee keeping award in 2012 from PAU. He is interested to make use of the scheme.

**Mr. Dalip Singh** Village Dhilwan Kalan, Kotkapura, Faridkot has 3.5 acre land where he grows Ghia, Black Tori, Karela, Raddish, Peas and Garlic and produces around 30-32 quintals of total produce. He sells the produce in local mandi in KotKapura. Mr. Dalip is interested to make use of the credit linked subsidy under ‘PM FME’ to purchase commercial machinery for processing and packing etc.

### 3.15.5 Dairy product processing



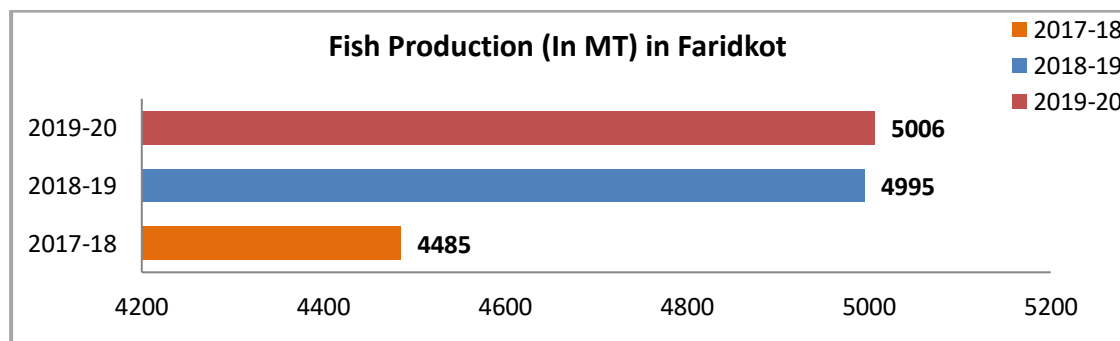
*\*Source: Directorate of Dairy Development, Punjab*

The district is constantly increasing production of milk from 9.95 lakh litre/day in 2017-18 to 10.98 lakh liter/day in 2019-20. District Faridkot is one of the smallest districts,

yet it produces large quantity of milk. The district has two medium sized milk processing plants. Besides, there are over 200 milk producers and processors manufacturing paneer, cream, khoya, curd etc. Mr. Kulwinder Kumar, member of Faridkot Milk Producer Association informed that he processes 1 Qtl milk daily to manufacture curd and paneer. He now wants to set up a small milk pasteurization unit to add value to his produce. The known brands in sweets namely ‘Dhoda’ and ‘Bhaiya Sweets’ are from this district. **There is a good scope to encourage such milk producers and sweet meat units to up-grade their facilities and set up new units.**

### 3.15.6 Poultry, Meat and Fish processing

There are a good number of commercial poultry layer and broiler farms in the district. There is good demand for meat products in the district. There is no modern slaughtering and dressing plant. The demand is met by supply of daily fresh broiler by micro enterprises. There are over 200 shops dealing in this business. It is observed that there is a need to encourage such units to set up modern appliances for culling and storage of dressed broilers etc. **Mr. Amar Singh** is running a poultry feed unit. He established the unit 2001 and at present his annual turnover is Rs. 5 Cr. Mr. Amar Singh is interested to make use of the credit linked subsidy under ‘PM FME’ to expand his feed factory.



*\*Source: Fisheries Department, Punjab*

The district has produced 5,006 MT of fish during 2019-20. Fish cultivation is picking up there. The production of fish is consistently increasing in last three years with 5,006 MT in 2019-20. The district produces both IMC varieties of fish and shrimp. **Mr. Amandeep Singh Sekhon**, Faridkot informed that he running a registered fish farm. He established his business in 1993. His annual turnover is Rs. 50 lakh. He has 26 acre under fish farm and produces over 20 Quintal per acre. Fish is sold from farm gate to local dealers. He has also done two weeks training on fish farming from Faridkot in

2015 and in shrimp farming from Fishery Department GADVASU in 2017. He produces large varieties of fish like mrigal, grass carp, silver carp, rohu, common carp and katla. He earns good profit through his innovative techniques/ideas. He is also trying to make boneless fish products like fish fingers, fish cutlets, which are in good demand.

### 3.15.7 Packaged food items

There are a good number of bakery and savouries units in the district. As informed by a local baker, the numbers may run into 400. These units are using conventional way of baking products. Most of them are doing job work. The demand for quality bakery products and snacks is rising on daily basis. It is observed that there is a need to promote existing units to enhance their production capacities and up-grade the facilities.

### 3.15.8 The analysis of the secondary data and interaction held with unorganized microenterprises/FPOs/SHGs/Experts dealing in the five major food categories is summarized in the following table:

Major Food Category	Produce shortlisted based on secondary data research	Products/produce shortlisted based on interactions held with micro enterprises/ FPOs/ SHGs& experts	Products/ produce finalized	Status of finalized products/ produce from ODOP point of view (High/ medium/ low)
Grains& oilseed processing	Oilseeds	Atta	Oilseeds Atta	Medium Medium
Fruits & vegetable processing	-	-	Pickles Haldi Honey	Medium Medium Medium
Dairy Product processing	Milk	Milk & milk products	<b>Milk &amp; milk products</b>	<b>High</b>
Poultry Meat & Fish Processing	Fish Broiler Meat	Poultry, Meat and Fish processing	<b>Poultry, Meat and Fish processing</b>	<b>High</b>
Packaged food	-	Bakery products & Savouries	Bakery products & Savouries	Medium

Meat/Fish/Poultry products and milk & milk products have good potential for growth in the district. Due to existing infrastructure and prominent suppliers of sweet meat there, PAIC recommends ‘**milk and milk products**’ as ‘**One Product**’ for district Faridkot.

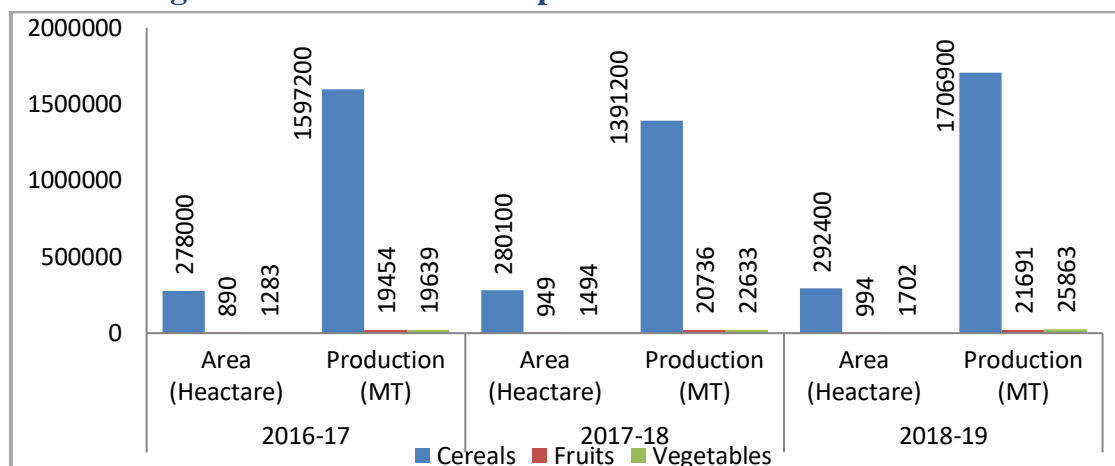
### 3.16 MANSA



**3.16.1** The district Mansa with headquarters at Mansa was came into existence on 13.4.1992. It is one of the Southern most districts of the Punjab State. It is bounded by the districts of Sangrur and Bathinda in the North, East & West and Haryana State in the South. **It is one of the smallest districts in terms of area in the State.** The district Mansa forms part of Satluj-Ganga plain and is characterized by low lying flat area. The river Ghaggar crosses the district through its Southern part running in the North East to South West direction. The district falls in Western zone as per agro climate of Punjab. The major towns of the district include Mansa, Bareta, Budhlada, Sardulgarh and Bhikhi. There is no industrial focal point here. According to the 2011 Census, the population of district was 2,35,000 persons. The district has 235 inhabited villages. **The Gross District Domestic Product (GDDP) and Per Capita Income (PCI) at current prices (2015-16) was Rs. 1,05,185/- and Rs. 97,294/-, much below than the state average of Rs.1,32,467/- and Rs.1,18,858/-respectively.**

The geographical area of the district is 2,14,000 Hectare. Of this, the **net sown area is 86% (1,85,000 Hectare)**. The area sown more than once is 1,82,000 Hectare, thus recording a **cropping intensity of 198%**. Wheat, paddy and cotton are the main crops of district Mansa.

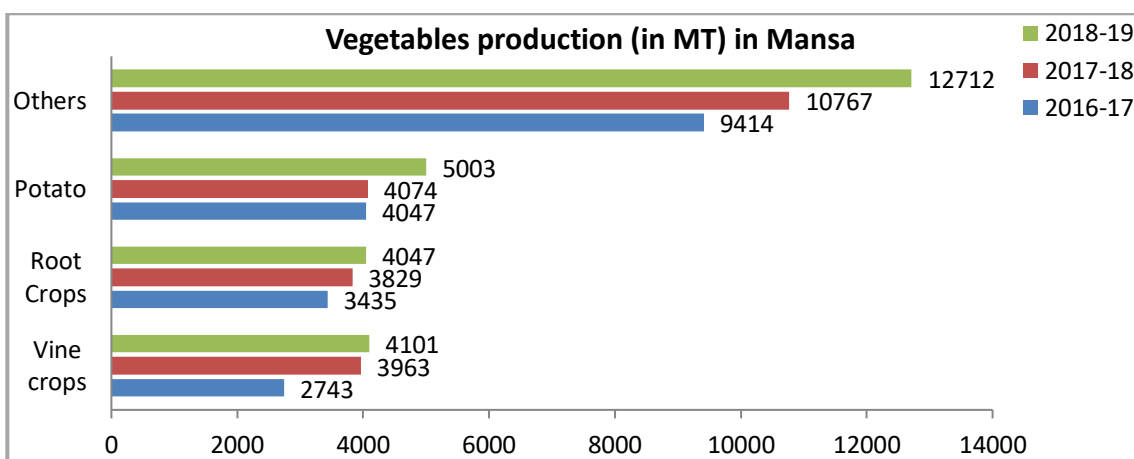
### 3.16.2 The trend in the area and production of food grains including sugarcane and fruits & vegetables in the district is presented here under:



\*Source: Department of Agriculture/Horticulture, Punjab

Wheat and paddy are the main Rabi and kharif crops of the district. The area under wheat remained consistent during last three years with 1,71,000 Hectare (9,32,000 MT) during 2018-19. However, the area under paddy recorded a cumulative growth of about 13% in last three years with 1,16,000 Hectare (7,67,000 MT) during 2018-19. The third major crop of the district is cotton. The district also grows bajra, kharif pulses (moong), guara seed, Rabi oilseed (sarson) and gram in small quantities with 400 Hectare (200 MT), 200 Hectare (200 MT), 2,900 Hectare (3,400 MT), 1,500 Hectare (2,700 MT) and 100 Hectare (200 MT) respectively during 2018-19.

It is observed that except paddy none of the crops recorded any growth in last three years. Due to continuous depletion of ground water, the state government is discouraging farmers from growing common varieties of paddy. **So, none of the above crops could be considered for further study.**

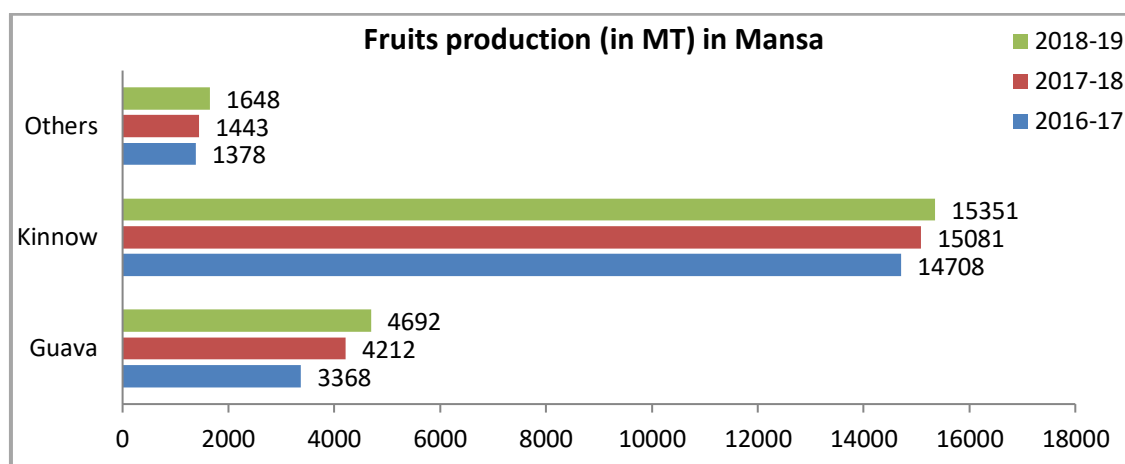


\*Source: Department of Horticulture, Punjab

The district grows a wide range of vegetables like potato, onion, garlic, tomato, cauliflower, okra, peas, root crops, vine groups, etc. in limited quantities. However, there has been cumulative growth of about 33% in the area from 1,283 Hectare (19,639 MT) in 2016-17 to 1,702 Hectare (25,863 MT) in 2018-19. Out of all the vegetables, the maximum area is under vine crops (kerala, ghia, cucumber etc.). It was understood that vine crops are grown along the river Ghaggar on both sides. The area under vine crops recorded a cumulative growth of 49% from 225 Hectare (2,743 MT) in 2016-17 to 336 Hectare (4,101 MT) in 2018-19. However, the area and production is marginal as compared to the area and production of same crops in other districts of the state. **So, none of the above crops are worth pursuing further for the present study.**

During interaction with farmers, we came to know that farmers of village BhaniBaagn and ChandeKlaan of the district are growing capsicum in large quantities. In a short span of three years, the area under capsicum has crossed 600 acres. Capsicum is the upcoming vegetable of the area. It is sown in October/November and the first harvest is taken in the last week of March and subsequent harvests up to mid June. The farmers earn up to Rs.2.5 to 3 lakh/acre from capsicum alone. At present, the traders from Bihar buy the crop at a pre-fixed price and send it to Azadpur mandi, Gajipur mandi etc. in Delhi as well as to Jaipur mandis. The first harvest (March) is bought at Rs. 30/Kg and eventually the rate keeps decreasing and by the time it is mid June, the farmers get just Rs.2 for a Kg. The traders load bags (17 Kg/bag) of capsicum in trucks (6 MT/truck) and send the crop same night to Delhi or Jaipur. The yield varies from 170 Qtl. to 200 Qtl. per acre. At present, the total volume of this crop from these two villages should be over 9,000 MTs. The Horticulture department, Punjab has informed that out of approx. 1,200 acres under capsicum (open) cultivation in the state, 50% is from district Mansa alone. There is no major processing of fruits and vegetables here. Looking at the return earned by farmers of BhaniBaagn and ChandeKlaan, farmers of Sardulgarh, Mirpur etc. have also started cultivating capsicum. The area under this crop is increasing. Meanwhile, it is felt that by creating post harvest infrastructure like cleaning/grading line, pre-cooling unit, temperature controlled vehicles, etc. and direct marketing channels by tying up with end users like Quick Service Restaurants and hotels, the farmers could definitely get further better returns. **Therefore, ‘capsicum’ is worth pursuing further.**





*\*Source: Department of Horticulture, Punjab*

The district grows limited range of fruits viz. kinnow, guava and ber and that too in limited quantities. During the period from 2016-17 to 2018-19, the area under fruits reported a cumulative growth of about 12% from 1,283 Hectare (19,639 MT) in 2016-17 to 890 Hectare (19,454 MT) in 2018-19. Out of all the fruits grown here, the maximum area is under kinnow at 696 Hectare (15,351 MT). However, it is minimal in comparison with the area of kinnow in other districts of the state. **So, none of the above fruits are worth pursuing further for the present study.**

### 3.16.3 Grain and oilseeds processing

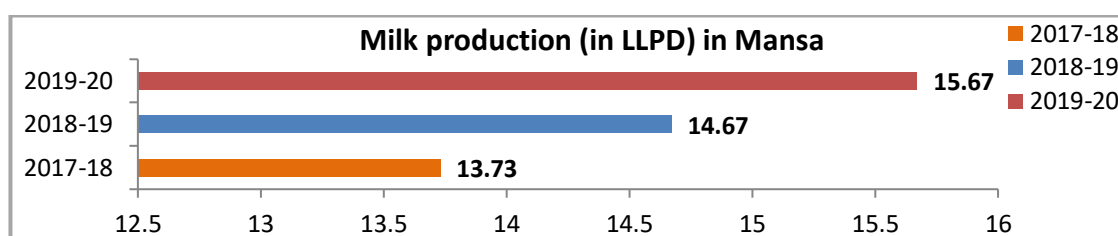
There are +150 wheat flour mills in the district, out of which 3 to 4 are mini semi automatic manufacturing non-branded atta. The other products made by such mills include maida, rava, dalia etc. The remaining mills are atta chakkis (manual) manufacturing non-branded atta and doing job work. We spoke with some atta chakki owners and were given to understand that they would like to make use of the credit linked scheme to upgrade their facilities. Many atta chakki owners would also like to install oil expellers under the same roof to manufacture mustard oil and cotton seed oil. This would broaden their product-mix. About 8 to 10 atta chakki enterprises have already installed such oil expellers in their premises. There are over 100 paddy shelling units doing milling of common paddy for government procurement agencies. Their average capacity is 2 MT/hr. As government is making efforts to divert sizeable area from paddy to other crops, we may not consider encouraging this industry any further. Regarding wheat processing, there is a need to support modernization of existing units at this stage.

### 3.16.4 Fruits and Vegetables processing

There is no major unit in the district processing fruits and vegetable. However, there are number of individuals/micro enterprises, FPOs/SHGs etc. manufacturing and marketing products like honey, pickles etc. The FPOs are also engaged in producing and marketing of fresh organic vegetables for local consumption.

### 3.16.5 Dairy product processing

The trend in production of milk in last three years in the district is as under. There has been over 13% increase in the production of milk in last three years.



*\*Source: Directorate of Dairy Development, Punjab*

The district has no milk plant in the organized sector. Milkfed has installed two chilling centers at Bhikhi and Sardulgarh for storing and chilling the milk for their Bathinda plant. Verka vehicles collect raw milk of their registered farmers and pour it into the chilling plant. We spoke with some milk producers and were given to understand that if some subsidy is provided they would be willing to set up their own Bulk Milk Chillers of 500 to 1,000 liter capacity. This arrangement would help maintaining the quality of milk as also fetching better price for milk producers. There are over 200 dairies run by individuals and firms who process milk to manufacture paneer, curd, lassi, kulfi, etc. These units are also interested to up-grade their facilities.

**Lovely Milk Dairy and Ice Cream Centre**, Budhlada, a firm engaged in processing about 500 liter/day of milk and manufacturing curd, panner, kulfi, cream, desi ghee, lassi etc. They have their own retail outlet from where all these products are sold. They now want to expand and avail the benefit of credit linked subsidy. According to them, there are 25-30 dairies in Budhlada alone dealing with milk products.

**Anmol Dairy Farm**, Mansa, the firm is manufacturing butter, curd, cheese and cream.

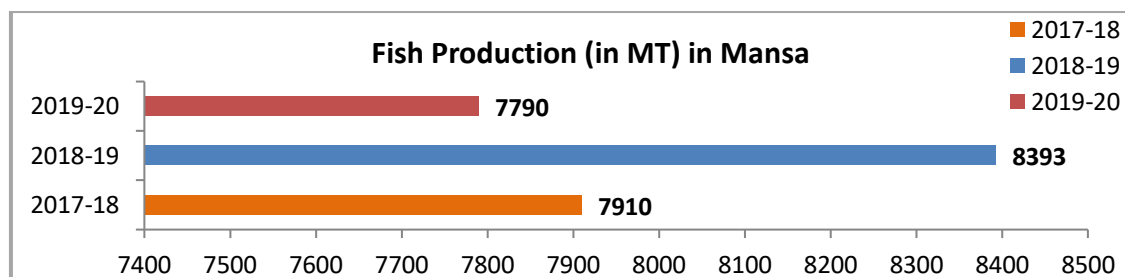
**Thus, there is a need to promote proper storage of milk at the milk producers' level and at the same time the small enterprises processing milk should be encouraged to modernize/up-grade their facilities.**

### 3.16.6 Poultry, Meat and Fish processing

There are a good number of commercial poultry layer and broiler farms and there is good demand for meat products in the district. There is no modern slaughtering and dressing plant. The demand is met by supply of daily fresh broiler by micro enterprises. There are over 400 shops/individuals dealing in this business. It is observed that there is a need to encourage such units to set up modern appliances for culling and storage of dressed broilers etc.

**Kala Poultry Farm** has 5,000 bird broiler farms. He informed that there are 100 broiler farms in Mansa. These farms have tied up with one or the other broiler processing companies like Venky's and Sugana.

**Mr. Harbhajan Singh**, Village Malikpur Khiala, Mansa is into processing of pig, fish, batter (bird) and desi murga (cock). He has total 11 acre under fish farm where he produces mrigal, grass carp, silver carp, rohu, common carp and katla varieties of fish. His annual yield is 9 tonnes. He sells fish in the local market. Besides fish, he has 200 pig farms with automatic drinker and fogger system. He also maintains 120 goat farms. He prepares and sells pork pickle at Rs. 500/kg and mutton pickle at Rs. 900/kg. He also sells these animals to traders and individuals/micro enterprises. He also has 3,000 bader and 150 desi cock, which he sells live at farm gate. He wants to expand his business. He is interested to take advantage of the scheme.



*\*Source: Fisheries Department, Punjab*

The production of fish has recorded an erratic behaviour during last three years. The production declined from 8,393 MT in 2018-19 to 7,790 MT in 2019-20, a fall of 8% in a year. We spoke with some farmers and processors dealing in fish.

**Mr. Sukhjinder Singh** owns 2.5 acres fish farm and has another 11 acres fish farm taken on lease. He uses aerators at his farm. He produces mrigal, grass carp, silver carp, rohu, common carp and katla varieties of fish. He is also engaged in piggy and owning a

farm of 300 pigs. Fish is sold to contractors at farm gate as well as in local markets. He earns good profit from fish farming. He now wants to purchase machinery for deboning of fish and for that he is interested to take advantage of ‘PM FME’ scheme. There is a good scope to encourage these farm owners under ‘PM FME’ Scheme.

### 3.16.7 Packaged food items

There are a good number of bakery and savouries units in the district. As informed by a local baker, the numbers may run into 300. These units are using conventional way of baking products. Most of them are doing job work. The demand for quality bakery products and snacks is rising on daily basis. It is observed that there is a need to promote existing units to enhance their production capacities and up-grade the facilities.

### 3.16.8 The analysis of the secondary data and interaction held with unorganized microenterprises/FPOs/SHGs/Experts dealing in the five major food categories is summarized in the following table

Major Food Category	Produce shortlisted based on secondary data research	Products/produce shortlisted based on interactions held with micro enterprises/ FPOs/ SHGs& experts	Products/ produce finalized	Status of finalized products/ produce from ODOP point of view (High/ medium/ low)
Grains& oilseed processing	Oilseeds	Atta	Oilseeds Atta	Medium Medium
Fruits & vegetable processing	Capsicum	-	Pickles &murraba Haldi Capsicum	Medium  Medium Medium
Dairy Product processing		Milk & milk products	<b>Milk &amp; milk products</b>	<b>High</b>
Poultry Meat & Fish Processing	Fish Broiler Meat	Poultry, Meat and Fish processing	Poultry, Meat and Fish processing	Medium
Packaged food	-	Bakery products & Savouries	Bakery products & Savouries	Medium

Thus, PAIC recommends ‘**Milk and milk products**’ as ‘**One Product**’ for district **Mansa**.

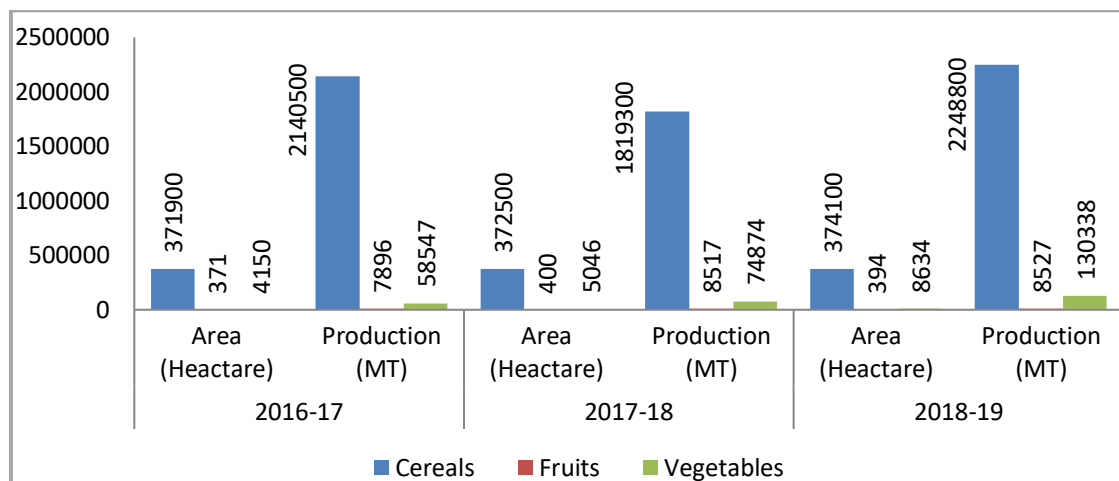
### 3.17 FEROZEPUR



**3.17.1** District Ferozepur is on the East of the state. On the North-East, the river Satluj separates it from district Jalandhar and district Kapurthala districts. The united stream of river Satluj and river Beas separates it from district Tarn Taran in the North-West and farther down from the Pakistan, with the exception of some areas on each side of the river. The topography of the district is largely flat. According to the 2011 Census, the population of district was 10,02,000 persons, out of which 72% lived in rural areas and the remaining in urban areas.

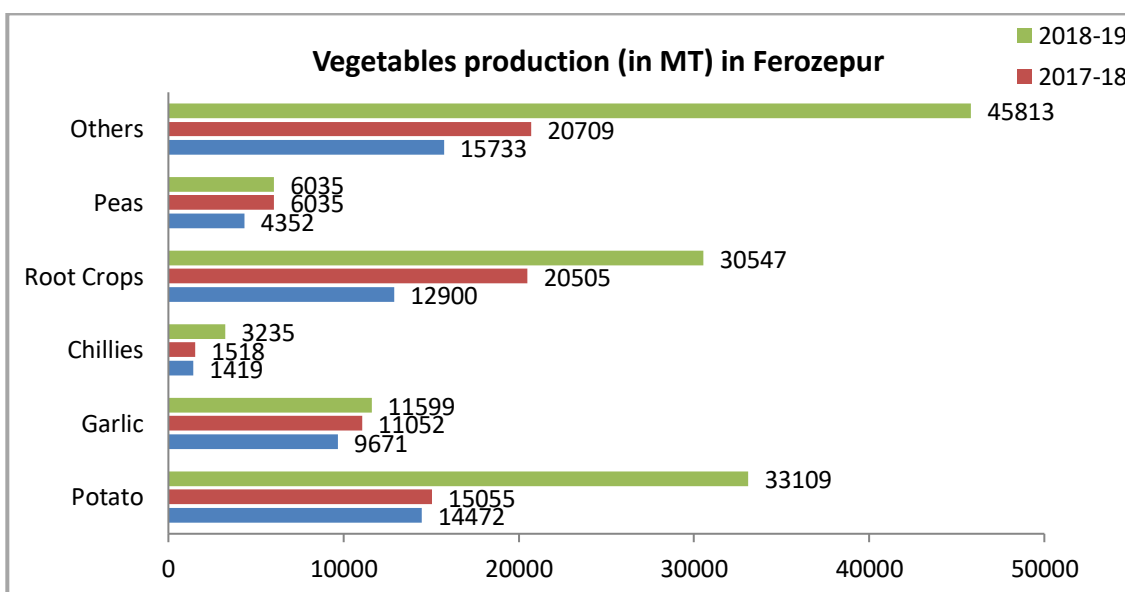
The district has 611 inhabited villages. **The Gross District Domestic Product (GDDP) and Per Capita Income (PCI) at current prices (2015-16) was Rs. 93,798/- and Rs. 1,14,028/- against the state average of Rs.1,32,467/- and Rs.1,18,858/-respectively. The GDDP of the district is way behind the state average.** The geographical area of the district is 2,39,,000 Hectare. Of this, **the net sown area is 91% (2,18,000 Hectare).** The area sown more than once is 1,82,000 Hectare, thus recording a **cropping intensity of 184%.**

### 3.17.2 The trend in the area and production of food grains including sugarcane and fruits & vegetables in the district is presented here under:



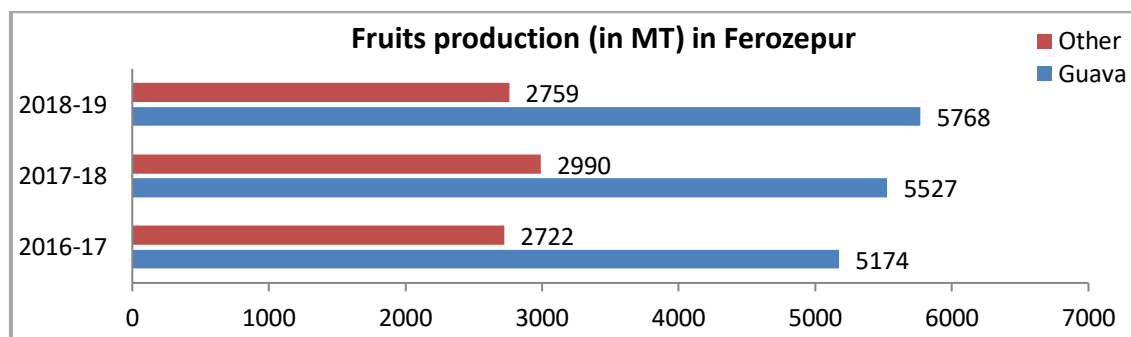
\*Source: Department of Agriculture/Horticulture, Punjab

Wheat and paddy are the main Rabi and kharif crops of the district. The area under these crops remained more or less consistent at 1,87,000 Hectare (10,10,000 MT) and 1,86,000 Hectare (12,38,000 MT) respectively in last three years. The district also grows kharif pulses (moong), kharif oilseeds (sesamum) and Rabi oilseed (sarson) in small quantities with 400 Hectare (400 MT), 500 Hectare (100 MT) and 500 Hectare (600 MT) respectively during 2018-19. It is observed that there is no crop other than wheat and paddy grown in reasonable quantities in the district. **So, none of the above crops could be considered for further study.**



\*Source: Department of Horticulture, Punjab

The district grows a wide range of vegetables like potato, onion, garlic, tomato, brinjal, cauliflower, cabbage, okra, chillies, peas, root crops, vine groups, etc. in good quantities. **Total area under vegetables recorded a spectacular cumulative increase of 108% in last three years from 4,150 Hectare (58,547 MT) in 2016-17 to 8,634 Hectare (1,30,338 MT) in 2018-19. Out of all the vegetables, the maximum area is under chillies, which recorded a cumulative growth of 126% from 754 Hectare (1,419 MT) in 2016-17 to 1,706 Hectare (3,235 MT) in 2018-19. It is worth mentioning that in 2017-18, the area and production of chillies in the district was at number four, after district Jalandhar, district Patiala and district Sangrur. And in 2018-19, it became the largest producer of chillies, a significant gain. The potato and root crops also reported big jumps in area and production during 2018-19 as compared to 2016-17, but the same is not much in comparison to the area and production of these crops in other districts. So, chilly is selected for further study.**



*\*Source: Department of Horticulture, Punjab*

The district grows a limited range of fruits viz. guava, kinnow and ber and that too in small. During the period from 2016-17 to 2018-19, the area under fruits reported a cumulative growth of just 6% from 371 Hectare (7,896 MT) in 2016-17 to 394 Hectare (8,527 MT) in 2018-19. Out of all the fruits grown here, the maximum area is under guava at 266 Hectare (5,768 MT). However, it is not much in comparison with the area and production of guava in other districts of the state. **So, none of the above fruits is worth pursuing further for the present study.**

### 3.17.3 Grain and oilseeds processing

There are about 300 wheat flour mills in the district, out of which 10 to 12 are mini semi automatic type manufacturing non-branded atta and the remaining are atta chakkis (manual) doing job work. We spoke with some atta chakki owners and were given to

understand that they would like to make use of the credit linked scheme to upgrade their facilities. Many atta chakki owners would also like to install oil expellers under the same roof to manufacture mustard oil and cotton seed oil. This would broaden their product-mix. About 5 to 6 atta chakki enterprises have already installed such oil expellers in their premises. There are over 90 paddy shelling units doing milling of common paddy for government procurement agencies. Their average capacity is 2 MT/hr. As the district also produces basmati varieties of paddy in large quantities, there are a couple of medium sized state-of-the-art basmati processing mills exporting quality rice to overseas markets. As government is making efforts to divert sizeable area from paddy to other crops, we may not consider encouraging this industry any further. Regarding wheat processing, there is a need to support modernization of existing units at this stage.

#### 3.17.4 Fruits and Vegetables processing

There is no major unit in the district processing fruits and vegetable. However, there are number of individuals/micro enterprises, FPOs/SHGs etc. manufacturing and marketing products like honey, pickles etc. The FPOs are also engaged in producing and marketing of fresh vegetables for local consumption. We spoke with some micro enterprises/FPOs etc. to understand their line of business and about the ‘PM FME’ Scheme.

**Mr. Sukhwinder Singh**, VPO Chohla, Ferozepur owns 16 acres wherein he grows fodder, wheat and paddy. He also grows vegetables like potato and peas and sells them in local market as well as Ferozepur city. He has installed a bio gas plant at their farm. He is interested to make use of the subsidy to expand operations.

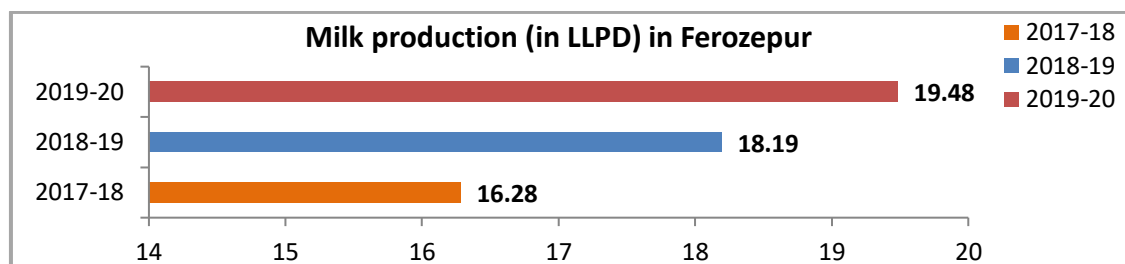
**Mr. Liftain Singh**, village Ugoke owns 40 acre where he grows wheat, rice, moong, basmati and potatoes. Potato farming is done under poly-house in four acres. His turnover is around Rs. 35 lakh. He uses pipeline irrigation in fields. Zero drill and Rotavator is also used by him. With the help of Govt, he wants to start organic farming and processing of its produce.

**Mr. Harpreet Singh**, VPO Golewala, Ferozepur is a young beekeeper. He also owns 6 acre. He has 250 boxes and is getting 50 quintal of honey and earns around Rs. 4



lakhs from honey business. With the help of Govt. he wants to form a Self Help Group and starts manufacturing turmeric and spices.

### 3.17.5 Dairy product processing



*\*Source: Directorate of Dairy Development, Punjab*

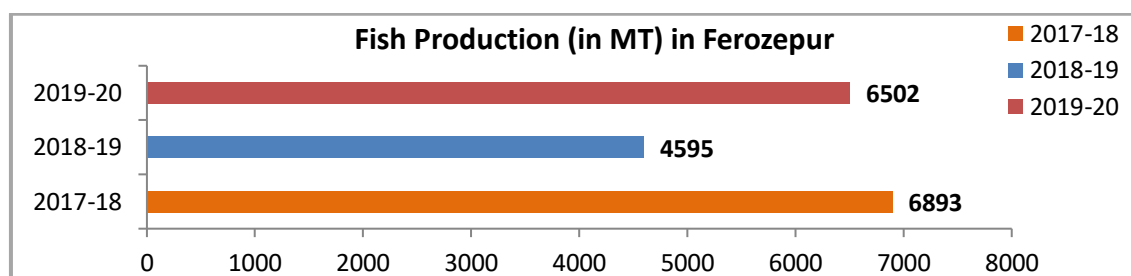
**There has been continuous growth in the production of milk in the district. It recorded a cumulative growth of 20% in last three years to 19.48 lakh litres/day.** At present, there is no milk processing plant in the organised sector in the district. However, there are chilling centres by Milkfed, Nestle and Banni. It is learnt that Milkfed is proposing to set up a milk processing plant there. However, there are over 500 dairy farms processing milk to manufacture paneer, curd, lassi, butter, cream, khoya etc. We spoke with some milk producers and processors.

**Mr. Pasan Singh**, Ferozepur is running a dairy farm for the past over ten years. He makes paneer, ghee and curd for local consumption. He wants to increase milk production and enhance processing capacity of his plant.

**Mr. Buta Singh**, Village Dheera Patra, Ferozepur, is a milk producer. He has 15 cattles and produces about 70 litre milk/ day which he sells Rs. 70/litre. He has formed a Farmers' Commodity Interest Group and the group is producing milk products, organic vegetables, jiggery, organic wheat flour and dalia. He is interested to strength the production facility of his group by availing grant under the scheme..

### 3.17.6 Poultry, Meat and Fish processing

There are a good number of commercial poultry layer and broiler farms and there is good demand for meat products in the district. There is no modern slaughtering and dressing plant. The demand is met by supply of daily fresh broiler by micro enterprises. There are over 500 shops/individuals dealing in this business. It is observed that there is a need to encourage such units to set up modern appliances for culling and storage of dressed broilers etc.



*\*Source: Fisheries Department, Punjab*

The production of fish reported an erratic behaviour. The production dropped from 6,893 MT in 2017-18 to 4,595 MT in 2018-19 and then it picked up in 2019-20 to 6,502 MT. We spoke with some fish farm owners.

**Mr.Surinderpal Singh**, VPO Jandewala, Ferozepur owns a fish and a pig farm. He also does fish and pig processing at a small scale. He earns about Rs 3 to 4 lakh. He wants to increase his business of pig farming by setting up a small unit to process pig into pickle. In addition, he is also working on vegetables & fruits like cauliflower, pear and potato. He sells vegetables in the local market. He earns Rs. 3 lakh from vegetables business. He also wants to increase his vegetable business with organic farming and packaging.

**Mr Gurinder Singh**, VPO Jhanduwala, Guru Har Sahai, Ferozepur is into fish farming in a big way. He has 15 acre under fish farm. He sells his produce to contractors at farm gate who in turn set it in Ludhiana, Ferozepur and Jalandhar. He deals in mrigal, grass carp, silver carp, rahu, common carp, katha etc. varieties of fish. He wants to increase his fish farming and processing business.

**There is a good scope to encourage existing micro enterprises to up-grade their meat/broiler/fish processing units.**

### 3.17.7 Packaged food items

There are a good number of bakery and savouries units in the district. As informed by a local baker, the numbers may run over 200 units. These units are using conventional way to bake products. Most of them are doing job work. The demand for quality bakery products and snacks is rising on daily basis. It is observed that there is a need to promote existing units to enhance their production capacities and up-grade the facilities.

**Chawla Confectionery & Bakery** are baking a wide range of cakes like blueberry cheese cake, choco doughnut, melting chocolate, choco hazelnut, chocolate trifle

mousse and fresh fruit muffin etc. They are very keen to make use of the scheme to expand their operations.

**Pandit Bakers, Ferozepur** Cantonment is owned by one Mr Sandeep Kumar. He makes bakery products like cake, pastry & patty etc. He established this business 15 years ago. With the help of Govt. he wants to increase production capacity of his unit.

**Mr. Rajinder Singh, Ferozepur** runs unit to manufacture bakery products. The unit was established 15 years ago. Bread, biscuit, rusk, pastry and patties are made in the unit. He has 4 workers supporting him to run the unit. He supplies his products to all shops in and around Ferozepur city. The turnover of unit is Rs.50 lac. With the help of govt., He wants to increase production capacity of his plant.

**3.17.8 The analysis of the secondary data and interaction held with unorganized microenterprises/FPOs/SHGs/Experts dealing in the five major food categories is summarized in the following table:**

Major Food Category	Produce shortlisted based on secondary data research	Products/produce shortlisted based on interactions held with micro enterprises/ FPOs/ SHGs& experts	Products/ produce finalized	Status of finalized products/ produce from ODOP point of view (High/ medium/ low)
Grains& oilseed processing	-	Atta	Ata	Medium
Fruits & vegetable processing	Chilly	-	Pickles &murraba <b>Chilly</b>	Medium <b>High</b>
Dairy Product processing	Milk	Milk & milk products	<b>Milk &amp; milk products</b>	<b>High</b>
Poultry Meat & Fish Processing	Fish Broiler Meat	Poultry, Meat and Fish processing	Daily fresh meat/chicken/fish	Medium
Packaged food	-	Bakery products & Savouries	Bakery products &Savouries	Medium

As per study, milk & milk products and chilly both are the future products of the district. However, for the purpose of ‘PM FME’ Scheme, **PAIC recommends ‘Chilly’ as the ‘One Product’ for district Ferozepur.**

### 3.18 KAPURTHALA

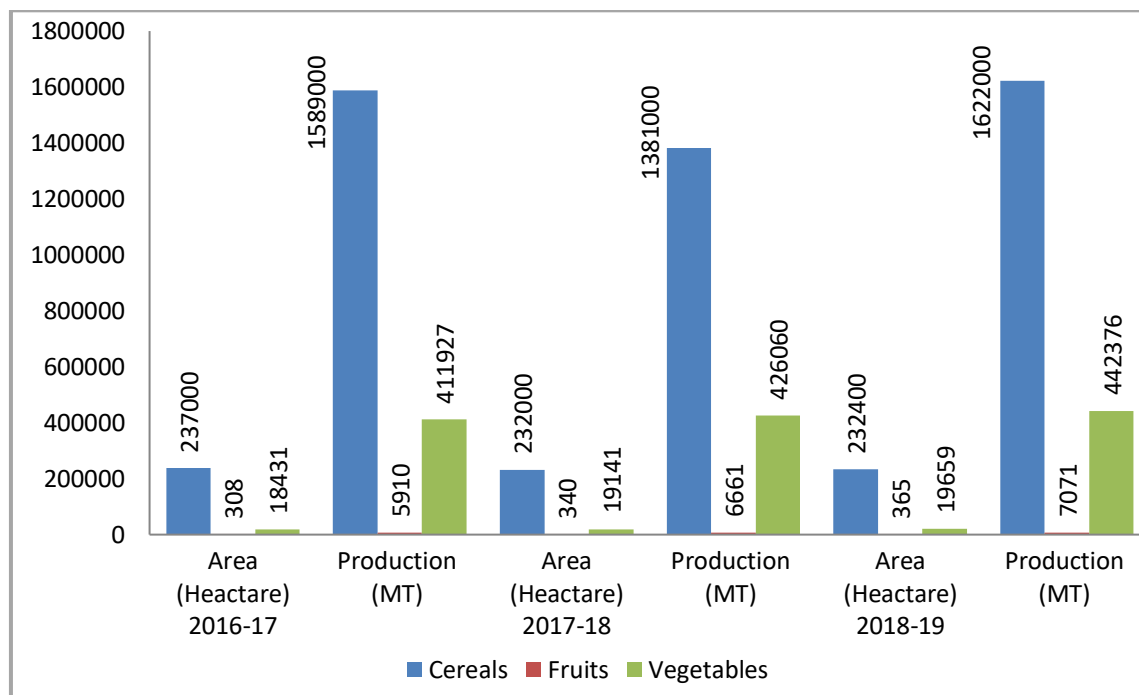


3.18.1 The district Kapurthala has been the important educational Hub from the very beginning. The Kapurthala District is split in two non contiguous parts about 32 KM apart- Kapurthala and Sultanpur Lodhi tahsils forming one part and the Phagwara Tahsil the other. District is bounded partly in the North and wholly in the West by the river Beas which separates it in the North from district Gurdaspur and in the West from district Amritsar. District Kapurthala lies between the rivers Satluj and the Beas and is known as Bist Doab. According to the 2011 Census, the population of district was 8,15,000 persons. The district has 608 inhabited villages.

**The Gross District Domestic Product (GDDP) and Per Capita Income (PCI) at current prices (2015-16) was Rs. 1,51,783/- and Rs. 1,38,262/-, much above than the state average of Rs.1,32,467/- and Rs.1,18,858/-respectively.**

The geographical area of the district is 1,67,000 Hectare. Of this, the **net sown area is 80% (1,33,000 Hectare)**. The area sown more than once is 1,42,000 Hectare, thus recording a cropping intensity of 206%, highest amongst all districts of the state.

### 3.18.2 The trend in the area and production of food grains including sugarcane and fruits & vegetables in the district is presented here under:

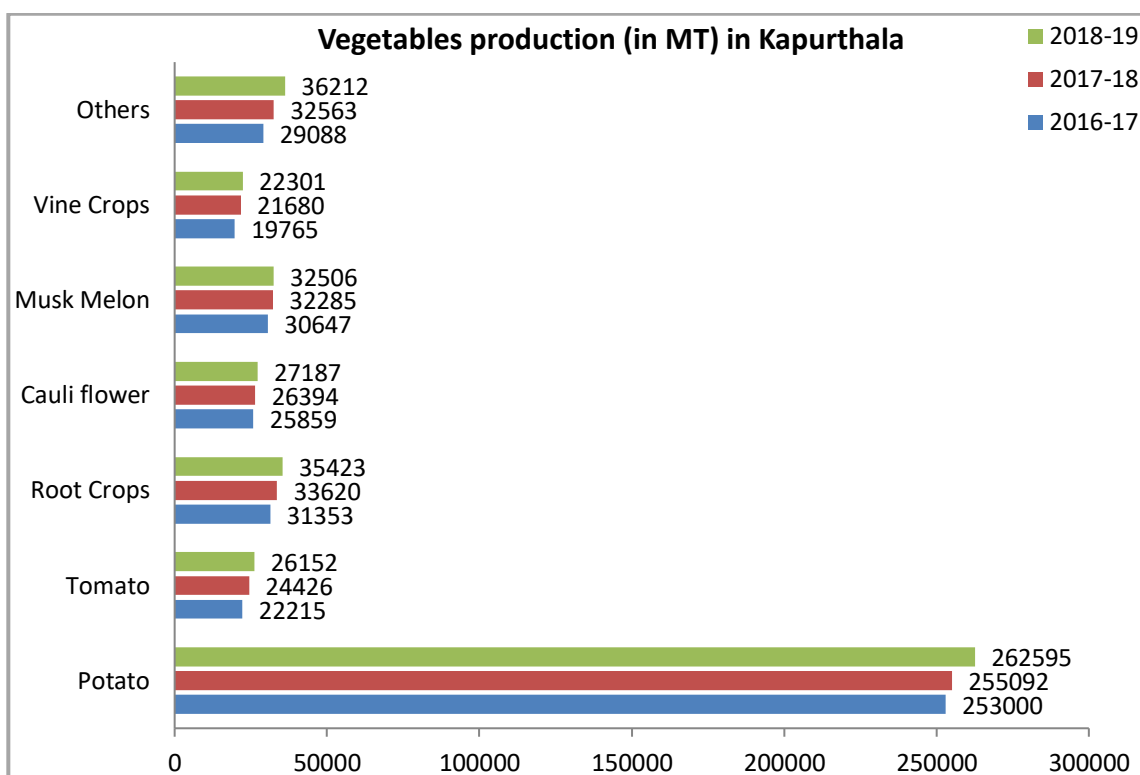


\*Source: Department of Agriculture/Horticulture, Punjab

Wheat and paddy are the main Rabi and kharif crops of the district. The area under wheat has reported consistent increase from 1,06,000 Hectare (5,22,000 MT) in 2016-17 to 1,08,000 Hectare (5,23,000 MT) in 2017-18 to 1,09,000 Hectare (5,16,000 MT) in 2018-19, a cumulative growth of about 3%. Whereas, area under paddy remained stable at 1,18,000 Hectare (7,65,000 MT) during past three years.

The other major crops of the district include maize and sugarcane. Area under maize reported a steep fall of 85% from 9,000 Hectare (20,000 MT) in 2016-17 to 2,000 Hectare (11,000 MT) in 2017-18 and finally to 1,300 Hectare (6,800 MT) in 2018-19. Whereas, area under sugarcane remained consistent at 4,000 Hectare (3,34,000 MT) in past three years. The district also grows rabi oilseed (sarson) in small quantities with 500 Hectare (600 MT) during 2018-19.

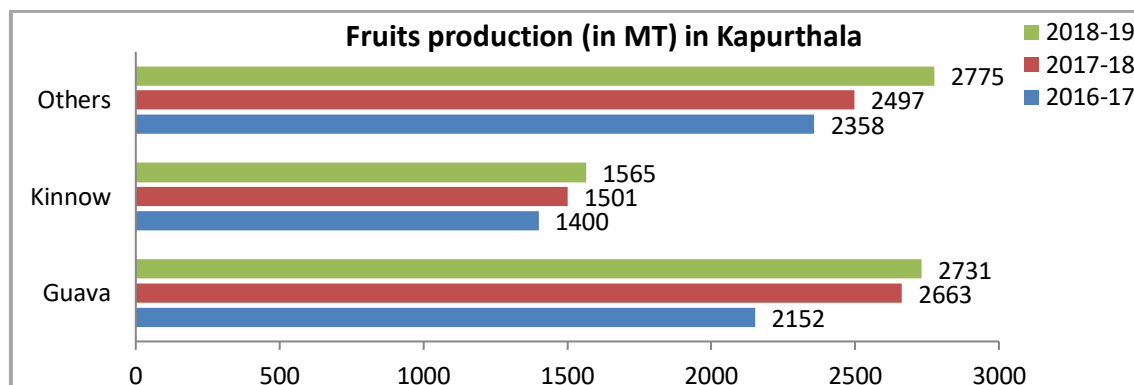
It is observed that **there is no crop from above worth pursuing for further study.**



*\*Source: Department of Horticulture, Punjab*

The district produces a wide range of vegetables like potato, tomato, peas, vine crops, root crops, cauliflower, cabbage, musk melon & water melon and that too in substantial quantities. Overall, there has been cumulative growth of over 7% in area under vegetables from 18,431 Hectare (4,11,927 MT) in 2016-17 to 19,141 Hectare (4,26,060 MT) in 2017-18 to 19,659 Hectare (4,42,380 MT) in 2018-19. **Out of all vegetables, maximum area is under potato with 9,806 Hectare (2,62,595 MT) during 2018-19. The area reported a minimal cumulative growth of about 1% in past three years. District Kapurthala is the fourth biggest producer of potato, after Jalandhar, Hoshiarpur and Ludhiana. It is worth mentioning here that over 90% production of potato is that of seed potato. The next major vegetable crops are musk melon and tomato. District Kapurthala is second biggest producer of musk melon, after district Jalandhar. The area under musk melon has recorded a consistent growth from 1,705 Hectare (30,647 MT) in 2016-17 to 1,795 Hectare (32,285 MT) in 2017-18 to 1,807 Hectare (32,506 MT) in 2018-19, a cumulative growth of 6%. The area and production of tomato in the district is at number three, after Amritsar and Patiala. The area under tomato also recorded a consistent growth from 855 Hectare (22,215 MT) in 2016-17 to 940 Hectare (24,426 MT) in 2017-18 to 1,006**

**Hectare (26,152 MT) in 2018-19, a cumulative growth of 18%. So, both musk melon and tomato crops are selected for further study from this district.**



*\*Source: Department of Horticulture, Punjab*

The district grows a limited variety of fruits viz. guava, pear and kinnow and that too in small quantities. During the period from 2016-17 to 2018-19, the area under fruits reported a cumulative growth of 18% from 308 Hectare (5,910 MT) in 2016-17 to 365 Hectare (7,071 MT) in 2018-19. Out of all the fruits grown here, the maximum area is under guava at 123 Hectare (2,731 MT). However, it is not much in comparison with the area and production of guava in other districts of the state. **So, none of the above fruits is worth pursuing further for the present study.**

### 3.18.3 Grain and oilseeds processing

There are over 60 rice mills processing common variety of paddy for state government agencies. Then, there are over 500 atta chakkis including 8 to 10 mini flour mills processing wheat flour. Atta chakkis are mainly into job work whereas mini four mills are selling non-branded atta. About 10 atta chakki owners have installed oil expellers in the same premises to provide diverse services to their clients.

The atta chakki owners would be interested to enhance their production capacities under the scheme.

### 3.18.4 Fruits and Vegetables processing

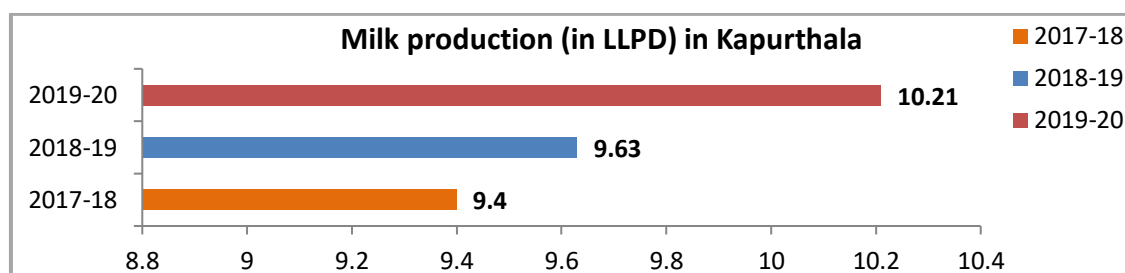
Although district Kapurthala is known for producing a variety of vegetables, yet there is no processing unit in the organised sector. However, there are number of individual farmers/FPOs/SHGs engaged in the cleaning, grading and marketing of vegetables. Some of these enterprises are assisted by NGOs. Many individuals are also into bee keeping etc. We spoke with some FPOs and micro enterprises in this regard.

**Mr. Swaran Singh Chandi**, Village Boolpur, Kapurthala: This farmer possesses 500 bee colonies. Honey production per box is around 30 kg. Bees are often migrated for better yield. The entire bee keeping equipment is of steel and of good quality. He also produces bee wax. He sells raw honey between Rs. 110-150/kg.

**Mr. Jagir Singh**, village Wadala Kalan, Kapurthala: This farmer owns 300 acre where he grows peas, potato, sugarcane, maize etc. He is applying latest techniques of residue management and organic farming. He is maintaining a cold storage and markets his produce at premium during off season. He wants to expand his outreach by setting up a packaging unit.

**Mr. Nachattar Singh**, Village Khalu: This farmer owns 32 acre and is cultivating wheat, rice and vegetable crops like cabbage, peas and carrot. He is interested to make use of the scheme to set up a cold storage etc.

### 3.18.5 Dairy product processing



*\*Source: Directorate of Dairy Development, Punjab*

**There has been consistent growth in the production of milk in past three years with 10.21 lakh litre/day during 2019-20, a cumulative growth of about 9%.** There is one large milk processing plant in the district at Hamira manufacturing malted milk food products. Then, there are many small dairy farms manufacturing dairy products like paneer, curd, lassi, butter, cream, khoya, sweet meat, etc. We spoke with some of the milk producers and processors.

**Mr. Lakhwinder Singh, Village Raipur**, Kapurthala has a dairy farm of 120 animals (110 buffalos plus 11 cows). Daily milk production is on an average 600 litre. He consumes milk in making sweets, paneer, butter and curd. He is into this business for the last 10 years. He would like to avail subsidy to expand his business.

**Mr. Daler Singh, Village Badshahpur, Kapurthala**, is having 100 animal farms. Average production of milk is 250 litre/day. Animal waste is used in biogas plant for

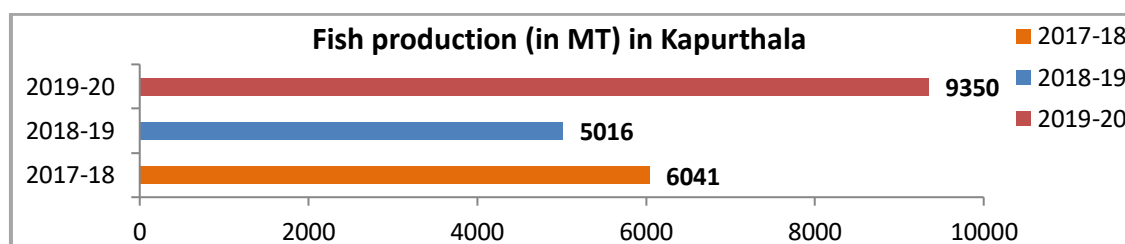


producing biogas for domestic use. He produces paneer, curd, lassi, butter and khoya. He is into this business for the last 15 years. He too wants to enhance his operations.

**Mr. Gurbaaz Singh** owns 75-80 animals. He gets about 400 litre/day milk, which is sells to Milkfed. The animal waste is used for generating biogas. He also prepares silage for animals are at the farm. There is a good potential for encouraging these producers-cum-processors to expand their existing operations.

### 3.18.6 Poultry, Meat and Fish processing

The district has a good number of commercial poultry layer and broiler farms and there is good demand for meat products there. There is no modern slaughtering and dressing plant. The demand is met by supply of daily fresh broiler by micro enterprises. There are over 600 shops/individuals dealing in this business. It is observed that there is a need to encourage such units to set up modern appliances for culling and storage of dressed broilers etc.



*\*Source: Fisheries Department, Punjab*

The fish production has shown an erratic behaviour i.e. from 6,041 MT in 2017-18, it came down to 5,016 MT in 2018-19 and then it went up to 9,350 MT in 2019-20, a growth of 86% in one year. We spoke with fish farm owners to understand their business.

**Mr. Sarbjit Singh, Nadala** owns 4 acre fish ponds. He is doing fish farming for the last 8 years. He produces 6.5 MT of fish in a season, which he sells to contractors at farm gate. He deals in IMC varieties of fish like rohu, grass carp and katla. He is interested to take advantage of this scheme for fish processing.

**Mr. Sukhdev Singh** has 27 acre fish ponds. He is doing fish farming for the last 15 years and is producing 10 MT of fish in a season. He also produces seed fish. He sells his produce in local market. He deals in different varieties of fish like rohu, grass carp and katla. He too wants to expand his business with the help of govt. subsidy. **There is a good scope to encourage such fish growers to expand their business operations.**

### 3.18.7 Packaged food items

There are over 200 bakeries and many savouries units in the district. We spoke with some of them to find out their interest to make use of the subsidy.

**Khalsa Bakery, Kapurthala**, established in 1950 is engaged in the manufacture of biscuits, cakes, pastries, choccos, chocolate, choco Hazelnut, chocolate trifle mousse and fresh fruit muffin. They are interested to modernize their production facility.

**Amrit Bakers, VPO Nadala, Kapurthala** makes pure-vegetarian products such as cheese cake, choco cookies, snacks, puddings etc. He supplies the products in local market as well as sells through his own outlet.

There is good scope to promote existing packaged food units to modernize their facilities.

### 3.18.8 The analysis of the secondary data and interaction held with unorganized microenterprises/FPOs/SHGs/Experts dealing in the five major food categories is summarized in the following table:

Major Food Category	Produce shortlisted based on secondary data research	Products/produce shortlisted based on interactions held with micro enterprises/ FPOs/ SHGs& experts	Products/ produce finalized	Status of finalized products/ produce from ODOP point of view (High/ medium/ low)
Grains& oilseed processing	-	Atta	Atta	Medium
Fruits & vegetable processing	Tomato Musk melon	Pickles & murraba	<b>Tomato</b> <b>Musk melon</b> Pickles & muraba	<b>High</b> <b>High</b> Low
Dairy Product processing	Milk	Milk & milk products	Milk & milk products	Medium
Poultry Meat & Fish Processing	Fish Broiler Meat	Poultry, Meat and Fish processing	Poultry, Meat and Fish processing	Medium
Packaged food	-	Bakery products & Savouries	Bakery products & Savouries	Medium

The district provides equal opportunity to expand in the production and processing/packaging of 'Tomato' and 'Musk Melon'. 'Tomato' being more perishable, PAIC recommends 'Tomato' as 'One Product' for district Kapurthala.

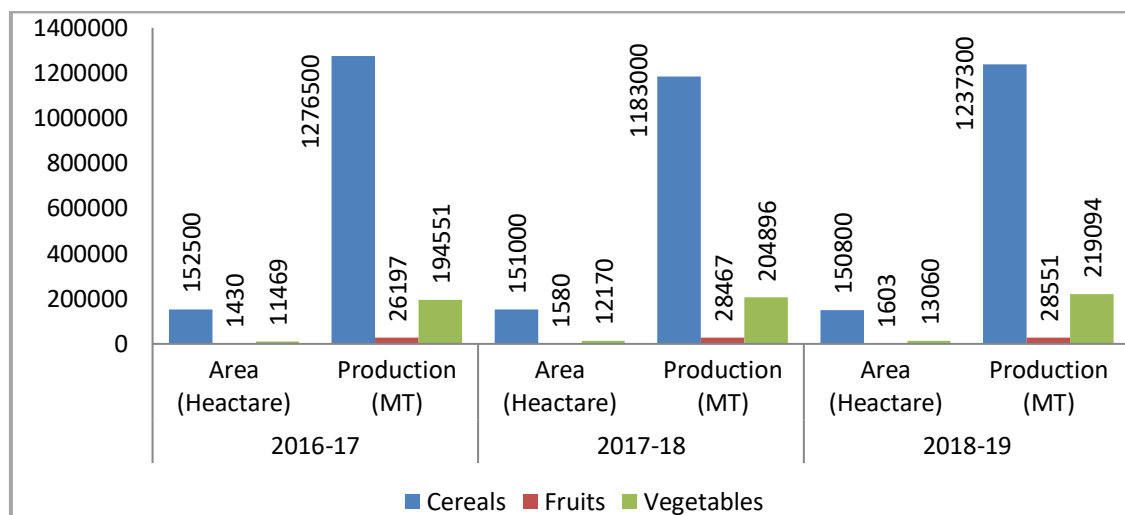
### 3.19 S.B.S. NAGAR



**3.19.1** District Shahid Bhagat Singh Nagar (Nawanshahr) was carved out of district Hoshiarpur and district Jalandhar on November 7, 1995. It is surrounded by four districts. The Western border of the district touches with district Jalandhar, Eastern border touches with district Roop Nagar (Ropar), the Northern border meets with district Hoshiarpur and Southern border touches with district Ludhiana and district Kapurthala. The district **Shahid Bhagat Singh Nagar is one of the smaller districts of Punjab**. According to the 2011 Census, the population of district was 6,12,000 persons. The district has 462 inhabited villages. **The Gross District Domestic Product (GDDP) and Per Capita Income (PCI) at current prices (2015-16) was Rs. 1,50,904/- and Rs. 1,56,900/-, much above than the state average of Rs.1,32,467/- and Rs.1,18,858/- respectively. In fact, the district tops in the PCI amongst all districts of the state.**

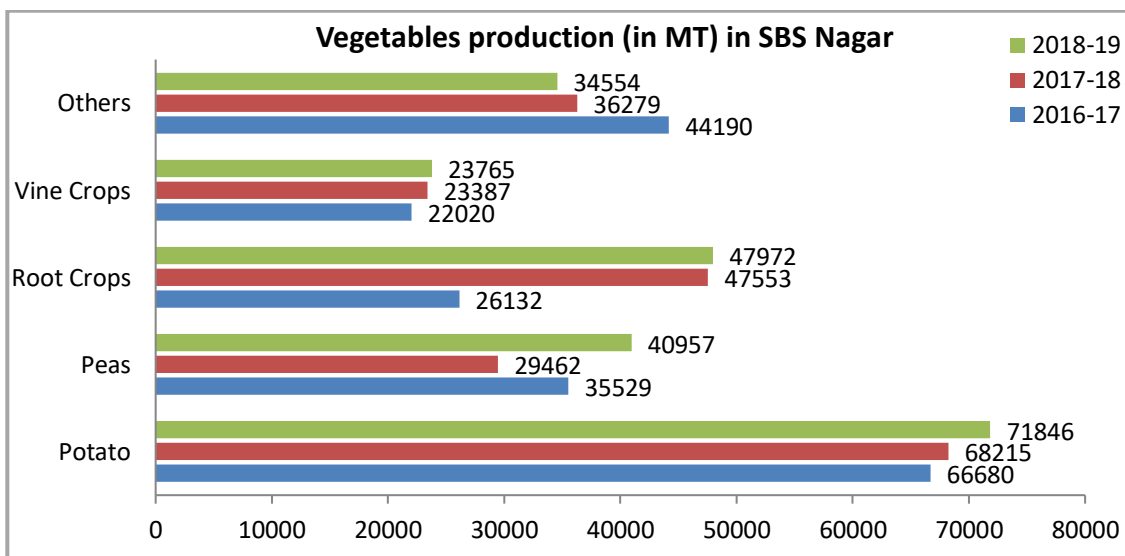
The geographical area of the district is 1,27,000 Hectare. Of this, the **net sown area is 76% (96,000 Hectare)**. The area sown more than once is 82,000 Hectare, thus recording a **cropping intensity of 185%**. The land is fertile due to the presence of river Sutlej and irrigated through tube wells and canals except some part of the Balachaur sub-division falling in Kandi Area. The major towns of the district include Nawanshahr, Balachaur and Banga.

### 3.19.2 The trend in the area and production of food grains including sugarcane and fruits & vegetables in the district is presented here under:



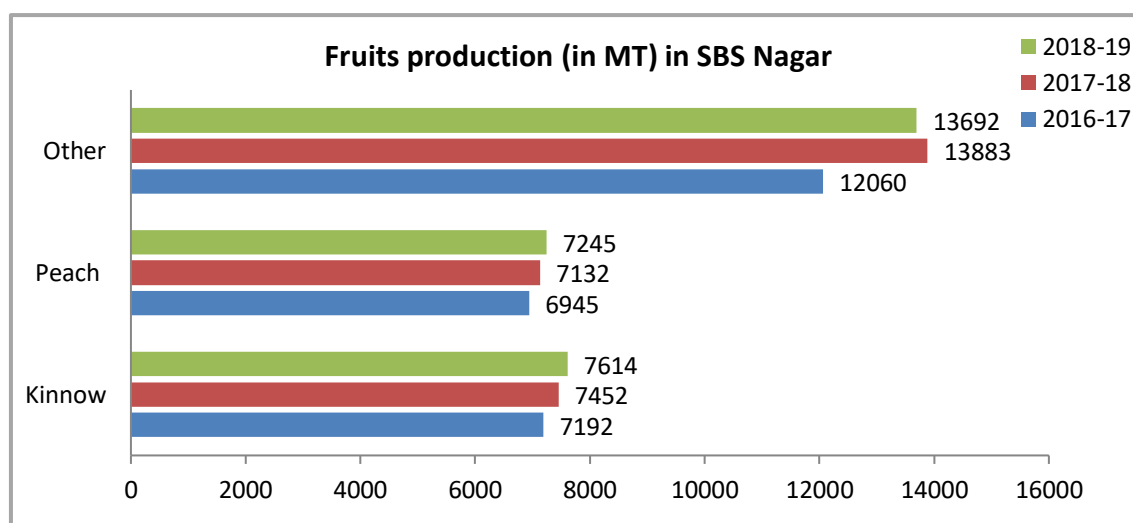
\*Source: Department of Agriculture/Horticulture, Punjab

Wheat & paddy are the main Rabi & kharif crops of the district. The area under wheat & paddy remained more or less consistent with 77,000 Hectare (3,85,000 MT) and 60,000 Hectare (3,54,000 MT) during 2018-19. The other major crops of the district include maize & sugarcane. Area under maize reported a fall of 23% from 10,000 Hectare (45,000 MT) in 2016-17 to 7,700 Hectare (31,200 MT) in 2018-19. However, area under sugarcane remained same in past three years with 6,000 Hectare (4,67,000 MT) in 2018-19. The district also grows Rabi oilseeds viz. sarson & taramira in small quantities with 1,100 Hectare (1,600 MT) & 400 Hectare (600 MT) resp. during 2018-19. It is observed that **there is no crop from this group worth pursuing for further study.**



\*Source: Department of Horticulture, Punjab

The district produces a wide range of vegetables like potato, onion, garlic, brinjal, tomato, peas, vine crops, root crops, cauliflower, cabbage, okra, chillies, musk melon & water melon and that too in substantial quantities. **Overall, there has been cumulative growth of 14% in area under vegetables from 11,469 Hectare (1,94,551 MT) in 2016-17 to 12,170 Hectare (2,04,896 MT) in 2017-18 to 13,060 Hectare (2,19,094 MT) in 2018-19. Out of all vegetables, maximum area is under peas, which reported a cumulative growth of 21% in last three years with 2,586 Hectare (26,132 MT) during 2016-17 to 3,116 Hectare (31,515 MT) during 2018-19. The district SBS Nagar is the third largest producer of peas, after Amritsar and Hoshiarpur. None of the other vegetables has significant area and production as compared to the same crops in other districts. So, peas are selected for further study from this district.**



*\*Source: Department of Horticulture, Punjab*

The district grows a wide variety of fruits viz. mango, guava, pear, litchi, peach, kinnow etc. **Except peach, the area and production of other fruits is marginal.** During the period from 2016-17 to 2018-19, the area under fruits reported a cumulative growth of 12% from 1,430 Hectare (26,197 MT) in 2016-17 to 1,603 Hectare (28,551 MT) in 2018-19. **The area under peach reported a gradual growth in last three years from 380 Hectare (6,945 MT) in 2016-17 to 390 Hectare (7,132 MT) in 2017-18 to 396 Hectare (7,245 MT) in 2018-19.** The area and production of other fruit crops are insignificant in comparison with the area and production of same crops in other districts of the state. **So, peach fruit is worth pursuing further for the present study.**

### 3.19.3 Grain and oilseeds processing

There are over 40 rice mills processing common variety of paddy for state government agencies. Then, there are over 350 atta chakkis including 6 to 8 mini flour mills processing wheat flour. Atta chakkis are mainly into job work whereas mini four mills are selling non-branded atta. About 25 atta chakki owners have installed oil expellers in the same premises to provide diverse services to their clients.

The atta chakki owners would be interested to enhance their production capacities under the scheme. We spoke with some unit owners.

**Mr. Ajit Singh, Ludhiana Road, Nawanshahr** is running a flour mill and processing besan, flour, oatmeal, pulses, spices etc. He started this business in 1980. Today his turnover is Rs. 35 lakh. He sells his products in local market under the brand name 'A+'. Mr. Ajit Singh is interested to make use of the credit linked subsidy scheme under 'PM FME' to expand his operations.

**Mr. Surinder Sareen** of R S Rice & General Mills, Nawanshahr and **Mr. Ashwani** of Mahavir Rice Mills, Rahon informed that they would like to up-grade their production facilities under 'PM FME' scheme.

There is a scope to encourage atta chakkis owners under the scheme.

### 3.19.4 Fruits and Vegetables processing

There is no fruits and vegetable processing unit in the organised sector in the district. However, there are micro enterprises and FPOs engaged in the manufacture of pickles, murraba, juices etc. We spoke with such enterprises to understand their line of business and interest to take advantage of the scheme.

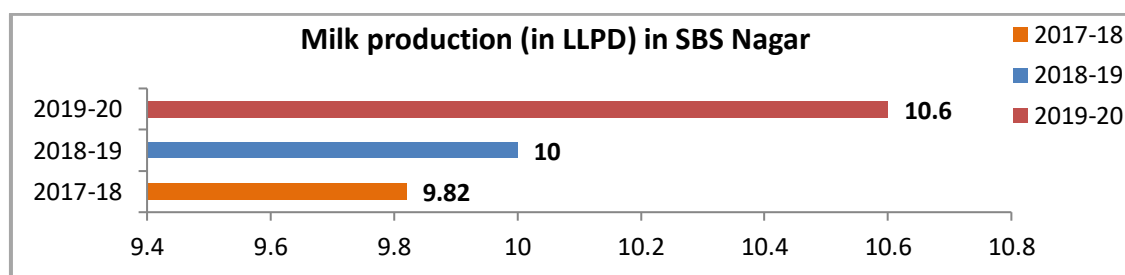
**Pooja Quality Foods Products**, Banga, Nawanshahr is run by one Ms. Pooja. She manufactures pickles, murraba, sauce, jam, araks, juices (amla & alovera) etc. She started this firm in 2007 with an investment of Rs. 1 Cr. The products are sold under the brand name 'Pooja Quality' in local market and major cities. The sales turnover is about Rs. 30 to 35 lac. She wants to make use of the credit linked subsidy under 'PM FME' Scheme to purchase equipment like filling, labelling, bar-coding, washing and packaging machines.

**Mr. Gurpreet Singh**, Village Majra Jattan, Balachaur, SBS Nagar grows vegetables, flowers and food grain crops in 70 acres land using drip irrigation and sprinkle

irrigation (for vegetables). He mainly cultivates potato, chillies, wheat and paddy. He owns a tissue culture laboratory for potato seed production. He also grows gladiolus and chrysanthemum flowers and sells them in local market as well as in Chandigarh. Mr. Gurpreet Singh wants to set up a cold store and purchase machinery under the credit linked subsidy scheme of ‘PM FME’.

**GVS Biotech** belongs to Mr. Rajpal Gandhi of Village Balachaur, SBS Nagar. He runs a stevia sugar manufacturing unit. He is working in this line for the last four years. He has an association of 20 farmers growing stevia crop for him. He also owns 70 acre where he grows stevia plant. Stevia plant leaves (sweet leaves) is a healthy sugar substitute. He sells stevia sugar online (through Flipkart and Amazon) under the brand name ‘Cheeni-Kum’. Mr. Rajpal Gandhi proposes to buy equipment for setting up a refining unit under the credit linked subsidy scheme of ‘PM FME’.

### 3.19.5 Dairy product processing



*\*Source: Directorate of Dairy Development, Punjab*

There has been consistent increase in the production of milk in the district in last three years with 12.38 lakh litre/day during 2019-20. There are many dairy farms and individuals processing milk and manufacturing milk products like paneer, curd, cream, khoya, etc. The feedback received from some of the processors is here under.

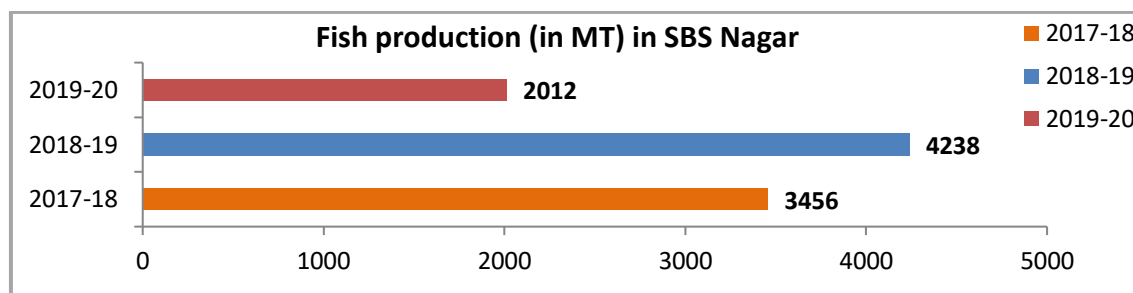
**Mr Jaspal Singh**, Village Makhowaljabba SBS Nagar is having 60 cows. He gets about 50 litre/day of milk yield and he supplies the same to Verka Milk Plant.

**Mr. Mandeep Singh** of Khalsa Dairy, Rahon, S.B.S. Nagar manufactures desi ghee, butter, milk, cream, curd, paneer, khoya, etc. He is into this business for the last 15 years. He owns Bulk Milk Cooler for chilling milk. And supplies milk to Devawal milk factory near Samrala.

There is therefore need to encourage dairy farms and milk producers to up-grade their existing milk processing plants.

### 3.19.6 Poultry, Meat and Fish processing

Fish production in the district has shown erratic behaviour. During 2017-18, the production was 4,480 MT, then it increased to 5,025 MT in 2018-19 and in 2019-20 it dropped down marginally to 4,969 MT. However, there is a good demand for fish in the district. The surplus production goes to neighbouring districts for sale. The farmers dealing in fish farming are very optimistic of the future of fish in the district.



*\*Source: Fisheries Department, Punjab*

**Mr. Sukhdev Singh**, Village Mehatpur Ladhani, has 13 acre fish ponds and produces 7 MT in a season. He also has a hatchery where he grows fish seeds. He has aerator at his farm. He has also done 2 weeks training on fish farming from Samrala. He earns good profit by selling his produce. He grows different varieties of fish like American gold, silver carp, rohu and katla.

**Ms. Beant Kaur**, Village Mehatpur Ladhani, maintains fish ponds. She directly sells her produce at farm gate. She has installed aerator in the ponds. She deals in American gold, silver carp, rohu and katla varieties of fish. She is interested to make use of the scheme to install a primary processing plant at her farm.

### 3.19.7 Packaged food items

There are over 200 bakeries and sweet shops in the district manufacturing a variety of food products like cakes, savouries, snacks, etc.

Mr. Ajay Kumar of Kumar Bakery, Rahon Road, Nawanshahr is in the bakery business for the last 5 years. He manufactures cakes, pastries, cookies, snacks, puddings, mousse and biscuits. He is keen to make use of the scheme.



**Mr Vikas of Vishal Bakers**, Banga, Nawanshahr is into bakery business for the last 20 years. He bakes cakes, pastries, cookies, biscuits etc. He also runs a juice bar. He needs subsidy to modernize his bakery.

**Ramsons Sweets**, Nawashahar, are a sweet shop which was established 50 year ago. All types of sweets are manufactured by them. He purchases milk from local dairy farmers. The annual turnover of the unit is Rs. 10 lakh. He sells his products in local market. They want to purchase commercial machinery to expand their business.

The existing bakery units and sweet shops need to be promoted to expand their operations.

**3.19.8 The analysis of the secondary data and interaction held with unorganized microenterprises/FPOs/SHGs/Experts dealing in the five major food categories is summarized in the following table:**

Major Food Category	Produce shortlisted based on secondary data research	Products/produce shortlisted based on interactions held with micro enterprises/ FPOs/ SHGs& experts	Products/ produce finalized	Status of finalized products/ produce from ODOP point of view (High/ medium/low)
Grains& oilseed processing	-	Atta	Atta	Medium
Fruits & vegetable processing	Peas Peach	Pickles &murraba	<b>Peas</b> Peach Pickles &murraba	<b>High</b> Medium Low
Dairy Product processing	Milk	Milk & milk products	Milk & milk products	Medium
Poultry Meat & Fish Processing	Fish Broiler Meat	Poultry, Meat and Fish processing	Poultry, Meat and Fish processing	Medium
Packaged food	-	Bakery products & Savouries	Bakery products & Savouries	Medium

**Thus, PAIC recommends ‘Peas’ as ‘One Product’ for district SBS Nagar (Nawanshahr).**

## 3.20 SANGRUR

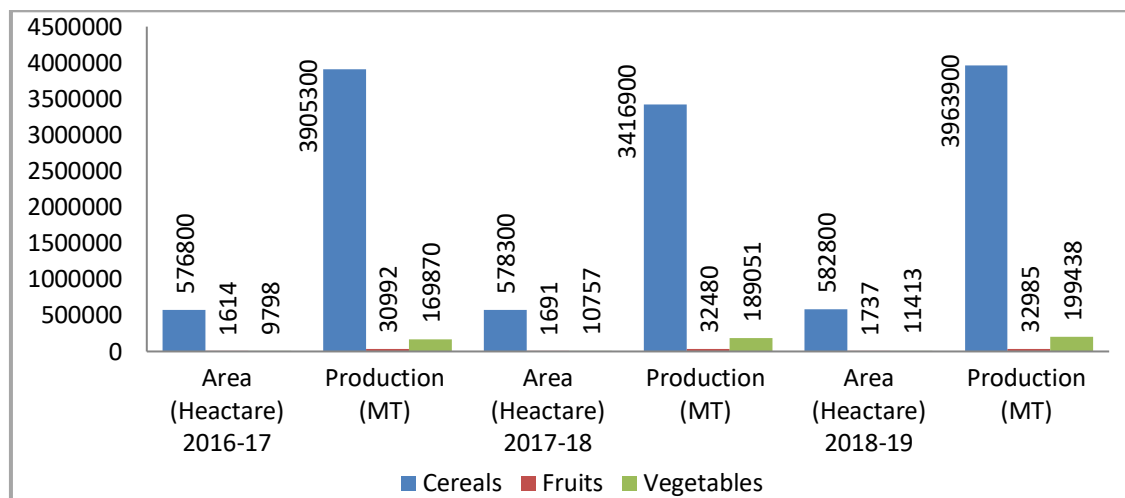


**3.20.1** District Sangrur is bounded by district Ludhiana and district Ferozpur in the North, by district Bhatinda in the West, by district Patiala in the East and by district Jind (Haryana State) in the South. As per 2011 Census, the population of the district was 16,55,000 persons, out of which 69% lived in rural area and the remaining in urban area. The district has 562 inhabited villages. **The Gross District Domestic Product (GDDP) and Per Capita Income (PCI) at current prices (2015-16) was Rs. 1,43,356/- and Rs. 1,27,528/-, much above than the state average of Rs.1,32,467/- and Rs.1,18,858/- respectively.**

The geographical area of the district is 3,61,000 Hectare, the second highest, after district Ludhiana. Of this, **the net sown area is over 87% ( 3,15,000 Hectare)**. About 312,000 Hectare is sown more than once, thus recording a **cropping intensity of over 199%**. Largely, its topography is that of an alluvial plain, marked by flatness featurelessness. Soil is rich in nutrients and suitable for crops like wheat, paddy, potato and vegetables.

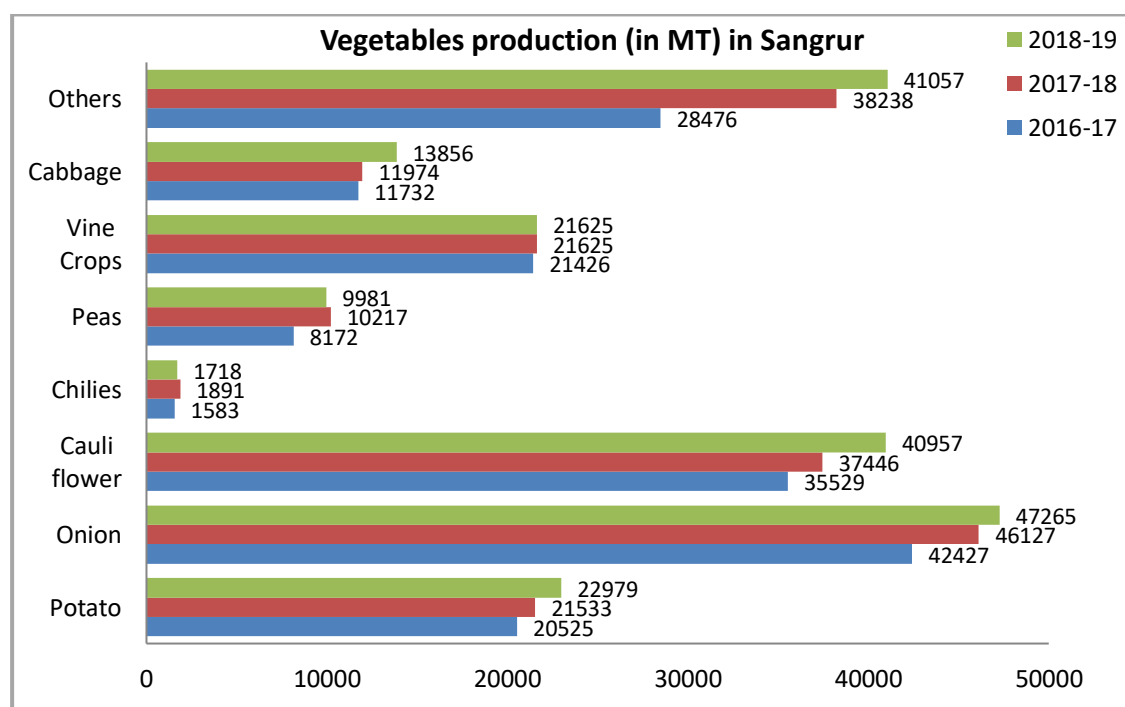
The district has eight fruits and vegetable mandis run by the state agency namely Punjab Mandi Board. These are located at Bhawanigarh, Ahmedgarh, Dhuri, Khanauri, Lehra Gaga, Malerkotla, Sangrur and Sunam.

### 3.20.2 The trend in the area and production of food grains including sugarcane and fruits & vegetables in the district is presented here under:



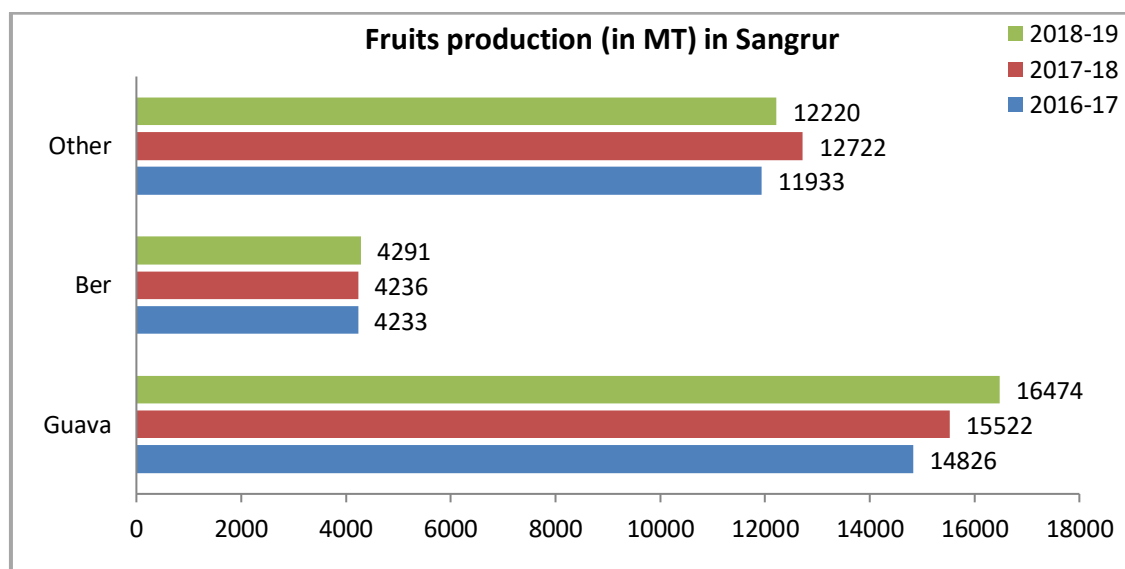
\*Source: Department of Agriculture/Horticulture, Punjab

The district Sangrur is the highest producer of wheat and paddy amongst all districts in the state. The area under these crops has been more or less consistent at 2,90,000 Hectare (16,82,000 MT) and 2,87,000 Hectare (20,19,000 MT) respectively. The district also grows sugarcane, barley and sarson on an average 3,000 Hectare (2,55,000 MT), 1,500 Hectare (5,500 MT) and 1,500 Hectare (2,500 MT) respectively. The area and production of crops like maize, bajra, moong, arhar, guara seed, gram, massar etc. in the district are marginal.



\*Source: Department of Horticulture, Punjab

The district produces a very wide range of vegetables viz. potato, onion, garlic, brinjal, tomato, peas, vine crops, root crops, cauliflower, cabbage, okra, chillies, musk melon & water melon and that too in good quantities. **There has been cumulative growth of over 16% in area under vegetables in past three years from 9,798 Hectare (1,69,870 MT) in 2016-17 to 11,413 Hectare (1,99,438 MT) in 2018-19.** Out of all vegetables, the maximum area was under cauliflower at 2,206 Hectare (40,957 MT) during 2018-19, but the same is less than the area under the same crop in other districts. However, the district is the second highest producer of onion, after district Patiala. During last three years, it recorded a cumulative growth (area) of over 11% with 2,006 Hectare (47,265 MT) during 2018-19. **So, onion is selected for further study.**



*\*Source: Department of Horticulture, Punjab*

The district produces a variety of fruits viz. guava, ber, lime lemon, kinnow, peach etc. The district reported a cumulative growth of nearly 8% in area under fruit crops in last three years from **1,614 Hectare (30,992 MT) in 2016-17 to 1,737 Hectare (32,985 MT) in 2018-19.** Guava is the major fruit grown here and its production recorded a jump of about 10% during the same period from **647 Hectare (14,826 MT) in 2016-17 to 716 Hectare (16,474 MT) in 2018-19.** It is observed that the area and production of guava is quite less than the area and production of same fruit in other districts. However, the district tops in the production of lime lemon amongst all districts of the state. The cumulative growth in the area under lime lemon was 15% in last three years with **179 Hectare (1,360 MT) in 2016-17 to 206 Hectare (1,571 MT) in 2018-19.** **Thus, lime lemon is selected for further study.**

### 3.20.3 Grain and oilseeds processing

There are about 8 to 10 mini **flour mills** in the district manufacturing wheat flour, choker and multigrain atta and selling them as non-branded products. Besides, there are over 400 atta chakkis engaged in job work. There are 1 to 2 roller flour mills in the district. The owners of mini flour mills could consider upgrading their units under the 'PM FME' Scheme. At secondary level of processing, there are about 75 bakery units in the district.

There are over 400 small **rice mills** processing common paddy for government agencies. They would be interested to take the benefit of the scheme. However, they may not be covered in the scheme.

The district has 4 to 5 medium sized solvent extraction units processing rice bran. Besides, there are about 15 small and micro enterprises processing cotton seed & mustard seed using expellers to manufacture crude edible oil and mustard oil. Discussions were held with some enterprises to understand their business and interest to take advantage of the 'PM FME' Scheme.

**Harman Foods, VPO Moranwali, Malerkotla**, is owned by Mr. Dhanwinder Singh. The unit was established in 2011. He is into processing soya beans to manufacture soya cheese (Tofu) and soya milk. He is interested to make use of the scheme.

**Teg AgroFarm, Bhadalwad, Dhuri**, owned by one Mr. Harwinder Singh. He started oil extraction business in 2017. Oil expeller used for oil extraction is on lease.

There is a scope to encourage existing micro enterprises to up-grade/modernize their existing oil expelling units and atta chakkis.

### 3.20.4 Fruits and Vegetables processing

There are number of micro enterprises/FPOs/SHGs engaged in the production of a range of products like jaggery, pickles, chutney, jam, squash etc. We spoke with some such enterprises to understand their line of business and interest to take benefit of the scheme.

**Akal Seed Farm, VPO Bhadarpur, Chandigarh-Bhatinda Highway, Sangrur** is engaged in production of jaggery. On an average, they produce 100 MT of jaggery per season. They use mechanical engine to extract juice from sugarcane. Jaggery is produced in different flavors. They sell the products from the farm gate.

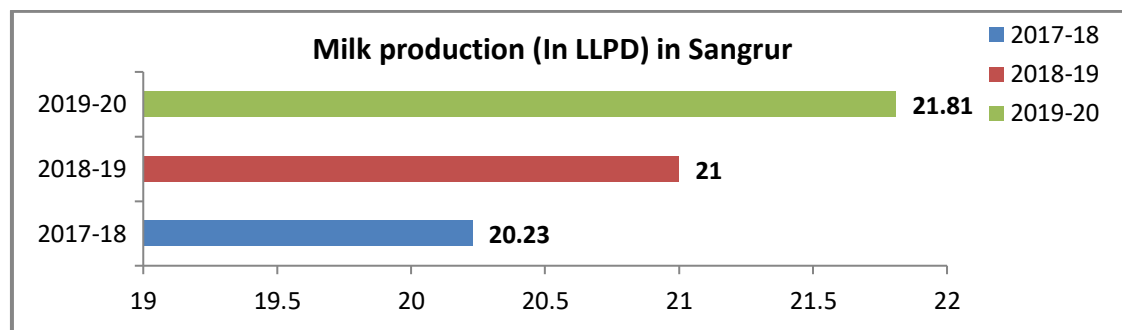
**Sanjeevni Self Help Group, Sohiyan Road, Rajgarh Basti, VPO Kamomajra, Sangrur**, is run by Ms. Arvinder Kaur. The SHG was formed in 2017. They process products like pickle, chutney, jam, squash, packaged meal, etc.

**ATMA Kisan Bazaar** imparted training to them and gave Rs 10,000 to purchase equipment for setting up a food processing unit. They purchase agriculture produce from farmers and local market. They have a retail counter in Sangrur from where they sell their products. Products are also sold at the processing site. They are interested to take advantage of the scheme.

**U Young Honey, VPO Narika, Malerkotla** is owned by Mr. Kuldeep Singh. He took training in bee keeping and honey processing. He manufactures products includes like honey, bee pollen, etc. He sells his products from ATMA Kisan Hut at Malerkotla.

### 3.20.5 Dairy product processing

The district Jalandhar produces milk at 21.81 lakh litres per day.



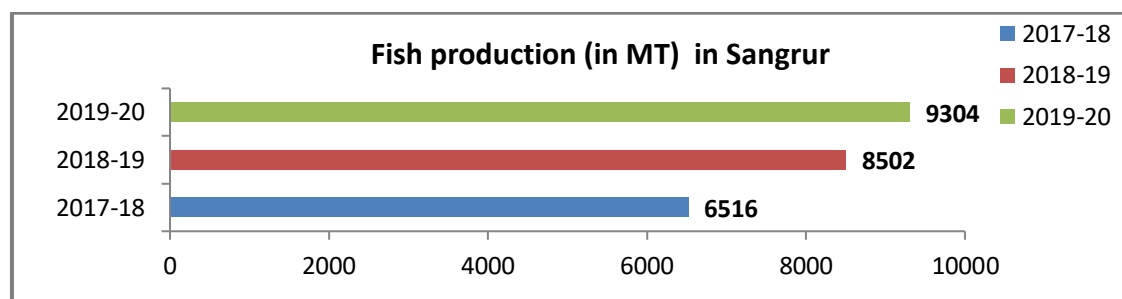
*\*Source: Directorate of Dairy Development, Punjab*

There has been consistent growth in the production of milk in the district. It is amongst the largest producer of milk districts in the state. During 2019-20, it produced 21.81 lakh litre/day of milk, a cumulative growth of 8% in last three years. The district has three to four medium sized milk processing plants manufacturing desi ghee, skimmed milk powder, curd, butter, lassi, etc. There are over 400 dairy farms processing marginal quantities of milk ranging from 500 litre to 2,000 litre to manufacture paneer, curd, sweet meat, lassi, etc. for local consumption. It is observed that there is need to encourage such units to up-grade/modernize their production facilities.

### 3.20.6 Poultry, Meat and Fish processing

The district has a many commercial poultry layer and broiler farms and there is good demand for meat products here. There is no modern slaughtering and dressing plant.

The demand is met by supply of daily fresh broiler by micro enterprises. There are over 800 shops/individuals dealing in this business. It is observed that there is a need to encourage such units to set up modern appliances for culling and storage of dressed broilers etc.



*\*Source: Fisheries Department, Punjab*

The production of fish in the district has shown spectacular cumulative growth of 43% in last three years with 9,304 MT during 2019-20. The consumption of fish is also one of the highest here. We spoke with some fish growers to understand their interest to make use of the scheme.

**Integrated Meat Processing, VPO Gaggarpur, Sangrur**, is owned by one Mr. Hardeep Singh. He started working in this line in 2017. He has taken training in fishery, goatry and poultry. He processes meat to make meat pickle, ready-to-eat meat products etc. The products are sold at farm gate.

It is observed that there is a need to encourage daily fresh meat individuals and micro enterprises and processors to up-grade their facilities by availing grant under the scheme.

### 3.20.7 Packaged food items

There are over 350 bakeries and savouries units in the district. Of this, 80% are cottage type and operating from residential areas. There is, therefore, a need to promote these micro enterprises to set up latest equipment under the scheme.

**3.20.8 The analysis of the secondary data and interaction held with unorganized microenterprises/FPOs/SHGs/Experts dealing in the five major food categories is summarized in the following table:**

Major Food Category	Produce shortlisted based on secondary data research	Products/produce shortlisted based on interactions held with micro enterprises/ FPOs/ SHGs& experts	Products/ produce finalized	Status of finalized products/ produce from ODOP point of view (High/ medium/ low)
Grains& oilseed processing	Oilseeds	Atta Oilseeds	Atta Oilseeds	Medium Medium
Fruits & vegetable processing	Onion Lime lemon	Honey	<b>Onion</b> Lime lemon Honey	<b>High</b> Medium Medium
Dairy Product processing	Milk	Milk & milk products	Milk & milk products	Medium
Poultry Meat & Fish Processing	Fish Broiler Meat	Poultry, Meat and Fish processing	Poultry, Meat and Fish processing	Medium
Packaged food	-	Bakery products & Savouries	Bakery products & Savouries	Medium

**Thus, PAIC recommends ‘Onion’ as ‘One Product’ for District Sangrur.**



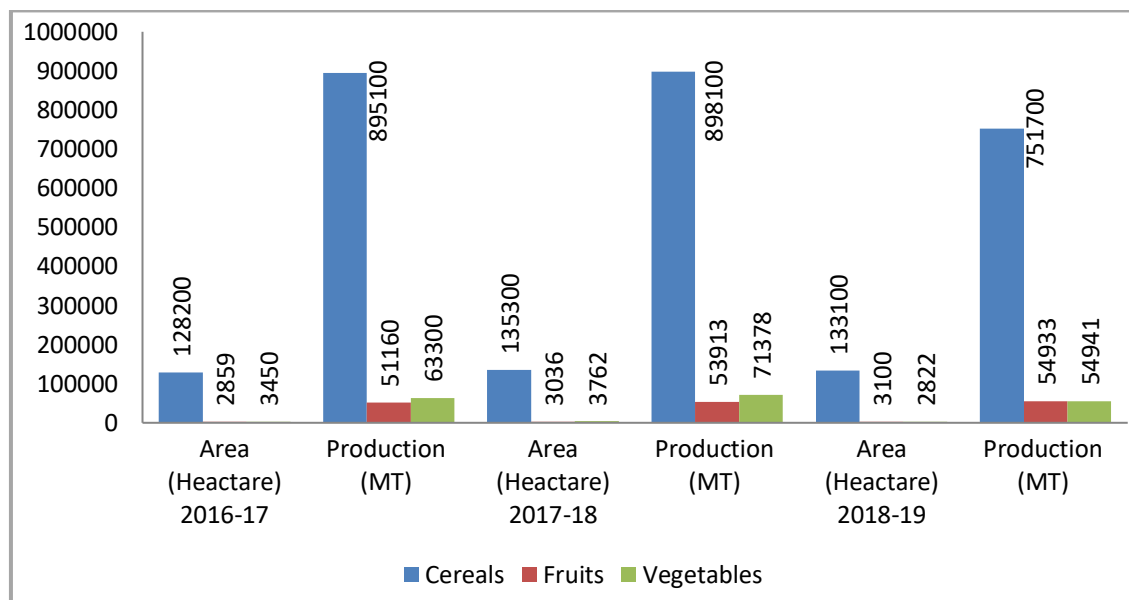
### 3.21 ROOPNAGAR



**3.21.1** The district adjoins district Una (Himachal Pradesh) in the North, district Hoshiarpur in the North West and district Ludhiana and district Patiala in South West. The major towns of the district include Rupnagar, Kharar, Chamkaur Sahib, Anandpur Sahib, Morinda, Nangal Township and Naya Nangal. **The district Roopnagar is one of the smallest districts** of the State. There are 588 inhabited villages in the district. As per 2011 Census, the population of the district was 6,84,000 persons, out of which 74% was living in rural areas and the remaining in urban.

**The Gross District Domestic Product (GDDP) and Per Capita Income (PCI) at current prices (2015-16) was the highest amongst all districts at Rs. 1,72,462/- and Rs. 1,56,900/- respectively.** The geographical area of the district is 1,39,000 Hectare, out of which **net sown area is just 55% ( 81,000 Hectare)**. About 71,000 Hectare is sown more than once, thus recording a **cropping intensity of over 187%**. Despite its small size, the district displays the greatest physiographic diversity. The district can be divided into five physiographic units i.e. the Anandpur Sahib Dun; Hilly Tracts; Foothill Dissected Plain; Upland Plain and Floodplain of the river Satluj.

### 3.21.2 The trend in the area and production of food grains including sugarcane and fruits & vegetables in the district is presented here under:

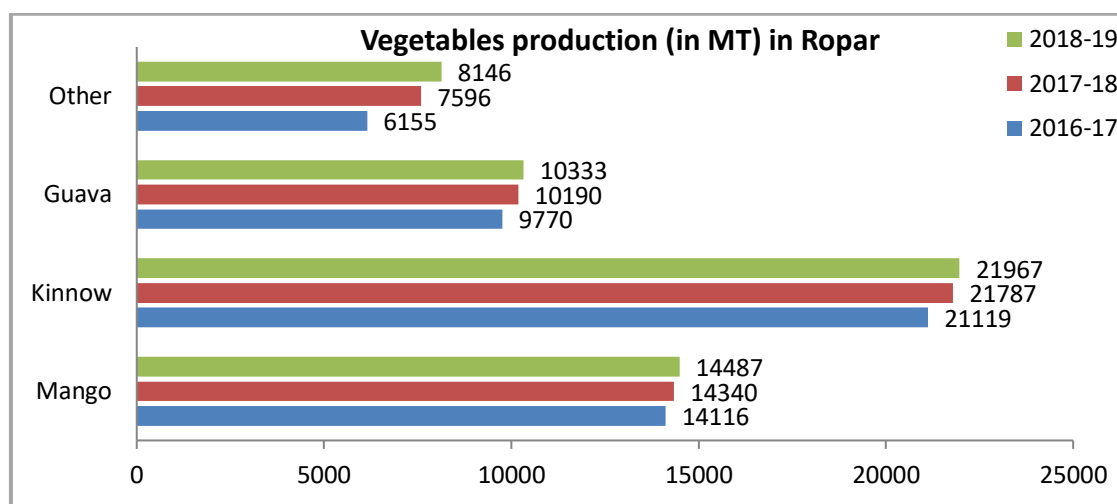


\*Source: Department of Agriculture/Horticulture, Punjab

Wheat and paddy are the main Rabi and kharif crops of the district. However, **the area and production of these crops is one of the lowest, after district Pathankot and district Mohali** with 69,000 Hectare (3,15,000 MT) and 41,000 Hectare (2,12,000 MT) in 2018-19. **Maize is the 3<sup>rd</sup> most major crop of the district and the area under this crop is second amongst all districts after Hoshiarpur. The area under maize has been fluctuating from 18,000 Hectare (68,000 MT) in 2016-17 to 23,000 Hectare (95,000 MT) in 2017-18 and 20,400 Hectare (76,800 MT) in 2018-19.**

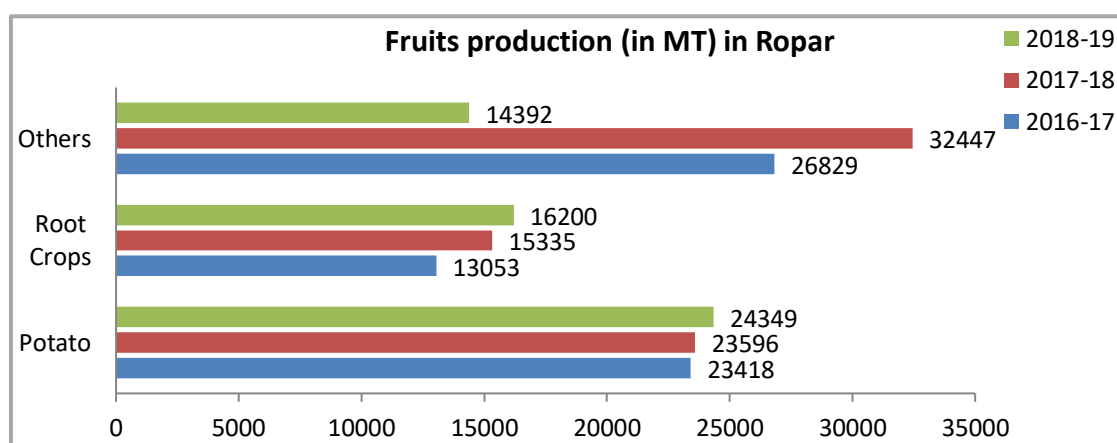
The district also grows sugarcane and area under this crop has also shown erratic behaviour with 3,000 Hectare (2,41,000 MT) in 2016-17 to 4,000 Hectare (3,05,000 MT) in 2017-18 and 2,000 Hectare (1,48,000 MT) in 2018-19. The district also grows bajra, kharif oilseeds (sesamum), barley, rabi oilseeds sarson and taramira in small quantities with 400 Hectare (200 MT), 200 Hectare (100 MT), 100 Hectare (400 MT), 1,500 Hectare (1,900 MT) and 300 Hectare (400 MT) respectively during 2018-19.

It is observed that **there is no crop from this group worth pursuing for further study**



*\*Source: Department of Horticulture, Punjab*

The district produces a wide range of vegetables like potato, onion, garlic, tomato, brinjal, cauliflower, cabbage, okra, chillies and peas. Amongst all vegetables, area under potato is maximum at 1,016 Hectare (24,349 MT) during 2018-19. However, cumulative growth of this crop in last three years is marginal at 4%. The area and production of potato in the district is marginal as compared to area and production of same crop in other districts of the state. **Therefore, potato has very limited scope for district Ropar as of now. Further, there is no vegetable crop grown in the district which is significant from the point of view of further study for the present project.**



*\*Source: Department of Horticulture, Punjab*

The district produces a variety of fruits viz. mango, guava, sweet orange, litchi, lime lemon, kinnow, peach, amla, etc. The district reported a cumulative growth of nearly 8% in area under fruit crops in last three years from 2,859 Hectare (51,160 MT) in 2016-17 to 3,100 Hectare (54,933 MT) in 2018-19. Out of all fruits, area under kinnow and mango are maximum at 1,032 Hectare (21,967 MT) and 959 Hectare (14,487 MT)

respectively. It is observed that the area and production of kinnow is quite less than the area and production of same fruit in other districts. **With regard to mango, the district is third largest producer of this fruit, after Pathankot and Hoshiarpur. District Hoshiarpur is adjacent to district Ropar. So, Mango fruit is worth pursuing further for this district for the present study.**

### 3.21.3 Grain and oilseeds processing

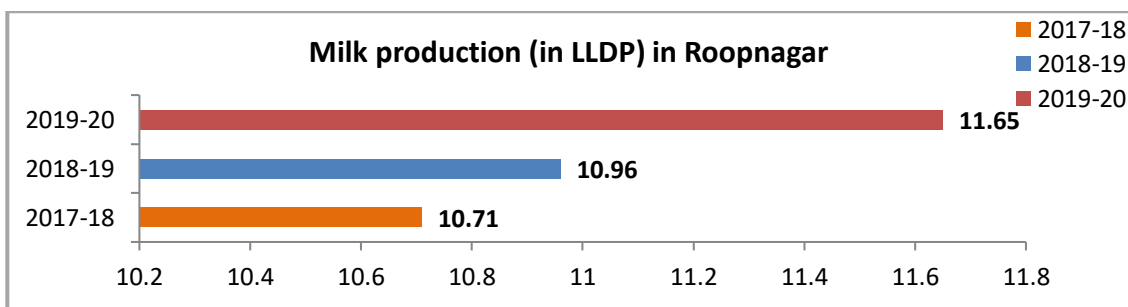
There are over 1,200 atta chakkis in the district, including one big roller flour mill and 8 to 10 mini roller flour mills. The roller flour mills processes their own wheat and sell non-branded atta. Whereas, atta chakkis are into job work. Some atta chakkis have installed oil expellers to provide one stop shop to customers. The atta chakkis owners want to up-grade their facilities by installing automatic packaging unit. There are about 50 rice mills of average capacity of 2 MT/hr. processing common paddy for state government agencies.

**There is a scope to encourage atta chakki owners to up-grade their facilities under the scheme.**

### 3.21.4 Fruits and Vegetables processing

There are number of micro enterprises/FPOs/SHGs engaged in the production of a range of products like jaggery, pickles, chutney, jam, squash etc.

### 3.21.5 Dairy product processing



*\*Source: Directorate of Dairy Development, Punjab*

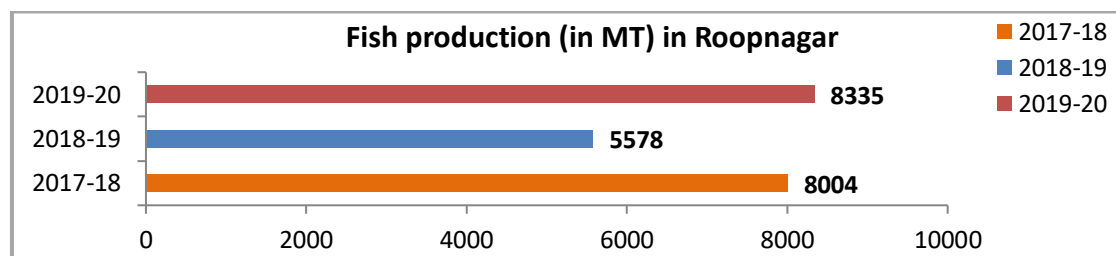
The district reported consistent growth in the production of milk in last three years with 11.67 lakh litre/day during 2019-20. Many milk producers supply milk to Milkfed, Mohali and there are others who do processing themselves and sell paneer, curd, lassi, etc. to their local customers. There is a need to encourage existing milk processors to modernize their processing facilities.

### 3.21.6 Poultry, Meat and Fish processing

The district has large number of commercial poultry layer and broiler farms. There is no modern slaughtering and dressing plant. The local demand of meat is met by supply of daily fresh broiler by individuals/micro enterprises. There are over 500 shops/individuals dealing in this business. It is observed that there is a need to encourage such units to set up modern appliances for culling and storage of dressed broilers etc.

**Modern Poultry Farm, VPO Mallan Kalan, Morinda, Ropar** is owned by Mr. Amar Singh. The farm was established in 1978 in a small scale and today he has over 60,000 birds. With the help of Govt. he wants to increase his business further.

Fish production in the district has shown erratic behaviour. During 2017-18, the production was 8,004 MT, which decreased to 5,578 MT in 2018-19 and then increased to 8,335 MT in 2019-20. There is a good demand for fish in the district. The surplus production goes to neighbouring districts for sale. The farmers dealing in fish farming are very optimistic of the future of fish in the district. We spoke with some fish farm owners.



*\*Source: Fisheries Department, Punjab*

**Mr. Birdavinder Singh, Bassigujran, Chamkaur Sahib, Ropar**, is into fish farming business for the last many years. He also manufactures fish feed in this farm. He deals in 3 types of fish i.e. rahu, grass cooper and katla. They sell fish and fish feed in the local area. With the help of Govt. he wants to increase his business.

It has been observed that there is a need to encourage existing daily fresh broiler/meat/fish micro enterprises to up-grade their processing facilities.

### 3.21.7 Packaged food items

There are over 400 bakeries and savouries units in the district. Of this, 90% are cottage type and operating from residential areas. There is, therefore, a need to promote these micro enterprises to set up latest equipment under the scheme.

**Ekam Bakery & Lovely Sweets, Old Bridge, Ropar** belongs to one Mr Ekam. The bakery was set up in 2016 with Rs 10 lakh. He manufactures products like biscuits, rusks, namkeen, bread, cake and pastries. He wants to enhance production capacity of the bakery by availing credit linked subsidy under the ‘PM FME’ Scheme.

**Bharat Bakers, Ropar** owns by Mr. Deepak Sharma. The unit was established in 1969. They make all kinds of bakery products like cake, pastries, biscuits, rusks and bread and sell from their shop. The annual sales turnover of the unit is Rs. 12 to 14 lakh. Their machinery (wood kiln etc.) has gone old and he wants to make use of the opportunity to purchase latest equipment and expand his business.

There is a need to encourage micro enterprises dealing in packaged food to expand and modernize their production facilities.

### 3.21.8 The analysis of the secondary data and interaction held with unorganized microenterprises/FPOs/SHGs/Experts dealing in the five major food categories is summarized in the following table:

Major Food Category	Produce shortlisted based on secondary data research	Products/produce shortlisted based on interactions held with micro enterprises/ FPOs/ SHGs& experts	Products/ produce finalized	Status of finalized products/ produce from ODOP point of view (High/ medium/ low)
Grains& oilseed processing	Oilseeds	Atta Oilseeds	Atta Oilseeds	Medium Medium
Fruits & vegetable processing	Mango	Honey Pickle & murraba	<b>Mango</b> Pickle & murraba Honey	<b>High</b> Medium Medium
Dairy Product processing	Milk	Milk & milk products	Milk & milk products	Medium
Poultry Meat & Fish Processing	Fish Broiler Meat	Poultry, Meat and Fish processing	Poultry, Meat and Fish processing	Medium
Packaged food	-	Bakery products & Savouries	Bakery products & Savouries	Medium

Thus, PAIC recommends ‘Mango’ as ‘One Product’ for district Roopnagar (Ropar).

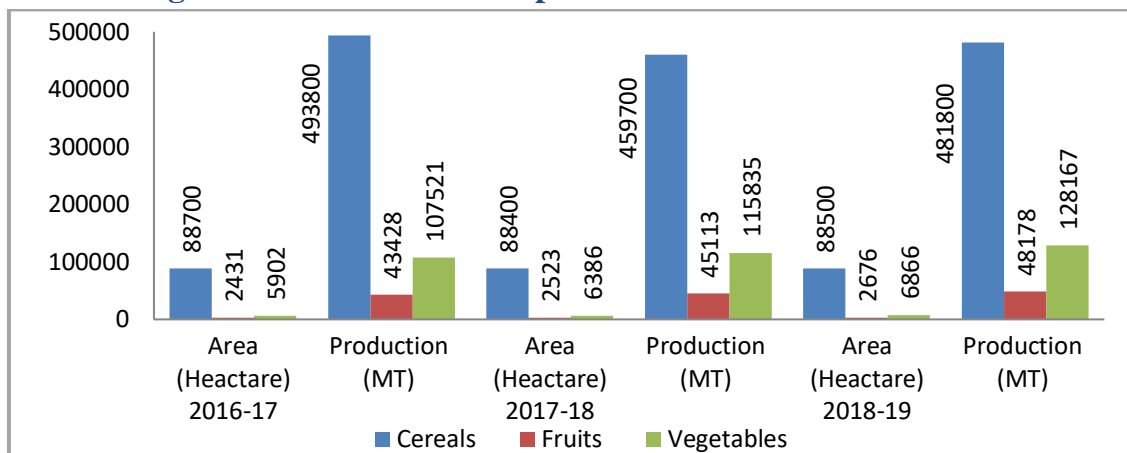
### 3.22 S.A.S. NAGAR



**3.22.1** The district SAS Nagar (Mohali) is located in the North East part of Punjab. The district head quarter **SAS Nagar (Mohali) is adjacent to the state capital Chandigarh**. The district was formed on 14.4.2006. The important townships in the district are Kharar, Kurali, Mohali, Zirakpur, DeraBassi and Banur. There are 373 inhabited villages in the district. As per 2011 Census, the population of the district was 9,95,000 persons, out of which 55% was living in urban areas and the remaining in rural areas. **The Gross District Domestic Product (GDDP) and Per Capita Income (PCI) at current prices (2015-16) was third highest amongst all districts at Rs. 1,61,714/- and Rs. 1,41,439/- respectively.**

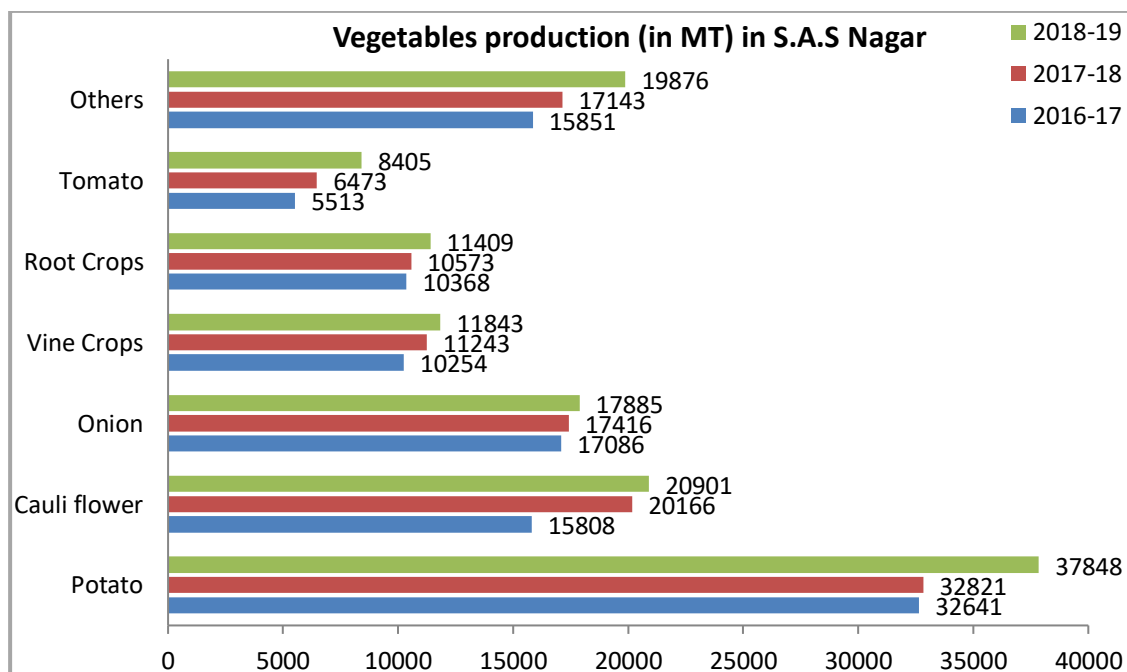
The geographical area of the district is 1,21,000 Hectare, out of which **net sown area is about 64% ( 77,000 Hectare)**. About 29,000 Hectare is sown more than once, thus recording a **cropping intensity of over 137%, which is the lowest amongst all districts**. The topography of land is even. It is mostly a plain of alluvial type. It also has loam to heavy loam and sand to sandy loam soils in certain parts. Soil is rich in nutrients and suitable for growing foodgrains and vegetables. Paddy and wheat constitute the main Kharif and Rabi crops. The district has five fruits and vegetable mandis run by the state agency i.e. Punjab Mandi Board. These are located in Kharar, Kurali, DeraBassi, Lalru and Banur.

### 3.22.2 The trend in the area and production of food grains including sugarcane and fruits & vegetables in the district is presented here under:



\*Source: Department of Agriculture/Horticulture, Punjab

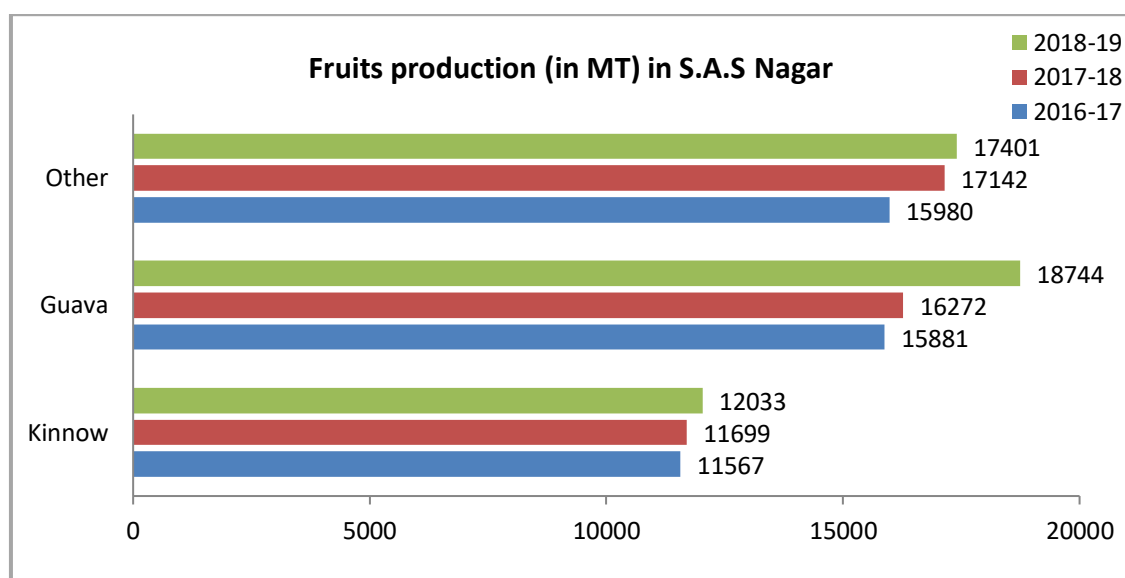
The area under paddy and wheat in district SAS Nagar is lowest at 31,000 Hectare and 50,000 Hectare respectively, which is lowest amongst all the districts of Punjab. Further, there has been nearly no change in the area under these crops for the past three years. The district also grew maize in 5,700 Hectare (21,200 MT) in 2018-19. Sugarcane is grown on 1,000 Hectare and pulses (arhar) & oilseeds (sarson & taramira) on 200 Hectare & 900 Hectares respectively. For the first time in last three years, the district grew sunflower on 1,000 Hectare (1,700 MT) in 2018-19. It has been observed that there is nothing significant about foodgrains, sugarcane & oilseeds in the district.





*\*Source: Department of Horticulture, Punjab*

The district produces a very wide range of vegetables like onion, cabbage, tomato, chillies, vine & root crops etc. There has been overall cumulative growth of about 20% in area under vegetables in last three years from 5,902 Hectare (1,07,521 MT) in 2016-17 to 7,048 Hectare (1,28,167 MT) in 2018-19. Out of the total area production of all vegetables in the district, the contribution of potato is highest at 1,516 Hectare (37,848 MT) during 2018-19, which is marginal in comparison with the area and production of the same crop in the districts of Hoshiarpur, Jalandhar, Ludhiana, Amritsar, Kapurthala and Moga. It was observed that the land holding in the district is limited to 4/5 acre. Potato being a mechanized crop requires large operational land holding to expand. Thus, the chances of substantial increase in area under potato in future are bleak. District Mohali is the 4th largest producer of onion amongst all districts of the state with production at 17,885 MT, but the cumulative growth of area under this crop during last three years has been less than 5%. **So, there is no vegetable in the district worth pursuing further for the present study.**



*\*Source: Department of Horticulture, Punjab*

The district produces a variety of fruits viz. guava, mango, lime lemon, kinnow, peach, pear, etc. The district reported an overall cumulative growth of over 10% in area under fruit crops in last three years from **2,431 Hectare (43,428 MT) in 2016-17 to 2,676 Hectare (48,178 MT) in 2018-19.** Out of all fruits, **the maximum area is under guava. The district is at no. 2 in area under guava, after district Patiala (the**

adjoining district). The fruit (guava) reported a cumulative growth of 15% in area in last three years from 718 Hectare (15,881 MT) in 2016-17 to 846 Hectare (18,774 MT) in 2018-19. So, guava fruit is selected for further study.

We spoke with some guava growers to find out the reasons in the increase in area under guava. **Mr. Sarabjit Singh, Gharuan, SAS Nagar** informed that he is planting guava (AllabadSaffeda, Punjab Saffeda, L49, Kiran, Lalit etc. varieties) in 4 acres. Guava is a low maintenance and less water consuming plant. Fruit contractors take the guava orchard on contract for two years together. The prevailing rate is over Rs.1,50,000/- per acre per year. It starts giving fruit from 3rd year onwards. Fruit is harvested for six long months i.e. from July to September and then December to March. Yield per acre is over 110 Qtl. PAU experts say that guava can be grown anywhere in Punjab. In fact it is grown/can be grown in most districts of other states as well. **It is a table fruit and that too for local consumption, so one can not expect that the area under guava would increase significantly in the district unless some big guava pulping/juicing unit is set up here.**

### 3.22.3 Grain and oilseeds processing

The district has two roller flour mills manufacturing non-branded atta, maida, suji etc. Then there are six to seven mini semi automaticchakkis manufacturing non-branded atta and supplying directly to local retail shops. There shall be over 300 small atta chakkis doing job work. Some small atta chakkiownere also have oil expellers for extracting mustard oil, cotton seed oil etc.

Mr. Pardeep Garg of **Garg Flour Mills, Kurali** informed that he is producing 60 to 70 Qtl./day of atta. Packaging of atta is done manually and they are considering setting up an automatic packaging plant which will reduce labour cost to a great extent increasing his earning to a reasonable amount. He further informed that without an automatic packaging plant, running atta chakki is not a viable proposition. Mr. Amrik Singh of **Amrik Flour Mill, Mubarakpur** also responded in these lines. Therefore, at this stage there is need to encourage existing atta chakki owners to modernize/up-grade their facilities.

**VinextCorporation, Mohali** set up by Mr. Suman Yadav is engaged in processing and packaging of soyabean, besan, maida, suji, haldi and spices under the brand 'Jagbani'.

He started his work in 2017 and now he wants to install a big grinder and a masala chakki to up-grade his plant.

**Bhole Bhandari Foods Indus, Village Badala, Kharar**, is a registered firm owned by Mr. Sumit Garg, engaged in processing and packaging of Besan, Spices, Wheat, Dalia (wheat+barley) etc. under the brand ‘Bhole Bhandari Foods Indus’. They use raw material from local market as well as from other states as per requirement. He is keen to make use of the facility of credit linked subsidy under ‘PMFME’ Scheme to bring modernization.

There is no rice millers association of this district, so we could not get any feed back about rice mills in the district.

#### 3.22.4 Fruits and Vegetables processing

The district has no fruits and vegetable processing plant in the organised sector. Mahindra and Mahindra have set up a seed potato (mini tuber) plant in the district. The seed so produced are multiplied in their contracted corporate farms at Moga, Karnal and Hapur. A part of their produce is sold to French Fries manufacturing companies like Mc cane, Hyphen, Simplot, Iscon Balaji, etc. There are number of FPOs/SHGs and individual micro enterprises manufacturing packaged products like pickle, chutney, spices, etc. We spoke with a number of such firms and the outcome of the discussion is as under:

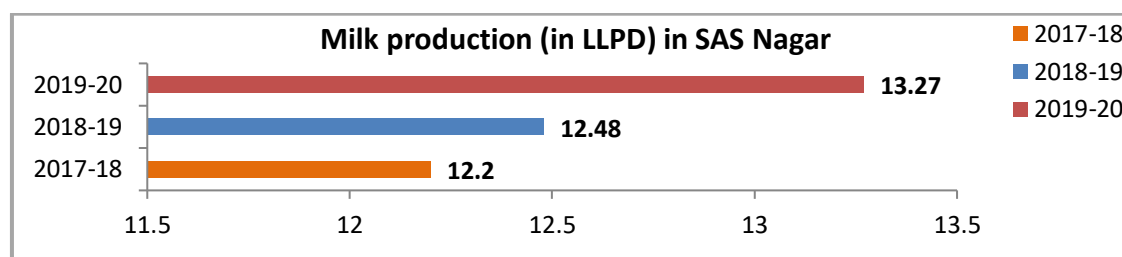
**Mittal Spices, Mohali**, is a registered unit of Mr. Varinder Mittal, engaged in processing and packaging spices (coriander & turmeric), garlic pickle, murraba etc. The unit was started in 2016. These products are sold under the brand ‘Mittal Spices’. They purchase raw material from Punjab as well as from Delhi, Andhra Pradesh, Gujarat and Madhya Pradesh. He is keen to make use of the facility of credit linked subsidy under ‘PMFME’ Scheme to expand his business.

**Mrs. Sarbjit Kaur, Village Khijrabad** is running an individual unit and a Self Help Group to manufacture pickles, various types of chutney, burfi and fast food products. She is keen to make use of the facility of credit linked subsidy under ‘PMFME’ Scheme to bring modification to her individual unit and to expand the functioning of her SHG on a large scale.

**Ms. Deepika Sindhwani, Kharar** is running three FPOs namely Agri Zone Farmer Producer Company (25 members), Kisan Junction Farmer (50 members) and Mehta Ekta Farmer (50 members). These FPOs are engaged in processing and sale of garlic chutney, turmeric, amla, jiggery and milk. Ms. Deepika has also formed two Self Help Groups - MKS Baba Deep Singh and MKS Balmiki - engaged in processing and sale of pickles, chutneys and murabbas. They source their requirement of fruits and vegetable from local markets. Ms. Deepika is keen to make use of credit linked subsidy under 'PMFME' Scheme to purchase commercial machinery.

It has been noticed that there are many cottage units manufacturing pickle, murraba, chutney etc. and at this stage there is a need to upgrade the existing processing facilities of FPOs etc.

### 3.22.5 Dairy product processing



*\*Source: Directorate of Dairy Development, Punjab*

The district Mohali produced 13.27 lakh litre/day of milk during 2019-20, an increase of about 6% over the previous year. There are four milk processing plants in the organized sector in the district manufacturing skimmed milk powder, butter, desi ghee, paneer, dahi, pasteurized milk, infant food products etc. These plants have their own arrangement of procurement of milk. They have provided 'Bulk Milk Chillers' of capacity 1,000 to 2,000 liters in villages.

There are over 150 small and micro enterprises, including 'sweet meat' manufacturers processing 500 litre to 1,500 litre per day of milk to manufacture paneer, lassi, curd, ghee, khyoa, cream, kulfi, etc. We interacted with some of these firms and individuals and came to know that they would be interested to up-grade their facilities to produce and supply better products to their daily customers. Farmers are even ready to set up small sized pasteurisation plants suiting to their requirements to supply packaged milk

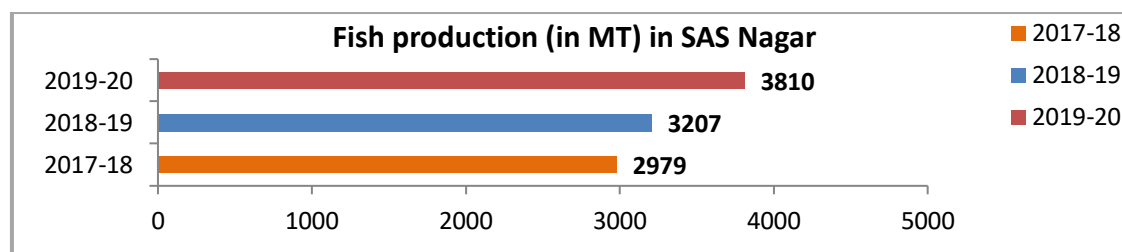
to customers. This alone will help them to realize at least 40% more price than the price they get by simply supplying milk to milk plants.

**Grewal Dairy**, Mr. Grewal produces 1 to 2 Qtl./day of milk. He has set up a batch type milk pasteurization plant at his farm. He supplies milk in pouches (500 gms) to his customers. He informed that earlier he was supplying milk to Milkfed and was getting Rs. 31/liter and now he earns Rs.50/liter. He is proposing to set up a facility to make value added products like paneer, curd, khoya etc. for his daily customers.

**Gopal Dairy**, Mr. Dharam Singh informed that he collects about 1.25 to 1.5 Qtl/day of milk and supply the same to private milk plants. Now, he wants to set up a small facility to manufacture value added products on his own.

### 3.22.6 Poultry, Meat and Fish processing

Kharar and Kurali areas of the district have large number of commercial layer and broiler farms. As per rough estimates, there are 30 lakh bird layer farms and 20 lakh bird broiler farms. There are two medium sized slaughtering-cum-dressing plants, one each in Derabassi (owned by Sugna Poultry) and Kurali (owned by Alchemist). Broilers from the district also go to Ludhiana, Patiala, Shimla etc. for processing. There are over 300 meat shops where the birds and other animals (goat & pig) are slaughtered manually and sold as daily fresh meat. Over 80% of them do not have proper facilities to maintain hygiene etc.



*\*Source: Fisheries Department, Punjab*

The trend in production of fish in the district for the last three years is as under:

The production of fish has recorded a cumulative growth of 28% in three years. The production during 2019-20 was 3,810 MTs. We spoke with Dr. Vikas PhuliaThe district has both canal/river and pond fish. The pond fish farmers face problems from banks as they do not get credit facility for purchasing fish feed (rice bran de-oiled cake). The produce is sold in fish markets at Ludhiana (Tajpur) and Amritsar (Hall Gate). At times,

it is also sold in Delhi markets. Canal/river fishing is against allotment made by auction by the Director and Warden of Fisheries, Punjab.

### 3.22.7 Packaged food items

There are over 150 bakeries in the district, 80% of which are cottage type and operating from residential areas. We spoke with a couple of such firms.

**RadheyShyam Namkeens, Mohali**, a proprietorship firm of Mr. RadheyShyam, is engaged in manufacture of bakery products like biscuits and namkeens. He started this business in 2016. He is keen to make use of the facility of credit linked subsidy under ‘PMFME’ Scheme to buy machinery for manufacturing rusks etc.

### 3.22.8 The analysis of the secondary data and interaction held with unorganized microenterprises/FPOs/SHGs/Experts dealing in the five major food categories is summarized in the following table:

Major Food Category	Produce shortlisted based on secondary data research	Products/produce shortlisted based on interactions held with micro enterprises/ FPOs/ SHGs& experts	Products/ produce finalized	Status of finalized products/ produce from ODOP point of view (High/ medium/ low)
Grains& oilseed processing	-	Atta	Atta	Medium Medium
Fruits & vegetable processing	Guava	Honey Pickle &murraba	Guava Pickle &murraba Honey	Medium Medium Medium
Dairy Product processing	Milk	Milk & milk products	<b>Milk &amp; milk products</b>	<b>High</b>
Poultry Meat & Fish Processing	Fish Broiler Meat	Poultry, Meat and Fish processing	Daily fresh meat/chicken/fish	Medium
Packaged food	-	Bakery products & Savouries	Bakery products & Savouries	Medium

Thus, PAIC recommends ‘**Milk & milk products**’ as ‘**One Product**’ for district SAS Nagar (Mohali).



## ODOP MAP

