# Crops

#### Indicators (units)

Area and Production Statistics (APS):

- 1. Area Cropped in Kharif and Rabi (000 ha)
- 2. Production in Kharif and Rabi (000 Tonne)
- 3. Yield in Kharif and Rabi (kg/ha)
- 4. Area Cropped in Rabi (000 ha)
- 5. Production in Rabi (000 Tonne)
- 6. Yield in Rabi (kg/ha)
- 7. Area Cropped in Kharif (000 ha)
- 8. Production in Kharif (000 Tonne)
- 9. Yield in Kharif (kg/ha)

#### Note on APS indicators:

Crop data are reported by season for non-horticulture crops and for the whole year for most horticulture crops. Crop data in the Poshan Atlas are reported for: Kharif, Rabi, Kharif and Rabi combined. For consistency across states and crops, data reported under 'Autumn' are categorized as 'Kharif'. Data reported under 'Winter' and 'Summer' are categorized as 'Rabi'. Data reported under 'Whole year' are categorized as 'Kharif and Rabi combined'.

Note that data for horticulture crops that are reported only for the whole year are reported as 'Kharif and Rabi combined' as no season-wise data are available.

### Data Sources

Area and Production Statistics

### Institution Who Collected Primary Data

#### <u>APS:</u>

Directorate of Economics and Statistics (DES) Department of Agriculture, Cooperation and Farmers Welfare Ministry of Agriculture and Farmers Welfare

For crop yield, Field Operations Divisions of the National Statistical Office (NSO), Ministry of Statistics & Programme Implementation, provides technical guidance to the States/Union Territories for organizing and conducting Crop Estimation Surveys. In addition, NSO, in collaboration with States/Union Territories, implements sample check programs under the Scheme for Improvement of Crop Statistics. Results are published in the NSO report, "Consolidated Results of Crop Estimation Surveys on Principal Crops."

Fruits and vegetables data for the Poshan Atlas are provided by the Horticulture Statistics Division. All other crop data are compiled from the web portal on Area and Production Statistics by the Ministry of Agriculture and Farmers Welfare.

#### Years Data Are Available

<u>APS:</u> Annual data since 1997-1998 are available online from the Department of Agriculture, Cooperation and Farmers Welfare.

### Years Data Are Compiled For

APS: 1997-2019. Accessed September 2021.

# Population Subgroups Available

Data are available by crop type. The crops available for 2017-2018 APS data are summarized below:

Category	Сгор
Cereals	Bajra
	Barley
	Jowar
	Maize
	Other Cereals
	Ragi
	Rice
	Small Millets
	Wheat
Pulses	Arhar/Tur/Pigeonpea
	Cowpea (Lobia)
	Gram
	Guarseed
	Horse Gram
	Khesari
	Masoor
	Moong
	Moth

Oilseeds	Other pulses
	Peas & beans (Pulses) <sup>1</sup>
	Urad
	Castorseed
	Coconut
	Groundnut
	Linseed
	Niger seed
	Other oilseeds
	Rapeseed & Mustard
	Safflower
	Sesamum
	Soyabean
	Sunflower
Cash Crops	Cotton (lint)
	Jute
	Mesta
	Sannhamp
	Sugarcane
	Tobacco
Spices & Condiment s	Arecanut
	Black pepper
	Cardamom
	Cashewnut
	Coriander
	Dry chilies
	Garlic

<sup>&</sup>lt;sup>1</sup>'Lentil' data from Madhya Pradesh is classified as Peas & Beans (Pulses)

Ginger
Turmeric

#### Missing data

The lists above should be interpreted in light of the fact that not all crops have data available for some states. Data on the APY website are updated when they are received from respective state agencies. An agricultural crop year is July to June. Final estimates are generally released in January/February of the following agricultural year, but may be delayed for some states.

# Methods of Data Collection

<u>APS:</u>

Data on area cultivated are collected via three different schemes:

1. Timely Reporting Scheme (TRS)

18 States and 4 Union Territories (Andhra Pradesh, Assam [excluding hilly districts], Bihar, Chandigarh, Chhattisgarh, Dadra & Nagar Haveli, Delhi, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Puducherry, Punjab, Rajasthan, Tamil Nadu, Telangana, Uttar Pradesh, and Uttarakhand).

TRS was established in 1968-69, and the system is followed in states where crop area and land use statistics are part of the land records maintained by the revenue agency (commonly known as patwari agency). Previously, a complete enumeration of all fields was made in every village during each crop season to compile land use, irrigation, and crop area statistics. Since the 1970s, however, a random sample of 20% of villages in the State is selected in such a way that during a period of five years, the entire State is covered.

2. Establishment of an Agency for Reporting of Agricultural Statistics (EARAS)

6 States (Arunachal Pradesh, Kerala, Nagaland, Odisha, Sikkim, Tripura, and West Bengal).

This system was established in 1975-76 and is followed in states with no revenue agency at the village level. Crop area and land use statistics are collected through a scheme of sample surveys. A random sample of 20% of villages in the State is selected in such a way that during a period of five years, the entire State is covered.

3. "Conventional" Estimates

5 States and 3 Union Territories (Andaman & Nicobar Islands, Assam [hilly districts], Daman & Diu, Goa, Lakshadweep, Manipur, Meghalaya, and Mizoram).

Collection of data is based on a personal assessment by the village headmen (chowkidars).

#### Improvement of Crop Statistics Scheme

Under this scheme, an independent agency of supervisors carries out a physical verification of the data in a subsample of the sample villages and makes an assessment of the extent of discrepancies between the supervisor's and patwari's crop area entries in the sample clusters. Discrepancies between the patwari's and supervisor's crop entries have been noted in about one-third of the survey numbers inspected, with discrepancies being large in some cases. Thus, some caution should be taken in interpreting findings. This is especially true for short-duration crops such as vegetables. Reference: <a href="http://www.mospi.gov.in/42-crop-area-statistics">http://www.mospi.gov.in/42-crop-area-statistics</a>

Yield estimates of crops are obtained through crop cutting experiments conducted under General Crop Estimation Surveys (GCES). Stratified multi-stage random sampling design is generally adopted for carrying out GCES with tehsils/ taluks/revenue inspector circles/blocks/anchals, etc., as strata, revenue villages within a stratum as first-stage sampling unit, survey numbers/fields within each selected village as second-stage sampling unit, and experimental plot of a specified shape and size as the primary sampling unit.

In each selected primary sampling unit, generally 2 survey numbers/fields growing the experimental crop are selected for conducting crop cutting experiments. Generally, 80-120 experiments are planned in a major crop growing district and 44-46 experiments in a minor growing district.<sup>2</sup> The number of experiments allotted to a district is distributed among the strata within the district roughly in proportion to the area under the crop in the stratum.

The estimates of crop production are obtained by multiplying area estimates by corresponding yield estimates.

## **References and Further Reading**

APS data: <a href="https://aps.dac.gov.in/APY/Public\_Report1.aspx">https://aps.dac.gov.in/APY/Public\_Report1.aspx</a>

VDSA data: http://vdsa.icrisat.ac.in/vdsa-requestData.aspx

<sup>&</sup>lt;sup>2</sup>A district is considered "major" for a given crop if the area under the crop in the district exceeds 80,000 hectares or is between 40,000 and 80,000 hectares but exceeds the average area per district in the State. Otherwise, the district is considered "minor" for a given crop.

Weekly state-wise updates on sowing: <u>http://agricoop.nic.in/all-india-crop-situation</u>