

REPORT - 4

18th Nov, 2018

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



Basmati Survey - Report-4 (Season 2018)

This is the 4th report for Basmati crop across 7 states totalling 81 districts. 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.

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Acknowledgement

We are thankful to the Chairman, Agricultural and Processed Food Products Export Development Authority (APEDA) -Shri. Paban Kumar Borthakur and the General Manager Shri. S. S Nayyar, for assigning the work and being a force behind the basmati field study. We are extending our special thanks to Shri. A. K. Gupta for guiding us on this project from last two years and always been a support.

We are grateful to Shri. Vijay Setia, President, All India Rice Exporters' Association (AIREA) and Hon'ble Exporter Members of AIREA for cooperating in the field survey.

We would like to thank Shri. Vinod Kaul, Director, AIREA and his complete team for providing the details on various aspects of farms/ farmers/ acreage and other relevant historical details for completing this survey. We would extend our thanks to Shri. Surender Pal, APEDA for suggesting regular feedback on our survey reports.

The scientific team of Geotrans would like to thank all the farmers, traders, exporters, agriculture input dealers and others who participated in this survey programme and supported our field team. We expect that all stakeholders extend similar kind of support in subsequent reports for successful completion of project in time bound manner

TEAM GEOTRANS
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Chapter 1

Executive Summary

Scope of the Report

The present report being the report for Kharif 2018 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 & mandis across states for gathering the details on harvest pace; mandi arrivals; price trends and farmer expectation on crop selling. More than 75% of the harvest has been happened across states and arrival is coming in full pace. This report primarily covers the initial information on 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 2018

Total rice transplanting in the studied 7 states has been decreased by 2.34% from last year. Farmers shifted to crops like cotton & sugarcane in Haryana/ Punjab & Western part of Uttar Pradesh. The total Basmati (notified varieties) area in these targeted 7 states & 79 districts has decreased by 2.48%. 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

This year about 40 to 50 thousand hac area under Basmati has been shifted either to non-Basmati long grain rice or shifted to other major competitive crops like sugarcane & cotton as compared to last year.

The various interactions with farmers/ secondary market players and Geotrans experts field visits suggest that this year about 50 - 53 lakh tons of Basmati production is expected against 56.43 lakh tons production on last year. The exact figures of Basmati production can be assessed once complete harvesting and market arrival will be taken place.

In short, 2018-19 season has seen about 2.48% dip in overall acreage of Basmati crop while yield levels are about 6-7% down as compared to last year in states like Punjab / Haryana / UP/ Uttaranchal / J&K / HP, which brought the overall Basmati production down to almost 8-10% in the current year. These Basmati production levels will be confirmed once complete arrival hit the markets and our crop cutting results complied and analysed in next few weeks from now.

State Wise Transplanted Area, Production

Basmati & Non-Basmati long grain Rice Area/ Production during Kharif 2018 (Area in 000 ha. / Production in 000 tons)

| State | Tota | al Basmati | Pusa B | Pusa Basmati 1121 | | Pusa 1509 | | PB -1 | | Sharbati | |
|---------|------|------------|--------|-------------------|------|------------|------|------------|------|------------|--|
| | Area | Production | Area | Production | Area | Production | Area | Production | Area | Production | |
| Haryana | 634 | 2226 | 428 | 1369 | 34 | 135 | 41 | 217 | 6 | 20 | |
| Punjab | 547 | 2005 | 482 | 1697 | 41 | 199 | 23 | 109 | 6 | 22 | |
| U. P | 251 | 739 | 138 | 379 | 58 | 215 | 42 | 125 | 174 | 529 | |
| U.K | 14.6 | 37 | 3.38 | 9 | 3 | 10 | 2 | 7 | 17 | 57 | |
| J & K | 62.4 | 135 | 8.24 | 25 | 0 | 1 | | | 10 | 36 | |
| H.P | 7.07 | 20 | 1.92 | 6 | 5 | 15 | | | | | |
| Total | 1515 | 5165 | 1062 | 3483 | 141 | 574 | 108 | 458 | 213 | 665 | |

This year initial round of farmer interaction and various mandi visits suggests that harvest has started about a week later than usual time due to late Sep, 2018 rainfall. Due to these late rains there was a higher moisture in crop produce and got delays in crop harvest. As usual Punjab and Haryana have seen quick harvest pace as compared to UP/ UK, but this is in line with the market expectations.

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

Across 7 studied states, Basmati crop harvesting has been completed except few late sown varieties (especially varieties like Pusa370/ Dehraduni etc) 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 10-20% up as compared to to-date last year prices across all studied states. These sentiments are positive signal for next year on overall farmers intention on Basmati acreage which has been dipping from last two consecutive years. The following tables are throwing analysis on the individual states with respect to their harvest / arrival & price trends. This exercise is primary done to vet the overall production number given by us in earlier reports.

PUNJAB

State Wise harvested area/ mandi arrival & price range offered on different varieties (reported till 14 Nov 2018) Basmati & Non-Basmati Long Grain Rice during Kharif 2018

| State/ Varieties | Punjab | | | | | |
|-------------------|------------------|-----------------|----------------------------|--|--|--|
| | Harvested Area % | Mandi Arrival % | Mandi Price Range (Rs/Qtl) | | | |
| Pusa Basmati 1121 | 70% | 25-40% | 3200-3500 | | | |
| Pusa Basmati 1509 | 100% | 85% | 2500-2600 | | | |
| Pusa Basmati 1 | 70-75% | 30% | 1750-`1800 | | | |
| CSR 30 | 25-30% | 30% | 3800-4000 | | | |
| Pusa Basmati-1401 | 100% | 90% | 2700-2800 | | | |
| Sharbati | 95% | 85% | 2100-2200 | | | |
| Sugandha | 95% | 85% | 2300-2400 | | | |

In Punjab, except few late sown varieties almost complete harvest has been taken place 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 Punjab farmers (bordering Haryana) also sold their produce in Haryana mandis due to higher level of moisture acceptance as compared to their own mandis.

HARYANA

State Wise harvested area/ mandi arrival & price range offered on different varieties (reported till 14 Nov 2018) Basmati & Non-Basmati Long Grain Rice during Kharif 2018

| State/ Varieties | Haryana | | | | | | |
|-------------------|------------------|-----------------|----------------------------|--|--|--|--|
| | Harvested Area % | Mandi Arrival % | Mandi Price Range (Rs/Qtl) | | | | |
| Pusa Basmati 1121 | 75% | 40% | 3500-3600 | | | | |
| Pusa Basmati 1509 | 100% | 80% | 2800-3000 | | | | |
| Pusa Basmati 1 | 70% | 50% | 3000-3200 | | | | |
| CSR 30 | 40-50% | 40% | 3800-4000 | | | | |
| Pusa Basmati-1401 | 100% | 40% | 2700-2800 | | | | |
| Sharbati | 95% | 85% | 2100-2200 | | | | |
| Sugandha | 95% | 85% | 2300-2400 | | | | |

In Haryana, similar trends like Punjab have been observed. On crop harvest front, except few late sown varieties almost complete harvest has been taken place and similar trends has been observed in mandi arrivals. Price ranges also are little bit on higher side as compared to the Punjab markets.

UTTAR PRADESH

State Wise harvested area/ mandi arrival & price range offered on different varieties (reported till 14 Nov 2018)
Basmati & Non-Basmati Long Grain Rice during Kharif 2018

| State/ Varieties | Uttar Pradesh | | | | | | |
|-------------------|------------------|-----------------|----------------------------|--|--|--|--|
| | Harvested Area % | Mandi Arrival % | Mandi Price Range (Rs/Qtl) | | | | |
| Pusa Basmati 1121 | 75-80% | 70% | 3200-3300 | | | | |
| Pusa Basmati 1509 | 100% | 85% | 2800-3000 | | | | |
| Pusa Basmati 1 | 65-70% | 55% | 2500-2800 | | | | |
| Sharbati | 95% | 85% | 1700-2000 | | | | |
| Sugandha | 95% | 85% | 2100-2300 | | | | |

In Uttar Pradesh over last fortnight harvest has been happened very fast. It was also observed that due to price differentials in Haryana and Uttar Pradesh mandis, UP boarding areas farmer prefer to sell in adjoining Haryana mandis. This is usually a normal practice of UP farmers in selling Basmati crop to Haryana mandis. Apart from price differentials, early starting of Haryana mandi operations are also could be the reason of such selling pattern with UP Basmati farmers.

UTTARANCHAL

State Wise harvested area/ mandi arrival & price range offered on different varieties (reported till 14 Nov 2018)
Basmati & Non-Basmati Long Grain Rice during Kharif 2018

| State/ Varieties | Uttaranchal | | | | | | |
|------------------------|------------------|-----------------|------------------------------|--|--|--|--|
| | Harvested Area % | Mandi Arrival % | Mandi Price Range (Rs/ Qtl) | | | | |
| Pusa Basmati 1121 | 80-85% | 75% | 2800-3100 | | | | |
| Pusa Basmati 1509 | 100% | 85% | 2850-3000 | | | | |
| Pusa Basmati 1 | 80% | 75% | 2500-2800 | | | | |
| Basmati-370/386/Ranbir | 20-25% | 70% | 2600-2800 | | | | |
| Sharbati | 90% | 50-60% | 1900-2100 | | | | |
| Sugandha | 90% | 85% | 2100-2300 | | | | |

In Uttaranchal, usually harvest goes upto November end but major varieties like Pusa1121 and Pusa 1509 have been harvested. Price trends are almost similar like Uttar Pradesh

J&K

State Wise harvested area/ mandi arrival & price range offered on different varieties (reported till 14 Nov 2018)
Basmati & Non-Basmati Long Grain Rice during Kharif 2018

| State/ Varieties | | J&K | |
|------------------------|------------------|-----------------|------------------------------|
| | Harvested Area % | Mandi Arrival % | Mandi Price Range (Rs/ Qtl) |
| Pusa Basmati 1121 | 65-70% | 55-60% | 3200-3300 |
| Pusa Basmati 1509 | 95-100% | 45% | 2800-2900 |
| Basmati-370/386/Ranbir | 40% | 10-20% | 3500-3600 |

State-Mandi wise arrival/prices

HARYANA

Basmati & Non-Basmati Long Grain Rice Area during Kharif 2018

Basmati 1121 Prices in Haryana mandis

| APMC | 14-Nov | 7-Nov | 30-Oct | 22-Oct | 16-Oct | 10-Oct |
|---------------|--------|-------|-----------|------------|--------|--------|
| | | | Price (pe | r Quintal) | | |
| AMBALA | 3395 | 3625 | 3395 | | | |
| ASANDH | 3625 | 3645 | | 3200 | | |
| BARWALA HISAR | 3645 | | 3551 | 3491 | | |
| CHEEKA | 3670 | | 3575 | | | |
| DHAND | 3775 | | 3680 | | | |
| ELLANABAD | 3200 | | | | | |
| FATEHABAD | 3335 | | 3270 | | 3325 | |
| GANAUR | 3621 | | | | | |
| GHARAUNDA | 3641 | | | 3500 | | |
| GOHANA | 3621 | 3611 | 3491 | 3552 | | |
| HANSI | 3625 | | | 3151 | | |
| HODAL | 3200 | | | | | |
| INDRI | 3600 | | 3600 | 3500 | | |
| ISMAILABAD | 3800 | | 3571 | 3625 | | |
| JAKHAL | 3786 | | 3368 | | | |
| JIND | 3654 | | | 3591 | | |
| JULANA | 3801 | 3801 | 3601 | 3575 | | |
| KAITHAL | 3625 | | 3560 | 3570 | 3510 | |
| KALAYAT | 3675 | | 3661 | 3591 | 2901 | 2445 |
| KARNAL | 3600 | | 3525 | 3570 | | |
| LADWA | 3600 | | | 3600 | | |
| MADLAUDA | 3672 | 3651 | 3611 | 3580 | | |
| NARNAUND | 3671 | 3611 | 3585 | 3546 | | |
| NARWANA | 3680 | 3650 | 3621 | 3511 | 3334 | |
| NISSING | 3700 | 3650 | 3500 | | | |
| PANIPAT | 3651 | | 3673 | 3621 | 3511 | |
| PEHOWA | 3650 | | 3641 | | | |
| PILLUKHERA | 3696 | | | | | |
| PUNDRI | 3900 | 3921 | 3500 | 3541 | 3551 | |
| REWARI | 3600 | | 3561 | 3516 | 2871 | |
| ROHTAK | 3581 | | 3521 | 3532 | | |
| SAFIDON | 3681 | | 3571 | 3430 | | |

| SAMALKHA | 3631 | 3551 | 3471 | 2871 | |
|----------|------|------|------|------|--|
| SHAHBAD | 3500 | | 3631 | | |
| SIRSA | 3200 | | | | |
| SONEPAT | 3751 | 3571 | 3701 | | |
| TARAORI | 3581 | 3601 | 3200 | | |
| THANESAR | 3725 | | | | |
| TOHANA | 3631 | | | | |
| UCHANA | 3681 | | | | |

Basmati 1509 Prices in Haryana mandis

| APMC | 14-Nov | 7-Nov | 30-Oct | 22-Oct | 16-Oct | 10-Oct |
|---------------|--------|-------|------------|------------|--------|--------|
| | | | Price (per | · Quintal) | | |
| AMBALA | | 2600 | 2735 | 2911 | 2805 | 2600 |
| ASANDH | | | 3211 | 2970 | 2890 | 2625 |
| BARWALA HISAR | 3025 | | 2780 | 2881 | 2885 | 2641 |
| СНЕЕКА | 3375 | | 3010 | 3025 | 2770 | 2665 |
| ELLANABAD | 2961 | | 3000 | 2991 | 2862 | 2589 |
| FATEHABAD | 2975 | | 2925 | 3011 | 3191 | 2630 |
| GANAUR | 3151 | | 2700 | 3241 | 2565 | |
| GHARAUNDA | 3621 | | 3880 | 3000 | 2861 | 2600 |
| GOHANA | 3060 | | 3400 | 3030 | 2950 | 2671 |
| HANSI | 3615 | | 2485 | 3521 | 2921 | 2600 |
| ISMAILABAD | 2501 | | 3555 | 3020 | 2800 | 2121 |
| JAKHAL | 3390 | | 2820 | 3101 | 2871 | 2655 |
| JIND | 3380 | | 3511 | 3011 | 2901 | 2655 |
| JULANA | 3500 | | 2835 | 3965 | 5335 | 2650 |
| KAITHAL | 3641 | | 3022 | 3055 | 2890 | 2688 |
| KALAYAT | 3011 | | 2935 | 3010 | 3021 | 2600 |
| KARNAL | 3001 | | 2731 | 3381 | 3625 | 2700 |
| LADWA | 3595 | | 3050 | 3691 | 2870 | 2695 |
| MADLAUDA | 3551 | | 3265 | 3021 | 2915 | 2652 |
| NARNAUND | 2871 | | 3044 | 2671 | 2931 | 2611 |
| NARWANA | 3065 | | 2871 | 2985 | 2911 | 2415 |
| PANIPAT | | | 2900 | 2755 | 2900 | 2681 |
| PILLUKHERA | | | 2981 | 3557 | 2640 | 2621 |
| PUNDRI | | 3521 | 3351 | 3031 | 2785 | 2625 |
| REWARI | | 3095 | 3521 | 3525 | 3401 | 2641 |
| ROHTAK | | 3601 | 3218 | 3561 | 2891 | 2661 |
| SAFIDON | | 3001 | 3511 | 3305 | 2826 | 2621 |

| SAMALKHA | 3071 | 3891 | 3023 | 2895 | 2621 |
|----------|------|------|------|------|------|
| SIRSA | 2850 | 3550 | 3526 | 2925 | 2611 |
| SONEPAT | 3601 | 2843 | 2891 | 2881 | |
| TARAORI | | | | 2875 | |
| THANESAR | | | | 2801 | |
| TOHANA | | | | 2871 | |

UTTAR PRADESH

Basmati 1509 Prices in UP mandis

| APMC | 14-Nov | 7-Nov | 30-Oct | 22-Oct | 16-Oct | 10-Oct |
|------------|--------|-------|--------|--------------|--------|--------|
| | | | Pric | ce (per Quin | tal) | |
| ALIGARH | 2911 | | 2770 | 2800 | 2650 | 2450 |
| DADRI UP | | | 2580 | 2701 | 2721 | |
| KHAIR | 3080 | | 2825 | 2980 | 2750 | |
| MAINPURI | 2475 | | 2476 | 2385 | 2295 | 2095 |
| MILAK | | | 2071 | 2280 | 2200 | 2150 |
| SAHARANPUR | 2815 | | 2600 | 2785 | 2750 | 2550 |

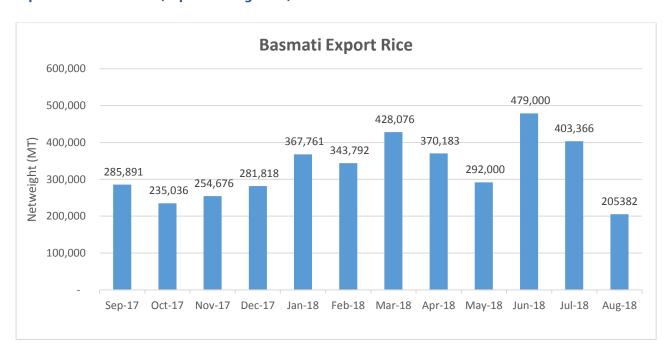
These price levels are not on the overall arrivals but on the e-nam platform traded prices. Price points are only indicative and will give an idea of trading happened on respective dates

All India Exports of Basmati Rice from India from (Sep 2017-Aug 2018)

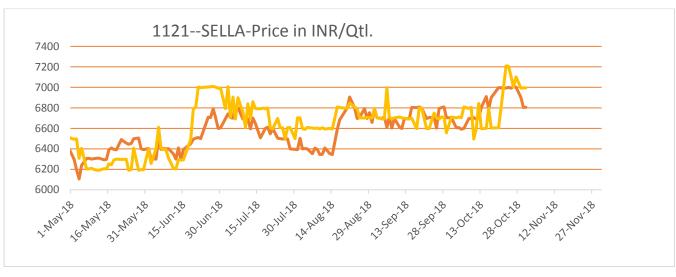
| Period Desc. | Fig In Tons |
|--------------|-------------|
| Sep-17 | 285,891 |
| Oct-17 | 235,036 |
| Nov-17 | 254,676 |
| Dec-17 | 281,818 |
| Jan-18 | 367,761 |
| Feb-18 | 343,792 |
| Mar-18 | 428,076 |
| Apr-18 | 370,183 |
| May-18 | 292,000 |
| Jun-18 | 479,000 |
| Jul-18 | 403,366 |
| Aug-18 | 205,382 |

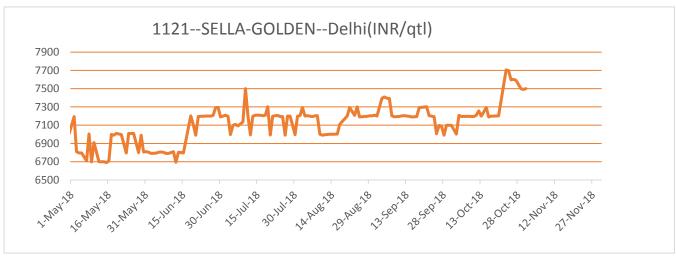
Source: DGCIS

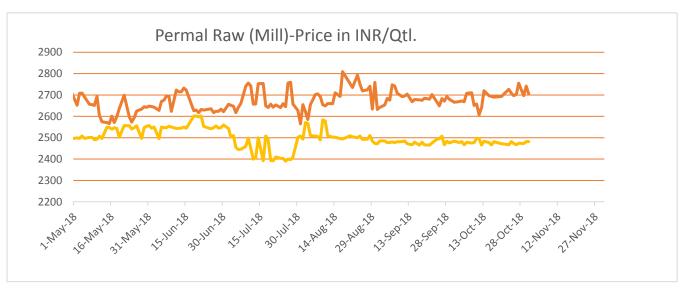
Export of Basmati Rice (Sep 2017-Aug 2018)

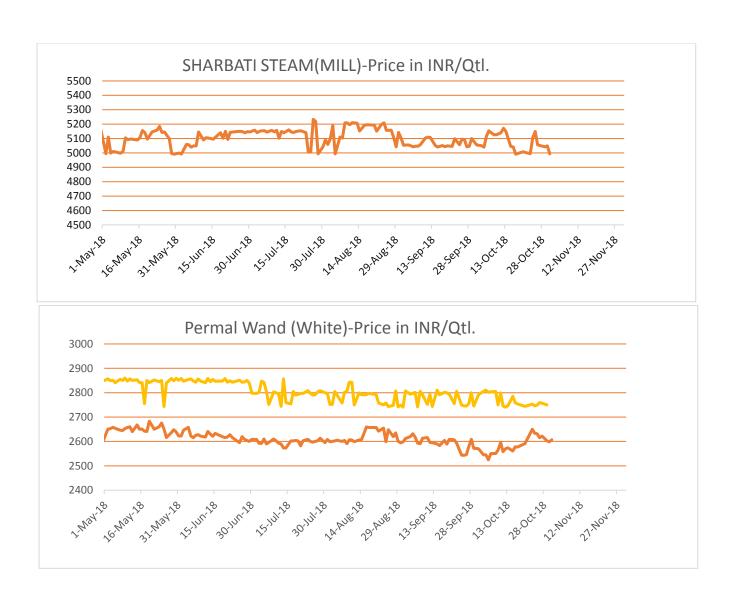


All India Rice price trends in major markets









District wise Transplanted Area, Production Basmati & Non-Basmati Long Grain Rice Area during Kharif 2018

Haryana

In Haryana, Pusa Basmati- 1509 & Pusa Basmati-1 are being harvested. The production estimates of Pusa Basmati-1509, Pusa Basmati-1, Pusa Basmati-1121 and Sharbati are given in Table below

District Wise Transplanted Area, Basmati & Non-Basmati long grain Rice Area/ Production during Kharif 2018 in Haryana (Area in 000 ha./ production in 000 tons)

| District | Pusa E | Basmati 1121 | Pı | usa 1509 | | PB -1 | S | harbati |
|--------------------|--------|--------------|------|------------|------|------------|------|------------|
| | Area | Production | Area | Production | Area | Production | Area | Production |
| Ambala | 5 | 13 | 0 | 1 | 0 | 1 | 0 | 0 |
| Bhiwani | 19 | 57 | 0 | 0 | 0 | 0 | 0 | 0 |
| Faridabad + Palwal | 19 | 53 | 0 | 1 | 3 | 12 | 0 | 1 |
| Gurgaon | 2 | 5 | 0 | 0 | 0 | 1 | 0 | 1 |
| Fatehabad | 19 | 55 | 2 | 8 | 12 | 80 | 0 | 1 |
| Hisar | 36 | 117 | 1 | 3 | 1 | 4 | 0 | 0 |
| Jajjhar | 39 | 118 | 1 | 4 | 0 | 0 | 0 | 1 |
| Jind | 60 | 243 | 2 | 9 | 7 | 34 | 0 | 1 |
| Kaithal | 33 | 112 | 4 | 18 | 0 | 0 | 0 | 1 |
| Karnal | 35 | 110 | 11 | 38 | 0 | 1 | 0 | 1 |
| Kurukshetra | 10 | 39 | 3 | 15 | 2 | 12 | 0 | 0 |
| Mewat | 7 | 22 | 0 | 0 | 0 | 0 | 0 | 1 |
| MahendraGarh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Panchkula | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Panipat | 47 | 109 | 3 | 11 | 2 | 7 | 0 | 1 |
| Rewari | 1 | 4 | 0 | 0 | 0 | 0 | 0 | 1 |
| Rohtak | 30 | 100 | 0 | 0 | 0 | 0 | 0 | 1 |
| Sirsa | 8 | 35 | 4 | 20 | 6 | 31 | 1 | 4 |
| Sonepat | 59 | 173 | 2 | 5 | 0 | 0 | 1 | 2 |
| Yamunanagar | 1 | 3 | 1 | 4 | 7 | 34 | 0 | 1 |
| TOTAL HARYANA | 428 | 1369 | 34 | 135 | 41 | 217 | 6 | 20 |

Punjab

District Wise Transplanted Area,

Basmati & Non-Basmati long grain Rice Area/ Production during Kharif 2018 in Punjab (Area in 000 ha./ production in 000 tons)

| District | Pusa Basmati 1121 | | Pı | ısa 1509 | | PB -1 | S | harbati |
|-----------------|-------------------|------------|------|------------|------|------------|------|------------|
| | Area | Production | Area | Production | Area | Production | Area | Production |
| Amritsar | 72 | 230 | 33 | 160 | | 0 | 0 | 1 |
| Barnala | 2 | 7 | 0 | 0 | 0 | 2 | 0 | 0 |
| Bhatinda | 9 | 31 | 0 | 0 | | 0 | 0 | 0 |
| Faridkot | 20 | 80 | 0 | 0 | | 0 | 0 | 0 |
| Fatehgarh Sahib | 8 | 25 | 0 | 0 | 2 | 9 | 0 | 0 |
| Fazilka | 66 | 264 | 0 | 0 | | 0 | 0 | 0 |
| Firozepur | 36 | 130 | 0 | 0 | | 0 | 0 | 0 |
| Gurdaspur | 41 | 131 | 0 | 0 | | 0 | 4 | 14 |
| Pathankot | 3 | 7 | 0 | 0 | | 0 | 2 | 7 |
| Hoshiarpur | 6 | 22 | 0 | 0 | | 0 | 0 | 0 |
| Jalandhar | 10 | 36 | 1 | 0 | | 0 | 0 | 0 |
| Kapurthala | 8 | 23 | 0 | 0 | | 0 | 0 | 0 |
| Ludhiana | 17 | 61 | 2 | 11 | 3 | 14 | 0 | 0 |
| Mansa | 1 | 3 | 0 | 0 | | 0 | 0 | 0 |
| Moga | 17 | 42 | 0 | 0 | 0 | 1 | 0 | 0 |
| Mohali | 4 | 12 | 0 | 0 | | 0 | 0 | 0 |
| Muktsar | 42 | 150 | 0 | 0 | 8 | 40 | 0 | 0 |
| Nawanshahar | 5 | 16 | 0 | 1 | | 0 | 0 | 0 |
| Patiala | 16 | 61 | 1 | 7 | 3 | 12 | 0 | 0 |
| Rupnagar | 3 | 10 | 0 | 0 | | 0 | 0 | 0 |
| Sangrur | 25 | 91 | 0 | 0 | 6 | 31 | 0 | 0 |
| Tarantaran | 72 | 264 | 4 | 20 | | 0 | 0 | 0 |
| Total | 482 | 1697 | 41 | 199 | 23 | 109 | 6 | 22 |

Uttar Pradesh

District Wise Transplanted Area,

Basmati & Non-Basmati long grain Rice Area/ Production during Kharif 2018 in U.P (Area in 000 ha./ production in 000 tons)

| (Area in 000 ha./ product District | | Basmati 1121 | | Pusa 1509 | | PB -1 & 6 | | Sharbati |
|---------------------------------------|-------|--------------|------|------------|------|------------|-------|------------|
| | Area | Production | Area | Production | Area | Production | Area | Production |
| Agra | 0.3 | 0.8 | 0.5 | 1.8 | 0.1 | 0.2 | | |
| Aligarh | 16.3 | 36.6 | 4.7 | 21.7 | 4.3 | 11.8 | 2.5 | 8.4 |
| Auraiya | 1.0 | 2.5 | 0.2 | 0.5 | 0.0 | 0.2 | 1.8 | 4.8 |
| Baghpat | 1.8 | 5.2 | 0.5 | 2.1 | 1.2 | 3.5 | 0.2 | 0.8 |
| Bareilly | 1.2 | 3.0 | 0.7 | 2.1 | 0.4 | 1.2 | 46.4 | 135.2 |
| Bijnore | 1.4 | 3.5 | 2.5 | 8.3 | 3.2 | 9.2 | 18.1 | 56.0 |
| Budaun | 1.9 | 4.8 | 2.1 | 6.1 | 0.7 | 2.2 | 20.8 | 62.0 |
| Bulandshahr | 19.3 | 54.6 | 4.7 | 18.8 | 5.7 | 19.1 | 4.5 | 15.3 |
| Etah+Kasganj | 4.7 | 11.5 | 3.1 | 10.2 | 0.5 | 1.5 | 0.9 | 2.5 |
| Farukhabad | 1.7 | 4.4 | 0.9 | 2.5 | 0.1 | 0.2 | 0.1 | 0.4 |
| Firozabad | 2.2 | 5.8 | 1.3 | 4.9 | 0.2 | 0.7 | 0.1 | 0.3 |
| Etawah | 6.0 | 17.3 | 2.6 | 8.8 | 0.2 | 0.5 | 0.1 | 0.2 |
| Gautam Buddha Nagar | 17.1 | 50.0 | 0.8 | 3.3 | 1.8 | 5.9 | 1.4 | 4.7 |
| Ghaziabad+Hapur | 4.7 | 15.9 | 3.2 | 14.4 | 1.4 | 4.6 | 3.5 | 10.1 |
| Hathras | 3.8 | 11.1 | 2.4 | 8.1 | 0.8 | 2.6 | 0.7 | 2.1 |
| Mathura | 22.5 | 68.1 | 3.4 | 12.9 | 1.0 | 3.4 | 0.3 | 0.9 |
| Mainpuri | 13.9 | 37.2 | 2.8 | 8.2 | 0.2 | 0.7 | 0.2 | 0.6 |
| Meerut | 2.2 | 4.9 | 2.6 | 11.2 | 2.3 | 7.4 | 0.6 | 2.0 |
| Moradabad | 1.1 | 2.6 | 2.3 | 8.3 | 0.3 | 1.0 | 9.3 | 30.9 |
| J. P. Nagar | 1.2 | 3.0 | 2.0 | 7.2 | 1.0 | 2.9 | 7.2 | 23.5 |
| Kannauj | 0.6 | 1.6 | 1.4 | 4.3 | 0.2 | 0.4 | 0.1 | 0.4 |
| Muzaffarnagar+Shamli | 4.1 | 7.5 | 2.5 | 10.5 | 3.9 | 11.6 | 1.3 | 3.6 |
| Pilibhit | 0.8 | 2.4 | 3.4 | 13.2 | 0.2 | 0.5 | 5.4 | 16.6 |
| Rampur | 0.6 | 1.8 | 1.4 | 4.9 | 0.1 | 0.5 | 24.0 | 71.7 |
| Saharanpur | 6.5 | 15.3 | 3.4 | 10.8 | 11.4 | 30.9 | 7.5 | 22.1 |
| Shahjehanpur | 1.3 | 3.8 | 0.8 | 3.2 | 0.3 | 0.8 | 8.7 | 28.8 |
| Sambhal | 1.4 | 3.6 | 1.7 | 6.6 | 0.4 | 1.3 | 8.5 | 25.4 |
| Total | 139.5 | 378.8 | 57.8 | 214.6 | 41.8 | 124.8 | 174.0 | 529.5 |

Uttarakhand

District Wise Transplanted Area,

Basmati & Non-Basmati long grain Rice Area/ Production during Kharif 2018 in U.K

(Area in 000 ha./ production in 000 tons)

| District | Pusa | Basmati 1121 | P | usa 15 0 9 | | PB -1 | Sharbati | | |
|-----------|------|--------------|------|-------------------|------|------------|----------|------------|--|
| | Area | Production | Area | Production | Area | Production | Area | Production | |
| Dehradun | 0.2 | 0.4 | 0.2 | 0.7 | 0.0 | 0.0 | 2.6 | 7.8 | |
| Haridwar | 1.5 | 4.1 | 0.5 | 2.4 | 2.1 | 6.4 | 4.2 | 15.8 | |
| Nainital | 0.3 | 0.7 | 0.3 | 0.9 | 0.0 | 0.0 | 1.5 | 4.9 | |
| U S Nagar | 1.4 | 3.4 | 1.5 | 6.3 | 0.1 | 0.4 | 8.6 | 28.5 | |
| Total | 3.4 | 8.5 | 2.6 | 10.3 | 2.3 | 6.8 | 17.0 | 56.9 | |

Jammu & Kashmir

District Wise Transplanted Area,

Basmati & Non-Basmati long grain Rice Area/ Production during Kharif 2018 in J $\&~{\rm K}$

(Area in 000 ha./ production in 000 tons)

| District | Pus | sa Basmati 1121 | | Pusa 1509 | Sharbati | | |
|----------|------|-----------------|------|------------|----------|------------|--|
| | Area | Production | Area | Production | Area | Production | |
| Jammu | 1.39 | 4.29 | 0.00 | 0.00 | 9.13 | 32.31 | |
| Kathua | 6.27 | 20.58 | 0.21 | 0.82 | 0.74 | 2.55 | |
| Samba | 0.58 | 0.20 | 0.05 | 0.31 | 0.28 | 1.03 | |
| Total | 8.24 | 25.08 | 0.26 | 1.13 | 10.15 | 35.90 | |

Himachal Pradesh

District Wise Transplanted Area,

Basmati & Non-Basmati long grain Rice Area/ Production during Kharif 2018 in H.P

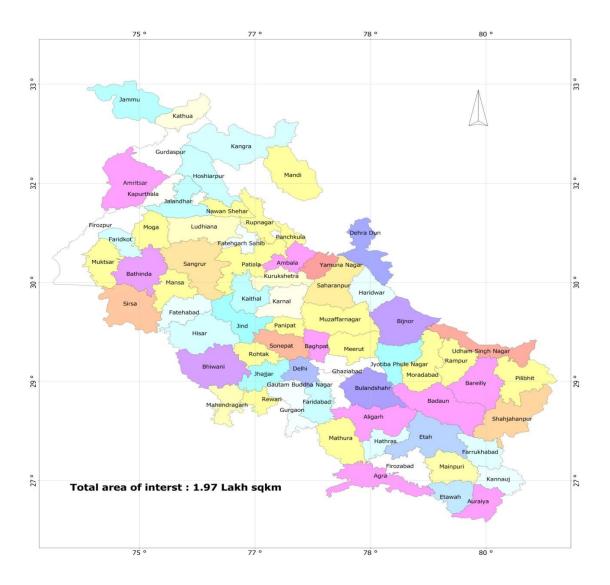
(Area in 000 ha./ production in 000 tons)

| District | F | Pusa Basmati 1121 | | Pusa 1509 | | | | | |
|----------|------|-------------------|-----|-----------|------------|------|--|--|--|
| | Area | Production | | Area | Production | | | | |
| Kangra* | 1.9 | | 5.8 | 1.1 | | 3.1 | | | |
| Mandi* | | | | 4.1 | | 11.6 | | | |
| Total | 1.9 | | 5.8 | 5.2 | | 14.7 | | | |

Chapter 2

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, crop health monitoring and yield estimation and production for Basmati rice and non-notified varieties and questionnaire based sample survey of farmers, for 79 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, Sonepat, 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 2018 (in 000ha)

| S. | State | Total | Pusa- | PB-1 | Pusa- | Pusa- | Basmati | CSR- | Type- | Non-N | Notified |
|----|------------------|---------|--------|-------|-------|-------|---------|------|---------------|----------|----------|
| No | | Basmati | 1121 | | 1509 | 1401 | 370 | 30 | 3 & Others | Sharbati | Sugandha |
| 1 | Haryana | 633.7 | 428.5 | 41.2 | 33.6 | 43.1 | | 87.3 | | 5.8 | |
| 2 | Punjab | 546.6 | 482.2 | 23.1 | 41.1 | | | | | 5.9 | |
| 3 | Uttar Pradesh | 250.8 | 138.0 | 41.8 | 58.2 | | | | 12.7 | 174.0 | 91.2 |
| 4 | Uttarakhand | 14.6 | 3.4 | 2.3 | 2.6 | | | | 6.3 | 17.0 | 0.5 |
| 5 | Jammu & Kashmir | 62.4 | 8.2 | | 0.3 | | 53.9 | | | 10.1 | |
| 6 | Himachal Pradesh | 7.1 | 1.9 | | 5.2 | | | | | | |
| 7 | Delhi | 1.0 | | | | | | | | | |
| | Total | 1515.1 | 1062.2 | 108.3 | 140.8 | 43.1 | 53.9 | 87.3 | 19.1 | 212.8 | 91.7 |

State Wise initial estimated production of

Basmati & Non-Basmati long grain Rice during Kharif 2018(production in 000 ton)

| S. | State | Total | Pusa- | PB- | Pusa- | Pusa- | Basmati | CSR- | Type- | Non-N | Notified |
|----|------------------|---------|-------|-----|-------|-------|---------|------|---------------|----------|----------|
| No | | Basmati | 1121 | 1 | 1509 | 1401 | 370 | 30 | 3 & Others | Sharbati | Sugandha |
| 1 | Haryana | 2226 | 1369 | 217 | 135 | 256 | | 250 | | 20 | |
| 2 | Punjab | 2005 | 1697 | 109 | 199 | | | | | 22 | |
| 3 | Uttar Pradesh | 739 | 379 | 125 | 215 | | | | 20 | 529 | 307 |
| 4 | Uttarakhand | 37 | 9 | 7 | 10 | | | | 12 | 57 | 2 |
| 5 | Jammu & Kashmir | 135 | 25 | | 1 | | 98 | | | 36 | |
| 6 | Himachal Pradesh | 20 | 6 | | 15 | | | | | | |
| | Total | 5165 | 3483 | 458 | 574 | 256 | 98 | 250 | 32 | 665 | 309 |

State wise - variety wise basmati acreage & production vs LY

Basmati Acreages (000 ha.) & Production (000 tons) of Basmati rice basis initial estimations

| State | 2017 | 2018 | 2017 | 2018 | |
|---------|-------|---------|------------------|------|--|
| | Basma | ti Area | Basmati Producti | | |
| Haryana | 652 | 634 | 2535 | 2226 | |
| Punjab | 562 | 547 | 2142 | 2005 | |
| U. P | 256 | 251 | 763 | 739 | |
| U. K | 15 | 15 | 39 | 37 | |
| J & K | 62 | 62 | 132 | 135 | |
| H.P | 7 | 7 | 30 | 20 | |
| Delhi | 1 | 1 | 0 | 2 | |
| Total | 1554 | 1515 | 5644 | 5165 | |

State wise Acreages (000 ha.) & Production (000 tons) of Pusa-Basmati 1121

| S. No | State | 2017 | 2018 | 2017 | 2018 |
|-------|------------------|-------|---------|---------------|--------|
| | Basmati Area | Basma | ti Area | Basmati Produ | ıction |
| 1 | Haryana | 444 | 428 | 1612 | 1369 |
| 2 | Punjab | 500 | 482 | 1842 | 1697 |
| 3 | Uttar Pradesh | 144 | 138 | 403 | 379 |
| 4 | Uttarakhand | 4 | 3 | 9 | 9 |
| 5 | J & K | 8 | 8 | 25 | 25 |
| 6 | Himachal Pradesh | 2 | 2 | 7 | 6 |
| 7 | Delhi | | | | |
| | Total | 1101 | 1062 | 3898 | 3483 |

State wise Acreages (000 ha.) & Production (000 tons) of Pusa-Basmati 1509

| S. No | State | 2017 | 2018 | 2017 | 2018 |
|-------|------------------|--------------|------|---------------|--------|
| | Basmati Area | Basmati Area | | Basmati Produ | ıction |
| 1 | Haryana | 30 | 34 | 148 | 135 |
| 2 | Punjab | 40 | 41 | 193 | 199 |
| 3 | Uttar Pradesh | 56 | 58 | 206 | 215 |
| 4 | Uttarakhand | 3 | 3 | 10 | 10 |
| 5 | J & K | 0 | 0 | 1 | 1 |
| 6 | Himachal Pradesh | 5 | 5 | 22 | 15 |
| 7 | Delhi | | | | |
| | Total | 133 | 141 | 581 | 574 |

State wise Acreages (000 ha.) & Production (000 tons) of Pusa-Basmati 1

| S. No | State | 2017 | 2018 | 2017 | 2018 |
|-------|---------------|--------------|------|--------------------|------|
| | | Basmati Area | | Basmati Production | |
| 1 | Haryana | 42 | 41 | 223 | 217 |
| 2 | Punjab | 23 | 23 | 110 | 109 |
| 3 | Uttar Pradesh | 43 | 42 | 133 | 125 |
| 4 | Uttarakhand | 2 | 2 | 8 | 7 |
| | Total | 110 | 108 | 474 | 458 |

State wise Acreages (000 ha.) & Production (000 tons) of Long Grain Non-Basmati (Sharbati)

| S. No | State | 2017 | 2018 | 2017 | 2018 | |
|-------|---------------|-------|-------|---------------------|-------|--|
| | Sharbati Area | | | Sharbati Production | | |
| 1 | Haryana | 6.0 | 5.8 | 21.2 | 20.1 | |
| 2 | Punjab | 5.9 | 5.9 | 22.2 | 22.2 | |
| 3 | Uttar Pradesh | 173.6 | 174.0 | 528.2 | 529.5 | |
| 4 | Uttarakhand | 15.0 | 17.0 | 49.7 | 56.9 | |
| 5 | J & K | 10.1 | 10.1 | 35.9 | 35.9 | |
| | Total | 210.6 | 212.8 | 657.3 | 664.6 | |

State wise Acreages (000 ha.) & Production (000 tons) of Long Grain Non-Basmati (Sugandha)

| | Area (in 000 Ha.) | | | | |
|-------|-------------------|--------------|------|--------------------|------|
| S. No | State | 2017 | 2018 | 2017 | 2018 |
| | | Basmati Area | | Basmati Production | |
| 1 | Uttar Pradesh | 92 | 91 | 309 | 307 |
| 2 | Uttarakhand | 1 | 1 | 2 | 2 |
| Total | | 92 | 92 | 311 | 309 |

^{*}Estimations for the current season

Chapter-3

Methodology

- We have done the complete study based on field survey
- We have deputed the field teams in targeted 7 states which conducted the farmer interviews in around 79 districts
- We have done questionnaires'-based farmer surveys and taken farmers pictures along with actual survey day newspapers. We geo-tagged farmers during the survey too in ours picture.
- 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 has to be minimized and actual figures can be achieved in the study

Way Forward

- Survey teams will be continuously in the field throughout the survey and report on crop progress to APEDA, so that subsequent reports will be presented in the more meaningful& timely manner
- Next report will focus on Mandi arrival pace / crop production / crop cutting experiments / price trends / any infestation or losses if any
- Any changes as reported from the field on current thoughts will also be incorporated
- Next / final report will be presented during Dec, 2018,

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 May,2018 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





Basmati Export Development Foundation APEDA, New Delhi

Prepared by Geotrans Technologies Pvt. Ltd.