

Kharif 2017

REPORT - 5

04th Dec 2017

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

Basmati Export Development Foundation
APEDA, New Delhi



Basmati Survey - Report-5 (Season 2017)

This is the 5th report for Basmati crop across 7 states totalling 81 districts. We have randomly selected Basmati plots across zones for crop cutting experiments across zones and its results have been incorporated to substantiate the yield data taken in the previous reports. Detailed microscopic level information on Basmati crop has been collected and compiled in this report. The report begins with an overview of the entire scenario of Basmati crop harvest pace, arrival trends in mandi, prices of major varieties for the current season and then goes on to vetting the previous report details on state wise acreage/ production information.

Geotrans Technologies Pvt. Ltd.

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Acknowledgement

We are thankful to the Chairman, APEDA, Shri Devendra Kumar Singh Chairman, Mr. A. K. Gupta, Director, Basmati Export Development Foundation (BEDF) for assigning the study and being a force behind the study. We are grateful to Mr. Vijay Setia, President, AIREA and Hon'ble Exporter Members of Basmati Survey Technical Committee of AIREA and Mr. Rajen Sundresan Executive Director, AIREA.

The scientific team of Geotrans is also thankful to the Hon'ble members and representatives of All India Rice Exporters' Association for giving their valuable suggestions from time to time.

TEAM GEOTRANS

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Chapter 1

Executive Summary

Scope of the Report

The present report being the report for Kharif 2017 covers the results of field survey based acreage / production estimation reporting of Basmati varieties area transplanted in the different districts of Punjab, Haryana, Delhi, Uttar Pradesh, Uttarakhand, Himachal Pradesh and Jammu & Kashmir. This time we have focused on Basmati crop fields for crop cutting experiments / harvest pace & mandis across states for gathering the details on mandi arrivals; price trends and farmer expectation on crop selling. Almost crop harvesting /arrival has already been done across states. This report primarily covers the initial information on crop cutting results/ prices / harvest pace / mandi arrivals / along with vetting on crop acreage / production estimates as provided in the previous three reports.

Study districts

The study has been conducted in 79 districts, which includes 22 districts of Punjab, 21 districts of Haryana, 27 districts of Uttar Pradesh, 4 districts of Uttarakhand, 2 districts of Himachal Pradesh and 3 districts of Jammu & Kashmir and findings were elaborated in form of tables / text and pics

State Wise Transplanted Area, Production Basmati & Non-Basmati Long Grain Rice Area during Kharif 2017

Total rice transplanting in the studied 7 states has been reduced by 2.28% from last year. Farmers shifted to crops like cotton & sugarcane in Haryana/ Punjab & Wester part of Uttar Pradesh. The total Basmati (notified varieties) area in these targeted 7 states& 81 districts has decreased by 7.84%. The notified Basmati varieties majorly comprises of Basmati-370, Basmati- 386, Type-3 (Dehraduni), Taraori, Ranbir, Pusa-1509, Pusa Basmati-1, CSR-30 and Pusa Basmati-1121

State Wise Transplanted Area, Production

Basmati & Non-Basmati long grain Rice Area/ Production during Kharif 2017 (Area in 000 ha. / production in 000 tons)

State	Total Basmati		Pusa Basmati 1121		Pusa 1509		PB -1		Sharbati	
	Area	Production	Area	Production	Area	Production	Area	Production	Area	Production
Haryana	652	2534	444	1611	30	148	41	223	6	21
Punjab	563	2145	500	1842	40	193	23	110	6	22
U. P	256	763	144	403	56	206	43	133	174	528
U. K	16	39	4	9	3	10	2	8	15	50
J & K	62	132	8	25	0	1			10	36
H. P	7	30	2	7	5	22				
Total	1554	5643	1101	3898	133	581	110	474	211	657

This year about 1,32,300 hac area under Basmati has been shifted either to non-Basmati long grain rice or shifted to other major competitive crops like sugarcane & cotton

The various interactions with farmers/ secondary market players and experts field visits suggests that this year about 8-10% of lesser Basmati production as compared to last year.

In short, 2017-18 season has seen about 8% dip in overall acreage of Basmati crop while their yield levels are either similar as of last year in states like Punjab / Haryana / J&K / HP but observed dip in yield level in states like UP / Uttaranchal / Delhi over last year, which brought the overall Basmati production down to almost 8-10% in the current year.

State Wise harvested area/ mandi arrival & price range offered on different varieties

Across 7 studied states, Basmati crop harvesting has been completed and similar trends has been observed in mandi arrivals too. However, secondary market might be releasing the stocks as per the market and millers demand. This year farmers are quite happy with the current price offered across different mandis while few farmers are expecting that price range could further go up in months to come, once arrival pressure will ease. This year farmer prices are about 25-30% up as compared to last year across all studied states. These sentiments are positive signal for next year (2018-19) on overall farmers intention on Basmati acreage which has been dipping from last two consecutive years (2016-17 and 2017-18). The following tables are throwing analysis on the individual states with respect to their price trends.

State Wise price range offered on different varieties (reported till 30 Nov 2017)

Basmati & Non-Basmati Long Grain Rice during Kharif 2017

Mandi Price Range (Rs/ Qtl)

State/ Varieties	Punjab	Haryana	Uttar Pradesh	Uttaranchal	J&K
Pusa Basmati 1121	3250-3300	3250-3300	3000-3150	2800-3100	3100-3200
Pusa Basmati 1509	2850-2950	2850-2950	2750-2900	2600-2800	2850-2950
Pusa Basmati 1	2900-3000	2900-3000	2800-2950	2650-2800	
CSR 30	3800-4000	3800-4000			
Pusa Basmati-1401	2700-2800	2700-2800			
Basmati-370/386/Ranbir			2600-2800	2600-2800	2875-2950
Sharbati	2100-2200	2100-2200	2000-2100	2050-2100	
Sugandha	2300-2400	2300-2400	2200-2350	2150-2300	

Chapter 2

State-Mandi wise arrival/prices

HARYANA

Basmati & Non-Basmati Long Grain Rice Area during Kharif 2017

Basmati 1121 Arrival & Prices Haryana

APMC	01/09/2017-29/11/2017	29-Nov	21-Nov	14-Nov	30-Oct	22-Oct
	<i>Commodity Arrivals(Quintal)</i>	<i>Last Traded Price (per Quintal)</i>				
AMBALA	54364.68	3500	3500	3500	3250	2461
BARWALA HISAR	339629.26	3281	3000	3000	3321	1590
CHEEKA	64309.26	3300	3300	3300	2875	2700
GANAUR	336297.5	3321	3181	3181	3061	3251
GHARAUNDA	239572	3000	3201	3201	2500	2500
GOHANA	1254817.78	3331	3261	3251	3161	3351
HANSI	324056	3271	3251	3281	2981	2931
INDRI	91717.8	3211	3280	3280	1625	
ISMAILABAD	48121.9	3350	3231	3231	3200	
JIND	599768.5	3301	2750	2750	3225	3020
JULLANA	745865.95	3351	3231	3281	3300	3291
KALAYAT	284011.2	2951	2951	2951	2800	3050
KARNAL	141355.5	3200	2700	2700	3160	3050
LADWA	22288	3225	3340	3340	3105	2910
MADLAUDA	471338.5	3251	3141	3141	3301	3156
NARNAUND	162535.13	3200	3121	3121	3121	3025
NARWANA	198524.53	3371	3230	2870	3015	3140
PALWAL	132645.25	3231	3051	3051		
PANIPAT	394968.51	3221	3271	3271	3181	3200
PEHOWA	34722				1510	
PILLUKHERA	307511.75	3381	3191	3191	3041	3340
PUNDRI	63947.63	3360	2995	2995	3100	2575
REWARI	26384.5	3150	3025	3025	2755	2831
ROHTAK	410440.5	3261	3261	3261	3201	
SAFIDON	383867.01	3265	3146	3211	3245	2963
SAMALKHA	527025.09	3273	3081	3081	3071	3261
SHAHBAD	13770.75				2500	
SONEPAT	252469.83	3001	2751	2751	3101	3101
TARAORI	75320	3300	3300	3300	3350	2741
TOHANA	139931.75	3210	3080	3080	2525	2525
UCHANA	129863.35	3151	2950	2950	3005	2761

Basmati & Non-Basmati Long Grain Rice Area during Kharif 2017

Basmati 1509 Arrival & Prices

APMC	01/09/2017-29/11/2017	29-Nov	21-Nov	14-Nov	30-Oct	22-Oct
	Commodity Arrivals(Quintal)	Last Traded Price (per Quintal)				
AMBALA	4108.75	2651	2928	2521	2611	2341
ASANDH	35827.72	2450	2450	2800	2770	2675
BARWALA HISAR	18422.88	2700	2700	3275	2691	2691
CHEEKA	92517.13	2625	2625	2625	2800	2931
DHAND	19538.75	2641	2641	2641	2641	2641
ELLANABAD	34764.2	2775	2661	2625	2681	2626
FATEHABAD	44665	2700	2230	2350	2539	2921
GANAUR	106317.75	2401	2401	2751	2861	2771
GHARAUNDA	271652	2790	2711	2181	2181	2641
GOHANA	176394.2	2811	2800	2835	3251	2921
HANSI	62327	2625	2825	2671	2773	2731
HODAL	2746					
INDRI	159391	2480	2465	2085	2035	2281
ISMAILABAD	18272	2681	2681	2700	3001	2361
JAKHAL	7066.5	2800	2800	2800	2800	2800
KAITHAL	38320.25	2340	2340	2890	2630	2311
KALAYAT	24784.6	2805	2805	2805	2621	2610
KARNAL	271351	2550	1800	3200	3050	3150
LADWA	77263	2550	2505	2800	2640	2675
MADLAUDA	55002	3260	2681	3280	2975	3050
NARWANA	20557.25	2701	2701	3151	2800	2701
NISSING	121143	2574	2574	2574	2574	2574
PALWAL	29827					
PANIPAT	134195.3	2651	2571	2700	2851	3321
PEHOWA	28986	2265	2265	2265	2265	2265
PILLUKHERA	52260.75	3500	3500	2927	2811	2871
PUNDRI	72170.39	2931	2850	2895	2845	2681
RANIA	64366.25	2601	2551	2851	2765	2495
REWARI	2480	2751	2743	2721	3151	2692
ROHTAK	25899.5	2331	2331	2331	2701	2751
SAFIDON	104458.85	3210	3110	3231	2527	2963
SAMALKHA	204714.89	2200	2581	3221	2891	2575
SHAHBAD	13230.38				1981	
SIRSA	122977.1	2696	2850	2650	2735	2700
SONEPAT	73330.03	2851	2801	2821	2651	2811
TARAORI	222062	2881	2881	2400	2400	2651
THANESAR	62113.49	2545	2545	2545	2545	2545
TOHANA	217222.62	2760	2350	2775	2761	2761
UCHANA	11575.48	3181	3181	2285	2499	2840

UTTAR PRADESH

Basmati & Non-Basmati Long Grain Rice Area during Kharif 2017

Basmati 1121 Arrival & Prices U.P

APMC	01/09/2017-29/11/2017	29-Nov	21-Nov	14-Nov	30-Oct	22-Oct
	Arrivals(Quintal)	Price (per Quintal)				
MATHURA	1179.5	3111	3000	2171	2300	2300
SAHARANPUR	4883	2900	2950	2780	2800	

Basmati & Non-Basmati Long Grain Rice Area during Kharif 2017

Basmati 1509 Arrival & Prices U.P

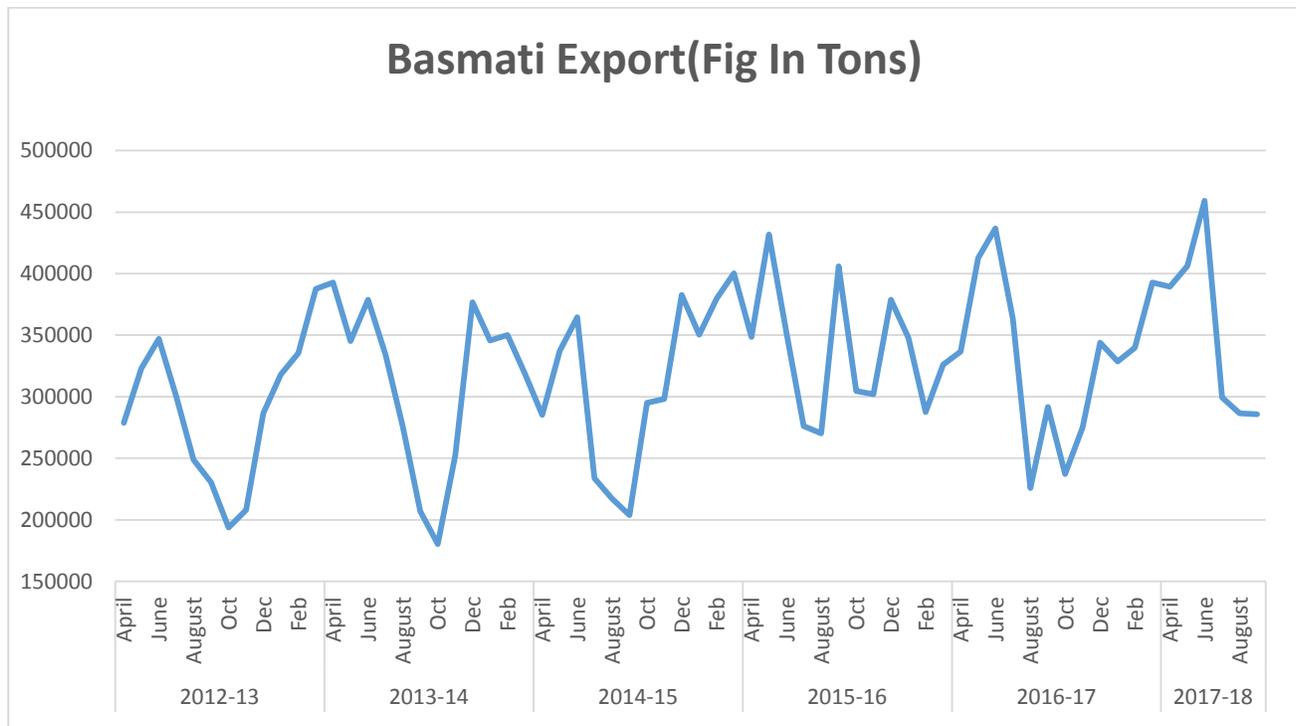
APMC	01/09/2017-29/11/2017	29-Nov	21-Nov	14-Nov	30-Oct	22-Oct
	Arrivals(Quintal)	Last Traded Price (per Quintal)				
ALIGARH	778	2600	2600	2560	2300	2300
DADRI UP	186	2650	2650	2650	2650	2651
KHAIR	46293	2650	2701	2601	2721	2700
MAINPURI	83451.6	2250	2205	2315	2300	2200
MATHURA	567	3001	3001	2500	2501	2501
RAMPUR BILASPUR	4264.8	2135	2005	2050	2212	2425
SAHARANPUR	7683.4	2625	2625	2625	2925	2720

Mandi Arrival are only indicative figures which is indicated on e-NAM platform. The price levels are also indicative and not on the overall arrivals which have been traded in the market place. Any discrepancy, if any in the prices/ mandi arrivals can be re-validated further if required

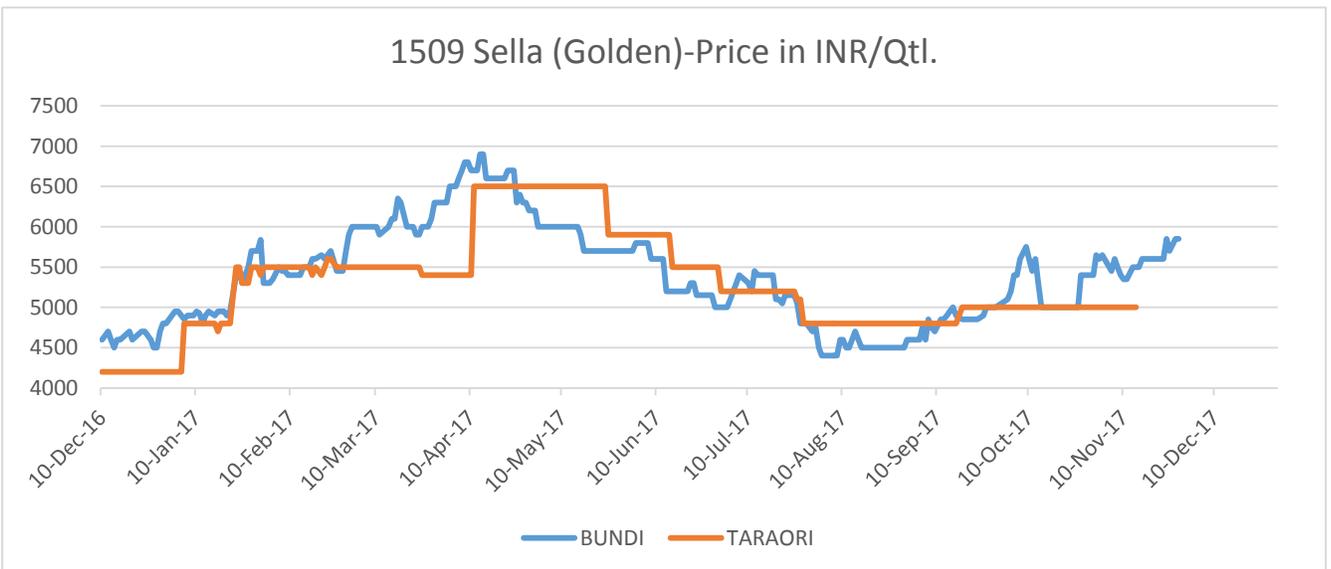
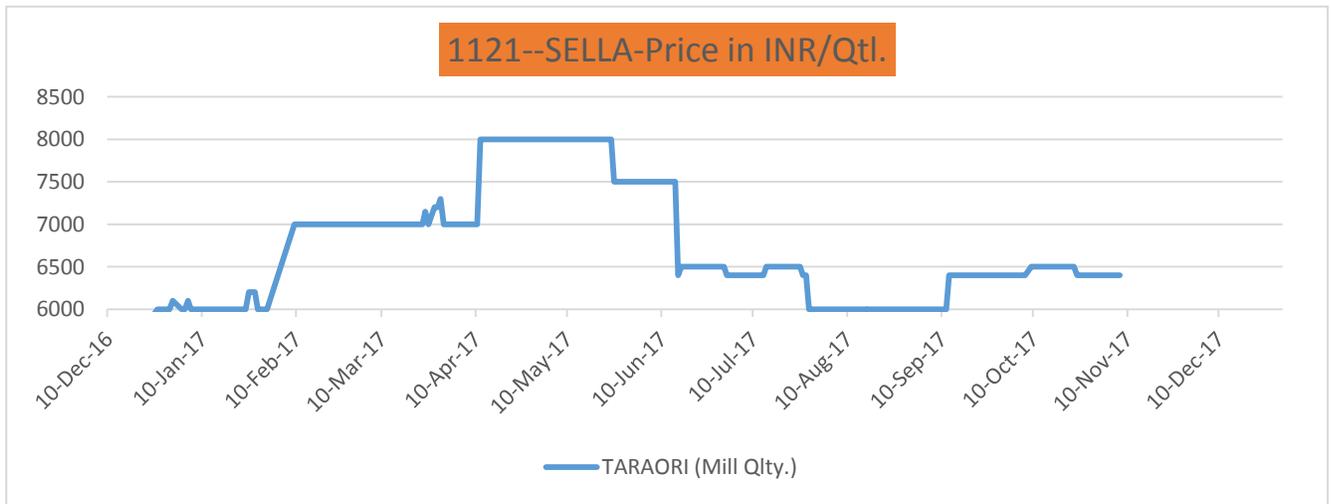
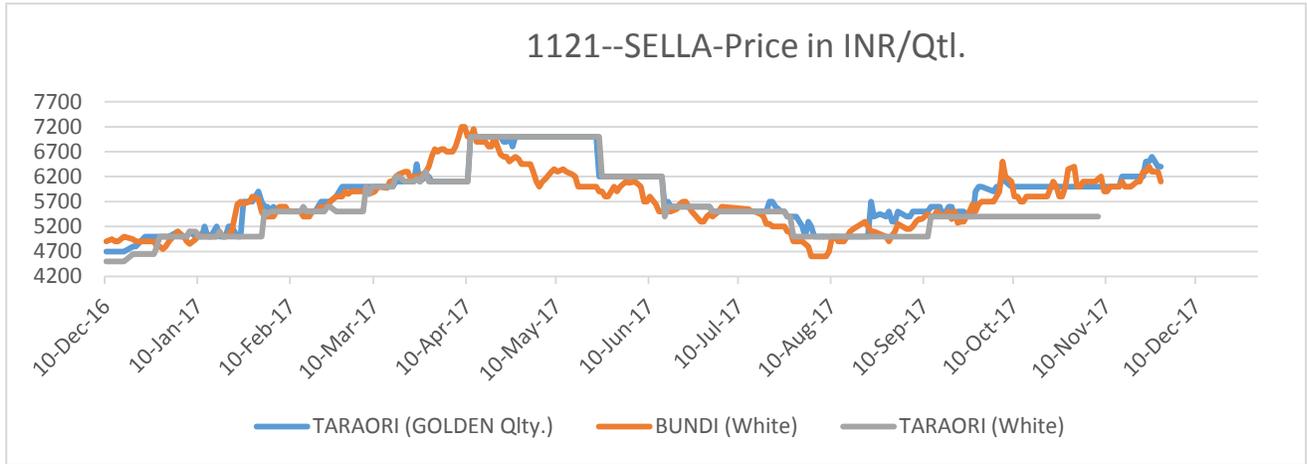
Chapter 3

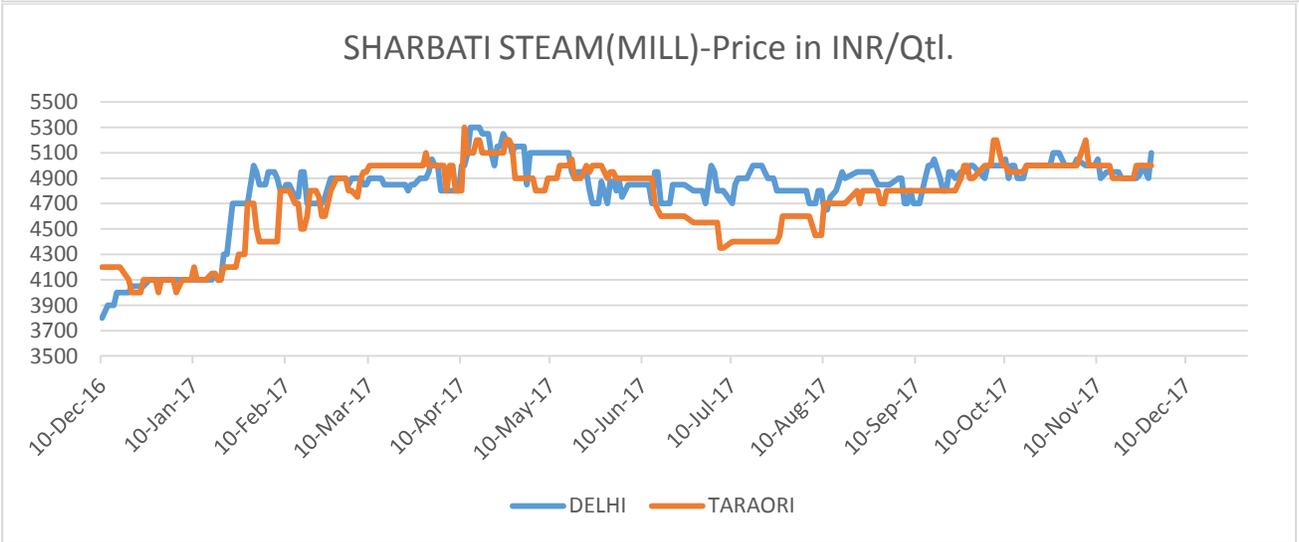
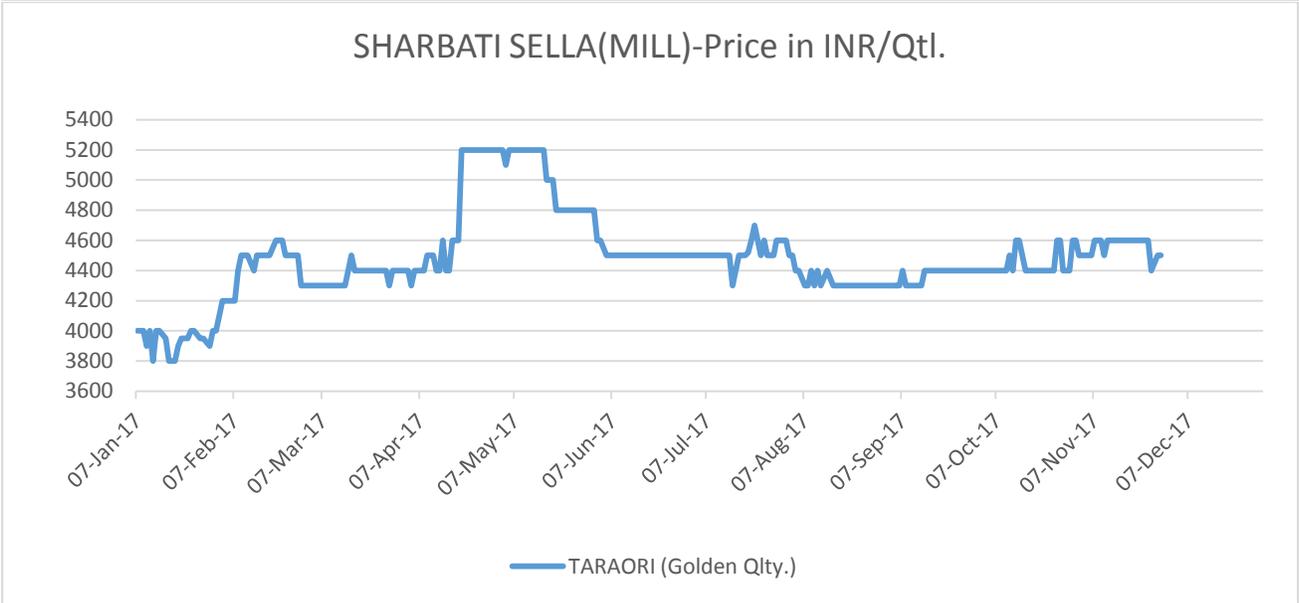
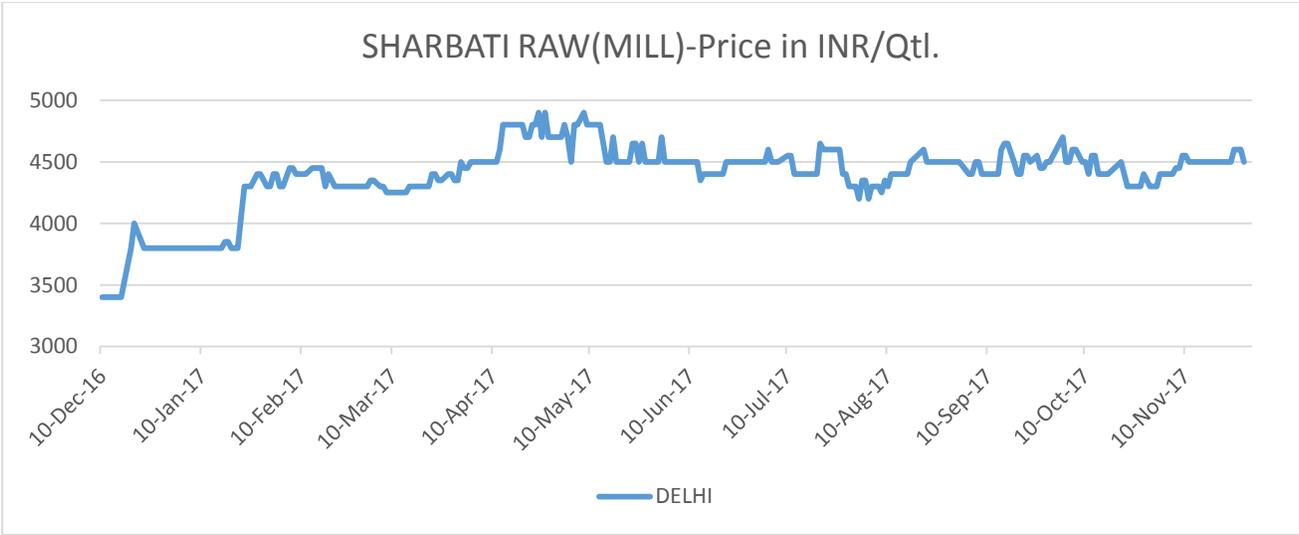
All India Exports of Basmati Rice from India from (April 2012-Sep 2017)

Months	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
	Qty in Tons					
April	278797	392799	285108	348565	336769	389406
May	322913	345188	337150	431895	412769	406253
June	346910	378786	364636	351894	436780	459334
July	299985	333990	233774	276219	363185	299339
August	248884	275844	217355	270100	225776	286514
Sept	230425	206876	203733	405980	291636	285853
Oct	193703	180191	295146	304647	237108	234077
Nov	207964	252292	298274	301920	275149	
Dec	286546	376614	382720	378714	343848	
Jan	318083	345687	350320	347789	328677	
Feb	335395	350092	379888	287501	339748	
March	387474	319005	400195	325944	392731	
Total	3457079	3757364	3748299	4031168	3984176	2360776



All India Rice price trends in major markets





Chapter 4

Crop Cutting Experiment for Validation:

Crop Cutting Experiments have been conducted using standard procedures in all the states for assessment of yield. All-important Basmati varieties in all the important districts have been taken up for CCE. The CCE derived yield was averaged for the district and a conversion factor used for offsetting the moisture content of the grain for estimation of district level production.

Punjab

In Punjab, Crop Cutting Experiments has been conducted in 60 plots covering 15 districts. Based on CCE data, the range of productivity of different Basmati and non-Basmati varieties has been found to be as follows:

District/ Variety	Pusa Basmati- 1121	Pusa Basmati- 1	Pusa Basmati- 1509	Basmati-386
Amritsar	4.11		5.28	2.56
Barnala	4.40	5.01		
Faridkot	4.56			
Fatehgarh Sahib	4.46	4.85		
Fazilka	4.58			
Gurdaspur	4.07		4.87	
Jalandhar	4.21		0.54	
Kapurthala	3.96			
Ludhiana	4.15	4.61	5.54	
Muktsar	3.97	4.89		
Nawanshahar	3.94		5.14	
Patiala	4.41	5.00	5.35	
Rupnagar	3.80		4.28	
Sangrur	4.24	4.94		
Tarantaran	4.13		5.60	

Haryana

In Haryana, Crop Cutting Experiments has been conducted in 150 plots covering 14 districts. Based on CCE data, the range of productivity of different Basmati varieties has been found to be as follows:

District	Pusa Basmati- 1121	Pusa Basmati- 1	CSR-30	Pusa Basmati- 1509	Pusa Basmati- 1401
Ambala	3.10	4.45	2.27	4.71	
Bhiwani	3.22				
Faridabad + Palwal	2.92	4.39		4.15	
Fatehabad	4.06	6.70	2.96	5.29	6.95
Hisar	3.96	4.93	2.71	5.64	
Jajjhar	3.27		2.43	4.16	
Jind	4.68	4.87	2.96	4.40	
Kaithal	3.76	5.63	2.96	5.20	
Karnal	4.16	4.68	3.02	4.97	
Kurukshetra	3.96	5.17	3.13	4.95	
Panipat	3.08	3.90	3.91	4.89	
Sirsa	4.95	5.04	2.69	5.87	6.11
Sonepat	3.22	0.00	3.28	4.16	
Yamunanagar	4.18	5.16	3.10	5.20	

In both the cases of Punjab & Haryana, yield levels are similar to last year. No major infestation has been reported as farmers were advanced their crop remedial practices before any insect/ pest attack. This year agro-climatic conditions were also conducive for overall crop growth.

Uttar Pradesh

In Uttar Pradesh, Crop Cutting Experiments have been conducted over 19 districts. The average productivity of crop has been estimated on the basis of 5 crop cuttings of one sq. m. each in the field with 14% moisture content. Based on the data of crop cutting experiments, the range of productivity of different Basmati and non-Basmati varieties has been found to be as shown below:

District	Pusa Basmati-1121	Pusa Basmati- 1	Pusa Basmati-1509	Basmati-370, Type-3	Sharbati	Sugandha
Agra	2.54	3.13	3.79			2.96
Aligarh	2.70	2.76	3.80		3.40	3.09
Baghpat	2.82	2.93	3.84	1.62	3.58	2.74
Bareilly	2.52	2.89	3.35	1.98	2.91	3.26
Bijnore	2.36	2.89	3.75		3.85	3.61
Budaun	2.50	2.98	2.91	1.54	2.99	3.43
Bulandshahr	2.82	3.34	4.58	0.00	3.41	3.54
Etah+Kasganj	2.41	3.13	3.20		2.85	3.17
Firozabad	2.64	3.04	3.68		2.55	3.23
Gautam Buddha Nagar	2.92	3.34	4.18	1.93	3.43	3.43
Ghaziabad+Hapur	3.76	3.30	4.42		2.92	3.70
Hathras	2.88	3.22	3.30		3.05	3.28
Mathura	2.98	3.24	3.69		3.42	3.98
Meerut	2.61	3.19	3.98	1.91	3.26	3.78
Moradabad	3.02	3.26	3.62		3.32	3.33
Muzaffarnagar+Shamli	3.45	3.24	4.05	2.16	2.82	4.03
Pilibhit	2.96	2.95	3.80		3.07	3.84
Rampur	2.87	3.33	3.71		2.99	4.02
Saharanpur	2.77	3.08	3.95	2.28	2.97	3.63

In Uttar Pradesh, rainfall which happened during last week of September has flattened the Basmati crop and brought average yield losses to the farmers which was ranging from 3-7%. There were certain fields in the districts like Bijnor, Meerut, Moradabad, Bareilly etc reported around 10-12% yield losses due to these late rainfalls. The diseases like neck blast was also reported but all under threshold level and has brought much yield losses. All types of Basmati & non-Basmati crop got impacted in this late rainfall happened in September month.

Uttarakhand

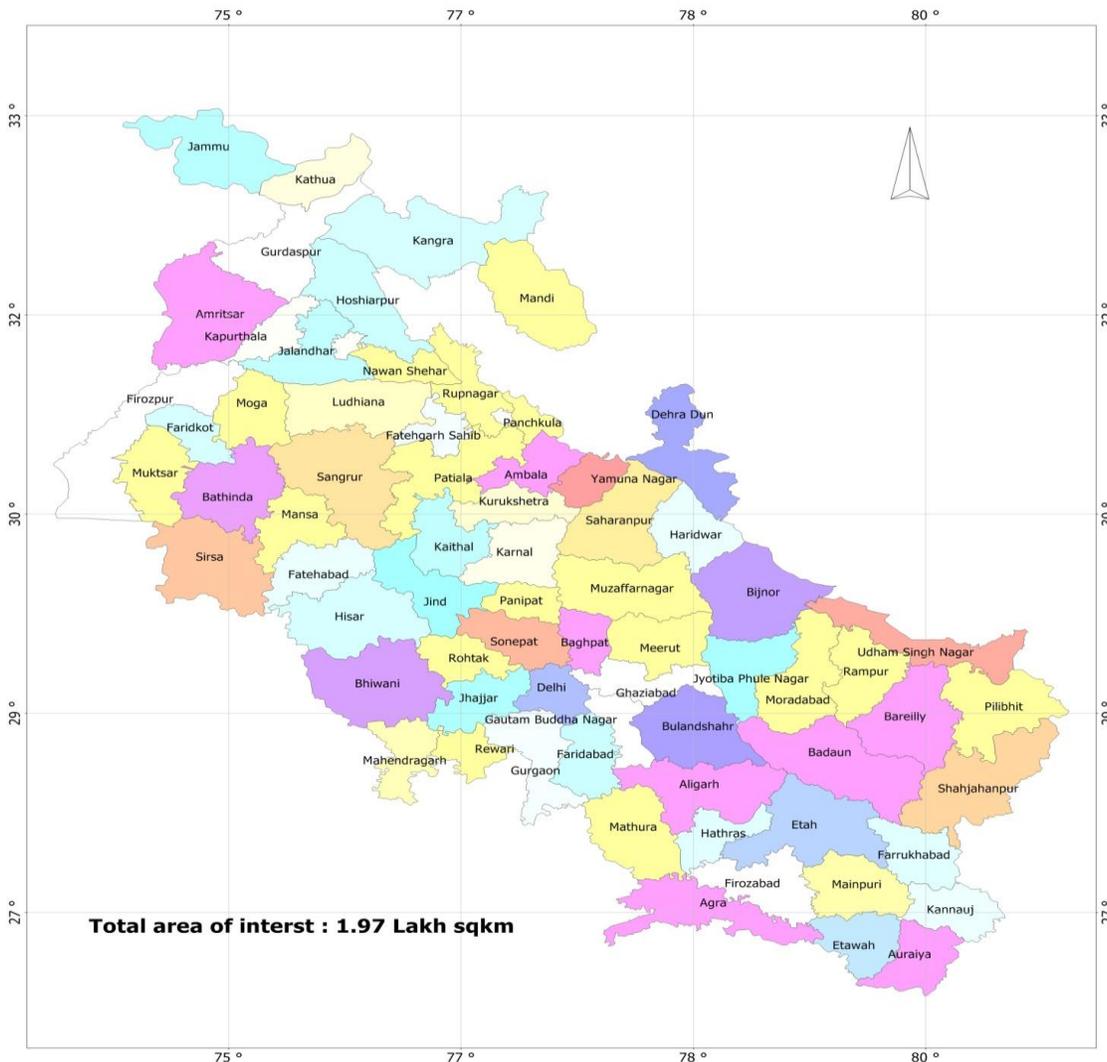
In Uttarakhand, Crop Cutting Experiments has been conducted in 4 districts. Based on CCE data, the range of productivity of different Basmati and non-Basmati varieties has been found to be as follows:

S. No.	District	Pusa Basmati-1121	Pusa Basmati-1	Pusa Basmati-1509	Basmati-370, Type-3	Sharbati	Sugandha
1	Dehradun			3.90	1.85		
2	Haridwar	2.65	3.25	3.8		3.75	3.40
3	Nainital				1.80		3.80
4	Udham Singh Nagar	2.30	3.45			3.65	

Chapter 5

Project Background

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 Geotrans Technologies Pvt. Ltd to undertake field survey work for 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 88 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).



Study Area Details

The study is confined to 79 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, Nawanshahr, 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), 27 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, 2 district of Himachal Pradesh and one of Delhi.

State Wise Transplanted Area, Basmati & Non-Basmati Long Grain Rice Area during Kharif 2017 (in 000ha)

S. No	State	Total Basmati	Pusa-1121	PB-1	Pusa-1509	Pusa-1401	Basmati 370	CSR-30	Type-3 & Others	Non-Notified	
										Sharbati	Sugandha
1	Haryana	652.05	443.50	41.40	30.0	44.1		93.07		6.03	
2	Punjab	561.0	500.0	23.0	39.0					5.9	
3	Uttar Pradesh	255.75	144.13	42.84	55.95				12.84	173.56	91.72
4	Uttarakhand	14.79	3.53	2.27	2.53				6.44	14.97	0.49
5	Jammu & Kashmir	62.0	8.0				53.0			10.1	
6	Himachal Pradesh	7.0	2.0		5.0					0.0	
7	Delhi										
Total		1553.0	1102.0	110.0	132.0	44.0	53.0	93.0	19.0	210.6	92.2

State Wise initial estimated production of Basmati & Non-Basmati long grain Rice during Kharif 2017 (production in 000 ton)

S. No	State	Total Basmati	Pusa-1121	PB-1	Pusa-1509	Pusa-1401	Basmati 370	CSR-30	Type-3 & Others	Non-Notified	
										Sharbati	Sugandha
1	Haryana	2534.1	1611.6	223.0	147.9	272.5		278.9		21.2	
2	Punjab	2139.0	1840.0	110.0	189.0					22.2	
3	Uttar Pradesh	763.2	403.2	133	206.3				20.7	528.24	308.8
4	Uttarakhand	39.05	9.12	7.62	10.1				12.22	49.73	1.93
5	Jammu & Kashmir	132.0	25.0		1.0		106.0			35.9	
6	Himachal Pradesh	30.0	7.0		22.0					0.0	
Total		5644	3909	475	580	273	106	279	33	658	310

Chapter-6

Methodology

- We have done the complete study based on field based survey
- We have deputed the field teams in targeted 7 states which conducted the farmer interviews in around 78 districts of total 81 districts
- We have done questionnaires' based farmer survey and taken farmers pictures along with actual survey days newspapers. We tagged the farmer pictures through geo-tagging wherever possible by the field team
- To vet the complete study, we have also taken assistance from satellite images and tele-calling so that complete perspective can be taken into considerations while arriving the results of the study
- To further validate the results, we have also taken the last year's figures from the previous reports, so that survey results error must be minimized, and actual figures can be achieved in the study

Way Forward

- Survey teams will be continuously in the field throughout the survey period and will report on crop progress, so that subsequent reports will be presented in the more meaning & timely manner
- Next report will focus on finalizing the crop production numbers along with Mandi arrival pace / crop production / crop cutting experiments / price trends / any infestation or losses if any
- This is last report of the 6 reported series undertaken for the Basmati Project and final report (i.e. 6th Report) will be only compilation of final tables/ charts and other analysis which is already covered in previous report.

Data Source

- All figures based on farmers / input dealers / traders / market participants interview
- Last five-year dataset from previously submitted reports
- Prices are taken from independent price pooling exercise from last Dec 2016 onwards
- Monsoon data was collected from IMD & other meteorological departments
- Export data has been taken from DGCIS website
- Mandi arrival data has been gathered from mandi sources and price pooling exercise done by our field survey team. Mandi arrival has been referred from E-NAM govt website too