

**Kharif-
2016**

**Basmati Acreage & Yield Estimation in
Punjab, Haryana, Delhi, Uttarakhand,
Himachal Pradesh, Western Uttar Pradesh
and Parts of Jammu & Kashmir**

Report Volume - 3

**Submitted to
Basmati Export
Development
Foundation
(APEDA), New
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EXECUTIVE SUMMARY

Scope of the Report

The present report being the third cycle of report for Kharif 2016 covers the results of field survey based acreage report of rice area transplanted and Basmati varieties in the different districts of Punjab, Haryana, Delhi, Uttar Pradesh, Uttarakhand, Himachal Pradesh and Jammu & Kashmir.

Study districts

The study area covers 81 districts, which includes 22 districts of Punjab, 21 districts of Haryana, 30 districts of Uttar Pradesh, 4 districts of Uttarakhand, 1 district of Himachal Pradesh and 3 districts of Jammu & Kashmir.

Rice Acreage

This year the total rice transplanted area has increased in the study area by 4.6% i.e. from 56,29,270 ha to 58,96,700 ha. Although, the % area occupied by Basmati has reduced in major states of Haryana and Punjab by 13.6% and 28.7% respectively as observed during the first survey estimates. While in Western U.P. the area under Basmati has increased 12,970 ha. Overall, the Basmati

area has decreased by 20% in comparison to last year i.e. 2015. Whereas, the area under other Non-Basmati coarse grain rice has increased by 8,39,400 ha. i.e. 26%.

In **Punjab**, the rice transplanting has been 30,10,000 ha in 22 districts this year. Sangrur district has the largest area under rice (2,76,000 ha), followed by Ludhiana district (2,57,000 ha). The third estimates under Basmati transplanted area is 6,16,100 ha out of which the largest area is in Amritsar (1,14,100 ha), followed by Taran Taran district (83,300 ha). The area under Basmati variety Pusa Basmati-1121 has reduced this year by 1,13,730 ha in comparison to last year. The area under Pusa Basmati-1509 has significantly reduced from 1,82,160 ha. to 35,650 ha in comparison to last year as the farmers got very low prices which disappointed them. And the Department of Agriculture did advertisement campaigns to motivate farmers to grow coarse grain rice (Permal varieties) instead of Pusa Basmati-1509. The ratio between Pusa Basmati-1121 and Pusa Basmati-1509 is observed 90:6. The area



under CSR-30 and Basmati-386 has reduced by 7,570 ha this year.

In **Haryana**, the total rice acreage based on field survey has been estimated at 12,96,175 ha in 20 districts as on 30 Sept. 2016. Out of which, 7,19,640 ha. has been estimated under Basmati rice. Jind district has the highest transplanted area under Basmati rice (81,190 ha), followed by Karnal district (78,580 ha). Basmati area has reduced by 1,13,210 ha i.e. 13.6% in comparison to last year as per the third estimate.

In **Uttar Pradesh**, a total of 12,72,460 ha rice acreage based on field survey has been estimated as transplanted in the 27 districts of the state as on 30 Sept. 2016. Out of which, 2,66,170 ha. is under Basmati rice. Bulandshahr district has the largest area under Basmati rice (30,740 ha), followed by Mathura (29,420 ha). The area under Basmati rice has reduced by 73,690 ha i.e. 21.7% in Western Uttar Pradesh in comparison to last year. And in districts like Muzaffarnagar, Bagpat, Meerut, many farmers have sown sugarcane replacing Basmati speculating quick returns from the

state Govt. Out of the total 2,66,170 a. Basmati area, 53,560 ha is under Pusa Basmati-1509.

In **Uttarakhand**, A total of 1,20,080 ha rice acreage based on second field survey has been estimated as transplanted in the 4 districts as on 30 Sept. 2016. Out of which, only 15,610 ha. area is estimated under Basmati rice (Almost same as last year). Haridwar district has the largest area under Basmati rice (6,700 ha). The total Basmati area is estimated to be 15,350 ha out of the total Basmati area, 2,110 ha. is under Pusa Basmati-1509.

In **Jammu & Kashmir**, three districts have been taken up for the study. The total rice area is estimated to be 1,37,000 ha. in these districts. The total area under Basmati area has been estimated 62,300 ha. Out of which 53,600 ha. is under Ranbir Basmati. Jammu has the highest area under Basmati, i.e. 49,100 ha. The state has received excess rainfall this year. But the farmers of Kathua have preferred Pusa Basmati-1121 over Pusa Basmati-1509 due to low returns last year.



In Himachal Pradesh, A total of 1,02,000 ha rice acreage based on field survey has been estimated as transplanted in 11 districts. Basmati is grown in Kangra and Mandi districts only. Area under Basmati has been estimated 8,000 ha. Both Kangra and Mandi

have same area under Basmati, i.e. 2,000 ha each.

The farmers opted Permal varieties including PR-123 in the increased paddy area and the area under Pusa Basmati-1509.



Table : State-wise Transplanted Area, Basmati & Non-Basmati long grain Rice area during Kharif 2016

S. No.	State	Transplanted Total Rice	Basmati-370 / Type-3/ Basmati-386	Pusa Basmati-1121	PB-1	Pusa Basmati-1401	CSR-30	Pusa Basmati-1509	Area in '000 ha	
									Sharbati	Non-notified Sugandha
1	Haryana	1296.18	0.34	504.86	44.28	46.42	97.92	26.16	2.59	
2	Punjab	3010.00	0.5	555.78	24.15			35.65	5.75	
3	W.Uttar Pradesh	1272.46	12.97	156.26	43.29			53.65	163.92	90.86
4	Uttarakhand	120.09	6.6	4.20	2.31			2.50	14.57	0.49
5	Himachal Pradesh	60.0	1.00	2.00				5.00	0.50	
6	Jammu & Kashmir	137.0	53.60	8.40				0.25	9.95	
7	Delhi	1.0		1.00						
Total		5896.7	75.0	1232.5	114.0	46.4	97.9	123.2	197.3	91.4

Table: State-wise Area of Basmati in Kharif 2016 and Comparison with Kharif 2015

Sl. No.	State	2015	2016	Area in '000 ha	
				% Change	
1	Punjab	863.64	616.11	-28.7	
2	Haryana	825.02	719.98	-12.7	
3	Uttar Pradesh	339.86	266.17	-21.7	
4	Uttarakhand	15.80	15.61	-1.2	
5	Jammu & Kashmir	62.92	62.25	-1.1	
6	Himachal Pradesh	2.70	8.00	196.3	
7	Delhi	0.85	1.00	17.6	
Total		2110.79	1689.12	-20.0	



1. Project Background

Basmati rice is an important export commodity among the food grains exported from India. During the past few years, the Basmati export has been growing steadily, from 7.71 lakh metric tonnes in 2003 to an estimated 4.05 million metric tonnes in 2015-16 on robust demand from the traditional markets in West Asia.

Almost 132 countries have been importing Basmati from India every year. Out of which, Iran, Saudi Arabia, UAE and Iraq are the major importers. Apart from India second is Pakistan from where Basmati is exported to many countries.

Timely information on the area and likely production of the crop before the harvest helps exporters and other decision makers involved in Basmati trade to take decisions about the quantum and time of export. Realizing this potential, the Basmati Export Development Foundation (BEDF), New Delhi contracted M/s. Agri Net Solutions (A division of BPPL – a UPL Group Company) the work of field survey validation based acreage estimation for all rice, for Basmati crop for selected other non-notified varieties), crop health monitoring and yield

estimation and production for Basmati rice and non-notified varieties and questionnaire based sample survey of farmers, for 81 districts in the selected seven states i.e. Punjab, Haryana, Uttar Pradesh, Uttarakhand, Himachal Pradesh, and Jammu & Kashmir apart from Delhi. The field survey based approach has been being applied to collect the information at block level to improve the accuracy further to a desired level.

The Basmati varieties for which information is required include Basmati-370, Basmati-386, Type-3 (Dehraduni), Taraori, Ranbir, Pusa-1509, Pusa Basmati-1, CSR-30 and Pusa Basmati-1121 and non-notified, non-Basmati (Sharbati, and Permal).

2. Scope of the current report

The present report being the third cycle of report for Kharif-2016 covers the results of field survey based total rice and Basmati acreage under various varieties in different states.

3. Study Area Details

The study is confined to 81 districts, which includes 22 districts of Punjab (Amritsar, Barnala, Bathinda, Faridkot, Fatehgarh Sahib, Firozpur, Fazilka, Gurdaspur, Pathankot,



Hoshiarpur, Jalandhar, Kapurthala, Ludhiana, Mansa, Moga, Mohali, Muktsar, Nawanshahar, Patiala, Ropar, Sangrur and Tarantaran), 21 districts of Haryana (Ambala, Faridabad, Bhiwani, Fatehabad, Gurgaon, Hissar, Jhajjar, Jind, Kaithal, Karnal, Kurukshetra, Mahendragarh, Mewat, Palwal, Panchkula, Panipat, Rewari, Rohtak, Sirsa, Sonapat, Yamunanagar), 3 Districts of Jammu & Kashmir (Jammu, Samba and Kathua), 30 districts of Uttar Pradesh (Agra, Aligarh, Auraiya, Baghpat, Bareilly, Bijnore, Budaun, Bulandshahr, Etah, Kasganj, Etawah, Ferozabad, Gautam Buddha Nagar, Ghaziabad, Hapur, Hathras, J. P. Nagar, Kannauj, Mainpuri, Mathura, Meerut, Moradabad, Sambhal, Muzaffarnagar, Shamli, Pilibhit, Rampur, Saharanpur, Shahjehanpur), 4 districts of Uttarakhand, 1 district of Himachal Pradesh and one of Delhi. The map of the

study districts is given as Fig. 1 The study districts form a part of the Himalayas and the Indo-Gangeic Plains.

4. Rainfall

The Basmati growing belt has witnessed normal to deficient rainfall in the months of June and July this year in the states of Punjab, Haryana and Western U.P. And the transplanting has been timely due to good distribution of rainfall in the districts. A cumulative rainfall has been deficient in most of the area due to lesser rainfall in the month of September. The new variety Pusa Basmati-1509 has reduced to very less area due to very low returns last year.

The rainfall during 1 June to 30 Sept., 2016 in meteorological divisions under study area is given in table-1 and the rainfall in prominent districts in table-2.



Fig. 1: Map Showing the Districts of the Study Area





**Table 1 & 2: Rainfall in the monsoon season at important subdivisions and districts
(1 June to 28 Sept. 2016)**

Table 1: Rainfall (mm) in the Meteorological Divisions in different states (1.6.2016 to 28.9.2016)			
Met. Division	1 June to 28 Sept. '16		Remarks
	Normal	Actual	
Punjab	489.4	351.4 (-28)	Deficient
Haryana, Delhi	464.3	338.3 (-27)	Deficient
Western UP	764.6	640.0 (-16)	Normal
Himachal Pradesh	822.1	624.4 (-24)	Deficient
Uttarakhand	1223.4	1103.2 (-10)	Normal
Jammu & Kashmir	532.5	478.5 (-10)	Normal

Note: Figures in parantheses show percent deviation from normal.

Table 2: Rainfall in the monsoon season at important locations (1 June to 28 Sept. 2016)				
Location / District	Total Rainfall (mm)	Normal Rainfall	% Departure from normal	Status
Ambala	434.4	914.0	-52	Deficient
Hissar	240.0	323.9	-26	Deficient
Karnal	372.1	575.2	-35	Deficient
Jammu	1110.0	859.1	29	Excess
Kathua	883.4	979.2	-10	Normal
Amritsar	463.0	532.3	-13	Normal
Sangrur	294.8	435.0	-32	Deficient
Patiala	240.7	611.8	-61	Scanty
Nainital	1556.4	1432.6	9	Normal
Dehradun	1194.8	1795.1	-33	Deficient
Udham Singh Nagar	643.0	1111.8	-42	Deficient
Kangra	1338.7	1577.9	-15	Normal
Meerut	472.8	773.5	-39	Deficient
Saharanpur	535.2	798.0	-33	Deficient
Bulandshaher	541	664.5	-19	Normal
Delhi	524.6	633	-17	Normal

Source: IMD



Ground Survey based Rice Acreage

HARYANA

In **Haryana**, the harvesting of Pusa Basmati-1509 and Sharbati has started and Pusa Basmati-1 also ready for harvest. In general, the crop health is good and the weather conditions are favorable for good quality grain.

The district wise area figures under Basmati varieties has been given in Table-3 and block wise in annexures. The production estimates of Pusa Basmati-1509 and Sharbati are given in Table 3A. There is a corrected change comparison table 3b after the third field survey.

PUNJAB

The harvesting of Pusa Basmati-1509 and Sharbati is almost completed. In general, the crop health is good and the weather conditions are favorable for good quality grain. 50% of Pusa Basmati-1509 produce has been marketed till date. In general a lesser volume of pesticides & fungicides has been used this year in comparison to previous years due to good weather. Almost whole area under Pusa Basmati-1121, Pusa Basmati-1 is at

Maturity stage. Pusa Basmati-1509 is being sold @ Rs.1700/- to 1800/- per quintal.

The district wise corrected area under Basmati varieties is given in Table-4 and the Block wise production of Pusa Basmati-1509 and Sharbati is given in annexure Table 4A.

W. UTTAR PRADESH

Almost 45-50% of the crop of Pusa Basmati-1509, Sharbati and Sugandha has been harvested. Around 4-5% Pusa Basmati-1 has also been harvested. Another 20% will be harvested in next 20 days. Whereas 50% of this variety is at flowering to milking stage. Entire area under Pusa Basmati-1121 is at flowering to milking stage.

The crop health is good and no major pest and disease has been observed this year till third week of September. In fourth week BPH attack has been observed in whole of the area under rice. Some fields of Basmati were observed under Leaf Blast and neck blast too but below Economic Threshold Level Pusa Basmati-1509 is being sold @ Rs. 1800-1900/- per quintal. Sugandha and Sharbati is being sold @ Rs. 1600-1700/- per qtl. and Rs. 1550- 1650/- per qtl. respectively.



The district wise area under Basmati varieties is given in Table-5 and first production estimates of Pusa Basmati-1509, Sugandha & Sharbati is given in Table 5A.

UTTARAKHAND

The district wise area under Basmati varieties is given in Table-6 and yield of Pusa Basmati-1509, Sugandha & Sharbati is given in Table 6A.

JAMMU & KASHMIR

The district wise area under Basmati varieties is given in Table-7.

HIMACHAL PRADESH

Almost all the area has been transplanted this year due to good rainfall receipt in initial months.

The district-wise target for total rice in Himachal Pradesh during Kharif-2016 is given Table-8.



Table 3: District-wise acreage under total rice and Basmati rice in Haryana during Kharif 2016

S. No.	District	Area in '000 ha							
		Total Basmati	Pusa Basmati-1121	CSR-30	Pusa Basmati-1509	Pusa Basanti - 1	Pusa Basmati-1401	Sharbati	
1	Ambala	16.88	7.20	9.30	0.12	0.26		0.08	
2	Bhiwani	22.05	22.05						
3	Faridabad	8.40	8.10			0.30			
4	Gurgaon	2.60	2.40			0.20			
5	Fatehabad	49.70	27.41	1.05	1.30	12.58	7.37	0.07	
7	Hisar	44.80	42.40	1.10	0.45	0.85			
8	Jajjhar	43.60	42.41	0.27	0.92				
9	Jind	81.19	65.03	6.04	1.87	8.26			
10	Kaithal	64.57	37.30	24.38	2.80	0.10			
11	Karnal	78.58	39.71	29.77	8.85	0.26		0.13	
12	Kurukshetra	30.77	11.04	14.48	2.70	2.55		0.29	
13	Mewat	7.50	7.50						
14	Palwal	20.38	16.99		0.20	3.19		0.25	
15	Panipat	68.10	56.01	7.85	2.15	2.10		0.29	
16	Rewari	1.20	1.20						
17	Rohtak	36.27	36.16	0.06	0.05			1.00	
18	Sirsa	60.59	11.87	0.30	2.97	6.41	39.05	0.49	
19	Sonepat	73.48	69.33	2.94	1.21				
20	Yamunanagar	9.00	0.77	0.41	0.59	7.24			
	Total	719.64	504.86	97.92	26.16	44.28	46.42	2.59	



Table 3A: District-wise acreage & Production under Pusa Basmati-1509 & Sharbati in Haryana during Kharif-2016

Area '000 ha; Production '000 tons

S. No.	District	Pusa Basmati-1509		Sharbati	
		Area	Production	Area	Production
1	Ambala	0.12	0.6	0.08	0.35
2	Bhiwani				
3	Faridabad				
4	Gurgaon				
5	Fatehabad	1.30	7.3	0.07	0.29
7	Hisar	0.45	2.2		
8	Jajjhar	0.92	4.5		
9	Jind	1.87	8.5		
10	Kaithal	2.80	15.8		
11	Karnal	8.85	49.9	0.13	0.40
12	Kurukshetra	2.70	13.2	0.29	0.94
13	Mewat				
14	Palwal	0.20	0.9	0.25	0.83
15	Panipat	2.15	10.5	0.29	0.95
16	Rewari				
17	Rohtak	0.05		1.00	3.33
18	Sirsa	2.97	16.7	0.49	1.68
19	Sonepat	1.21	5.6		
20	Yamunanagar	0.59	3.0		
Total		26.16	138.72	2.59	8.77

**Table 4: District-wise acreage under total rice and Basmati rice in Punjab during Kharif 2016**

Area in '000 ha							
S. No.	District	Total Basmati	CSR-30/ Basmati386	Pusa Basmati 1121	Pusa Basmati- 1509	Pusa Basmati 1	Sharbati
1	Amritsar	114.10	0.53	85.46	28.11		0.36
2	Barnala	3.00		2.01	0.45	0.54	
3	Bhatinda	11.29		11.29			
4	Faridkot	22.80		22.80			
5	Fatehgarh Sahib	10.44		8.40		2.04	
6	Fazilka	70.33		70.33			
7	Firozpur	50.87		50.87			
8	Gurdaspur	44.15		44.06	0.09		3.49
9	Pathankot	3.01		3.01			1.90
10	Hoshiarpur	7.31		7.31			
11	Jalandhar	11.43		10.73	0.70		
12	Kapurthala	8.54		8.54			
13	Ludhiana	24.53		19.30	1.96	3.27	
14	Mansa	1.00		1.00			
15	Moga	19.93		19.93			
16	Mohali	4.30		4.30			
17	Muktsar	58.93		49.89		9.04	
18	Nawanshahar	5.41		5.21	0.20		
19	Patiala	21.59		17.88	1.00	2.71	
20	Rupnagar	3.22		3.21	0.01		
21	Sangrur	36.63		30.08		6.55	
22	Tarantaran	83.30		80.17	3.13		
Total		616.11	0.53	555.78	35.65	24.15	5.75



Table 4A: District-wise acreage & Production Estimates under Pusa Basmati-1509 & Sharbati in Punjab during Kharif 2016					
Area '000 ha; Production '000 tons					
S. No.	District	Pusa Basmati-1509		Sharbati	
		Area	Production	Area	Production
1	Amritsar	28.11	138.63	0.36	1.40
2	Barnala	0.45	2.30		
3	Bhatinda				
4	Faridkot				
5	Fatehgarh Sahib				
6	Fazilka				
7	Firozpur				
8	Gurdaspur	0.09	0.41	3.49	13.48
9	Pathankot			1.90	6.94
10	Hoshiarpur				
11	Jalandhar	0.70	0.35		
12	Kapurthala				
13	Ludhiana	1.96	10.15		
14	Mansa				
15	Moga				
16	Mohali				
17	Muktsar				
18	Nawanshahar	0.20	0.96		
19	Patiala	1.00	5.00		
20	Rupnagar	0.01	0.04		
21	Sangrur				
22	Tarantaran	3.13	16.38		
Total		35.65	174.22	5.75	21.82



Table 3b: Percentage change in acreage of Basmati & Non-Basmati varieties of rice in 2016 over 2015 in Haryana				
Area '000 ha				
S. No.	Variety	Acreage 2015	Acreage 2016	% change
1	Basmati			
	Pusa Basmati-1121	476.21	504.86	6.0
	Pusa Basmati-1	39.09	44.28	13.3
	Pusa Basmati-1401	64.51	46.42	-28.0
	Super	2.49	0.00	-100.0
	Pusa Basmati-1509	112.73	26.16	-76.8
	CSR-30	132.48	97.92	-26.1
	Punjab Basmati-3	5.34	0.00	-100.0
2	Non-Basmati Long grain			
	Sharbati	38.37	2.74	-92.86
	Total Basmati	832.85	719.64	-13.6

Table 4b: Percentage change in acreage of Basmati & Non-Basmati varieties of rice in 2016 over 2015 in Punjab				
Area '000 ha				
S. No.	Variety	Acreage 2014	Acreage 2015	% change
1	Basmati			
	Pusa Basmati-1121	669.51	555.78	-17.0
	Pusa Basmati-1	2.11	24.15	1044.5
	Pusa Basmati-1509	182.16	35.65	-80.4
	Basmati-386/CSR-30	8.10	0.53	-93.5
2	Non-Basmati Long grain			
	Sharbati	5.03		-100.00
	Total Basmati	861.88	616.11	-28.5



Table 5b: Percentage change in acreage of Basmati & Non-Basmati varieties of rice in 2016 over 2015 in Uttar Pradesh				
Area '000 ha				
S. No.	Variety	Acreage 2014	Acreage 2015	% change
1	Basmati			
	Pusa Basmati-1121	175.46	156.26	-10.94
	Pusa Basmati-1	47.33	43.29	-8.54
	Pusa Basmati-1509	106.97	53.65	-49.85
	Type-3 & others	10.10	12.97	28.42
2	Non-Basmati Long grain			
	Sharbati	151.17	163.92	8.43
	Sugandha	92.78	90.86	-2.07
	Total Basmati	339.86	266.17	-21.68

Table 6b: Percentage change in acreage of Basmati & Non-Basmati varieties of rice in 2016 over 2015 in Uttarakhand				
Area '000 ha				
S. No.	Variety	Acreage 2015	Acreage 2016	% change
1	Basmati			
	Pusa Basmati-1121	4.80	4.20	-12.5
	Pusa Basmati-1	1.93	2.31	19.7
	Pusa Basmati-1509	4.37	2.50	-42.8
	Type-3 & others	4.70	6.60	40.4
2	Long grain Non-Basmati			
	Sharbati	15.20	14.57	-4.14
	Sugandha	0.92	0.49	-46.74
	Total Basmati	15.8	15.6	-1.20

Table 7a: Percentage change in acreage of Basmati & Non-Basmati varieties of rice in 2016 over 2015 in Jammu & Kashmir				
Area '000 ha				
S. No.	Variety	Acreage 2015	Acreage 2016	% change
1	Basmati			
	Pusa Basmati-1121	8.55	8.40	-1.8
	Pusa Basmati-1509	0.00	0.25	
	Basmati-370	51.68	53.60	3.7
2	Long grain Non-Basmati			
	Sharbati	9.41	9.95	5.69
	Total Basmati	60.2	62.3	3.4



Table 5: District-wise acreage under Basmati rice and non-notified long grained non-Basmati varieties in Uttar Pradesh during Kharif 2016

Area in '000 ha								
S. No.	District	Total Basmati	Traditional Basmati	Pusa Basmati-1121	Pusa Basmati-1509	Pusa Basmati-1	Sharbati	Sugandha
1	Agra	0.92		0.38	0.46	0.08	0.00	2.16
2	Aligarh	27.63		18.58	4.17	4.88	2.38	8.97
3	Auraiya	2.00	0.67	1.12	0.16	0.05	1.72	0.19
4	Baghpat	3.86	0.03	2.13	0.51	1.19	0.22	0.85
5	Bareilly	3.10	0.68	1.31	0.64	0.47	43.75	0.49
6	Bijnore	6.93		1.62	2.16	3.15	16.89	1.34
7	Budaun	14.24	9.48	2.02	1.99	0.75	19.86	1.95
8	Bulandshahr	30.74	0.02	20.74	4.22	5.76	4.23	14.63
9	Etah+Kasganj	8.61		5.19	2.93	0.49	0.84	7.34
10	Farukhabad	2.73		1.84	0.83	0.06	0.13	2.35
11	Firozabad	3.85		2.33	1.28	0.24	0.12	5.27
12	Etawah	9.03		6.33	2.54	0.16	0.06	4.54
13	Gautam Buddha Nagar	21.41	0.01	18.86	0.76	1.78	1.31	0.87
14	Ghaziabad+Hapur	9.99		5.84	2.75	1.40	2.89	4.95
15	Hathras	7.33		4.21	2.32	0.80	0.65	5.84
16	Mathura	29.42		25.09	3.27	1.06	0.26	3.39
17	Mainpuri	18.69		16.12	2.37	0.20	0.15	5.97
18	Meerut	7.34	0.03	2.55	2.38	2.38	0.59	3.13
19	Moradabad	3.39		0.97	2.12	0.30	8.61	2.34
20	J.P.Nagar	4.11		1.20	1.94	0.97	6.76	2.73
21	Kannauj	2.19		0.65	1.38	0.16	0.13	1.41
22	Muzaffarnagar+Shamli	11.13	0.11	4.62	2.42	3.98	1.17	1.97
23	Pilibhit	4.37		0.88	3.33	0.16	5.10	0.37
24	Rampur	2.00		0.68	1.18	0.14	22.83	0.19
25	Saharanpur	23.09	0.21	7.80	3.07	12.01	7.10	2.85
26	Shahjehanpur	4.41	1.71	1.63	0.80	0.27	8.12	0.42
27	Sambhal	3.66	0.02	1.57	1.67	0.40	8.05	4.35
Total		266.17	12.97	156.26	53.65	43.29	163.92	90.86


Table 5A: District-wise acreage & Production Estimates under Pusa Basmati-1509 & Sharbati in Uttar Pradesh during Kharif-2016

Area '000 ha; Production '000 tons							
S. No.	District	Pusa Basmati-1509		Sharbati		Sugandha	
		Area	Production	Area	Production	Area	Production
1	Agra	0.46	1.80	0.00	0.00	2.16	7.30
2	Aligarh	4.17	18.34	2.38	8.33	8.97	29.80
3	Auraiya	0.16	0.51	1.72	4.91	0.19	0.60
4	Baghpat	0.51	2.00	0.22	0.80	0.85	29.63
5	Bareilly	0.64	2.24	43.75	132.00	0.49	1.85
6	Bijnore	2.16	7.78	16.89	54.20	1.34	5.65
7	Budaun	1.99	5.97	19.86	61.52	1.95	6.82
8	Bulandshahr	4.22	17.90	4.23	14.80	14.63	55.73
9	Etah+Kasganj	2.93	9.58	0.84	2.44	7.34	23.50
10	Farukhabad	0.83	2.49	0.13	0.35	2.35	8.30
11	Firozabad	1.28	4.86	0.12	0.31	5.27	19.40
12	Etawah	2.54	8.89	0.06	0.18	4.54	15.94
13	Gautam Buddha Nagar	0.76	3.27	1.31	4.60	0.87	3.52
14	Ghaziabad+Hapur	2.75	12.41	2.89	9.42	4.95	20.41
15	Hathras	2.32	7.91	0.65	2.01	5.84	19.32
16	Mathura	3.27	12.43	0.26	0.91	3.39	14.50
17	Mainpuri	2.37	7.54	0.15	0.68	5.97	19.96
18	Meerut	2.38	9.80	0.59	2.11	3.13	13.10
19	Moradabad	2.12	7.85	8.61	29.27	2.34	7.95
20	J. P. Nagar	1.94	7.00	6.76	22.31	2.73	9.00
21	Kannauj	1.38	4.21	0.13	0.37	1.41	4.31
22	Muzaffarnagar+Shamli	2.42	10.16	1.17	3.95	1.97	8.01
23	Pilibhit	3.33	12.95	5.10	18.00	0.37	1.45
24	Rampur	1.18	4.52	22.83	75.30	0.19	0.78
25	Saharanpur	3.07	12.03	7.10	21.56	2.85	10.57
26	Shahjehanpur	0.80	3.10	8.12	27.43	0.42	1.64
27	Sambhal	1.67	6.51	8.05	24.30	4.35	17.60
Total		53.65	204.05	163.92	522.06	90.86	356.64

Table 6: District-wise area transplanted under long grain Non basmati and Basmati rice in Uttarakhand during Kharif 2016

Area in '000 ha								
S. No.	District	Total Basmati	Traditional Basmati	Pusa Basmati-1121	Pusa Basmati-1509	Pusa Basmati-1	Non-notified	
							Sharbati	Sugandha
1	Dehradun	3.1	2.5	0.4	0.2	0.0	2.5	0.06
2	Haridwar	6.7	2.4	1.6	0.5	2.2	3.6	0.26
3	Nainital	1.5	0.9	0.3	0.3	0	1.4	0
4	Udham Singh Nagar	4.3	0.8	1.9	1.5	0.12	7.1	0.17
Total		15.61	6.60	4.20	2.50	2.31	14.57	0.49



Table 6a: District-wise acreage & Production Estimates of Pusa Basmati-1509, Sugandha-5 & Sharbati in Uttarakhand during Kharif 2016

Area in '000 ha; Production '000 tons

S. No.	District	Pusa Basmati-1509		Sharbati		Sugandha	
		Area	Production	Area	Production	Area	Production
1	Dehradun	0.2	0.71	2.45	7.50	0.06	0.24
2	Haridwar	0.5	2.30	3.59	13.60	0.26	1.07
3	Nainital	0.3	0.92	1.40	4.68	0.00	0.00
4	Udham Singh Nagar	1.5	6.22	7.13	23.40	0.17	0.64
Total		2.50	10.15	14.57	49.18	0.49	1.95

Table 7: District-wise acreage under Basmati rice in Jammu & Kashmir during Kharif 2016

Area '000 ha

S. No.	District	Total Basmati	Pusa Basmati-1121	Pusa Basmati-1509	Basmati-370	Sharbati
1	Jammu	49.1	1.40	0.0	47.68	8.95
2	Kathua	10.4	6.40	0.2	3.80	0.73
3	Samba	2.8	0.60	0.1	2.12	0.27
Total		62.3	8.40	0.25	53.60	9.95

Table 8: District-wise acreage under Basmati rice in Himachal Pradesh during Kharif 2016

Area '000 ha

District	Total Basmati	Pusa Basmati-1121	Pusa Basmati-1509	Basmati	Sharbati
Kangra	4.00	2.00	1.00	1.00	0.50
Mandi	4.00		4.00		
	8.00	2.00	5.00	1.00	0.50



Block wise Basmati acreage in Haryana during kharif -2016								
								Area (ha)
Sl. No.	District/Block	Total Basmati	Pusa Basmati-1121	CSR30	Pusa Basmati-1509	Pusa Basmati -1	Pusa Basmati-1401	Sharbati
1	Kaithal	64570	37295	24380	2800	95	0	0
	Pundri	21055	5330	15000	690	35		
	Seevan	1945	1110	330	445	60		
	Gulha	8830	7725	700	405			
	Rajond	9880	8130	1070	680			
	Kaithal	19345	14000	5000	345			
	Kalayyat	3515	1000	2280	235			
2	Karnal	78580	39705	29765	8850	260	0	130
	Nissang	15650	7200	7000	1450			
	Assandh	17010	14000	2460	550			
	Nilokheri	16400	2220	13000	1180			
	Gharunda	8660	5000	1240	2160	260		130
	Indri	10200	5100	3500	1600			
	Karnal	10660	6185	2565	1910			
3	Kurukshetra	30765	11040	14475	2700	2550	0	285
	KRK	9995	5500	3205	1220	70		
	Babain	945	145	130	350	320		15
	Ladwa	3465	665	0	830	1970		
	Pehowa	12300	3000	9000	300	0		270
	Sahabad	4060	1730	2140	0	190		
4	Rohtak	36515	36165	300	50	0	0	1000
	Rohtak	12000	12000					
	Lakhanmajra	4040	3865	125	50			
	Sampla	4300	4300					
	Meham	11035	11000	35				1000
	Kalanaur	5140	5000	140				
5	Faridabad	8400	8100	0	0	300	0	0
	Faridabad	1900	1800			100		
	Ballabgarh	6500	6300			200		
6	Palwal	20380	16990	0	200	3190	0	250
	Palwal	11100	9500		200	1400		
	Hodal	1980	1800			180		
	Hathin	2970	2560			410		150
	Hassanpur	4330	3130			1200		100
7	Fatehabad	49700	27405	1050	1295	12580	7370	65
	Tohana	6345	4650	45	525	920	205	65
	Fatehabad	16765	11000	155	20	4850	740	
	Bhuna	4475	2845	170	200	730	530	
	Ratia	16920	6340	645	90	5780	4065	
	Jakhal	3395	1340	35	450	245	1325	
	Bhattukalan	1800	1230	0	10	55	505	



Block wise Basmati acreage in Haryana during kharif -2016								
Sl. No.	District/Block	Total Basmati	Pusa Basmati-1121	CSR30	Pusa Basmati-1509	Pusa Basmati -1	Pusa Basmati-1401	Area (ha)
								Sharbati
8	Sirsa	60350	11870	60	2965	6405	39050	490
	Ellanbad	14780	2260		960	1380	10180	
	Sirsa	23010	8580		1035	2725	10670	490
	Rania	17745	465	60	930	1790	14500	
	Baragua	0	0		0	0	0	
	Dabwali	0	0		0	0	0	
	Odhan	0	0		0	0	0	
	Natusari	4815	565		40	510	3700	
9	Jhajjar	43595	42410	265	920	0	0	0
	Jajhhar	11000	10330	150	520			
	Beri	18000	18000	0	0			
	Sahlwas	600	600	0	0			
	Matnhill	5500	5500	0	0			
	B/Garh	8495	7980	115	400			
10	Bhiwani	22050	22050	0	0	0	0	0
	Bhiwani	7500	7500					
	Bhiwani Khera	3500	3500					
	Dadri	6300	6300					
	Dadri II	4500	4500					
	Tosham	200	200					
	Kairu	50	50					
11	Yamunanagar	9000	765	410	590	7235	0	0
	Radore	5905	275	250	340	5040		
	Mustfabad	260	0	100		160		
	Jagadhari	2070	0	60		2010		
	Bilaspur	60	60	0		0		
	Chachhroli	705	430	0	250	25		
	sadhora	0	0	0		0		
12	Panipat	68100	56010	7845	2145	2100	0	285
	Panipat	10390	8190	1650	550			
	Israna	14575	12180	2100	295			160
	Matloda	18040	13245	2175	520	2100		125
	Samalkha	12575	10395	1400	780			
	Bapoli	12520	12000	520	0			
13	Jind	81185	65030	6035	1865	8255	0	0
	Narwana	12380	7000	900	290	4190		
	Jind	11540	10000	845	275	420		
	Julana	9500	8930	570				
	safidon	16275	15000		400	875		
	Pilukhera	12270	10000	1860		410		
	Alewa	12720	8600	860	900	2360		
	Uchana	6500	5500	1000				
14	Ambala	16880	7200	9300	120	260	0	80
	Naraingarh	150				150		50
	Ambala	14580	5500	9000	80			
	Ambala-2	800	700	100				
	Baraar	950	650	200		100		30
	Saha	390	350		40			
	Sahzadpur	10				10		



Block wise Basmati acreage in Haryana during kharif -2016								
								Area (ha)
Sl. No.	District/Block	Total Basmati	Pusa Basmati-1121	CSR30	Pusa Basmati-1509	Pusa Basmati -1	Pusa Basmati-1401	Sharbati
15	Sonepat	73475	69330	2935	1210	0	0	0
	Gohana	10570	9860	610	100			
	Mundana	11120	11000	120	0			
	Kharkhoda	5465	5000	235	230			
	Sonipat	16980	16000	780	200			
	Kathura	5600	5470	0	130			
	GANOUR	16740	15000	1190	550			
	Rai	7000	7000	0	0			
16	Hisar	44800	42400	1100	450	850	0	
	Hisar 1	5000	5000					
	Bas	13000	11500	1000	300	200		
	Hansi	13000	13000					
	Narnaud	10100	10000		50	50		
	Agroha	100	100					
	Uklana	2400	1800	100	100	400		
	Barwala	1200	1000			200		
17	Mewat	5500	7500	0	0	0	0	0
	Nuh							
	Punana							
	Tobru							
	Nagina							
18	Rewari	2000	1200					
19	Gurgaon	3000	2400			200		
20	Panchkula	8500						
	Total	727345	504865	97920	26160	44280	46420	2585



Block wise Basmati acreage in Punjab during kharif -2016								
								Area (ha)
Sl. No.	District / Block	Pusa Basmati-1121	Pusa Basmati-1	CSR-30/Basmati-386	Pusa Basmati-1509		Sharbati	
		Area	Area	Area	Area	Prod	Area	Prod
1	AMRITSAR	85460	0	530	28110	138630	360	1400
	Ajnala	20430		160	1610	7240		
	Chogawan	17020		320	1560	7250		
	Harsha Chhina	12800			2700	12100		
	Jandiala Guru	1960			6140	31930		
	Majitha	6930			7870	40920		
	Rayya	2360			1640	8360		
	Tarsikka	3980			1020	5000		
	Verka	9830		50	2720	12750		
	Attari	10150			2850	13080	360	1400
2	BARNALA	2010	540	0	450	2300	0	0
	Barnala	900						
	Sehna	650			450	2300		
	Mehal Kalan	460	540					
3	BATHINDA	11290	0	0	0	0	0	0
	Rampura	2480						
	Phul	2880						
	Nathana	1920						
	Bathinda	1330						
	Maur	1050						
	Sangat	600						
	Talwandi Sabo	580						
	Bhagta Bhai Ka	450						
4	FARIDKOT	22800	0	0	0	0	0	0
	Faridkot	10600						
	Kotkapura	12200						
5	FATEHGARH SAHIB	8400	2040	0	0	0	0	0
	Khera	1600						
	Bassi pathana	930						
	Khamano	1440						
	Sirhind	2060	2040					
	Amloh / Gobindgarh	2370						
6	FAZILKA	70330	0	0	0	0	0	0
	Fazilka	36470						
	Abohar	5720						
	Jalalabad	25360						
	Khuyian Sarvar	2780						



Block wise Basmati acreage in Punjab during kharif -2016								
								Area (ha)
Sl. No.	District / Block	Pusa Basmati-1121	Pusa Basmati-1	CSR-30/Basmati-386	Pusa Basmati-1509		Sharbati	
		Area	Area	Area	Area	Prod	Area	Prod
7	FEROZEPUR	50870	0	0	0	0	0	0
	Ferozepur	6850						
	Ghall Khurd	3900						
	Guru Har Sahai	26780						
	Makhu	3320						
	Mamdot	6600						
	Zira	3420						
8	GURDASPUR	44060	0	0	90	410	3490	13480
	Gurdaspur	3650						
	Dhariwal	4230						
	Khanuwan	2950			90	410	180	720
	Kalanaur	4590					590	2340
	Dinanagar	3840					1680	6760
	Batala	3480					240	1140
	Sh Hargobindpur	3940						
	Fatehgarh Churian	3440					500	1260
	Quadian	4310						
	Dera Baba Nanak	5130					300	1260
	Dorangla	4500						
9	HOSHIARPUR	7310	0	0	0	0	0	0
	Hoshiarpur-I	470						
	Hoshiarpur-II	330						
	Bhunga	460						
	Tanda	1720						
	Dasuya	220						
	Mukerian	2030						
	Hajipur	200						
	Talwara	300						
	Mahilpur	590						
	Garhshankar	990						
10	JALANDHAR	10730	0	0	70	350	0	0
	Jalandhar East	880						
	Jalandhar West	670						
	Adampur	1310						
	Bhogpur	1290			20	100		
	Philour	2040						
	Rurka Kalan	520						
	Noor Mahal	770						
	Nakodar	1160						
	Shahkot	870						
	Lohian	1220			50	250		



Block wise Basmati acreage in Punjab during kharif -2016								
								Area (ha)
Sl. No.	District / Block	Pusa Basmati-1121	Pusa Basmati-1	CSR-30/Basmati-386	Pusa Basmati-1509		Sharbati	
		Area	Area	Area	Area	Prod	Area	Prod
11	KAPURTHALA	8540	0	0	0	0	0	0
	Kapurthala	1090						
	Sultanpur Lodhi	490						
	Phagwara	1660						
	Dhilwan	2500						
	Nadala	2800						
12	LUDHIANA	19300	3270	0	1960	10150	0	0
	Ludhiana-I	1350						
	Ludhiana-II	1500						
	Machiwara	1550	170		530	2910		
	Samrala	1420	140		1380	7000		
	Khanna	1300						
	Doraha	1850						
	Dehlon	2700						
	Pakhawal	1640	1170					
	Sudhar	1370	1170		50	240		
	Jagraon	1910						
	Sidhwan Bet	1540	620					
	Rai Kot	1170						
13	MANSA	1000	0	0	0	0	0	0
	Mansa	210						
	Bhikhi	210						
	Bhudhalada	330						
	Jhunir	230						
	sardulgarh	20						
14	MOGA	19930	0	0	0	0	0	0
	Moga-I	2740						
	Moga-II	1090						
	Bagha Purana	2520						
	Nihal Singh wala	8600						
	Kot Ise khan	4980						
15	MOHALI	4300	0	0	0	0	1720	0
	Kharar	1800					860	
	Majri	2000					110	
	Derabassi	500					750	
16	MUKATSAR	49890	9040	0	0	0	0	0
	Muktsar	10120						
	Malout	14080						
	Giddarbaha	10430	2540					
	Lambi	15260	6500					



Block wise Basmati acreage in Punjab during kharif -2016								
								Area (ha)
Sl. No.	District / Block	Pusa Basmati-1121	Pusa Basmati-1	CSR-30/Basmati-386	Pusa Basmati-1509		Sharbati	
		Area	Area	Area	Area	Prod	Area	Prod
17	NAWANSHAHR	5210	0	0	200	960	0	0
	Nawanshahr	680			100	480		
	Banga	1550			100	480		
	Aur	2160						
	Balachaur	580						
	Saroya	240						
18	PATHANKOT	3010	0	0	0	0	1900	6940
	Pathankot	1030					740	2550
	N.J. Singh	900					620	2300
	Bamial	400					100	390
	Dhar Kalan						100	390
	Gharota	350					140	510
	Sujanpur	330					200	800
19	PATIALA	17880	2710	0	1000	5000	0	0
	Patiala	1990						
	Nabha	3470						
	Saman	1260	1390					
	Patran	2740	1320		380	1880		
	Bhunerheri	110						
	Sanour	3060			220	1120		
	Rajpura	2750			400	2000		
	Ghanour	2500						
20	RUPNAGAR	3210	0	0	10	40	0	0
	Rupnagar	530						
	Chamkaur Sahib	1440						
	Nurpur Bedi	210						
	Morinda	850			10	40		
	Anandpur Sahib	180						
21	SANGRUR	30080	6550	0	0	0	0	0
	Sangrur	2240						
	Bhawaniharh	2200						
	Ahmedgarh	970						
	Malerkotla	810						
	Dhuri	1700						
	Sherpur	1880	420					
	Sunam	1740						
	Lehragaga	9300	4920					
	Andana	9240	1210					
22	TARN TARAN	80170	0	0	3130	16380	0	0
	TarnTaran	10320			140	700		
	Chohla Sahib	4010						
	Naushera Pannuan	14320			960	4780		
	Gandiwind	8610			1010	5500		
	Khadaur Sahib	4750			1020	5400		
	Patti	12750						
	Valtoha	12690						
	Bhikhiwind	12720						
	Total	555780	24150	530	35020	174220	7470	21820