

ENVIS CENTRE, CHANDIGARH

NewsLetter

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State of Environment



AGRICULTURE AND CROP PRODUCTION: CHANDIGARH

Agriculture is the most important sector of Indian Economy. Indian agriculture sector accounts for 18 per cent of India's gross domestic product (GDP) and provides employment to 50% of the countries workforce. India is the world's largest producer of pulses, rice, wheat, spices and spice products. The Union Territory, Chandigarh has a limited area under agriculture. The agriculture land is being gradually acquired for the expansion of Chandigarh City. The Cultivated area has shrunk from 5441 hectares in 1966 to 1790 hectares (total crop area) in 2017.









Total 680 farming families cultivating this area. Of the 680 families, 468 (68.82%) families hold less than 1 acre of land, 187 (27.5%) families hold between 1 and to 2.5; 17 families (2.5%) hold 2.5 to 5 acres of land and the remaining 8 families (1.17%) hold more than 5 acre of agriculture land.

The main sources of irrigation in the agricultural area of the city are deep-bore tube-wells installed by the Chandigarh Administration and shallow tube-wells installed by individual farmers. The farmers of Union Territory, Chandigarh who keep large number of milch cattle have taken to fodder cultivation to cater to the demand of milch cattle. Therefore, the area under food grain crops are decreasing.

The main food grain in U.T., Chandigarh is wheat, which is sown in nearly 600 hectares and the fodder is sown in about 1200 hectares during both the season. Since the farmers of the city are also using the agriculture produce for their domestic purpose and they are very much aware about the adverse effects of such pesticides. Therefore they avoid to use excess pesticides in their crops. Other than food grains, Chandigarh has very small area under vegetable cropping and fruit trees. Tomato and Onion are grown as commercial vegetables in the city whereas small patches of fruit trees mainly Guava, Mango, Kinnow, Ber and Peach are the main fruits grown in the city.

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Paryavaran Patra

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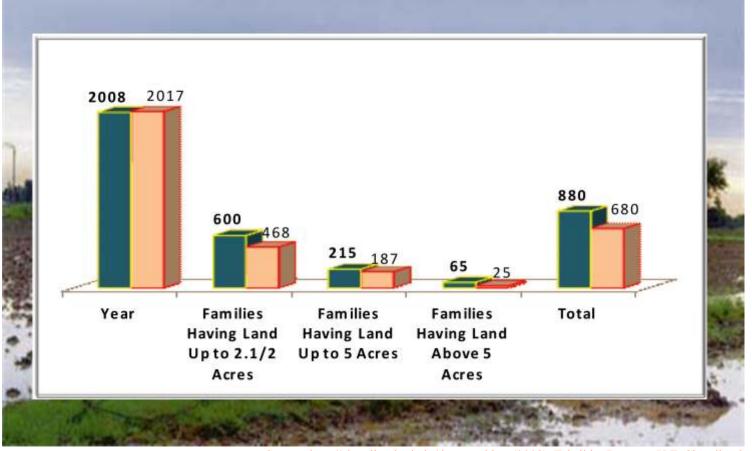
Crop area pattern

| Year Field | | Field Value | |
|------------|----------------------------|------------------------|---------------|
| 2017-18 | Kharif Area | 820 | Hectares (Ha) |
| 2017-18 | Rabi Area | 970 | Hectares (Ha) |
| 2017-18 | Area Under Rice | 4 | Hectares (Ha) |
| 2017-18 | Area Under Wheat | 546 | Hectares (Ha) |
| 2017-18 | Others Vegetables & Fruits | Veg. 34+ Fruit 10 = 44 | Hectares (Ha) |

Source: Distt. Agri. Officer Sec-17 Chandigarh

The terms 'kharif' and 'rabi' originate from Arabic language where Kharif means autumn and Rabi means spring. The agricultural crop year in India is from July to June. The Indian cropping season is classified into two main seasons-(i) Kharif and (ii) Rabi based on the monsoon. The kharif cropping season is from July –October during the south-west monsoon and the Rabi cropping season is from October-March (winter). The crops grown between March and June are summer crops. Pakistan and Bangladesh are the two other countries that are using the term 'kharif' and 'rabi' to describe about their cropping patterns. The kharif crops include rice, maize, sorghum, pearl millet/bajra, finger millet/ragi (cereals), arhar (pulses), soyabean, groundnut (oilseeds), cotton etc. The rabi crops include wheat, barley, oats (cereals), chickpea/gram (pulses), linseed, mustard (oilseeds) etc.

Agricultural Families



Source: http://chandigarh.nic.in/dept_agri.htm(2008), Tehsildar Revenue U.T. Chandigarh





Vearwise Crop Production

| Units | MT | TW | TW | M | TM | MT | MT | MT |
|-----------------|-----------------|------------------|-------------------|-------------------|-----------------|----------------------|----------------|---|
| 2009-08 | 2800 | 2800 | | 290 | 250 | 3090 | 40 | 1067 |
| 2010-09 | 2700 | 2700 | | 225 | 100 | 2925 | | 1038 (Veg- 760, Fruits - 278) |
| 2011-10 | 2700 | 2700 | * | 165 | 100 | 2865 | 65 | 1030 (Veg- 760, Fruits- 270) |
| 2012-11 | 2715 | 2715 | • | 158 | 103 | 2873 | | 932 (Veg- 660, Fruit- 272) |
| 2013-12 | 2725 | 2725 | | 158 | 103 | 2883 | 55 | 952 (Veg - 700, Fruit- 252) |
| 2014-13 | 2730 | 2730 Estt. | | 162 | 105 | 2892 | 22 | 1024 (Veg-791, 1053 (Veg-806, 952 (Veg - 700, Fruit-233) Fruit-247) Fruit- 252) |
| 2015-14 | 2600 | 2600 | | 163 | 106 | 2763 | 57 | 1024 (Veg-791, Fruit-233) |
| 2016-15 | 2500 | 2500 | • | 150 | 100 | 2650 | 50 | (96) |
| 2017-16 2016-15 | 2530 | 2530 | 2673 | 143 | 103 | 2673 | 40 | 98 |
| 2016-17 | 2505 | 2585 | 2627 | 42 | 42 | 2627 | • | (*) |
| 2017-18 | 2585 | 2585 | 2625 | 40 | 40 | 2625 | | |
| Name of Crop | Rabi Production | Wheat Production | Total Food Grains | Kharif Production | Rice Production | otal Crop Production | Coarse Cereals | Non food, grain, fruit, vegetable |

Agricultural Practices in General

The whole of the agricultural land is irrigated. The main sources of irrigation are deep-bore tube-wells installed by the Chandigarh Administration and shallow tube-wells installed by individual farmers.

The farmers of the Union Territory, Chandigarh keep a large number of milch cattle and have taken to fodder cultivation to cater to the need of 27672 cattle. Therefore, the area under food grain crops is decreasing. The main food grain crop is wheat and it is sown nearly in 600 hectares & fodder is sown nearly in 1250 hectares (Kharif, Rabi and summer crops). The Chandigarh Administration is providing the following facilities to the farmers:-

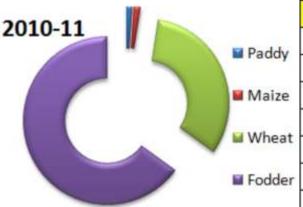
- i) Timely supply of inputs like pesticides, fertilizers, seeds and garden tools.
- ii) Supply of adequate irrigation water from the deep-bore tube-wells.
- iii) Arranging of study tours for farmers.
- iv) Distribution of wheat and fodder seeds at 25% discount.

In the Union Territory, Chandigarh the area under agriculture is decreasing due to acquisition of land by the Chandigarh Administration for the development of the city. Farmers of Union Territory Chandigarh have taken to fodder cultivation to cater the demand of the milch cattle kept by them. The farmers are demanding quality seeds for the fodder crop to get better yield of green fodder so that they are able to fulfill the demand of fodder to some extent as the area under agriculture is not even sufficient to meet the domestic requirement of the farmers.

With the distribution of quality seeds of fodder/wheat to U.T. farmers, an area of about 75 hectares will be brought under high yielding varieties of wheat and fodder annually.



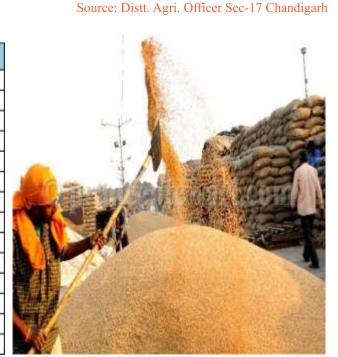
Category Wise Crop Area



| Year | Paddy | Maize | Wheat | Fodder | Unit |
|---------|-------|-------|-------|--------|---------|
| 2004-05 | 100 | 100 | 650 | 1200 | Hectare |
| 2005-06 | 80 | 60 | 600 | 1000 | Hectare |
| 2006-07 | 50 | 20 | 600 | 1000 | Hectare |
| 2007-08 | 50 | 20 | 600 | 1000 | Hectare |
| 2008-09 | 20 | 60 | 600 | 1200 | Hectare |
| 2009-10 | 20 | 30 | 600 | 1200 | Hectare |
| 2010-11 | 20 | 25 | 600 | 1200 | Hectare |

Yearly Production of Important Crops

| Year | Paddy | Maize | Wheat | Unit |
|---------|-------|-------|--------|------|
| 2003-04 | 500 | 200 | 3000 | Tons |
| 2004-05 | 400 | 120 | 2400 | Tons |
| 2005-06 | 250 | 40 | 2750 | Tons |
| 2006-07 | 250 | 40 | 2800 | Tons |
| 2007-08 | 250 | 40 | 2800 | Tons |
| 2008-09 | 100 | 125 | 2700 | Tons |
| 2009-10 | 100 | 65 | 2700 | Tons |
| 2010-11 | 103 | 55 | 2715 | Tons |
| 2011-12 | 103 | 55 | 2725 T | |
| 2012-13 | 105 | 57 | 2590 | Tons |
| 2013-14 | 106 | 57 | 2600 | Tons |
| 2014-15 | 100 | 50 | 2500 | Tons |
| 2015-16 | 103 | 40 | 2530 | Tons |
| 2016-17 | 42 | 12 | 2585 | Tons |



Source: Statistical Abstract Chandigarh

Market Arrival of Agricultural Crops



| Year | Paddy | Maize | Wheat | Unit |
|---------|--------|-------|--------|-----------|
| 2000-01 | 35.62 | 0.21 | 47.65 | 000,M.Ton |
| 2001-02 | 26.03 | 0.23 | 20.02 | 000,M.Ton |
| 2002-03 | 43.01 | 0.261 | 15.574 | 000,M.Ton |
| 2003-04 | 56.93 | 0.194 | 18.01 | 000,M.Ton |
| 2004-05 | 31.927 | 0.114 | 19.786 | 000,M.Ton |
| 2005-06 | 24.32 | 0.207 | 25.936 | 000,M.Ton |
| 2006-07 | 15.64 | 2.40 | 12.194 | 000,M.Ton |
| 2007-08 | 14.58 | 1.5 | 17.95 | 000,M.Ton |
| 2008-09 | 19.94 | | 13.25 | 000,M.Ton |
| 2009-10 | 21.42 | (*) | 12.53 | 000,M.Ton |



Area under Vegetables

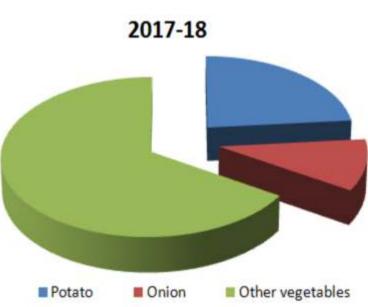




| Year | Potato | Onion | Other | Unit |
|---------|--------|-------|-------|---------|
| 2004-05 | 40 | 6 | 30 | Hectare |
| 2005-06 | 25 | 5 | 35 | Hectare |
| 2006-07 | 20 | 5 | 35 | Hectare |
| 2007-08 | 10 | 4 | 20 | Hectare |
| 2008-09 | 10 | 2 | 20 | Hectare |
| 2009-10 | 9 | 3 | 20 | Hectare |
| 2010-11 | 8 | 3 | 20 | Hectare |
| 2011-12 | 10 | 2 | 20 | Hectare |
| 2012-13 | 10 | 3 | 22 | Hectare |
| 2013-14 | 10 | 3 | 20 | Hectare |
| 2014-15 | 10 | 3 | 20 | Hectare |
| 2015-16 | 10 | 3 | 20 | Hectare |
| 2016-17 | 12 | 4 | 20 | Hectare |
| 2017-18 | 12 | 4 | 20 | Hectare |

Source: Distt. Agri. Officer Sec-17 Chandigarh

Yearly production of Vegetables

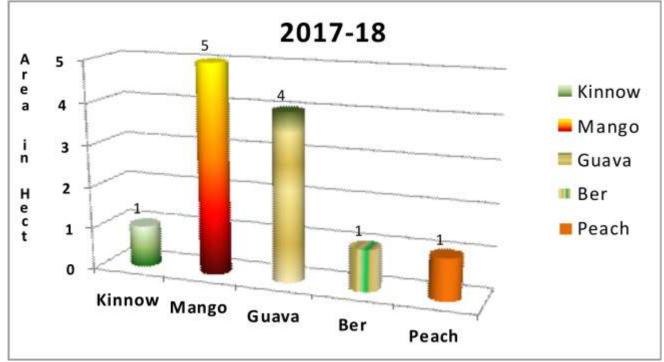


| Year | Potato | Onion | Other vegetables | Unit |
|---------|--------|-------|------------------|------|
| 2004-05 | 800 | 105 | 750 | M.T. |
| 2005-06 | 450 | 85 | 1000 | M.T. |
| 2006-07 | 360 | 85 | 1000 | M.T. |
| 2007-08 | 160 | 68 | 560 | M.T. |
| 2008-09 | 120 | 35 | 500 | M.T. |
| 2009-10 | 175 | 55 | 500 | M.T. |
| 2010-11 | 160 | 50 | 450 | M.T. |
| 2011-12 | 165 | 35 | 500 | M.T. |
| 2012-13 | 166 | 90 | 550 | M.T. |
| 2013-14 | 166 | 85 | 540 | M.T. |
| 2014-15 | 150 | 80 | 500 | M.T. |
| 2015-16 | 155 | 60 | 525 | M.T. |
| 2016-17 | 188 | 84 | 528 | M.T. |
| 2017-18 | 188 | 84 | 528 | M.T. |

Source: Distt. Agri. Officer Sec-17 Chandigarh



Area Under Fruits Cultivation



Source: Distt. Agri. Officer Sec-17 Chandigarh

Yearly Production of Fruits







| Year | Kinnow | Mango | Guava | Ber | Peach | Unit |
|---------|--------|-------|-------|-----|-------|------|
| 2004-05 | 62 | 355 | 270 | 25 | 35 | M.T. |
| 2005-06 | 60 | 350 | 225 | 22 | 30 | M.T. |
| 2006-07 | 26 | 200 | 100 | 18 | 16 | M.T. |
| 2007-08 | 8 | 150 | 90 | 15 | 16 | M.T. |
| 2008-09 | 8 | 150 | 90 | 14 | 15 | M.T. |
| 2009-10 | 9 | 155 | 75 | 15 | 16 | M.T. |
| 2010-11 | 8 | 165 | 70 | 14 | 15 | M.T. |
| 2011-12 | 8 | 140 | 75 | 14 | 15 | M.T. |
| 2012-13 | 8 | 135 | 75 | 14 | 15 | M.T. |
| 2013-14 | 8 | 130 | 70 | 12 | 13 | M.T. |
| 2014-15 | 8 | 130 | 70 | 12 | 13 | M.T. |
| 2015-16 | 8 | 135 | 75 | 8 | 12 | M.T. |
| 2016-17 | 8 | 135 | 75 | 8 | 12 | M.T. |
| 2017-18 | 8 | 135 | 75 | 8 | 12 | M.T. |





Response Centre Feedback Fort





Dear Information Seeker,

ENVIS CENTRE, Chandigarh furnishes you with the services to collect and disseminate information related to environment of Chandigarh. To share information with us you are requested to fill up the form given below.



Your feedback is valuable to us and will be highly appreciated

| ■ Name | | |
|-------------------------------|-------------------------|-----------|
| Designation | | |
| ■ Department | | |
| ■ Address———— | | |
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| ■ State | Country | Pin Lilia |
| ■ Phone | Fax | |
| ■ Email | | |
| Your views on scope of | improvement : | |
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ENVIS CENTRE TEAM

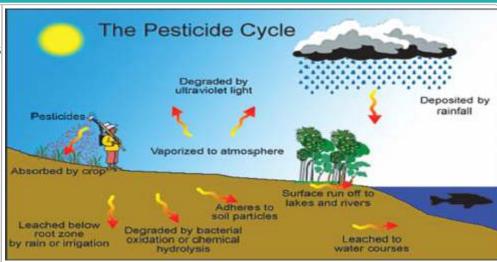
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People in City beautiful are well educated and aware about the extreme health effects of using excessive pesticides and other chemicals in their crops. Thus the annual consumption of all these toxins in Chandigarh is almost negligible. The table shows that the application of pest control and weed eradication chemicals have been reduced with time and drop down to almost half in last decade.

| Year | Insecticide | Rodenticide | Weedicides | Fungicides | Unit |
|---------|----------------|----------------|--------------|------------|------|
| 2008-09 | 0.3 | 0.03 | 0.01 | 0.01 | M.T |
| 2009-10 | 0.3 | 0.03 | 0.01 | 0.01 | M.T |
| 2010-11 | 0.22 | 0.03 | 0.01 | 0.01 | M.T |
| 2011-12 | 0.22 | 0.03 | 0.01 | 0.01 | M.T |
| 2012-13 | 0.21 | 0.02 | 0.01 | 0.01 | M.T |
| 2013-14 | 0.21 | 0.02 | 0.01 | 0.01 | M.T |
| 2014-15 | 0.17 | 0.01 | 0.01 | 0.01 | M.T |
| 2015-16 | 0.15 | 0.02 | | - | M.T |
| 2016-17 | 0.15 | 0.02 | :=: | ~ | M.T |
| 2017-18 | 0.14 | 0.02 | :=: | 2 | M.T |
| | Nitrogenous(N) | Phosphatic (P) | Potassic (K) | | M.T |
| 2015-16 | 20.25 | 5.1 | 0.03 | | M.T |
| 2016-17 | 18 | 4.5 | 0.03 | | M.T |

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