

2164-SPL-MABB-NWPZ (IR-TS-TAS), 2021-22
LOCATIONWISE MEAN YIELD (q/ha)

| SN | Variety | Delhi | | | Punjab | | | | | | Haryana | | | | | | U.P. | | | | | | UTK | | | | | | | | | | | | | | |
|------------------|----------------------|----------|----|---|----------|----|-----------|----------|-------|---|----------|----|--------|----------|--------|---|----------|----|-------------|----------|-----------|---|----------|----|-----------|----------|----|---|----------|----|---|----------|----|----------|------|----|---|
| | | Delhi | | | Ludhiana | | Gurdaspur | | Rauni | | Faridkot | | Karnal | | Rohtak | | Bawal | | Bulandshahr | | Modipuram | | Ujhani | | Pantnagar | | | | | | | | | | | | |
| | | Yield | Rk | G | Yield | Rk | G | Yield | Rk | G | Yield | Rk | G | Yield | Rk | G | Yield | Rk | G | Yield | Rk | G | Yield | Rk | G | Yield | Rk | G | | | | | | | | | |
| 1 | HD3406 ^{M*} | 56.2 | 5 | 0 | 57.7 | 7 | 0 | 53.8 | 6 | 0 | 55.6 | 5 | 1 | 55.6 | 4 | 0 | 54.1 | 5 | 0 | 42.6 | 9 | 0 | 48.8 | 8 | 1 | 56.9 | 4 | 0 | 55.4 | 5 | 0 | 45.9 | 10 | 0 | 55.1 | 4 | 0 |
| 2 | HD3436 | 53.1 | 7 | 0 | 58.3 | 5 | 0 | 55.3 | 5 | 0 | 52.1 | 7 | 0 | 46.0 | 9 | 0 | 50.7 | 6 | 0 | 42.2 | 10 | 0 | 50.1 | 6 | 1 | 52.6 | 9 | 0 | 43.4 | 9 | 0 | 46.4 | 9 | 0 | 51.2 | 8 | 0 |
| 3 | HD3437 | 53.5 | 6 | 0 | 60.8 | 4 | 1 | 50.6 | 7 | 0 | 57.0 | 4 | 1 | 50.2 | 6 | 0 | 50.6 | 7 | 0 | 45.4 | 8 | 0 | 49.4 | 7 | 1 | 53.7 | 8 | 0 | 51.4 | 7 | 0 | 50.4 | 7 | 1 | 51.3 | 7 | 0 |
| 4 | PBW901 | 51.1 | 10 | 0 | 48.1 | 8 | 0 | 50.6 | 8 | 0 | 44.2 | 10 | 0 | 46.3 | 8 | 0 | 47.4 | 8 | 0 | 57.4 | 1 | 1 | 48.3 | 9 | 1 | 54.9 | 6 | 0 | 45.8 | 8 | 0 | 54.7 | 1 | 1 | 49.3 | 9 | 0 |
| 5 | PBW902 | 61.5 | 4 | 0 | 63.5 | 2 | 1 | 59.9 | 1 | 1 | 58.2 | 1 | 1 | 57.9 | 3 | 0 | 60.7 | 4 | 0 | 45.4 | 7 | 0 | 50.6 | 5 | 1 | 62.8 | 1 | 1 | 56.8 | 3 | 0 | 53.2 | 4 | 1 | 57.8 | 3 | 0 |
| 6 | DBW187(C) | 64.3 | 2 | 0 | 65.7 | 1 | 1 | 58.2 | 4 | 1 | 48.5 | 8 | 0 | 45.3 | 10 | 0 | 69.2 | 1 | 1 | 54.0 | 3 | 0 | 48.0 | 10 | 0 | 51.9 | 10 | 0 | 61.2 | 1 | 1 | 53.3 | 3 | 1 | 61.8 | 2 | 1 |
| 7 | DBW222(C) | 71.3 | 1 | 1 | 58.0 | 6 | 0 | 59.8 | 2 | 1 | 53.0 | 6 | 0 | 48.4 | 7 | 0 | 61.0 | 3 | 0 | 51.9 | 5 | 0 | 52.6 | 2 | 1 | 61.0 | 3 | 1 | 58.1 | 2 | 0 | 52.4 | 6 | 1 | 54.8 | 5 | 0 |
| 8 | HD2967(C) | 51.7 | 9 | 0 | 40.2 | 10 | 0 | 48.7 | 9 | 0 | 57.4 | 3 | 1 | 59.3 | 2 | 1 | 38.1 | 9 | 0 | 55.9 | 2 | 0 | 52.5 | 3 | 1 | 61.6 | 2 | 1 | 56.7 | 4 | 0 | 49.7 | 8 | 0 | 54.2 | 6 | 0 |
| 9 | PBW175(C) | 52.1 | 8 | 0 | 42.4 | 9 | 0 | 44.8 | 10 | 0 | 47.2 | 9 | 0 | 51.1 | 5 | 0 | 34.7 | 10 | 0 | 52.1 | 4 | 0 | 51.9 | 4 | 1 | 54.0 | 7 | 0 | 37.9 | 10 | 0 | 52.8 | 5 | 1 | 47.6 | 10 | 0 |
| 10 | PBW677(C) | 61.7 | 3 | 0 | 61.3 | 3 | 1 | 58.4 | 3 | 1 | 57.5 | 2 | 1 | 61.7 | 1 | 1 | 61.7 | 2 | 0 | 45.8 | 6 | 0 | 54.0 | 1 | 1 | 55.3 | 5 | 0 | 55.1 | 6 | 0 | 54.5 | 2 | 1 | 62.1 | 1 | 1 |
| G.M. | | 57.6 | | | 55.6 | | | 54.0 | | | 53.1 | | | 52.2 | | | 52.8 | | | 49.3 | | | 50.6 | | | 56.5 | | | 52.2 | | | 51.3 | | 54.5 | | | |
| S.E.(M) | | 2.380 | | | 2.330 | | | 1.132 | | | 2.021 | | | 1.386 | | | 1.799 | | | 0.294 | | | 2.471 | | | 1.251 | | | 0.586 | | | 1.992 | | 1.034 | | | |
| C.D. (10%) | | 5.7 | | | 5.6 | | | 2.7 | | | 4.9 | | | 3.3 | | | 4.3 | | | 0.7 | | | 6.0 | | | 3.0 | | | 1.4 | | | 4.8 | | 2.5 | | | |
| C.V. | | 8.3 | | | 8.4 | | | 4.2 | | | 7.6 | | | 5.3 | | | 6.8 | | | 1.2 | | | 9.8 | | | 4.4 | | | 2.2 | | | 7.8 | | 3.8 | | | |
| D.O.S.(dd.mm.yy) | | 02.11.21 | | | 02.11.21 | | | 09.11.21 | | | 11.11.21 | | | 15.11.21 | | | 06.11.21 | | | 15.11.21 | | | 15.11.21 | | | 14.11.21 | | | 14.11.21 | | | 14.11.21 | | 13.11.21 | | | |

No. of Trials : Proposed = 18 Conducted = 18
Trials not reported (06) = Jammu (LSM), Hisar (LSM), Sriganaganar (LSM), Nagina (LSM), Gwalior (LSM), Kashipur (LSM)

2164-SPL-MABB-NWPZ (IR-TS-TAS), 2021-22
STATE AND ZONAL MEANS (q/ha)

| SN | Variety | Delhi | | | Punjab | | | Haryana | | | U.P. | | | UTK | | | Zonal | | |
|------------|----------------------|-------|----|---|--------|----|---|---------|----|---|-------|----|---|-------|----|---|-------|----|---|
| | | Yield | Rk | G | Yield | Rk | G | Yield | Rk | G | Yield | Rk | G | Yield | Rk | G | Yield | Rk | G |
| 1 | HD3406 ^{M*} | 56.2 | 5 | 0 | 55.7 | 3 | 0 | 48.5 | 7 | 0 | 52.7 | 6 | 0 | 55.1 | 4 | 0 | 53.2 | 5 | 0 |
| 2 | HD3436 | 53.1 | 7 | 0 | 52.9 | 7 | 0 | 47.6 | 9 | 0 | 47.5 | 10 | 0 | 51.2 | 8 | 0 | 50.1 | 8 | 0 |
| 3 | HD3437 | 53.5 | 6 | 0 | 54.7 | 5 | 0 | 48.5 | 8 | 0 | 51.8 | 7 | 0 | 51.3 | 7 | 0 | 52.0 | 7 | 0 |
| 4 | PBW901 | 51.1 | 10 | 0 | 47.3 | 9 | 0 | 51.0 | 5 | 0 | 51.8 | 8 | 0 | 49.3 | 9 | 0 | 49.8 | 9 | 0 |
| 5 | PBW902 | 61.5 | 4 | 0 | 59.9 | 1 | 1 | 52.3 | 4 | 0 | 57.6 | 1 | 1 | 57.8 | 3 | 0 | 57.4 | 2 | 1 |
| 6 | DBW187(C) | 64.3 | 2 | 0 | 54.4 | 6 | 0 | 57.1 | 1 | 1 | 55.4 | 4 | 0 | 61.8 | 2 | 1 | 56.8 | 4 | 1 |
| 7 | DBW222(C) | 71.3 | 1 | 1 | 54.8 | 4 | 0 | 55.2 | 2 | 1 | 57.1 | 2 | 1 | 54.8 | 5 | 0 | 56.9 | 3 | 1 |
| 8 | HD2967(C) | 51.7 | 9 | 0 | 51.4 | 8 | 0 | 48.8 | 6 | 0 | 56.0 | 3 | 1 | 54.2 | 6 | 0 | 52.2 | 6 | 0 |
| 9 | PBW175(C) | 52.1 | 8 | 0 | 46.4 | 10 | 0 | 46.2 | 10 | 0 | 48.2 | 9 | 0 | 47.6 | 10 | 0 | 47.4 | 10 | 0 |
| 10 | PBW677(C) | 61.7 | 3 | 0 | 59.7 | 2 | 1 | 53.9 | 3 | 0 | 55.0 | 5 | 0 | 62.1 | 1 | 1 | 57.4 | 1 | 1 |
| G.M. | | 57.6 | | | 53.7 | | | 50.9 | | | 53.3 | | | 54.5 | | | 53.3 | | |
| S.E.(M) | | 2.380 | | | 0.892 | | | 1.024 | | | 0.808 | | | 1.034 | | | 0.536 | | |
| C.D. (10%) | | 5.7 | | | 2.1 | | | 2.4 | | | 1.9 | | | 2.5 | | | 1.2 | | |

Summary of Disease Data and Agronomic Characteristics

North Western Plains Zone

Trial: SPL-MABB-IR-TS-TAS-NWPZ, 2021-22

| SN | Variety | Disease Reactions | | | | | Agronomic Characteristics | | | | | | | | |
|----|------------|-------------------|------|-----|------|-------|---------------------------|------|---------|-------|---------|------|------|-------|-------|
| | | YI | ACI | Br | ACI | LB.HS | Hd.R | Hd.M | Mat.R | Mat.M | Ht.R | Ht.M | Lodg | TGW.R | TGW.M |
| 1 | HD3406* | 40S | 18.6 | 10S | 2.75 | 45 | 83-113 | 103 | 130-158 | 145 | 82-114 | 104 | 5 | 30-42 | 35 |
| 2 | HD3436 | tR | 0.1 | 40S | 30.0 | 35 | 83-113 | 102 | 130-158 | 144 | 82-114 | 100 | 5 | 28-43 | 35 |
| 3 | HD3437 | 5S | 2.0 | 5S | 2.5 | 35 | 82-113 | 102 | 128-159 | 144 | 96-116 | 103 | 5 | 31-41 | 35 |
| 4 | PBW901 | 20S | 13.4 | 40S | 11.2 | 45 | 80-118 | 101 | 126-156 | 144 | 91-120 | 110 | 10 | 33-47 | 39 |
| 5 | PBW902 | 5S | 1.4 | 0 | 0 | 23 | 85-118 | 104 | 135-157 | 145 | 90-115 | 101 | 5 | 34-42 | 38 |
| 6 | DBW187 (C) | 5MS | 0.8 | 5S | 2.5 | 45 | 84-107 | 97 | 127-157 | 143 | 94-118 | 106 | 10 | 32-48 | 40 |
| 7 | DBW222 (C) | 60S | 19.0 | 0 | 0 | 43 | 84-118 | 99 | 125-157 | 143 | 93-117 | 104 | 5 | 31-40 | 36 |
| 8 | HD2967 (C) | 60S | 50.0 | 10S | 5.0 | 35 | 85-115 | 103 | 130-159 | 144 | 95-113 | 104 | 5 | 27-42 | 34 |
| 9 | PBW175 (C) | 60S | 41.0 | 60S | 20.0 | 45 | 84-109 | 97 | 132-155 | 143 | 100-121 | 108 | 10 | 26-46 | 38 |
| 10 | PBW677 (C) | 40S | 16.4 | 10S | 2.5 | 35 | 86-118 | 102 | 133-158 | 145 | 92-118 | 106 | 5 | 31-41 | 37 |

1. Ancillary data reported from Bawal, Bulendshahar, Delhi, Faridkot, Gurdaspur, Gwalior, Hisar, Jammu, Karnal, Kashipur, Ludhiana, Modipuram, Nagina, Pantnagar, Rauni, Rohtak and Shriganganagar
2. Yellow rust data from Gurdaspur, Hisar, Jammu and Ludhiana; 3. Brown rust data from Hisar, Ludhiana and Pantnagar
3. Leaf blight data from Hisar and Pantnagar.

Individual Location Disease Data

| SN | Variety | Yellow rust | | | | | Brown Rust | | Leaf Blight | |
|----|------------|-------------|-------|-------|--------|----------|------------|----------|-------------|-----------|
| | | Gurdaspur | Hisar | Jammu | Karnal | Ludhiana | Hisar | Ludhiana | Hisar | Pantnagar |
| 1 | HD3406* | 5S | 20S | 10MS | 20S | 40S | 10S | 0 | 45 | 0 |
| 2 | HD3436 | 0 | 0 | tR | tR | 0 | 40S | 40S | 35 | 0 |
| 3 | HD3437 | 0 | 0 | 5S | 5MS | 0 | 5S | 5S | 35 | 0 |
| 4 | PBW901 | 5S | 20S | 20S | 20S | 5MR | 5S | 0 | 45 | 45 |
| 5 | PBW902 | 0 | 0 | 5S | 5MR | 0 | 0 | 0 | 23 | 0 |
| 6 | DBW187 (C) | 0 | 0 | 5MS | 0 | 0 | 5S | 5S | 45 | 0 |
| 7 | DBW222 (C) | 5S | 20S | tR | 10S | 60S | 0 | 0 | 43 | 0 |
| 8 | HD2967 (C) | 10S | 60S | 60S | 60S | 60S | 10S | 0 | 35 | 0 |
| 9 | PBW175 (C) | 5S | 60S | 60S | 60S | 20S | 0 | 20S | 45 | 0 |
| 10 | PBW677 (C) | 0 | 40S | 5MR | 20S | 20S | 0 | 0 | 35 | 0 |

| MABB-IR-TS-NWPZ, 2021-22 | | | | | | | | | | | | | |
|--------------------------|--------------|--------------|----------------|------------|--------------|------------|--------------------|-----------------|---------------------|-----------|-----------|----------|-------------|
| Variety | Spp. | COL_COL | GR_HAB | FOL_COL | AUR_COL | AUR_PUB | FLAG_ATT | Days to Heading | Days to Heading | WAX_LS | WAX_FL | WAX_EAR | WAX_PED |
| HD 3406 | <i>T.aes</i> | Absent | Semi-erect | Dark green | Absent | Medium | Semi erect | 108 | Late | Strong | Medium | Strong | Strong |
| HD 3436 | <i>T.aes</i> | Absent | Semi-erect | Green | Absent | Medium | Semi erect | 108 | Late | Strong | Weak | Weak | Strong |
| HD 3437 | <i>T.aes</i> | Absent | Semi-erect | Green | Absent | Medium | Drooping | 104 | Late | Strong | Medium | Medium | Strong |
| PBW 901 | <i>T.aes</i> | Absent | Semi-erect | Dark green | Absent | Medium | Semi erect | 103 | Late | Strong | Weak | Medium | Strong |
| PBW 902 | <i>T.aes</i> | Absent | Semi-erect | Green | Absent | Absent | Erect | 106 | Late | Strong | Weak | Medium | Strong |
| HD 2967(RP) | <i>T.aes</i> | Absent | Semi-erect | Dark green | Absent | Medium | Semi erect | 111 | Very late | Strong | Medium | Strong | Strong |
| PBW 175 (RP) | <i>T.aes</i> | Absent | Semi-erect | Dark green | Absent | Medium | Semi erect | 100 | Medium | Strong | Weak | Medium | Strong |
| PBW 677 (RP) | <i>T.aes</i> | Absent | Semi-erect | Green | Absent | Absent | Erect | 108 | Late | V. strong | Strong | Strong | Very strong |
| Variety | FLAG_LEN | Variety | FLAG_LEN | FLAG_BRE | FLAG_BRE | HT | HT | EAR_SH | EAR_DEN | EAR_L | EAR_L | AWN_LEN | AWN_LEN |
| HD 3406 | 32.7 | HD 3406 | Long | 2.1 | Broad | 112.0 | Long | Tapering | Medium | 14.2 | Very long | 8.8 | Medium |
| HD 3436 | 28.3 | HD 3436 | Medium | 2.0 | Medium | 105.7 | Long | Tapering | Medium | 11.7 | Long | 7.8 | Medium |
| HD 3437 | 28.3 | HD 3437 | Medium | 2.1 | Broad | 113.0 | Long | Tapering | Medium | 9.7 | Medium | 7.0 | Short |
| PBW 901 | 30.3 | PBW 901 | Long | 1.8 | Medium | 110.0 | Long | Tapering | Lax | 10.8 | Long | 9.5 | Long |
| PBW 902 | 30.0 | PBW 902 | Medium | 2.1 | Broad | 101.0 | Medium | Tapering | Medium | 12.3 | Very long | 8.0 | Medium |
| HD 2967(RP) | 28.7 | HD 2967(RP) | Medium | 2.0 | Medium | 107.3 | Long | Tapering | Medium | 12.8 | Very long | 7.6 | Medium |
| PBW 175 (RP) | 29.0 | PBW 175 (RP) | Medium | 1.7 | Medium | 106.3 | Long | Tapering | Lax | 11.6 | Long | 6.7 | Short |
| PBW 677 (RP) | 28.0 | PBW 677 (RP) | Medium | 2.0 | Medium | 110.0 | Long | Tapering | Medium | 14.5 | Very long | 8.0 | Medium |
| Variety | AWN_COL | AWN_ATT | Lower_GL Shape | GLU_PUB | EAR_COL | SHL_WID | SHL_SHP | BEAK_L | BEAK_SH | Ped_L | Ped_L | Ped_att. | PHENOL |
| HD 3406 | White | Medium | | Absent | White | Medium | Elevated | Medium | derately curv | 38.3 | Medium | Bent | Dark |
| HD 3436 | Light brown | Medium | | Absent | Light brown | Medium | Straight | Long | derately curv | 37.0 | Medium | Bent | Dark |
| HD 3437 | Light brown | Medium | | Absent | Light brown | Medium | Straight | Medium | derately curv | 39.7 | Medium | Bent | Medium |
| PBW 901 | White | Medium | | Absent | White | Medium | Straight | Short | Straight | 38.3 | Medium | Bent | Medium |
| PBW 902 | Light brown | Spreading | | Absent | Light brown | Broad | Straight | Medium | Straight | 33.0 | Medium | Straight | Medium |
| HD 2967(RP) | White | Medium | | Absent | White | Medium | Elevated | Medium | derately curv | 36.7 | Medium | Bent | Dark |
| PBW 175 (RP) | White | Medium | | Absent | White | Medium | Straight | Short | Straight | 44.0 | Medium | Bent | Medium |
| PBW 677 (RP) | White | Medium | | Absent | White | Narrow | Sloping | Short | derately curv | 37.0 | Medium | Straight | Dark |
| Variety | GR_COL | GR_SH | Germ_wid | BRUSH_L | Grain Crease | TGW | Rachis Brittleness | GR-TEX | Grain Thre sibility | | | | |
| HD 3406 | Amber | Ovate | Medium | Medium | | Small | | Semi hard | | | | | |
| HD 3436 | Amber | Ovate | Medium | Medium | | Small | | Semi hard | | | | | |
| HD 3437 | Amber | Ovate | Medium | Medium | | Medium | | Semi hard | | | | | |
| PBW 901 | Amber | Oblong | Medium | Medium | | Very large | | Hard | | | | | |
| PBW 902 | Amber | Oblong | Medium | Medium | | Small | | Hard | | | | | |
| HD 2967(RP) | Amber | Ovate | Medium | Medium | | Small | | Semi hard | | | | | |
| PBW 175 (RP) | Amber | Oblong | Medium | Medium | | Large | | Semi hard | | | | | |
| PBW 677 (RP) | Amber | Oblong | Medium | Medium | | Medium | | Semi hard | | | | | |