

Seed production and test stock multiplication, 2019-20

During 2019-20, a total indent of 15700.59 q breeder seed of 144 wheat varieties was received from DAC&FW, New Delhi for supply to fifteen states, six public sector agencies (NSC, IFFDC, Kribhco, NFL, Hindustan Insecticide Ltd. and NAFED) and National Seed Association of India (NSAI). Among the indenting agencies, NSAI has maximum indent of 3341.8q for private seed companies followed by states of Uttar Pradesh (2965q), Madhya Pradesh (2495q), Rajasthan (1142q) and Bihar (1060q). Among public sector agencies, NSC (841q) placed maximum breeder seed indent followed by IFFDC (205.20q), Kribhco (131.60q) and NFL (109q).

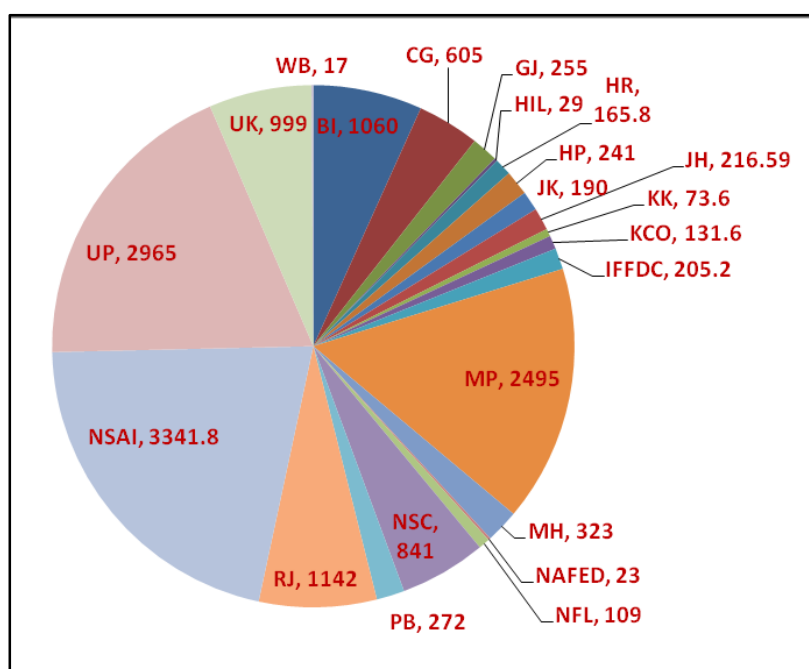


Fig 1. Breeder Seed Indents (q) by different agencies

Breeder Seed Production

Total allocation of 15423.19q was made during 2019-20 which included DAC&FW indent of 15362.19q for 120 varieties and 61.0q breeder seed of 14 newly released wheat varieties (Notified in the year 2020) for production at 33 BSP centres in the country. The indent of 338.4q breeder seed of 19 old varieties including Sujata (HI617), Amar (HW2004), GW273, PBW502, PBW343, PBW154, PBW373, PBW750, K9423 (Unnat Halna), etc. was not accepted by the BSP centres due to insufficient nucleus seed availability.

The total breeder seed production was 19639.46q during the season with surplus production of 4216.27q. Among the centres, IARI-RS, Indore produced maximum quantity 2570.5q of breeder seed followed by PAU, Ludhiana (2464.6) IARI, New Delhi (1769.2q), IIWBR, Karnal (1617.0q) and IARI-RS, Karnal (1600.7q). The highest quantity of breeder seed was produced for HD 2967 (3380.00q) followed HD3086 (1741.0q) and PBW723 (1150.0q). Seed production of most of the varieties was done by the respective developing centres but few varieties namely HD 3226, HD 3237, WB2, HD 2967, HD 3086, HPW 349, WH 1080 and WH 1105 were produced by other centres also in accordance to allocations. The BISA at Ludhiana, Pusa and Jabalpur, and SKUAS&T-J, Jammu and SVPUA&T, Modipuram were associated as supporting centres in breeder and nucleus seed production programme.

Table 1. Top ten indented wheat varieties and their breeder seed production 2019-20

| SN | Name of the Variety | Year of Notification | Breeder seed (quantity in q) | |
|----|------------------------|----------------------|------------------------------|------------------------|
| | | | DAC Indent/ Allocation | Production (BSP IV) |
| 1 | HD 2967 | 2011 | 2467.25 | 3380.00 |
| 2 | HD 3086 (Pusa Gautami) | 2014 | 1731.70 | 1741.00 |
| 3 | PBW 723(Unnat PBW 343) | 2017 | 1148.80 | 1150.00 |
| 4 | WH 1105 | 2013 | 583.00 | 717.00 |
| 5 | Raj 4238 | 2016 | 560.80 | 750.00 |
| 6 | PBW 725 | 2016 | 439.40 | 500.00 |
| 7 | WB 2 | 2017 | 358.80 | 501.00 |
| 8 | HI 8759 (Pusa Tejas) | 2017 | 356.40 | 550.00 |
| 9 | HD 2851 (Pusa Vishesh) | 2005 | 354.10 | 355.00 |
| 10 | GW 366 | 2007 | 335.20 | 558.40 |

There was deficit seed production of 35 varieties and among them 19 varieties had deficit of more than 10.0q. The major varieties with deficient seed production were HI1563 (-177.92q), MP4106 (-177.0q) MP (JW)3336 (-155.0q), MP (JW) 1201 (-100.0q), MP(JW)1202(-80.0q) and MPO(JW) 1215 (-70.0q).

Table 2. Major varieties with deficit breeder seed production during 2019-20

| SN | Variety | Year of Notification | BSP Centre | Breeder seed (quantity in q) | | |
|----|--------------|----------------------|-----------------|------------------------------|------------|---------|
| | | | | Allocation | Production | Deficit |
| 1 | HI 1563 | 2011 | IARI-RS, Pusa | 256.20 | 78.28 | -177.92 |
| 2 | MP 4106 | 2012 | RVSKVV, Gwalior | 204.00 | 27.00 | -177.00 |
| 3 | MP(JW) 3336 | 2013 | JNKVV, Jabalpur | 155.00 | 0.00 | -155.00 |
| 4 | MP (JW) 1201 | 2011 | JNKVV, Jabalpur | 100.00 | 0.00 | -100.00 |
| 5 | MP(JW)1202 | 2010 | JNKVV, Jabalpur | 80.00 | 0.00 | -80.00 |
| 6 | MPO(JW) 1215 | 2010 | JNKVV, Jabalpur | 70.00 | 0.00 | -70.00 |
| 7 | DBW 17 | 2007 | SVPUA&T, Meerut | 98.90 | 44.90 | -54.00 |
| 8 | WH 1124 | 2014 | CCS-HAU, Hisar | 182.60 | 137.40 | -45.20 |
| 9 | CG 5016 | 2009 | IGKVV, Raipur | 135.00 | 91.60 | -43.40 |
| 10 | HI 1500 | 2003 | MAF (AU), Kota | 50.00 | 8.80 | -41.20 |

Nucleus Seed Production

Against an allocation of 605.40q nucleus seed of 134 wheat varieties, 1128.27q nucleus seed was produced by 33 Centres with the surplus of 522.87q. IARI Indore produced highest quantity (259.0 q) of nucleus seed followed by JNKVV Jabalpur (212.92), PAU Ludhiana (111.15 q), IAWBR, Karnal (77.0q) and IARI New Delhi (75.44 q), SDAU, Vijapur (65.21q) and RARI, Durgapura (53.2q). The maximum nucleus seed of wheat variety MP((JW)3382 (95.0q) was produced followed by HD 2967 (81.35 q), JW 3288 (63.77) and HD 3086 (48.45 q). There was The deficit seed production of 36 varieties was also reported among which six varieties had deficit of more than 5.0q. The major varieties with deficient seed production were HD2851 (-14.0q), HD2967 (-12.65q), HD3086 (-11.5q), Raj4238 (-10.6q), MP(JW)3336 (-6.5q) and CG5016 (-5.08q).

New varieties in seed chain

The seed production trend was analyzed to know the share of new varieties in breeder and nucleus seed production, wherein similar trend of percent share of new varieties in breeder as well as nucleus seed production was observed. A total of 76 varieties released within last 5 years were placed in seed chain with approximately 70% of allocation and production. In total, more than 85% (111 out of 134) varieties were released during last 10 years. In the seed chain, only 8 older varieties namely; HI 1500 (2003), GW 322 (2002), Raj 3765 (1996), DWR 162 (1993), GW 496 (1990), Raj 3077 (1989), Lok 1 (1982) and C 306 (1969) are still existing with approx. 5% share need to be replaced on priority.

Table 3. Seed Production trend of new varieties during 2019-20

| Years of Notification | Number of Varieties | Breeder seed (q) | | Nucleus seed (q) | |
|-----------------------|---------------------|------------------|-----------------|------------------|----------------|
| | | Allocation (%) | Production (%) | Allocation (%) | Production (%) |
| < 5 yrs | 76 | 10625.9 (68.9%) | 13676.1 (69.6%) | 413.8 (68.3%) | 673.8 (59.7%) |
| 5-10 Yr | 35 | 2768.0 (17.9%) | 2967.0 (15.1%) | 109.9 (18.3%) | 269.1 (23.8%) |
| 10-15 yr | 15 | 1410.5 (9.1%) | 2115.8 (10.8%) | 56.3 (9.3%) | 123.9 (11.0%) |
| >15 yrs | 8 | 618.8 (4.0%) | 880.5 (4.5%) | 25.5 (4.2%) | 61.5 (5.4%) |
| Total | 134 | 15423.2 | 19639.5 | 605.4 | 1128.3 |

Test stock multiplication

NSC has reported 614.0q test stock multiplication of 13 newly identified wheat varieties mainly DBW222(86.0q), PBW771(83.0q), HI1621(76.0), WH1148(68.0q), NIAW3170(59.0q), HD3271 (35.0q), etc. The test stock of GW 1346 (d) and UAS 466 (d) could not be multiplied due to non-supply of basic seed to NSC.

Table 4. Variety wise breeder and nucleus seed production of wheat during 2019-20

| SN | Name of the Variety | Year of Notification | Name of the Centre | Breeder Seed (quantity in quintals) | | | | Nucleus seed (quantity in quintals) | | |
|----|-------------------------------|----------------------|--------------------|-------------------------------------|------------|-------------------|--------------------|-------------------------------------|-------------------|--------------------|
| | | | | DAC Indent | Allocation | Production BSP IV | Surplus/ Deficit ± | Allocation | Production BNS IV | Surplus/ Deficit ± |
| 1 | AKAW 4627 | 2012 | PDKV, Akola | 7.00 | 7.00 | 155.00 | 148.00 | 0.25 | 0.40 | 0.15 |
| 2 | AKAW 4210-6 (PDKV Sardar) | 2016 | | 8.00 | 8.00 | 160.00 | 152.00 | 0.50 | 10.00 | 9.50 |
| 3 | BRW 3708 (Sabour Samriddhi) | 2017 | BAU, Sabour | 110.00 | 110.00 | 121.00 | 11.00 | 4.50 | 2.50 | -2.00 |
| 4 | BRW 3723 (Sabour Nirjal) | 2017 | | 50.00 | 50.00 | 114.00 | 64.00 | 2.00 | 1.50 | -0.50 |
| 5 | BRW 934 (Sabour Shreshtha) | 2017 | | 60.00 | 60.00 | 102.00 | 42.00 | 2.50 | 1.20 | -1.30 |
| 6 | C 306 | 1969 | JNKVV, Jabalpur | 50.80 | 50.80 | 37.74 | -13.06 | 2.00 | 2.00 | 0.00 |
| 7 | CG 1013 (Chattisgarh Gehun 3) | 2018 | IGKVV, Raipur | 20.00 | 20.00 | 17.40 | -2.60 | 1.00 | 0.45 | -0.55 |
| 8 | CG 1015 (Chattisgarh Gehun 4) | 2018 | | 30.00 | 30.00 | 32.00 | 2.00 | 1.25 | 0.45 | -0.80 |
| 9 | CG 5016 (Ratan) | 2009 | | 135.00 | 135.00 | 91.60 | -43.40 | 5.50 | 0.42 | -5.08 |
| 10 | DBW 17 | 2007 | SVPUA&T, Meerut | 98.90 | 98.90 | 44.90 | -54.00 | 4.00 | 0.00 | -4.00 |
| 11 | DBW 71 | 2013 | | 23.80 | 23.80 | 55.74 | 31.94 | 1.00 | 0.00 | -1.00 |
| 12 | DBW 88 | 2014 | | 53.20 | 53.20 | 68.25 | 15.05 | 2.00 | 0.00 | -2.00 |
| 13 | DBW 90 | 2014 | | 71.40 | 71.40 | 61.06 | -10.34 | 3.00 | 0.00 | -3.00 |
| 14 | DBW 107 | 2015 | BISA, Samastipur | 49.00 | 49.00 | 50.00 | 1.00 | 2.00 | 2.03 | 0.03 |
| 15 | DBW 110 | 2015 | BISA, Jabalpur | 76.00 | 76.00 | 144.00 | 68.00 | 3.00 | 8.85 | 5.85 |
| 16 | DBW 168 | 2017 | UAS, Dharwad | 13.00 | 13.00 | 10.00 | -3.00 | 0.50 | 0.00 | -0.50 |
| 17 | DBW 173 | 2018 | ICAR-IIWBR, Karnal | 263.40 | 263.40 | 275.00 | 11.60 | 10.00 | 8.00 | -2.00 |
| 18 | DBW 187 (Karan Vandana) | 2019 | | 154.80 | 154.80 | 200.00 | 45.20 | 6.00 | 17.00 | 11.00 |
| 19 | DBW 222 (Kara Narendra) | 2020 | | 0.00 | 10.00 | 50.00 | 40.00 | 1.00 | 19.00 | 18.00 |
| 20 | DBW 252 (Karan Shriya) | 2020 | | 0.00 | 10.00 | 20.00 | 10.00 | 1.00 | 2.00 | 1.00 |

| | | | | | | | | | | |
|----|---------------------------|------|---------------------------|---------|---------|---------|--------|-------|-------|--------|
| 21 | DPW 621-50 (PBW621/DBW50) | 2011 | PAU, Ludhiana | 5.80 | 5.80 | 5.80 | 0.00 | 0.25 | 0.50 | 0.25 |
| 22 | DDW 47 (d) | 2020 | ICAR-IIWBR, Karnal | 0.00 | 10.00 | 50.00 | 40.00 | 1.00 | 1.00 | 0.00 |
| 23 | DWR 162 | 1993 | UAS, Dharwad | 10.00 | 10.00 | 15.00 | 5.00 | 0.50 | 1.60 | 1.10 |
| 24 | GDW 1255 (d) | 2013 | SDAU, Vijapur | 2.00 | 2.00 | 2.00 | 0.00 | 0.10 | 0.16 | 0.06 |
| 25 | GW 11 | 2013 | | 3.20 | 3.20 | 3.25 | 0.05 | 0.10 | 0.07 | -0.03 |
| 26 | GW 322 | 2002 | | 180.00 | 180.00 | 217.60 | 37.60 | 7.50 | 6.08 | -1.42 |
| 27 | GW 451 | 2016 | | 300.20 | 300.20 | 462.40 | 162.20 | 12.00 | 39.00 | 27.00 |
| 28 | GW 463 | 2017 | | 7.00 | 7.00 | 0.00 | -7.00 | 0.25 | 0.00 | -0.25 |
| 29 | GW 496 | 1990 | | 98.00 | 98.00 | 106.40 | 8.40 | 4.00 | 19.90 | 15.90 |
| 30 | GW 1346 | 2020 | | 0.00 | 1.00 | 0.00 | -1.00 | 1.00 | 0.00 | -1.00 |
| 31 | GW 366 | 2007 | JAU, Junagarh | 335.20 | 335.20 | 558.40 | 223.20 | 13.00 | 13.00 | 0.00 |
| 32 | HD 2851 (Pusa Vishesh) | 2005 | IARI-RS, Karnal | 354.10 | 354.10 | 355.00 | 0.90 | 14.00 | 0.00 | -14.00 |
| 33 | HD 2894 | 2008 | GBPUAT, Pantnagar | 11.40 | 11.40 | 25.00 | 13.60 | 0.50 | 1.00 | 0.50 |
| 34 | HD 2932 | 2008 | IARI-RS Indore | 19.80 | 19.80 | 70.00 | 50.20 | 1.00 | 20.00 | 19.00 |
| 35 | HD 2967 | 2014 | IARI, New Delhi | 2467.25 | 2467.25 | 3380.00 | 912.75 | 94.00 | 81.35 | -12.65 |
| 36 | HD 2985 (Pusa Basant) | 2011 | IARI-RS, Pusa | 54.00 | 54.00 | 32.94 | -21.06 | 2.00 | 6.42 | 4.42 |
| 37 | HD 2987 (Pusa Bahar) | 2011 | IARI-RS, Indore | 20.80 | 20.80 | 50.00 | 29.20 | 1.00 | 27.00 | 26.00 |
| 38 | HD 3043 | 2012 | IARI, New Delhi | 61.20 | 61.20 | 61.20 | 0.00 | 2.50 | 1.50 | -1.00 |
| 39 | HD 3059 (Pusa Pachheti) | 2013 | | 95.40 | 95.40 | 95.00 | -0.40 | 4.00 | 2.50 | -1.50 |
| 40 | HD 3086(Pusa Gautami) | 2014 | | 1731.70 | 1731.70 | 1741.00 | 9.30 | 60.00 | 48.50 | -11.50 |
| 41 | HD 3090 (Pusa Amulya) | 2014 | IARI-RS, Pusa, Samastipur | 10.40 | 10.40 | 0.00 | -10.40 | 0.50 | 0.00 | -0.50 |
| 42 | HD 3117 | 2016 | | 10.80 | 10.80 | 7.00 | -3.80 | 0.50 | 5.60 | 5.10 |
| 43 | HD 3118 (Pusa Vatsala) | 2015 | | 42.70 | 42.70 | 30.85 | -11.85 | 1.50 | 4.49 | 2.99 |
| 44 | HD 3171 | 2017 | | 91.29 | 91.29 | 116.20 | 24.91 | 3.50 | 5.60 | 2.10 |
| 45 | HD 3226 (Pusa Yashasvi) | 2019 | IARI, New Delhi | 286.00 | 286.00 | 288.00 | 2.00 | 11.50 | 9.20 | -2.30 |
| 46 | HD 3237 (Pusa Wheat 3237) | 2019 | | 76.40 | 76.40 | 75.00 | -1.40 | 3.00 | 8.50 | 5.50 |
| 47 | HD 3249 | 2020 | | 0.00 | 8.00 | 5.00 | -3.00 | 1.00 | 2.49 | 1.49 |
| 48 | HD 3271 | 2020 | | 0.00 | 5.00 | 5.00 | 0.00 | 1.00 | 0.00 | -1.00 |
| 49 | HD 4728 (Pusa Malwi) (d) | 2016 | IARI, RS Indore | 16.00 | 16.00 | 0.00 | -16.00 | 0.50 | 6.00 | 5.50 |

| | | | | | | | | | | |
|----|---------------------------|------|------------------------|--------------------|--------|--------|---------|-------|-------|-------|
| 50 | HDCSW 18 | 2016 | IARI, New Delhi | 84.00 | 84.00 | 60.00 | -24.00 | 3.50 | 3.90 | 0.40 |
| 51 | HI 1500 (Amrita) | 2003 | MAF (AU), Kota | 50.00 | 50.00 | 8.80 | -41.20 | 2.00 | 2.00 | 0.00 |
| 52 | HI 1531 (Harshita) | 2006 | IARI-RS, Indore | 17.40 | 17.40 | 45.00 | 27.60 | 0.50 | 20.00 | 19.50 |
| 53 | HI 1544 (Purna) | 2008 | | 323.20 | 323.20 | 604.00 | 280.80 | 13.00 | 35.00 | 22.00 |
| 54 | HI 1563 (Pusa Prachi) | 2011 | IARI-RS, Pusa | 256.20 | 256.20 | 78.28 | -177.92 | 10.00 | 5.38 | -4.62 |
| 55 | HI 1605 | 2017 | IARI-RS, Indore | 11.00 | 11.00 | 123.50 | 112.50 | 0.50 | 28.00 | 27.50 |
| 56 | HI 1612 | 2018 | | 6.00 | 6.00 | 4.00 | -2.00 | 0.50 | 10.00 | 9.50 |
| 57 | HI 1620 | 2019 | IARI-RS, Karnal | 12.60 | 12.60 | 20.00 | 7.40 | 0.50 | 0.00 | -0.50 |
| 58 | HI 1621 | 2020 | IARI-RS, Indore | 0.00 | 1.00 | 18.00 | 17.00 | 1.00 | 1.00 | 0.00 |
| 59 | HI 1628 | 2020 | | 0.00 | 1.00 | 18.00 | 17.00 | 1.00 | 1.00 | 0.00 |
| 60 | HI 8663 (Poshan) (d) | 2008 | | 29.40 | 29.40 | 189.00 | 159.60 | 1.25 | 17.50 | 16.25 |
| 61 | HI 8713 (Pusa Mangal) (d) | 2013 | | 202.00 | 202.00 | 375.00 | 173.00 | 8.00 | 25.00 | 17.00 |
| 62 | HI 8737 (Pusa Anmol) (d) | 2015 | | 179.20 | 179.20 | 363.00 | 183.80 | 7.00 | 24.00 | 17.00 |
| 63 | HI 8759 (Pusa Tejas) (d) | 2017 | | 356.40 | 356.40 | 550.00 | 193.60 | 14.00 | 27.50 | 13.50 |
| 64 | HI 8777 (d) | 2016 | | 8.00 | 8.00 | 125.00 | 117.00 | 0.50 | 15.00 | 14.50 |
| 65 | HI 8802(d) | 2020 | | 0.00 | 1.00 | 18.00 | 17.00 | 1.00 | 1.00 | 0.00 |
| 66 | HI 8805(d) | 2020 | | 0.00 | 1.00 | 18.00 | 17.00 | 1.00 | 1.00 | 0.00 |
| 67 | HPW 349 | 2013 | | HPKVV, Palampur | 80.00 | 80.00 | 80.00 | 0.00 | 3.00 | 6.00 |
| 68 | HPW 360 | 2016 | 17.00 | | 17.00 | 20.00 | 3.00 | 0.50 | 6.00 | 5.50 |
| 69 | HPW 368 | 2016 | 6.00 | | 6.00 | 15.00 | 9.00 | 0.25 | 2.00 | 1.75 |
| 70 | HS 507 (Pusa Suketi) | 2011 | IARI-RS, Karnal | 10.00 | 10.00 | 12.10 | 2.10 | 0.50 | 3.20 | 2.70 |
| 71 | HS 542 (Pusa Kiran) | 2015 | | 17.00 | 17.00 | 20.60 | 3.60 | 0.50 | 1.00 | 0.50 |
| 72 | HS 562 | 2018 | | 45.00 | 45.00 | 45.00 | 0.00 | 2.00 | 5.00 | 3.00 |
| 73 | HUW 669 (Malviya 669) | 2018 | BHU, Varanasi | 4.20 | 4.20 | 40.00 | 35.80 | 0.25 | 0.30 | 0.05 |
| 74 | K 1006 | 2014 | CSAUA&T, Kanpur | 134.15 | 134.15 | 97.00 | -37.15 | 5.50 | 2.50 | -3.00 |
| 75 | K 1317 | 2018 | | 110.00 | 110.00 | 277.00 | 167.00 | 4.50 | 3.00 | -1.50 |
| 76 | KRL 210 | 2012 | CSSRI, Karnal | 9.60 | 9.60 | 10.00 | 0.40 | 0.50 | 1.00 | 0.50 |
| 77 | KRL 283 | 2018 | | 16.00 | 16.00 | 16.00 | 0.00 | 0.50 | 1.00 | 0.50 |
| 78 | Lok 1 | 1982 | Lokbharti, Sanosara | 220.00 | 220.00 | 380.00 | 160.00 | 9.00 | 18.00 | 9.00 |
| 79 | MACS 4028 (d) | 2018 | ARI, Pune | 10.00 | 10.00 | 11.00 | 1.00 | 0.50 | 0.40 | -0.10 |

| | | | | | | | | | | |
|-----|-------------------------------|------|--------------------|---------|---------|---------|---------|-------|-------|-------|
| 80 | MACS 4058 (d)* | 2020 | | 0.00 | 10.00 | 11.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| 81 | MACS 6222 | 2010 | | 60.00 | 60.00 | 55.00 | -5.00 | 2.50 | 3.50 | 1.00 |
| 82 | MACS 6478 | 2014 | | 10.80 | 10.80 | 66.00 | 55.20 | 0.50 | 2.50 | 2.00 |
| 83 | MP (JW) 1201 | 2011 | JNKVV, Jabalpur | 100.00 | 100.00 | 0.00 | -100.00 | 4.00 | 5.93 | 1.93 |
| 84 | MP (JW) 1203 | 2009 | | 11.00 | 11.00 | 25.00 | 14.00 | 0.50 | 10.20 | 9.70 |
| 85 | MP(JW) 3211 | 2010 | | 100.00 | 100.00 | 231.68 | 131.68 | 4.00 | 31.09 | 27.09 |
| 86 | MP (JW) 3288 | 2012 | | 200.00 | 200.00 | 386.12 | 186.12 | 8.00 | 63.77 | 55.77 |
| 87 | MP(JW) 3336 | 2013 | | 155.00 | 155.00 | 0.00 | -155.00 | 6.50 | 0.00 | -6.50 |
| 88 | MP(JW) 3382 | 2016 | | 14.80 | 14.80 | 29.35 | 14.55 | 0.50 | 95.00 | 94.50 |
| 89 | MP(JW)1202 | 2010 | | 80.00 | 80.00 | 0.00 | -80.00 | 3.00 | 4.93 | 1.93 |
| 90 | MPO(JW) 1215 (d) | 2010 | | 70.00 | 70.00 | 0.00 | -70.00 | 3.00 | 0.00 | -3.00 |
| 91 | MP 4106 (Rajvijay Wheat 4106) | 2012 | RVSKVV, Gwalior | 204.00 | 204.00 | 27.00 | -177.00 | 8.00 | 8.00 | 0.00 |
| 92 | NW (Narendra Wheat) 5054 | 2014 | NDUA&T, Ayodhya | 5.00 | 5.00 | 14.40 | 9.40 | 0.25 | 0.30 | 0.05 |
| 93 | NIAW 1415 (Netravati) | 2011 | MPKV, Niphad | 12.00 | 12.00 | 6.00 | -6.00 | 0.50 | 6.40 | 5.90 |
| 94 | NIAW 1994 (Phule Samadhan) | 2016 | | 26.00 | 26.00 | 37.00 | 11.00 | 1.00 | 8.98 | 7.98 |
| 95 | NIAW 3170* | 2020 | | 0.00 | 1.00 | 0.00 | -1.00 | 1.00 | 0.50 | -0.50 |
| 96 | PBW 1 ZN (HPBW1) | 2017 | PAU, Ludhiana | 169.20 | 169.20 | 170.00 | 0.80 | 7.00 | 9.00 | 2.00 |
| 97 | PBW 509 | 2006 | | 1.00 | 1.00 | 6.00 | 5.00 | 0.10 | 0.80 | 0.70 |
| 98 | PBW 533 | 2006 | | 2.00 | 2.00 | 2.00 | 0.00 | 0.10 | 1.00 | 0.90 |
| 99 | PBW 550 | 2008 | | 124.10 | 124.10 | 105.00 | -19.10 | 5.00 | 5.00 | 0.00 |
| 100 | PBW 590 | 2009 | | 13.60 | 13.60 | 20.00 | 6.40 | 0.50 | 0.80 | 0.30 |
| 101 | PBW 644 | 2012 | | 1.00 | 1.00 | 1.00 | 0.00 | 0.10 | 0.70 | 0.60 |
| 102 | PBW 658 | 2015 | | 16.80 | 16.80 | 16.80 | 0.00 | 0.50 | 1.20 | 0.70 |
| 103 | PBW 660 | 2016 | | 11.00 | 11.00 | 11.00 | 0.00 | 0.50 | 7.75 | 7.25 |
| 104 | PBW 677 | 2016 | | 148.80 | 148.80 | 190.00 | 41.20 | 6.00 | 7.50 | 1.50 |
| 105 | PBW 723 (Unnat PBW 343) | 2017 | | 1148.80 | 1148.80 | 1150.00 | 1.20 | 40.00 | 43.75 | 3.75 |
| 106 | PBW 725 | 2016 | | 439.40 | 439.40 | 500.00 | 60.60 | 17.00 | 20.00 | 3.00 |
| 107 | PBW 752 | 2019 | | 63.40 | 63.40 | 66.00 | 2.60 | 2.50 | 2.75 | 0.25 |
| 108 | PBW 757 | 2019 | | 37.80 | 37.80 | 40.00 | 2.20 | 1.50 | 1.65 | 0.15 |

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|-----|-------------------------|------|--------------------------|-----------------|-----------------|-----------------|----------------|---------------|----------------|---------------|
| 109 | PBW 761 (Unnat PBW 550) | 2019 | | 178.40 | 178.40 | 180.00 | 1.60 | 7.00 | 7.50 | 0.50 |
| 110 | PBW 771* | 2020 | | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.25 | 0.25 |
| 111 | Raj 3077 | 1989 | RARI-SKNAU, Durgapura | 5.00 | 5.00 | 60.00 | 55.00 | 0.25 | 5.90 | 5.65 |
| 112 | Raj 3765 | 1996 | | 5.00 | 5.00 | 55.00 | 50.00 | 0.25 | 6.00 | 5.75 |
| 113 | Raj 4037 | 2004 | | 90.00 | 90.00 | 86.50 | -3.50 | 3.50 | 5.20 | 1.70 |
| 114 | Raj 4079 | 2011 | | 125.80 | 125.80 | 240.00 | 114.20 | 5.00 | 12.45 | 7.45 |
| 115 | Raj 4083 | 2007 | | 1.60 | 1.60 | 25.00 | 23.40 | 0.10 | 4.70 | 4.60 |
| 116 | Raj 4120 | 2009 | | 18.80 | 18.80 | 27.00 | 8.20 | 1.00 | 8.85 | 7.85 |
| 117 | Raj 4238 | 2016 | | 560.80 | 560.80 | 750.00 | 189.20 | 20.00 | 9.40 | -10.60 |
| 118 | Raj 6560 (d) | 2005 | | 0.40 | 0.40 | 0.00 | -0.40 | 0.10 | 0.70 | 0.60 |
| 119 | UAS 304 | 2013 | UAS, Dharwad | 20.20 | 20.20 | 23.00 | 2.80 | 1.00 | 1.75 | 0.75 |
| 120 | UAS 347 | 2015 | | 5.00 | 5.00 | 6.50 | 1.50 | 0.25 | 0.50 | 0.25 |
| 121 | UAS 375 | 2018 | | 10.00 | 10.00 | 15.00 | 5.00 | 0.50 | 0.50 | 0.00 |
| 122 | UAS 415 (d) | 2009 | | 2.80 | 2.80 | 3.00 | 0.20 | 0.10 | 1.25 | 1.15 |
| 123 | UAS 428 (d) | 2012 | | 6.00 | 6.00 | 7.00 | 1.00 | 0.25 | 1.70 | 1.45 |
| 124 | UAS 466 (d)* | 2020 | | 0.00 | 1.00 | 0.00 | -1.00 | 1.00 | 0.00 | -1.00 |
| 125 | UP 2784 | 2016 | GBPUAT, Pantnagar | 4.00 | 4.00 | 57.70 | 53.70 | 0.25 | 1.60 | 1.35 |
| 126 | VL 953 | 2016 | VPKAS, Almora | 29.00 | 29.00 | 43.00 | 14.00 | 1.25 | 1.50 | 0.25 |
| 127 | VL 967 | 2016 | | 25.00 | 25.00 | 25.50 | 0.50 | 1.00 | 1.10 | 0.10 |
| 128 | WB 2 | 2017 | ICAR-IIWBR, Karnal | 358.80 | 358.80 | 501.00 | 142.20 | 14.25 | 11.03 | -3.22 |
| 129 | WH 1025 | 2010 | CCS-HAU, Hisar | 10.00 | 10.00 | 22.20 | 12.20 | 0.50 | 1.20 | 0.70 |
| 130 | WH 1080 | 2011 | | 28.80 | 28.80 | 68.10 | 39.30 | 1.25 | 3.00 | 1.75 |
| 131 | WH 1105 | 2013 | | 583.00 | 583.00 | 717.00 | 134.00 | 21.50 | 24.00 | 2.50 |
| 132 | WH 1124 | 2014 | | 182.60 | 182.60 | 137.40 | -45.20 | 7.50 | 13.00 | 5.50 |
| 133 | WH 1142 | 2014 | | 104.40 | 104.40 | 213.20 | 108.80 | 4.00 | 6.25 | 2.25 |
| 134 | WR 544 (Pusa Gold) | 2005 | RPCAU, Pusa | 2.00 | 2.00 | 0.00 | -2.00 | 0.10 | 0.00 | -0.10 |
| | | | Total | 15362.19 | 15423.19 | 19639.46 | 4216.27 | 605.40 | 1128.27 | 522.87 |