



# MONITORING PADDY RESIDUE BURNING IN NORTH INDIA USING SATELLITE REMOTE SENSING DURING 2022

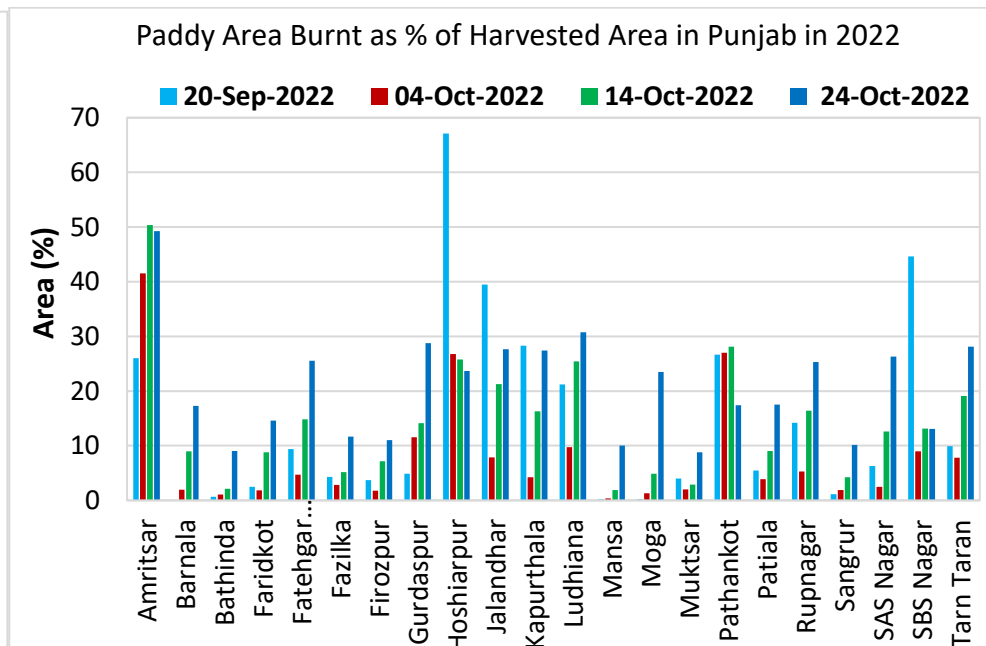
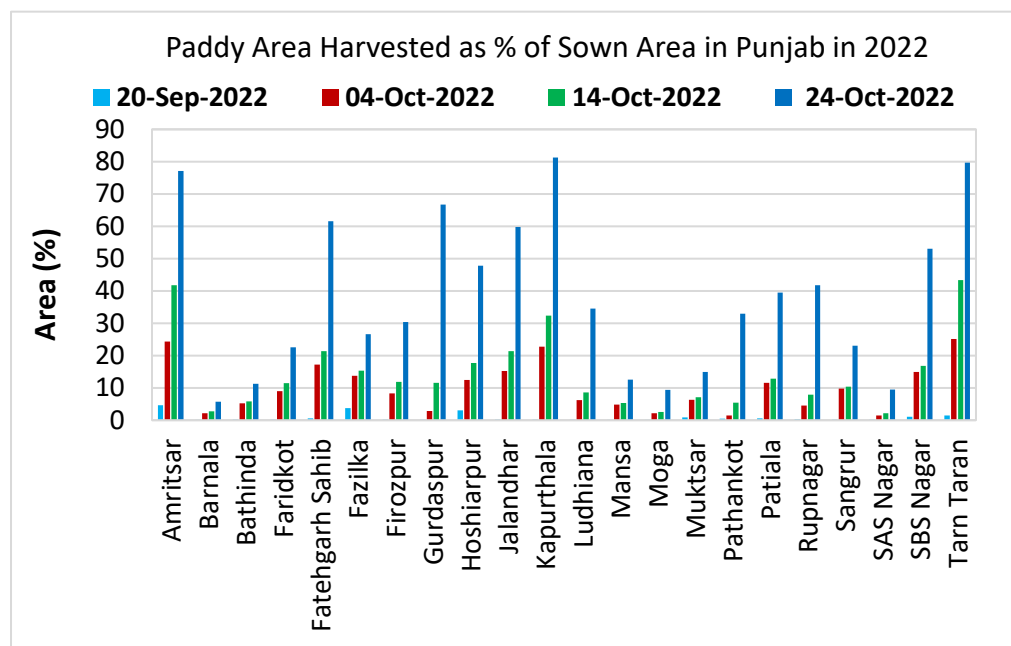
Special Report 3 released on 27-Oct-2022



## Paddy Sown, Harvested and Burnt Area till 24-Oct-2022 in Punjab

### (A) Highlights

- Multi-date satellite remote sensing images were used to estimate the paddy area sown, progressively paddy area harvested and progressively paddy area burnt in the crop year 2022-23.
- The figures and table below provide district wise area statistics for Punjab State for the four dates: upto 20-Sep-2022, upto 4-Oct-2022, upto 14-Oct-2022 and upto 24-Oct-2022 cumulatively.
- In 2022 in Punjab, it is estimated that paddy was sown in 3028.52 '000ha area.
- Till 20-Sep-2022 about 25.21 '000ha was harvested and 5.2 '000ha was burnt; till 04-Oct-2022, the cumulative area harvested was 324.73 '000 ha and cumulative area burnt was 34.36 '000ha; till 14-Oct-2022, the cumulative area harvested was 462.17 '000 ha and cumulative area burnt was 92.62 '000ha and till 24-Oct-2022, the cumulative area harvested was 1173.38 '000 ha and cumulative area burnt was 300.79 '000ha.
- Overall, about 38.74% of sown area was harvested and 25.63% of the harvested area was burnt till 24-Oct-2022 in Punjab.



Punjab: Crop Year 2022-23			Upto 20 <sup>th</sup> Sep 2022				Upto 4 <sup>th</sup> Oct 2022				Upto 14 <sup>th</sup> Oct 2022			
S. No.	District	Paddy Sown Area (ha)	Paddy Area Harvested (ha)	Paddy Area Burnt (ha)	Harvested Area as % of Sown Area	Burnt Area as % of Harvested Area	Paddy Area Harvested (ha)	Paddy Area Burnt (ha)	Harvested Area as % of Sown Area	Burnt Area as % of Harvested Area	Paddy Area Harvested (ha)	Paddy Area Burnt (ha)	Harvested Area as % of Sown Area	Burnt Area as % of Harvested Area
1	Amritsar	181005.28	8347.19	2173.40	4.61	26.04	44004.87	18,269.93	24.31	41.52	75574.12	38075.18	41.75	50.38
2	Barnala	109824.29	68.89	0.05	0.06	0.07	2400.64	46.423	2.19	1.93	2967.51	266.65	2.70	8.99
3	Bathinda	173156.56	264.05	1.68	0.15	0.64	9132.85	98.173	5.27	1.07	10042.40	215.47	5.80	2.15
4	Faridkot	112634.76	171.30	4.22	0.15	2.46	10110.95	183.875	8.98	1.82	12867.77	1133.99	11.42	8.81
5	Fatehgarh Sahib	87167.21	477.91	44.81	0.55	9.38	15005.84	702.812	17.22	4.68	18585.13	2750.77	21.32	14.80
6	Fazilka	126210.42	4740.62	204.43	3.76	4.31	17343.39	493.334	13.74	2.84	19303.70	998.12	15.29	5.17
7	Firozpur	167397.09	239.67	8.91	0.14	3.72	13967.96	246.604	8.34	1.77	19828.39	1415.27	11.85	7.14
8	Gurdaspur	160220.37	306.39	14.86	0.19	4.85	4539.01	523.84	2.83	11.54	18486.33	2607.52	11.54	14.11
9	Hoshiarpur	79168.37	2436.68	1635.10	3.08	67.10	9842.14	2,635.28	12.43	26.78	13990.62	3607.46	17.67	25.78
10	Jalandhar	165429.63	342.69	135.26	0.21	39.47	25164.24	1,982.12	15.21	7.88	35269.01	7507.90	21.32	21.29
11	Kapurthala	119393.51	235.07	66.50	0.20	28.29	27177.46	1,157.20	22.76	4.26	38615.67	6289.11	32.34	16.29
12	Ludhiana	258037.85	429.20	90.93	0.17	21.19	15941.22	1,548.53	6.18	9.71	22111.49	5620.91	8.57	25.42
13	Mansa	120875.72	23.66	0.04	0.02	0.17	5859.01	21.681	4.85	0.37	6378.57	119.52	5.28	1.87
14	Moga	167251.50	87.28	0.18	0.05	0.21	3584.49	47.489	2.14	1.32	4238.94	205.60	2.53	4.85
15	Muktsar	167029.73	1500.61	60.12	0.90	4.01	10540.59	209.351	6.31	1.99	11892.93	344.53	7.12	2.90
16	Pathankot	30922.09	157.57	42.04	0.51	26.68	451.06	121.765	1.46	27.00	1676.03	471.70	5.42	28.14
17	Patiala	219750.58	1297.80	71.26	0.59	5.49	25357.12	981.685	11.54	3.87	28307.53	2553.26	12.88	9.02
18	Rupnagar	38249.55	109.17	15.51	0.29	14.21	1729.02	91.068	4.52	5.27	3006.84	494.26	7.86	16.44
19	Sangrur	263026.27	501.04	5.75	0.19	1.15	25844.90	481.586	9.83	1.86	27316.99	1151.33	10.39	4.21
20	SAS Nagar	31075.71	57.78	3.63	0.19	6.28	450.56	11.207	1.45	2.49	655.87	82.52	2.11	12.58
21	SBS Nagar	66725.73	719.54	321.16	1.08	44.63	9969.54	894.149	14.94	8.97	11227.51	1476.77	16.83	13.15
22	Tarn Taran	183969.07	2692.57	266.24	1.46	9.89	46311.49	3,612.28	25.17	7.80	79827.61	15236.45	43.39	19.09
	<b>TOTAL</b>	<b>3028521.29</b>	<b>25,206.66</b>	<b>5166.07</b>	<b>0.83</b>	<b>20.49</b>	<b>324728.35</b>	<b>34360.38</b>	<b>10.72</b>	<b>10.58</b>	<b>462170.93</b>	<b>92624.28</b>	<b>15.26</b>	<b>20.04</b>

\*The harvested and burnt area statistics till a date include area estimates of previous all dates.

Punjab: Crop Year 2022-23			Upto 24 <sup>th</sup> Oct 2022			
S. No.	District	Paddy Sown Area (ha)	Paddy Area Harvested (ha)	Paddy Area Burnt (ha)	Harvested Area as % of Sown Area	Burnt Area as % of Harvested Area
1	Amritsar	181005.28	139631.00	68740.83	77.14	49.23
2	Barnala	109824.29	6337.02	1097.28	5.77	17.32
3	Bathinda	173156.56	19544.27	1761.69	11.29	9.01
4	Faridkot	112634.76	25425.58	3711.28	22.57	14.60
5	Fatehgarh Sahib	87167.21	53648.40	13693.25	61.55	25.52
6	Fazilka	126210.42	33643.32	3918.30	26.66	11.65
7	Firozpur	167397.09	50933.67	5606.79	30.43	11.01
8	Gurdaspur	160220.37	106849.56	30754.60	66.69	28.78
9	Hoshiarpur	79168.37	37836.85	8954.73	47.79	23.67
10	Jalandhar	165429.63	98897.77	27374.83	59.78	27.68
11	Kapurthala	119393.51	97067.20	26610.88	81.30	27.41
12	Ludhiana	258037.85	89225.75	27447.20	34.58	30.76
13	Mansa	120875.72	15194.34	1524.97	12.57	10.04
14	Moga	167251.50	15746.38	3698.78	9.41	23.49
15	Muktsar	167029.73	25015.40	2195.66	14.98	8.78
16	Pathankot	30922.09	10175.66	1773.07	32.91	17.42
17	Patiala	219750.58	86798.02	15190.81	39.50	17.50
18	Rupnagar	38249.55	15986.24	4046.33	41.79	25.31
19	Sangrur	263026.27	60582.55	6129.81	23.03	10.12
20	SAS Nagar	31075.71	2939.13	772.28	9.46	26.28
21	SBS Nagar	66725.73	35379.23	4629.26	53.02	13.08
22	Tarn Taran	183969.07	146522.41	41158.69	79.65	28.09
	<b>TOTAL</b>	<b>3028521.29</b>	<b>1173379.72</b>	<b>300791.33</b>	<b>38.74</b>	<b>25.63</b>

\*The harvested and burnt area statistics till a date include area estimates of previous all dates.

Consortium for Research on Agroecosystem Monitoring and Modeling from Space (CREAMS) Laboratory,  
Division of Agricultural Physics, ICAR – Indian Agricultural Research Institute, New Delhi – 110012  
(Website: <http://creams.iari.res.in/cm2/>) (Email: [iaricreams@gmail.com](mailto:iaricreams@gmail.com))  
GIS Maps of burning events can be visualized online: <http://geoportal.icar.gov.in:8080/geoexplorer/composer/>