

SEA Castor Crop Survey : 2023-24 Executive Summary

Conducted by

Indian Agribusiness Systems Ltd, New Delhi

GLOBAL CASTOR CONFERENCE 2024

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Hotel Taj Skyline, Ahmedabad
Gujarat (India)**

Organised By

THE SOLVENT EXTRACTORS' ASSOCIATION OF INDIA
(Premier Association of Vegetable Oil Industry & Trade)
ISO 9001: 2015 Organisation

Executive Summary

- The Solvent Extractors' Association of India is an all-India apex body of solvent extraction industry and presently, almost all-working solvent extraction units are its members. The association continuously gives feedback to the members about the developments taking place in the country and world.
- As one of its activities, SEA conducts Castor crop survey for crop estimation in major growing states like Gujarat, Rajasthan, Andhra Pradesh and Telangana every year. This year also, SEA commissioned Indian Agribusiness Systems Ltd, known as "AgriWatch" in the industry, to conduct a crop estimation study in above states through field surveys and remote sensing data analysis.
- With its extensive experience, expertise, and robust infrastructure, AgriWatch is a leading organization that specializes in agri-commodity research and consulting, capable of conducting comprehensive studies in this field.
- AgriWatch has previously conducted numerous crop surveys for various corporate and government departments, covering a wide range of commodities.
- Estimates given are based on two rounds of field surveys and crop conditions till 1st week of February. Crop estimation is based on government's acreage and yield estimates arrived from farmers' survey.
- Yield re-validation rounds will be carried out in March and April through field visits to assess the impact of adverse weather, if any or any change in final yields. Accordingly, the production numbers may be revised.

GUJARAT

- Total Castor seed acreage in Gujarat during 2023-24 taken to be 7.24 lakh Ha as per government's estimate vis-a-vis last year's 7.14 lakh Ha., registering an increase of 1.4%.
- Overall, the soil moisture condition was adequate for the crop growth / vegetation while the soil moisture during Nov. - Dec. period was favourable for the reproductive phase of the crop.
- Also, overall temperature throughout season was at par with last year and in normal range. No sudden temperature change was recorded, temperature slightly increased in second fortnight to Jan. compared to last year however, remained in the range of normal max temperature. No adverse effect on crop was reported.
- The minimum temperature in the state remained slightly higher than last year from Dec. onwards as well as normal range. No event of frost was reported due to lower temperature and overall, the crop condition is normal.
- As per the NDVI (Normalized difference vegetation index – used to monitor the crop health) data, overall, the crop health is normal compared to last year as well as from normal.
- Average yield for year 2023-24 is estimated to be 2206 kg/ha compared to 2196 kg/ha in 2022-23, based on farmer's response on their yield estimates. Accordingly, total production in the state is estimated to be 15.98 lakh tons during the year 2023-24 as compared with 15.69 lakh tons in 2022-23.

District wise Area, Yield and Production of Castor Seeds in Gujarat for 2023-24

S.No.	State	Districts	Acreage 2022-23 State Government (^{'000} Ha)	Acreage 2023-24 State Government (^{'000} Ha)	Acreage 2023-24 Remote Sensing (^{'000} Ha)	Yield 2022-23 (kg/ha)	Yield 2023-24 (kg/ha)	Production 2022-23 (^{'000} MT)	Production 2023-24 (^{'000} MT)
1	Gujarat	Ahmedabad	42.5	41.5	51.7	2085	2094	89	87
2	Gujarat	Aravalli	14.6	13.9	13.6	2300	2325	34	32
3	Gujarat	Banaskantha	84.1	90.7	94.7	2200	2272	185	206
4	Gujarat	Gandhinagar	20.8	21.3	23.1	2140	2054	45	44
5	Gujarat	Kheda	12.4	11.1	15.5	2075	2140	26	24
6	Gujarat	Kutch	190.5	190.3	185.0	2180	2205	415	420
7	Gujarat	Mehsana	88.6	88.7	91.9	2230	2210	198	196
8	Gujarat	Morbi	13.9	7.5	12.1	2180	2175	30	16
9	Gujarat	Patan	87.5	98.9	92.8	2170	2180	190	216
10	Gujarat	Sabarkantha	24.4	25.2	32.8	2290	2302	56	58
11	Gujarat	Surendranagar	68.8	67.1	68.6	2240	2225	154	149
12	Gujarat	Vadodara	40.5	42.1	33.6	2290	2230	93	94
Total of Surveyed Districts			688.6	698.3	715.3	2198	2208	1513	1542
Other			25.8	25.9	25.1	2162	2163	56	56
StateTotal			714.4	724.2	740.4	2196	2206	1569	1598

RAJASTHAN

- Total Castor acreage in Rajasthan is taken to be 2.09 lakh Ha as per government's estimate vis-a-vis last year's 1.49 lakh Ha, registering a significant jump of 40%.
- Nov & Dec rains helped regaining the soil moisture and proved beneficial for crop during reproductive (fruiting) phase. Overall soil moisture availability in later half was beneficial for the crop.
- Temperature also remained congenial for the crop. No damage was found or reported during the survey.
- NDVI (Normalized difference vegetation index – used to monitor the crop health) was recorded good till first fortnight of Nov. while recorded lower thereafter till Dec. However, rains in later part of Nov. and early Dec. helped regaining the crops health.
- Average yield for year 2023-24 is estimated to be 1752 kg/ha compared to 1663 kg/ha in 2022-23, based on farmer's response on their yield estimates. Accordingly, total production in the state is estimated to be 3.66 lakh tons during the year 2023-24 as compared with 2.48 lakh tons in 2022-23.

District wise Area, Yield and Production of Castor Seeds in Rajasthan for 2023-24

S.No.	State	Districts	Acreage 2022-23 State Government (^{'000} Ha)	Acreage 2023-24 State Government (^{'000} Ha)	Acreage 2023-24 Remote Sensing (^{'000} Ha)	Yield 2022-23 (kg/ha)	Yield 2023-24 (kg/ha)	Production 2022-23 (^{'000} MT)	Production 2023-24 (^{'000} MT)
1	Rajasthan	Barmer	33.9	56.2	44.8	1860	1915	63	108
2	Rajasthan	Jalore	54.3	75.4	63.7	1590	1727	86	130
3	Rajasthan	Jodhpur	23.0	25.3	36.7	1935	1950	45	49
4	Rajasthan	Sirohi	32.1	37.3	44.5	1370	1440	44	54
Total of Surveyed Districts			143.3	194.2	189.7	1660	1755	238	341
Other			5.73	14.9	14.9	1660	1703	10	25
StateTotal			149.0	209.1	204.6	1663	1752	248	366

ANDHRA PRADESH AND TELANGANA

- Total Castor acreages in AP & Telangana taken to be 0.60 lakh Ha as per the government's estimate vis-a-vis last year's 0.43 lakh Ha, up by 40%.
- Rainfall received in a timely manner as per the crop's requirement in the critical phases which helped in getting slightly better yields.
- Overall, the crop health was at par with the normal and no impact was observed due to change in temperature.
- Average yield for year 2023-24 is estimated to be 1385 kg/ha compared to 1321 kg/ha in 2022-23, based on farmer's response on their yield estimates. Accordingly, total production in the state is estimated to be 0.83 lakh tons during the year 2023-24 as compared with 0.57 lakh tons in 2022-23.

District wise Area, Yield and Production of castor seeds in AP & Telangana for 2023-24

S.No.	State	Districts	Acreage 2022-23 State Government (^{'000} Ha)	Acreage 2023-24 State Government (^{'000} Ha)	Acreage 2023-24 Remote Sensing (^{'000} Ha)	Yield 2022-23 (kg/ha)	Yield 2023-24 (kg/ha)	Production 2022-23 (^{'000} MT)	Production 2023-24 (^{'000} MT)
1	AP&TL	Kurnool	8.83	19.7	13.7	1453	1482	13	29
2	AP&TL	Anantapur	20.08	28.1	24.5	1239	1320	25	37
3	AP&TL	AP-Others	12.09	10.7	13.7	1345	1373	16	15
4	AP&TL	Telangana	2	1.6	1.7	1420	1405	3	2
State Total			43	60.1	53.6	1321	1385	57	83

ALL INDIA

- The sown area during the 2023-24 season has increased to 10.05 Lakh Ha., up by 9% over last year's 9.18 Lakh Ha.
- Major increase in acreage is witnessed in Rajasthan. This year sowing was early by almost a month due to good rains in June triggered by cyclone "Biparjoy".
- Conducive weather conditions were observed throughout the season which was almost similar to last year.
- India's average castor seed productivity for the year 2023-24 is estimated to be 2044 Kg/Ha as compared to 2048 Kg/Ha last year. It is based on farmer's response about their yield expectation on present crop condition.
- The total seed production in India is estimated to be 20.54 Lakh MT in 2023-24 against last year's estimate of 18.81 Lakh MT.

State wise Area, Yield and Production of castor seeds in India for 2023-24

S.No.	State	Acreage 2022-23 State Govt. (^{'000} Ha)	Acreage 2023-24 State Govt. (^{'000} Ha)	Acreage 2023-24 Remote Sensing (^{'000} Ha)	% Change Acreage	Yield 2022-23 (kg/ha)	Yield 2023-24 (kg/ha)	% Change Yield	Production 2022-23 (^{'000} MT)	Production 2023-24 (^{'000} MT)	% Change Production
1	Gujarat	714	724	740	1%	2196	2206	0.4%	1569	1598	2%
2	Rajasthan	149	209	205	40%	1663	1752	5.3%	248	366	48%
3	AP/Telangana	43	60	54	40%	1321	1385	4.8%	57	83	46%
Total Surveyed State		906	993	999	10%	2067	2050	-0.8%	1874	2047	9%
Others		12	12	11.5	-4%	630	643	2.1%	8	7	-3%
India Total		918	1005	1010	9%	2048	2044	-0.2%	1881	2054	9%

Note - 2023-24 acreage is as per government estimate; Yields are as per primary / farmers survey

Note:

- Remote sensing data analysis was undertaken to cross check the Government acreage estimates. Over the years, remote sensing analysis can be used for acreage estimation.
- Above estimates are based on two rounds of field surveys and remote sensing analysis.
- Crop estimation is based on Government acreage and yield estimates arrived from farmers' survey
- Yield re-validation rounds will be carried out in March and April through field visits to assess the impact of adverse weather, if any. accordingly, the production numbers may be revised.

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