

**1921-AVT-IR-TS-TAS-NWPZ, 2019-20**  
**LOCATIONWISE MEAN YIELD (q/ha)**

| SN               | Variety             | Code      | Delhi    |    | J&K   |          | Haryana |   |          |    |              | Punjab   |           |   |          |    |          |          |           |   |            |    |   |          |    |   |          |   |   |          |   |   |
|------------------|---------------------|-----------|----------|----|-------|----------|---------|---|----------|----|--------------|----------|-----------|---|----------|----|----------|----------|-----------|---|------------|----|---|----------|----|---|----------|---|---|----------|---|---|
|                  |                     |           | Delhi    |    | Jammu |          | Hisar   |   | Rohtak   |    | IIWBR-Karnal |          | Shikohpur |   | Ludhiana |    | Bathinda |          | Gurdaspur |   | Kapurthala |    |   |          |    |   |          |   |   |          |   |   |
|                  |                     |           | 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                | PBW840 <sup>M</sup> | NW-TS-107 | 56.1     | 3  | 1     | 58.0     | 3       | 1 | 62.0     | 5  | 1            | 60.8     | 6         | 0 | 69.8     | 4  | 1        | 56.1     | 4         | 0 | 67.5       | 3  | 1 | 64.8     | 2  | 1 | 53.2     | 2 | 1 | 67.9     | 1 | 1 |
| 2                | PBW803              | NW-TS-108 | 38.2     | 9  | 0     | 52.4     | 6       | 0 | 57.2     | 7  | 0            | 63.7     | 4         | 0 | 64.4     | 6  | 0        | 57.2     | 3         | 1 | 68.3       | 2  | 1 | 64.3     | 5  | 1 | 46.9     | 5 | 0 | 66.5     | 2 | 1 |
| 3                | DBW88 (C)           | NW-TS-101 | 58.9     | 2  | 1     | 52.1     | 8       | 0 | 56.1     | 8  | 0            | 65.5     | 2         | 0 | 69.6     | 5  | 1        | 59.7     | 1         | 1 | 59.8       | 7  | 0 | 60.8     | 7  | 1 | 41.7     | 6 | 0 | 60.1     | 8 | 0 |
| 4                | HD2967 (C)          | NW-TS-103 | 44.9     | 7  | 0     | 50.5     | 9       | 0 | 54.8     | 9  | 0            | 56.8     | 8         | 0 | 42.4     | 9  | 0        | 54.9     | 6         | 0 | 50.2       | 8  | 0 | 63.3     | 6  | 1 | 31.7     | 9 | 0 | 61.3     | 7 | 0 |
| 5                | WH1105 (C)          | NW-TS-104 | 46.2     | 6  | 0     | 56.6     | 5       | 0 | 62.4     | 3  | 1            | 58.3     | 7         | 0 | 74.5     | 1  | 1        | 54.7     | 7         | 0 | 62.1       | 6  | 0 | 51.6     | 9  | 0 | 54.6     | 1 | 1 | 61.9     | 6 | 0 |
| 6                | HD3086 (C)          | NW-TS-106 | 51.4     | 5  | 0     | 57.3     | 4       | 0 | 62.4     | 4  | 1            | 64.4     | 3         | 0 | 63.5     | 7  | 0        | 54.6     | 8         | 0 | 69.1       | 1  | 1 | 64.6     | 3  | 1 | 49.4     | 3 | 0 | 65.7     | 3 | 1 |
| 7                | PBW550 (C)          | NW-TS-109 | 52.9     | 4  | 0     | 52.3     | 7       | 0 | 61.1     | 6  | 0            | 69.6     | 1         | 1 | 58.9     | 8  | 0        | 52.8     | 9         | 0 | 46.5       | 9  | 0 | 59.5     | 8  | 0 | 40.1     | 8 | 0 | 58.0     | 9 | 0 |
| 8                | DBW187(I) (C)       | NW-TS-102 | 41.6     | 8  | 0     | 62.3     | 1       | 1 | 67.5     | 1  | 1            | 61.1     | 5         | 0 | 72.7     | 2  | 1        | 55.3     | 5         | 0 | 66.9       | 4  | 1 | 64.6     | 3  | 1 | 41.7     | 7 | 0 | 64.7     | 4 | 1 |
| 9                | DBW222(I) (C)       | NW-TS-105 | 60.6     | 1  | 1     | 58.5     | 2       | 1 | 65.1     | 2  | 1            | 54.0     | 9         | 0 | 71.6     | 3  | 1        | 59.5     | 2         | 1 | 62.4       | 5  | 0 | 65.0     | 1  | 1 | 48.7     | 4 | 0 | 64.4     | 5 | 1 |
| G.M.             |                     |           | 50.1     |    |       | 55.6     |         |   | 61.0     |    |              | 61.6     |           |   | 65.3     |    |          | 56.1     |           |   | 61.4       |    |   | 62.1     |    |   | 45.3     |   |   | 63.4     |   |   |
| S.E.(M)          |                     |           | 2.707    |    |       | 2.000    |         |   | 2.393    |    |              | 1.664    |           |   | 2.150    |    |          | 1.503    |           |   | 2.239      |    |   | 2.032    |    |   | 1.453    |   |   | 1.908    |   |   |
| C.D. (10%)       |                     |           | 6.5      |    |       | 4.8      |         |   | 5.8      |    |              | 4.0      |           |   | 5.2      |    |          | 3.6      |           |   | 5.4        |    |   | 4.9      |    |   | 3.5      |   |   | 4.6      |   |   |
| C.V.             |                     |           | 10.8     |    |       | 7.2      |         |   | 7.9      |    |              | 5.4      |           |   | 6.6      |    |          | 5.4      |           |   | 7.3        |    |   | 6.5      |    |   | 6.4      |   |   | 6.0      |   |   |
| D.O.S.(dd.mm.yy) |                     |           | 13.11.19 |    |       | 02.11.19 |         |   | 01.11.19 |    |              | 12.11.19 |           |   | 01.11.19 |    |          | 15.11.19 |           |   | 08.11.19   |    |   | 14.11.19 |    |   | 14.11.19 |   |   | 15.11.19 |   |   |

No. of Trials : Proposed = 22 Conducted = 21  
Trial not conducted (01) = Alwar Trials not reported (01) = Ujhani (LSM)

**1921-AVT-IR-TS-TAS-NWPZ, 2019-20**  
**LOCATIONWISE MEAN YIELD (q/ha)**

| SN               | Variety             | Code      | Punjab   |    |   | Rajasthan |    |   | U.P.      |    |   | UTK      |    |   |               |    |   |          |    |   |             |    |   |           |    |   |          |    |   |           |    |   |
|------------------|---------------------|-----------|----------|----|---|-----------|----|---|-----------|----|---|----------|----|---|---------------|----|---|----------|----|---|-------------|----|---|-----------|----|---|----------|----|---|-----------|----|---|
|                  |                     |           | Rauni    |    |   | Faridkot  |    |   | Durgapura |    |   | Tabiji   |    |   | Sriganganagar |    |   | Nagina   |    |   | Bulandshahr |    |   | Modipuram |    |   | Kashipur |    |   | 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 | Yield     | Rk | G |
| 1                | PBW840 <sup>M</sup> | NW-TS-107 | 65.6     | 4  | 1 | 63.8      | 1  | 1 | 72.9      | 1  | 1 | 41.5     | 9  | 0 | 58.9          | 7  | 0 | 59.1     | 6  | 0 | 60.8        | 6  | 0 | 57.7      | 5  | 0 | 59.8     | 9  | 0 | 62.8      | 5  | 0 |
| 2                | PBW803              | NW-TS-108 | 65.7     | 3  | 1 | 63.7      | 2  | 1 | 71.6      | 2  | 1 | 51.0     | 4  | 0 | 62.1          | 4  | 0 | 63.9     | 1  | 1 | 54.5        | 8  | 0 | 52.9      | 9  | 0 | 71.1     | 1  | 1 | 55.5      | 7  | 0 |
| 3                | DBW88 (C)           | NW-TS-101 | 56.7     | 8  | 0 | 59.3      | 5  | 1 | 49.5      | 8  | 0 | 49.3     | 5  | 0 | 66.0          | 1  | 1 | 57.5     | 8  | 0 | 58.6        | 7  | 0 | 56.5      | 6  | 0 | 67.1     | 6  | 0 | 66.3      | 3  | 0 |
| 4                | HD2967 (C)          | NW-TS-103 | 45.6     | 9  | 0 | 54.0      | 9  | 0 | 47.2      | 9  | 0 | 58.4     | 3  | 1 | 60.1          | 5  | 0 | 44.9     | 9  | 0 | 64.3        | 2  | 1 | 53.7      | 8  | 0 | 69.8     | 4  | 0 | 68.4      | 2  | 1 |
| 5                | WH1105 (C)          | NW-TS-104 | 61.5     | 5  | 0 | 56.6      | 7  | 0 | 65.7      | 4  | 0 | 47.5     | 7  | 0 | 58.4          | 8  | 0 | 60.3     | 5  | 0 | 64.7        | 1  | 1 | 61.1      | 2  | 1 | 60.6     | 8  | 0 | 60.5      | 6  | 0 |
| 6                | HD3086 (C)          | NW-TS-106 | 67.4     | 1  | 1 | 62.6      | 3  | 1 | 68.9      | 3  | 0 | 42.5     | 8  | 0 | 57.7          | 9  | 0 | 59.0     | 7  | 0 | 63.9        | 4  | 1 | 56.1      | 7  | 0 | 70.6     | 3  | 1 | 55.4      | 8  | 0 |
| 7                | PBW550 (C)          | NW-TS-109 | 58.7     | 7  | 0 | 55.1      | 8  | 0 | 60.4      | 6  | 0 | 48.0     | 6  | 0 | 59.5          | 6  | 0 | 62.8     | 4  | 1 | 63.1        | 5  | 0 | 60.8      | 3  | 1 | 68.0     | 5  | 0 | 51.6      | 9  | 0 |
| 8                | DBW187(I) (C)       | NW-TS-102 | 65.9     | 2  | 1 | 61.4      | 4  | 1 | 53.1      | 7  | 0 | 59.3     | 2  | 1 | 63.5          | 2  | 0 | 63.7     | 2  | 1 | 54.2        | 9  | 0 | 61.4      | 1  | 1 | 71.0     | 2  | 1 | 65.1      | 4  | 0 |
| 9                | DBW222(I) (C)       | NW-TS-105 | 59.1     | 6  | 0 | 57.8      | 6  | 0 | 61.0      | 5  | 0 | 60.0     | 1  | 1 | 63.0          | 3  | 0 | 63.6     | 3  | 1 | 64.2        | 3  | 1 | 60.7      | 4  | 1 | 64.1     | 7  | 0 | 68.5      | 1  | 1 |
| G.M.             |                     |           | 60.7     |    |   | 59.4      |    |   | 61.2      |    |   | 50.8     |    |   | 61.0          |    |   | 59.4     |    |   | 60.9        |    |   | 57.9      |    |   | 66.9     |    |   | 61.5      |    |   |
| S.E.(M)          |                     |           | 2.071    |    |   | 2.276     |    |   | 0.674     |    |   | 1.641    |    |   | 0.666         |    |   | 0.822    |    |   | 0.574       |    |   | 0.611     |    |   | 0.476    |    |   | 0.457     |    |   |
| C.D. (10%)       |                     |           | 5.0      |    |   | 5.5       |    |   | 1.6       |    |   | 4.0      |    |   | 1.6           |    |   | 2.0      |    |   | 1.4         |    |   | 1.5       |    |   | 1.2      |    |   | 1.1       |    |   |
| C.V.             |                     |           | 6.8      |    |   | 7.7       |    |   | 2.2       |    |   | 6.5      |    |   | 2.2           |    |   | 2.8      |    |   | 1.9         |    |   | 2.1       |    |   | 1.4      |    |   | 1.5       |    |   |
| D.O.S.(dd.mm.yy) |                     |           | 10.11.19 |    |   | 14.11.19  |    |   | 15.11.19  |    |   | 14.11.19 |    |   | 15.11.19      |    |   | 15.11.19 |    |   | 13.11.19    |    |   | 06.11.19  |    |   | 13.11.19 |    |   | 07.11.19  |    |   |

**1921-AVT-IR-TS-TAS-NWPZ, 2019-20  
STATE AND ZONAL MEANS (q/ha)**

| SN         | Variety             | Code      | Delhi      | J&K        | Haryana    | Punjab     | Rajasthan  | U.P.       | UTK        | ZONAL      |
|------------|---------------------|-----------|------------|------------|------------|------------|------------|------------|------------|------------|
|            |                     |           | 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          | PBW840 <sup>M</sup> | NW-TS-107 | 56.1 3 1   | 58.0 3 1   | 62.2 5 1   | 63.8 1 1   | 57.8 4 0   | 59.2 6 0   | 61.3 7 0   | 61.0 2 1   |
| 2          | PBW803              | NW-TS-108 | 38.2 9 0   | 52.4 6 0   | 60.6 7 0   | 62.6 3 1   | 61.6 1 1   | 57.1 8 0   | 63.3 5 0   | 59.6 5 0   |
| 3          | DBW88 (C)           | NW-TS-101 | 58.9 2 1   | 52.1 8 0   | 62.7 2 1   | 56.4 7 0   | 54.9 9 0   | 57.5 7 0   | 66.7 3 0   | 58.6 7 0   |
| 4          | HD2967 (C)          | NW-TS-103 | 44.9 7 0   | 50.5 9 0   | 52.2 9 0   | 51.0 9 0   | 55.2 8 0   | 54.3 9 0   | 69.1 1 1   | 53.9 9 0   |
| 5          | WH1105 (C)          | NW-TS-104 | 46.2 6 0   | 56.6 5 0   | 62.5 4 1   | 58.0 6 0   | 57.2 5 0   | 62.0 3 1   | 60.5 8 0   | 59.0 6 0   |
| 6          | HD3086 (C)          | NW-TS-106 | 51.4 5 0   | 57.3 4 0   | 61.2 6 0   | 63.1 2 1   | 56.4 6 0   | 59.7 5 0   | 63.0 6 0   | 60.3 4 0   |
| 7          | PBW550 (C)          | NW-TS-109 | 52.9 4 0   | 52.3 7 0   | 60.6 8 0   | 53.0 8 0   | 56.0 7 0   | 62.2 2 1   | 59.8 9 0   | 57.0 8 0   |
| 8          | DBW187(I) (C)       | NW-TS-102 | 41.6 8 0   | 62.3 1 1   | 64.2 1 1   | 60.9 4 0   | 58.6 3 0   | 59.8 4 0   | 68.0 2 0   | 60.9 3 1   |
| 9          | DBW222(I) (C)       | NW-TS-105 | 60.6 1 1   | 58.5 2 1   | 62.5 3 1   | 59.6 5 0   | 61.3 2 1   | 62.8 1 1   | 66.3 4 0   | 61.6 1 1   |
| G.M.       |                     |           | 50.1       | 55.6       | 61.0       | 58.7       | 57.7       | 59.4       | 64.2       | 59.1       |
| S.E.(M)    |                     |           | 2.707      | 2.000      | 0.980      | 0.823      | 0.632      | 0.391      | 0.330      | 0.376      |
| C.D. (10%) |                     |           | 6.5        | 4.8        | 2.3        | 1.9        | 1.5        | 0.9        | 0.8        | 0.9        |

**Summary of Disease Data and Agronomic Characteristics**

**North Western Plains Zone**

**Trial: AVT-IR-TS-TAS-NWPZ, 2019-20**

| SN | Variety      | Code      | Disease Reaction |     |     |      | Agronomic Characteristics |      |         |       |        |      |       |      | Grain Characteristics |      |       |       |
|----|--------------|-----------|------------------|-----|-----|------|---------------------------|------|---------|-------|--------|------|-------|------|-----------------------|------|-------|-------|
|    |              |           | Br               | ACI | YI  | ACI  | Hd.R                      | Hd.M | Mat.R   | Mat.M | Ht.R   | Ht.M | Lod.M | Thr. | Col.                  | Tex. | TGW.R | TGW.M |
| 1  | PBW840       | NW-TS-107 | 10S              | 2.0 | 60S | 25.1 | 69-110                    | 93   | 94-162  | 144   | 75-123 | 93   | 10    | Ey   | A                     | H    | 36-47 | 41    |
| 2  | PBW803       | NW-TS-108 | 0                | 0.0 | 60S | 20.3 | 67-112                    | 97   | 109-164 | 145   | 86-128 | 99   | 10    | Ey   | A                     | SH   | 34-50 | 42    |
| 3  | DBW88 (C)    | NW-TS-101 | 10S              | 4.0 | 60S | 19.4 | 71-118                    | 102  | 106-167 | 148   | 89-137 | 103  | 10    | Ey   | A                     | H    | 33-50 | 42    |
| 4  | HD2967 (C)   | NW-TS-103 | 20S              | 4.0 | 60S | 30.0 | 69-122                    | 108  | 107-167 | 150   | 82-125 | 103  | 15    | Ey   | A                     | SH   | 32-50 | 40    |
| 5  | WH1105 (C)   | NW-TS-104 | 0                | 0.0 | 40S | 12.5 | 70-114                    | 100  | 105-162 | 146   | 84-136 | 100  | 5     | Ey   | A                     | SH   | 29-47 | 39    |
| 6  | HD3086 (C)   | NW-TS-106 | 20S              | 8.0 | 60S | 20.6 | 63-112                    | 97   | 108-162 | 146   | 85-128 | 100  | 10    | Ey   | A                     | H    | 35-48 | 41    |
| 7  | PBW550 (C)   | NW-TS-109 | 5S               | 1.0 | 80S | 35.6 | 65-110                    | 93   | 95-162  | 144   | 76-123 | 91   | 10    | Ey   | A                     | H    | 25-45 | 40    |
| 8  | DBW187(I)(C) | NW-TS-102 | 5S               | 1.0 | 20S | 6.3  | 68-118                    | 98   | 111-165 | 146   | 90-129 | 103  | 20    | Ey   | A                     | SH   | 40-49 | 45    |
| 9  | DBW222(I)(C) | NW-TS-105 | 0                | 0.0 | 40S | 12.9 | 66-112                    | 100  | 112-162 | 147   | 94-135 | 107  | 10    | Ey   | A                     | SH   | 32-46 | 41    |

1. Ancillary data from Bhatinda, Bulandshahr, Delhi, Durgapura, Faridkot, Gurdaspur, Hisar, Jammu, Karnal, Kashipur, Ludhiana, Modipuram, Nagina, Pantnagar, Rohtak, Shikohpur, Sriganaganagar and Tabiji; 2. Lodging data from Bhatinda, Bulandshahr, Durgapura, Gurdaspur, Hisar, Karnal, Ludhiana and Shikohpur; 3. Yellow rust data from Delhi, Durgapura, Gurdaspur, Hisar, Jammu, Karnal, Ludhiana and Pantnagar.
4. Brown rust data from Delhi, Hisar, Jammu, Ludhiana and Pantnagar.

**Individual Station Rust Data**

| SN | Variety      | Code      | Yellow rust |           |          |        |           |       |       |       | Brown rust |           |       |       |       |
|----|--------------|-----------|-------------|-----------|----------|--------|-----------|-------|-------|-------|------------|-----------|-------|-------|-------|
|    |              |           | Durgapura   | Gurdaspur | Ludhiana | Karnal | Pantnagar | Delhi | Hisar | Jammu | Ludhiana   | Pantnagar | Delhi | Hisar | Jammu |
| 1  | PBW840       | NW-TS-107 | 20S         | 60S       | 60S      | 40S    | tS        | 0     | 0     | 20S   | 0          | 0         | 10S   | 0     | 0     |
| 2  | PBW803       | NW-TS-108 | 5MR         | 10S       | 60S      | 40S    | 10S       | 0     | 20S   | 20S   | 0          | 0         | 0     | 0     | 0     |
| 3  | DBW88 (C)    | NW-TS-101 | 60S         | 20S       | 40S      | 20S    | 5S        | 0     | 0     | 10S   | 0          | 0         | 10S   | 0     | 10S   |
| 4  | HD2967 (C)   | NW-TS-103 | 40S         | 40S       | 60S      | 40S    | 10S       | 0     | 10S   | 40S   | 0          | 0         | 20S   | 0     | 0     |
| 5  | WH1105 (C)   | NW-TS-104 | 40S         | 10S       | 20S      | 5S     | 0         | 5S    | 0     | 20S   | 0          | 0         | 0     | 0     | 0     |
| 6  | HD3086 (C)   | NW-TS-106 | 5S          | 20S       | 40S      | 60S    | 0         | 0     | 0     | 40S   | 20S        | 5S        | 5S    | 10S   | 0     |
| 7  | PBW550 (C)   | NW-TS-109 | 20S         | 60S       | 80S      | 60S    | 5S        | 0     | 0     | 60S   | 0          | 0         | 5S    | 0     | 0     |
| 8  | DBW187(I)(C) | NW-TS-102 | 0           | 20S       | 10S      | 10S    | 0         | 0     | 0     | 10S   | 0          | 0         | 0     | 5S    | 0     |
| 9  | DBW222(I)(C) | NW-TS-105 | 10MS        | 10S       | 40S      | 20S    | 5S        | 0     | 0     | 20S   | 0          | 0         | 0     | 0     | 0     |

1922-AVT-IR-LS-TAS-NWPZ, 2019-20  
LOCATIONWISE MEAN YIELD (q/ha)

| SN               | Variety      | Code      | Delhi    |      | Haryana  |      |              |      |          | Punjab |           |      |          |      |            |      |           |      |          |      |          |      |
|------------------|--------------|-----------|----------|------|----------|------|--------------|------|----------|--------|-----------|------|----------|------|------------|------|-----------|------|----------|------|----------|------|
|                  |              |           | Delhi    |      | Hisar    |      | IIWBR-Karnal |      | Rohtak   |        | Shikohpur |      | Ludhiana |      | Kapurthala |      | Gurdaspur |      | Bathinda |      | Faridkot |      |
|                  |              |           | 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 | Yield    | Rk G |
| 1                | HD3298*      | NW-LS-215 | 55.3     | 1 1  | 44.3     | 14 0 | 42.2         | 14 0 | 46.1     | 15 0   | 58.5      | 1 1  | 44.9     | 15 0 | 45.4       | 16 0 | 45.4      | 7 0  | 46.3     | 15 0 | 51.3     | 14 0 |
| 2                | HD3331#WB    | NW-LS-214 | 49.5     | 8 0  | 44.9     | 13 0 | 55.0         | 4 0  | 44.0     | 16 0   | 55.6      | 3 0  | 49.9     | 13 0 | 55.2       | 2 1  | 45.3      | 8 0  | 49.7     | 9 1  | 51.1     | 15 0 |
| 3                | HD3334       | NW-LS-201 | 46.8     | 11 0 | 45.9     | 8 0  | 55.9         | 3 0  | 53.0     | 8 0    | 54.7      | 5 0  | 57.4     | 7 1  | 46.5       | 14 0 | 39.1      | 11 0 | 48.1     | 11 0 | 56.9     | 3 1  |
| 4                | HD3332       | NW-LS-203 | 48.8     | 9 0  | 45.8     | 9 0  | 42.3         | 13 0 | 50.2     | 10 0   | 42.8      | 14 0 | 59.3     | 1 1  | 46.6       | 13 0 | 32.4      | 16 0 | 49.0     | 10 1 | 55.3     | 7 1  |
| 5                | PBW811       | NW-LS-206 | 47.0     | 10 0 | 49.5     | 6 0  | 46.5         | 11 0 | 52.5     | 9 0    | 56.0      | 2 1  | 58.6     | 4 1  | 51.5       | 5 1  | 35.3      | 13 0 | 50.2     | 7 1  | 56.2     | 4 1  |
| 6                | DBW291       | NW-LS-207 | 45.2     | 13 0 | 43.8     | 15 0 | 52.1         | 8 0  | 50.2     | 10 0   | 49.6      | 8 0  | 56.1     | 8 1  | 48.7       | 8 0  | 46.5      | 3 0  | 53.0     | 2 1  | 53.0     | 12 0 |
| 7                | WH1264       | NW-LS-208 | 51.9     | 4 1  | 56.9     | 1 1  | 49.4         | 10 0 | 59.8     | 1 1    | 47.5      | 9 0  | 58.3     | 5 1  | 55.4       | 1 1  | 40.7      | 9 0  | 46.4     | 14 0 | 53.0     | 11 0 |
| 8                | PBW812       | NW-LS-209 | 52.1     | 3 1  | 51.1     | 3 0  | 52.3         | 7 0  | 58.6     | 2 1    | 44.4      | 11 0 | 55.8     | 9 1  | 47.5       | 11 0 | 46.3      | 4 0  | 53.9     | 1 1  | 55.8     | 6 1  |
| 9                | JKW261       | NW-LS-210 | 51.2     | 5 0  | 45.2     | 11 0 | 64.0         | 1 1  | 50.0     | 12 0   | 41.5      | 15 0 | 48.6     | 14 0 | 49.3       | 7 0  | 56.1      | 1 1  | 52.6     | 3 1  | 54.8     | 9 1  |
| 10               | DBW290       | NW-LS-211 | 43.0     | 15 0 | 51.1     | 4 0  | 53.0         | 6 0  | 54.0     | 4 0    | 41.1      | 16 0 | 53.9     | 10 0 | 49.6       | 6 0  | 38.1      | 12 0 | 47.9     | 12 0 | 57.2     | 2 1  |
| 11               | PBW813       | NW-LS-213 | 50.7     | 6 0  | 44.9     | 12 0 | 44.9         | 12 0 | 58.3     | 3 1    | 38.3      | 17 0 | 59.0     | 2 1  | 55.1       | 3 1  | 46.3      | 5 0  | 52.5     | 4 1  | 57.3     | 1 1  |
| 12               | UP3033       | NW-LS-217 | 49.7     | 7 0  | 43.6     | 16 0 | 39.1         | 16 0 | 43.6     | 17 0   | 53.5      | 7 0  | 52.6     | 11 0 | 48.1       | 10 0 | 46.0      | 6 0  | 47.5     | 13 0 | 54.9     | 8 1  |
| 13               | HD3059 (C)   | NW-LS-202 | 46.0     | 12 0 | 50.2     | 5 0  | 53.6         | 5 0  | 49.8     | 13 0   | 43.2      | 12 0 | 51.6     | 12 0 | 48.6       | 9 0  | 34.2      | 14 0 | 52.0     | 5 1  | 53.4     | 10 0 |
| 14               | DBW173 (C)   | NW-LS-204 | 45.2     | 14 0 | 45.5     | 10 0 | 57.8         | 2 0  | 49.2     | 14 0   | 43.1      | 13 0 | 58.7     | 3 1  | 46.1       | 15 0 | 52.8      | 2 1  | 50.3     | 6 1  | 48.8     | 16 0 |
| 15               | WH1021 (C)   | NW-LS-205 | 26.7     | 17 0 | 42.2     | 17 0 | 26.6         | 17 0 | 53.6     | 7 0    | 55.0      | 4 0  | 34.0     | 17 0 | 40.9       | 17 0 | 23.1      | 17 0 | 46.1     | 16 0 | 46.5     | 17 0 |
| 16               | WH1124 (C)   | NW-LS-216 | 40.1     | 16 0 | 55.1     | 2 1  | 39.8         | 15 0 | 54.0     | 4 0    | 54.4      | 6 0  | 43.9     | 16 0 | 47.1       | 12 0 | 32.7      | 15 0 | 44.7     | 17 0 | 52.6     | 13 0 |
| 17               | PBW771(I)(C) | NW-LS-212 | 52.3     | 2 1  | 47.1     | 7 0  | 50.3         | 9 0  | 53.6     | 6 0    | 46.0      | 10 0 | 58.2     | 6 1  | 54.6       | 4 1  | 40.1      | 10 0 | 50.1     | 8 1  | 56.1     | 5 1  |
| G.M.             |              |           | 47.2     |      | 47.5     |      | 48.5         |      | 51.8     |        | 48.5      |      | 53.0     |      | 49.2       |      | 41.2      |      | 49.4     |      | 53.8     |      |
| S.E.(M)          |              |           | 1.694    |      | 1.741    |      | 1.550        |      | 1.209    |        | 1.170     |      | 1.800    |      | 2.322      |      | 1.998     |      | 2.286    |      | 1.599    |      |
| C.D. (10%)       |              |           | 4.0      |      | 4.1      |      | 3.7          |      | 2.9      |        | 2.8       |      | 4.3      |      | 5.5        |      | 4.7       |      | 5.4      |      | 3.8      |      |
| C.V.             |              |           | 7.2      |      | 7.3      |      | 6.4          |      | 4.7      |        | 4.8       |      | 6.8      |      | 9.4        |      | 9.7       |      | 9.2      |      | 5.9      |      |
| D.O.S.(dd.mm.yy) |              |           | 20.12.19 |      | 10.12.19 |      | 25.12.19     |      | 23.12.19 |        | 20.12.19  |      | 10.12.19 |      | 24.12.19   |      | 21.12.19  |      | 17.12.19 |      | 20.12.19 |      |

No. of Trials : Proposed = 22                      Conducted = 21  
 Trial not conducted (01) = Alwar  
 Trials not reported (03) = Jammu (RMT), Tabiji (LSM), KVK-Rampur (LS)

**1922-AVT-IR-LS-TAS-NWPZ, 2019-20**  
**LOCATIONWISE MEAN YIELD (q/ha)**

| SN               | Variety               | Code      | Rajasthan |    |   |               |    |   | U.P.        |    |        |          |           |   | UTK      |    |          |          |           |   |          |    |   |          |    |   |
|------------------|-----------------------|-----------|-----------|----|---|---------------|----|---|-------------|----|--------|----------|-----------|---|----------|----|----------|----------|-----------|---|----------|----|---|----------|----|---|
|                  |                       |           | Durgapura |    |   | Sriganganagar |    |   | Bulandshahr |    | Ujhani |          | Modipuram |   | Nagina   |    | Kashipur |          | Pantnagar |   |          |    |   |          |    |   |
|                  |                       |           | Yield     | Rk | G | Yield         | Rk | G | Yield       | Rk | G      | Yield    | Rk        | G | Yield    | Rk | G        | Yield    | Rk        | G | Yield    | Rk | G |          |    |   |
| 1                | HD3298*               | NW-LS-215 | 42.8      | 11 | 0 | 49.5          | 4  | 0 | 37.0        | 17 | 0      | 35.8     | 13        | 0 | 45.4     | 8  | 0        | 51.0     | 3         | 0 | 59.6     | 9  | 0 | 51.7     | 2  | 0 |
| 2                | HD3331 <sup>#WB</sup> | NW-LS-214 | 49.8      | 3  | 0 | 48.7          | 5  | 0 | 42.7        | 10 | 0      | 40.9     | 3         | 0 | 35.1     | 16 | 0        | 39.1     | 15        | 0 | 61.2     | 5  | 0 | 43.2     | 11 | 0 |
| 3                | HD3334                | NW-LS-201 | 39.2      | 14 | 0 | 42.9          | 13 | 0 | 47.2        | 7  | 0      | 38.9     | 10        | 0 | 45.5     | 6  | 0        | 40.1     | 12        | 0 | 59.1     | 12 | 0 | 51.2     | 3  | 0 |
| 4                | HD3332                | NW-LS-203 | 39.2      | 14 | 0 | 37.9          | 16 | 0 | 43.0        | 9  | 0      | 33.6     | 15        | 0 | 42.8     | 12 | 0        | 37.2     | 16        | 0 | 56.5     | 15 | 0 | 38.5     | 15 | 0 |
| 5                | PBW811                | NW-LS-206 | 46.5      | 5  | 0 | 51.1          | 1  | 1 | 37.8        | 16 | 0      | 45.6     | 1         | 1 | 43.5     | 11 | 0        | 42.1     | 9         | 0 | 59.2     | 11 | 0 | 51.1     | 4  | 0 |
| 6                | DBW291                | NW-LS-207 | 48.8      | 4  | 0 | 43.1          | 12 | 0 | 38.7        | 13 | 0      | 36.9     | 12        | 0 | 41.2     | 14 | 0        | 48.4     | 6         | 0 | 62.6     | 4  | 0 | 41.8     | 13 | 0 |
| 7                | WH1264                | NW-LS-208 | 42.1      | 12 | 0 | 43.8          | 11 | 0 | 47.0        | 8  | 0      | 35.0     | 14        | 0 | 46.2     | 3  | 0        | 39.6     | 14        | 0 | 60.6     | 6  | 0 | 49.9     | 5  | 0 |
| 8                | PBW812                | NW-LS-209 | 44.9      | 7  | 0 | 44.6          | 10 | 0 | 50.8        | 3  | 0      | 38.9     | 11        | 0 | 51.8     | 1  | 1        | 52.3     | 2         | 0 | 62.7     | 3  | 0 | 43.2     | 9  | 0 |
| 9                | JKW261                | NW-LS-210 | 52.1      | 2  | 1 | 45.5          | 9  | 0 | 49.0        | 5  | 0      | 40.0     | 6         | 0 | 46.1     | 4  | 0        | 48.2     | 7         | 0 | 66.6     | 1  | 1 | 37.2     | 16 | 0 |
| 10               | DBW290                | NW-LS-211 | 46.1      | 6  | 0 | 46.3          | 8  | 0 | 47.2        | 6  | 0      | 39.4     | 9         | 0 | 45.5     | 7  | 0        | 59.2     | 1         | 1 | 59.3     | 10 | 0 | 43.2     | 10 | 0 |
| 11               | PBW813                | NW-LS-213 | 43.0      | 9  | 0 | 47.9          | 6  | 0 | 49.7        | 4  | 0      | 39.6     | 8         | 0 | 45.2     | 9  | 0        | 47.7     | 8         | 0 | 60.5     | 7  | 0 | 49.6     | 6  | 0 |
| 12               | UP3033                | NW-LS-217 | 43.6      | 8  | 0 | 50.9          | 2  | 1 | 38.5        | 14 | 0      | 33.6     | 16        | 0 | 42.7     | 13 | 0        | 42.0     | 10        | 0 | 57.3     | 13 | 0 | 43.0     | 12 | 0 |
| 13               | HD3059 (C)            | NW-LS-202 | 36.3      | 16 | 0 | 39.6          | 14 | 0 | 40.7        | 11 | 0      | 40.3     | 5         | 0 | 45.0     | 10 | 0        | 39.9     | 13        | 0 | 65.9     | 2  | 0 | 43.5     | 8  | 0 |
| 14               | DBW173 (C)            | NW-LS-204 | 41.3      | 13 | 0 | 36.9          | 17 | 0 | 51.2        | 2  | 0      | 41.8     | 2         | 0 | 46.0     | 5  | 0        | 50.7     | 4         | 0 | 59.9     | 8  | 0 | 57.6     | 1  | 1 |
| 15               | WH1021 (C)            | NW-LS-205 | 30.1      | 17 | 0 | 39.1          | 15 | 0 | 40.2        | 12 | 0      | 27.7     | 17        | 0 | 35.9     | 15 | 0        | 33.8     | 17        | 0 | 54.6     | 17 | 0 | 45.3     | 7  | 0 |
| 16               | WH1124 (C)            | NW-LS-216 | 43.0      | 9  | 0 | 50.6          | 3  | 1 | 38.4        | 15 | 0      | 40.5     | 4         | 0 | 35.1     | 17 | 0        | 41.4     | 11        | 0 | 57.3     | 14 | 0 | 37.0     | 17 | 0 |
| 17               | PBW771(I)(C)          | NW-LS-212 | 53.2      | 1  | 1 | 46.8          | 7  | 0 | 53.9        | 1  | 1      | 39.9     | 7         | 0 | 48.6     | 2  | 0        | 48.5     | 5         | 0 | 54.7     | 16 | 0 | 40.2     | 14 | 0 |
| G.M.             |                       |           | 43.6      |    |   | 45.0          |    |   | 44.3        |    |        | 38.1     |           |   | 43.6     |    |          | 44.8     |           |   | 59.9     |    |   | 45.1     |    |   |
| S.E.(M)          |                       |           | 0.974     |    |   | 0.625         |    |   | 1.038       |    |        | 1.603    |           |   | 0.919    |    |          | 0.849    |           |   | 0.265    |    |   | 0.701    |    |   |
| C.D. (10%)       |                       |           | 2.3       |    |   | 1.5           |    |   | 2.5         |    |        | 3.8      |           |   | 2.2      |    |          | 2.0      |           |   | 0.6      |    |   | 1.7      |    |   |
| C.V.             |                       |           | 4.5       |    |   | 2.8           |    |   | 4.7         |    |        | 8.4      |           |   | 4.2      |    |          | 3.8      |           |   | 0.9      |    |   | 3.1      |    |   |
| D.O.S.(dd.mm.yy) |                       |           | 11.12.19  |    |   | 21.12.19      |    |   | 24.12.19    |    |        | 12.12.19 |           |   | 23.12.19 |    |          | 13.12.19 |           |   | 20.12.19 |    |   | 23.12.19 |    |   |

**1922-AVT-IR-LS-TAS-NWPZ, 2019-20**  
**STATE AND ZONAL MEANS (q/ha)**

| SN         | Variety               | Code      | Delhi |    |   | Haryana |    |   | Punjab |    |   | Rajasthan |    |   | U.P.  |    |   | UTK   |    |   | ZONAL |    |   |
|------------|-----------------------|-----------|-------|----|---|---------|----|---|--------|----|---|-----------|----|---|-------|----|---|-------|----|---|-------|----|---|
|            |                       |           | Yield | Rk | G | Yield   | Rk | G | Yield  | Rk | G | Yield     | Rk | G | Yield | Rk | G | Yield | Rk | G | Yield | Rk | G |
| 1          | HD3298*               | NW-LS-215 | 55.3  | 1  | 1 | 47.8    | 13 | 0 | 46.6   | 15 | 0 | 46.2      | 8  | 0 | 42.3  | 8  | 0 | 55.6  | 2  | 0 | 47.4  | 12 | 0 |
| 2          | HD3331 <sup>#WB</sup> | NW-LS-214 | 49.5  | 8  | 0 | 49.9    | 7  | 0 | 50.3   | 9  | 0 | 49.2      | 2  | 1 | 39.4  | 13 | 0 | 52.2  | 10 | 0 | 47.8  | 10 | 0 |
| 3          | HD3334                | NW-LS-201 | 46.8  | 11 | 0 | 52.4    | 2  | 1 | 49.6   | 11 | 0 | 41.0      | 13 | 0 | 42.9  | 7  | 0 | 55.1  | 5  | 0 | 48.3  | 9  | 0 |
| 4          | HD3332                | NW-LS-203 | 48.8  | 9  | 0 | 45.3    | 15 | 0 | 48.5   | 13 | 0 | 38.5      | 15 | 0 | 39.1  | 15 | 0 | 47.5  | 16 | 0 | 44.5  | 16 | 0 |
| 5          | PBW811                | NW-LS-206 | 47.0  | 10 | 0 | 51.1    | 4  | 0 | 50.4   | 8  | 0 | 48.8      | 3  | 1 | 42.3  | 9  | 0 | 55.2  | 4  | 0 | 48.9  | 7  | 0 |
| 6          | DBW291                | NW-LS-207 | 45.2  | 13 | 0 | 48.9    | 11 | 0 | 51.5   | 5  | 0 | 45.9      | 9  | 0 | 41.3  | 12 | 0 | 52.2  | 9  | 0 | 47.8  | 11 | 0 |
| 7          | WH1264                | NW-LS-208 | 51.9  | 4  | 1 | 53.4    | 1  | 1 | 50.8   | 7  | 0 | 42.9      | 12 | 0 | 42.0  | 10 | 0 | 55.2  | 3  | 0 | 49.1  | 5  | 0 |
| 8          | PBW812                | NW-LS-209 | 52.1  | 3  | 1 | 51.6    | 3  | 0 | 51.9   | 3  | 0 | 44.8      | 11 | 0 | 48.4  | 1  | 1 | 52.9  | 8  | 0 | 50.4  | 1  | 1 |
| 9          | JKW261                | NW-LS-210 | 51.2  | 5  | 0 | 50.2    | 6  | 0 | 52.3   | 2  | 1 | 48.8      | 4  | 1 | 45.9  | 5  | 0 | 51.9  | 11 | 0 | 49.9  | 2  | 1 |
| 10         | DBW290                | NW-LS-211 | 43.0  | 15 | 0 | 49.8    | 8  | 0 | 49.3   | 12 | 0 | 46.2      | 7  | 0 | 47.8  | 2  | 1 | 51.2  | 12 | 0 | 48.6  | 8  | 0 |
| 11         | PBW813                | NW-LS-213 | 50.7  | 6  | 0 | 46.6    | 14 | 0 | 54.0   | 1  | 1 | 45.5      | 10 | 0 | 45.5  | 6  | 0 | 55.0  | 6  | 0 | 49.5  | 4  | 0 |
| 12         | UP3033                | NW-LS-217 | 49.7  | 7  | 0 | 45.0    | 16 | 0 | 49.8   | 10 | 0 | 47.3      | 5  | 0 | 39.2  | 14 | 0 | 50.1  | 13 | 0 | 46.1  | 14 | 0 |
| 13         | HD3059 (C)            | NW-LS-202 | 46.0  | 12 | 0 | 49.2    | 10 | 0 | 48.0   | 14 | 0 | 37.9      | 16 | 0 | 41.5  | 11 | 0 | 54.7  | 7  | 0 | 46.3  | 13 | 0 |
| 14         | DBW173 (C)            | NW-LS-204 | 45.2  | 14 | 0 | 48.9    | 12 | 0 | 51.3   | 6  | 0 | 39.1      | 14 | 0 | 47.4  | 4  | 1 | 58.8  | 1  | 1 | 49.1  | 6  | 0 |
| 15         | WH1021 (C)            | NW-LS-205 | 26.7  | 17 | 0 | 44.3    | 17 | 0 | 38.1   | 17 | 0 | 34.6      | 17 | 0 | 34.4  | 17 | 0 | 50.0  | 14 | 0 | 39.0  | 17 | 0 |
| 16         | WH1124 (C)            | NW-LS-216 | 40.1  | 16 | 0 | 50.8    | 5  | 0 | 44.2   | 16 | 0 | 46.8      | 6  | 0 | 38.8  | 16 | 0 | 47.2  | 17 | 0 | 44.9  | 15 | 0 |
| 17         | PBW771(I)(C)          | NW-LS-212 | 52.3  | 2  | 1 | 49.2    | 9  | 0 | 51.8   | 4  | 0 | 50.0      | 1  | 1 | 47.7  | 3  | 1 | 47.5  | 15 | 0 | 49.7  | 3  | 1 |
| G.M.       |                       |           | 47.2  |    |   | 49.1    |    |   | 49.3   |    |   | 44.3      |    |   | 42.7  |    |   | 52.5  |    |   | 47.5  |    |   |
| S.E.(M)    |                       |           | 1.694 |    |   | 0.719   |    |   | 0.904  |    |   | 0.578     |    |   | 0.571 |    |   | 0.375 |    |   | 0.345 |    |   |
| C.D. (10%) |                       |           | 4.0   |    |   | 1.7     |    |   | 2.1    |    |   | 1.4       |    |   | 1.3   |    |   | 0.9   |    |   | 0.8   |    |   |

## Summary of Disease Data and Agronomic Characteristics

North Western Plains Zone

Trial: AVT-IR-LS-TAS, 2019-20

| SN | Variety               | Code      | Disease Reaction |     |      | Agronomic Characteristics |      |         |       |        |      |         |      | Grain Characteristics |      |       |       |
|----|-----------------------|-----------|------------------|-----|------|---------------------------|------|---------|-------|--------|------|---------|------|-----------------------|------|-------|-------|
|    |                       |           | Br               | YI  | ACI  | Hd.R                      | Hd.M | Mat.R   | Mat.M | Ht.R   | Ht.M | Lod. M. | Thr. | Col.                  | Tex. | TGW.R | TGW.M |
| 1  | HD3298*               | NW-LS-215 | 5S               | 60S | 13.8 | 77-102                    | 84   | 113-144 | 122   | 86-131 | 98   | 35      | Ey   | A                     | SH   | 32-46 | 39    |
| 2  | HD3331 <sup>#WB</sup> | NW-LS-214 | 20S              | 10S | 4.6  | 79-104                    | 88   | 113-144 | 124   | 92-126 | 104  | 5       | Ey   | A                     | SH   | 29-46 | 38    |
| 3  | HD3334                | NW-LS-201 | 5S               | 20S | 8.1  | 73-92                     | 83   | 110-144 | 122   | 85-106 | 96   | 10      | Ey   | A                     | SH   | 34-47 | 40    |
| 4  | HD3332                | NW-LS-203 | 10S              | 60S | 15.6 | 70-100                    | 81   | 105-142 | 119   | 76-116 | 92   | 0       | Ey   | A                     | SH   | 31-50 | 43    |
| 5  | PBW811                | NW-LS-206 | 20S              | 60S | 16.6 | 72-100                    | 82   | 109-144 | 120   | 83-126 | 94   | 10      | Ey   | A                     | SH   | 24-44 | 36    |
| 6  | DBW291                | NW-LS-207 | tMS              | 20S | 4.8  | 73-100                    | 82   | 110-143 | 122   | 89-126 | 104  | 15      | Ey   | A                     | SH   | 35-46 | 40    |
| 7  | WH1264                | NW-LS-208 | 0                | 60S | 17.5 | 75-100                    | 83   | 107-142 | 122   | 88-125 | 100  | 10      | Ey   | A                     | SH   | 29-45 | 40    |
| 8  | PBW812                | NW-LS-209 | 10S              | 60S | 21.3 | 74-101                    | 82   | 113-142 | 122   | 80-128 | 94   | 5       | Ey   | A                     | SH   | 36-44 | 40    |
| 9  | JKW261                | NW-LS-210 | 5S               | 40S | 8.1  | 74-97                     | 85   | 114-143 | 123   | 80-127 | 96   | 5       | Ey   | A                     | SH   | 34-49 | 39    |
| 10 | DBW290                | NW-LS-211 | 0                | 40S | 19.5 | 77-101                    | 85   | 114-145 | 123   | 88-126 | 100  | 0       | Ey   | A                     | SH   | 35-51 | 42    |
| 11 | PBW813                | NW-LS-213 | 0                | 5S  | 1.2  | 75-96                     | 83   | 111-143 | 121   | 78-126 | 92   | 5       | Ey   | A                     | SH   | 30-46 | 37    |
| 12 | UP3033                | NW-LS-217 | 0                | 40S | 17.5 | 76-104                    | 85   | 114-143 | 123   | 78-128 | 96   | 15      | Ey   | A                     | SH   | 30-42 | 37    |
| 13 | HD3059 (C)            | NW-LS-202 | 5S               | 40S | 15.6 | 76-96                     | 85   | 110-143 | 123   | 84-120 | 94   | 5       | Ey   | A                     | SH   | 31-44 | 36    |
| 14 | DBW173 (C)            | NW-LS-204 | 0                | 40S | 9.5  | 78-98                     | 85   | 111-144 | 123   | 85-108 | 98   | 10      | Ey   | A                     | SH   | 28-42 | 38    |
| 15 | WH1021 (C)            | NW-LS-205 | 10S              | 80S | 38.8 | 77-103                    | 85   | 112-144 | 122   | 82-131 | 95   | 10      | Ey   | A                     | SH   | 26-39 | 35    |
| 16 | WH1124 (C)            | NW-LS-216 | 40S              | 60S | 25.0 | 74-101                    | 83   | 112-142 | 123   | 79-126 | 92   | 5       | Ey   | A                     | SH   | 30-46 | 39    |
| 17 | PBW771(I)(C)          | NW-LS-212 | 0                | 40S | 10.4 | 78-93                     | 84   | 112-142 | 121   | 75-131 | 88   | 0       | Ey   | A                     | SH   | 34-45 | 39    |

1. Ancillary data from Bhatinda, Bulandshahr, Delhi, Durgapura, Faridkot, Gurdaspur, Hisar, Karnal, Kashipur, Ludhiana, Modipuram, Nagina, Pantnagar, Rampur, Rohtak, Shikohpur, Sriganganagar and Tabiji.
2. Lodging data from Bulandshahr, Delhi, Gurdaspur, Hisar Karnal and Shikohpur.
3. Yellow rust data from Delhi, Durgapura, Gurdaspur, Hisar, Karnal, Ludhiana, Pantnagar and Shikohpur.
4. Brown rust data from Pantnagar.

**Trial: AVT-IR-LS-TAS, 2019-20**  
**North Western Plains Zone**  
**Individual Station Rust Data**

| SN | Variety               | Code      | Yellow rust |           |          |       |           |       |        |           |
|----|-----------------------|-----------|-------------|-----------|----------|-------|-----------|-------|--------|-----------|
|    |                       |           | Pantnagar   | Gurdaspur | Ludhiana | Delhi | Shikohpur | Hisar | Karnal | Durgapura |
| 1  | HD3298*               | NW-LS-215 | 10S         | 10S       | 20S      | 10S   | 0         | 0     | 60S    | 0         |
| 2  | HD3331 <sup>#WB</sup> | NW-LS-214 | 10S         | 5MR       | 10S      | 0     | 0         | 5S    | 10S    | 0         |
| 3  | HD3334                | NW-LS-201 | 0           | 20S       | 20S      | 5S    | 0         | 0     | 20S    | 0         |
| 4  | HD3332                | NW-LS-203 | 0           | 10S       | 40S      | 10S   | 0         | 0     | 60S    | 5S        |
| 5  | PBW811                | NW-LS-206 | 0           | 5S        | 60S      | 10MS  | 0         | 0     | 60S    | 0         |
| 6  | DBW291                | NW-LS-207 | 0           | 20MS      | 20S      | 0     | 0         | 0     | 5MR    | 0         |
| 7  | WH1264                | NW-LS-208 | tS          | 10S       | 40S      | 5S    | 0         | 5MS   | 60S    | 20S       |
| 8  | PBW812                | NW-LS-209 | 10S         | 10S       | 60S      | 10S   | 0         | 10S   | 60S    | 10S       |
| 9  | JKW261                | NW-LS-210 | 0           | 10S       | 40S      | 5S    | 0         | 0     | 10S    | 0         |
| 10 | DBW290                | NW-LS-211 | 10MS        | 20S       | 60S      | 10S   | 0         | 10S   | 40S    | 10MS      |
| 11 | PBW813                | NW-LS-213 | 0           | tR        | 5MS      | 0     | 0         | 0     | 5S     | 0         |
| 12 | UP3033                | NW-LS-217 | 5S          | 40S       | 40S      | 0     | 0         | 5S    | 40S    | 10S       |
| 13 | HD3059 (C)            | NW-LS-202 | 5S          | 20S       | 40S      | 5S    | 0         | 10S   | 40S    | 5S        |
| 14 | DBW173 (C)            | NW-LS-204 | tS          | 20S       | 40S      | 0     | 0         | 0     | 10S    | 5S        |
| 15 | WH1021 (C)            | NW-LS-205 | 10S         | 60S       | 80S      | 40S   | 20S       | 40S   | 60S    | 0         |
| 16 | WH1124 (C)            | NW-LS-216 | 10S         | 20S       | 60S      | 20S   | 10S       | 20S   | 60S    | 0         |
| 17 | PBW771(I)(C)          | NW-LS-212 | tS          | 10S       | 20S      | 5MR   | 0         | 0     | 40S    | 10S       |



## 1923-AVT-RI-TS-TAS-NWPZ, 2019-20

## LOCATIONWISE MEAN YIELD (q/ha)

| SN               | Variety               | Code      | Delhi    |      | J&K      |      | Haryana  |      |              |      | Punjab   |      |           |      |            |      |           |      |
|------------------|-----------------------|-----------|----------|------|----------|------|----------|------|--------------|------|----------|------|-----------|------|------------|------|-----------|------|
|                  |                       |           | Delhi    |      | Jammu    |      | Hisar    |      | IIWBR-Karnal |      | Ludhiana |      | Gurdaspur |      | Kapurthala |      | Balachaur |      |
|                  |                       |           | 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                | HUW838 <sup>#WB</sup> | NW-RI-301 | 58.1     | 3 1  | 64.4     | 1 1  | 48.3     | 8 0  | 65.4         | 1 1  | 61.9     | 3 1  | 47.9      | 3 0  | 55.6       | 3 1  | 60.3      | 1 1  |
| 2                | DBW296                | NW-RI-304 | 61.5     | 1 1  | 51.2     | 4 0  | 51.0     | 6 0  | 64.4         | 2 1  | 65.3     | 1 1  | 56.4      | 1 1  | 51.1       | 8 0  | 56.8      | 2 0  |
| 3                | JAUW672               | NW-RI-307 | 48.9     | 8 0  | 57.8     | 2 0  | 56.1     | 2 1  | 64.1         | 3 1  | 50.3     | 5 0  | 41.9      | 5 0  | 55.0       | 5 1  | 56.3      | 3 0  |
| 4                | HD3043 (C)            | NW-RI-302 | 54.5     | 5 0  | 50.9     | 5 0  | 51.6     | 5 0  | 48.5         | 7 0  | 36.4     | 9 0  | 36.9      | 7 0  | 58.8       | 1 1  | 40.4      | 9 0  |
| 5                | PBW644 (C)            | NW-RI-303 | 55.1     | 4 0  | 53.1     | 3 0  | 48.3     | 8 0  | 56.3         | 6 0  | 39.8     | 8 0  | 38.9      | 6 0  | 55.8       | 2 1  | 45.9      | 5 0  |
| 6                | WH1080 (C)            | NW-RI-306 | 53.9     | 6 0  | 37.2     | 9 0  | 57.5     | 1 1  | 44.2         | 9 0  | 43.3     | 6 0  | 54.7      | 2 1  | 52.9       | 6 0  | 43.0      | 7 0  |
| 7                | WH1142 (C)            | NW-RI-308 | 52.8     | 7 0  | 41.0     | 8 0  | 55.3     | 3 1  | 46.2         | 8 0  | 42.2     | 7 0  | 36.8      | 8 0  | 55.2       | 4 1  | 40.6      | 8 0  |
| 8                | HI1628(I)(C)          | NW-RI-305 | 47.8     | 9 0  | 48.6     | 6 0  | 52.4     | 4 0  | 59.7         | 5 0  | 62.2     | 2 1  | 43.7      | 4 0  | 51.6       | 7 0  | 45.9      | 6 0  |
| 9                | NIAW3170(I)(C)        | NW-RI-309 | 61.4     | 2 1  | 45.4     | 7 0  | 50.5     | 7 0  | 60.9         | 4 0  | 57.3     | 4 0  | 36.5      | 9 0  | 47.3       | 9 0  | 51.9      | 4 0  |
| G.M.             |                       |           | 54.9     |      | 50.0     |      | 52.3     |      | 56.6         |      | 51.0     |      | 43.7      |      | 53.7       |      | 49.0      |      |
| S.E.(M)          |                       |           | 2.017    |      | 2.261    |      | 1.992    |      | 0.978        |      | 2.337    |      | 1.695     |      | 1.710      |      | 1.370     |      |
| C.D. (10%)       |                       |           | 4.9      |      | 5.5      |      | 4.8      |      | 2.4          |      | 5.7      |      | 4.1       |      | 4.1        |      | 3.3       |      |
| C.V.             |                       |           | 7.3      |      | 9.1      |      | 7.6      |      | 3.5          |      | 9.2      |      | 7.7       |      | 6.4        |      | 5.6       |      |
| D.O.S.(dd.mm.yy) |                       |           | 02.11.19 |      | 25.10.19 |      | 03.11.19 |      | 25.10.19     |      | 26.10.19 |      | 31.10.19  |      | 05.11.19   |      | 05.11.19  |      |

No. of Trials : Proposed = 15 Conducted = 15  
 Trials not reported (02) = KVK-Rampur (TF), Bharatpur (LSM)

## 1923-AVT-RI-TS-TAS-NWPZ, 2019-20

## LOCATIONWISE MEAN YIELD (q/ha)

| SN               | Variety               | Code      | U.P.        |        |          | UTK       |          | Rajasthan |          |               |          |       |
|------------------|-----------------------|-----------|-------------|--------|----------|-----------|----------|-----------|----------|---------------|----------|-------|
|                  |                       |           | Bulandshahr | Nagina |          | Modipuram |          | Pantnagar |          | Sriganganagar |          |       |
|                  |                       |           | Yield       | Rk     | G        | Yield     | Rk       | G         | Yield    | Rk            | G        | Yield |
| 1                | HUW838 <sup>#WB</sup> | NW-RI-301 | 39.7        | 9 0    | 61.5     | 2 1       | 56.4     | 1 1       | 64.1     | 1 1           | 77.7     | 5 0   |
| 2                | DBW296                | NW-RI-304 | 45.7        | 5 0    | 62.4     | 1 1       | 55.0     | 2 1       | 61.2     | 4 0           | 79.4     | 4 1   |
| 3                | JAUW672               | NW-RI-307 | 44.2        | 7 0    | 59.5     | 4 0       | 47.8     | 6 0       | 45.3     | 9 0           | 81.6     | 2 1   |
| 4                | HD3043 (C)            | NW-RI-302 | 46.9        | 4 0    | 53.7     | 9 0       | 41.2     | 9 0       | 62.0     | 3 0           | 71.4     | 7 0   |
| 5                | PBW644 (C)            | NW-RI-303 | 53.5        | 2 1    | 54.7     | 7 0       | 43.6     | 8 0       | 49.6     | 8 0           | 50.4     | 8 0   |
| 6                | WH1080 (C)            | NW-RI-306 | 49.7        | 3 0    | 58.4     | 6 0       | 45.6     | 7 0       | 62.2     | 2 0           | 73.5     | 6 0   |
| 7                | WH1142 (C)            | NW-RI-308 | 56.9        | 1 1    | 59.1     | 5 0       | 49.3     | 5 0       | 54.7     | 7 0           | 79.6     | 3 1   |
| 8                | HI1628(I)(C)          | NW-RI-305 | 44.4        | 6 0    | 54.4     | 8 0       | 51.9     | 3 0       | 54.8     | 6 0           | 47.5     | 9 0   |
| 9                | NIAW3170(I)(C)        | NW-RI-309 | 42.7        | 8 0    | 60.8     | 3 1       | 51.6     | 4 0       | 58.8     | 5 0           | 82.3     | 1 1   |
| G.M.             |                       |           | 47.1        |        | 58.3     |           | 49.1     |           | 57.0     |               | 71.5     |       |
| S.E.(M)          |                       |           | 1.530       |        | 0.797    |           | 0.670    |           | 0.493    |               | 1.269    |       |
| C.D. (10%)       |                       |           | 3.7         |        | 1.9      |           | 1.6      |           | 1.2      |               | 3.1      |       |
| C.V.             |                       |           | 6.5         |        | 2.7      |           | 2.7      |           | 1.7      |               | 3.6      |       |
| D.O.S.(dd.mm.yy) |                       |           | 05.11.19    |        | 05.11.19 |           | 25.10.19 |           | 04.11.19 |               | 05.11.19 |       |

**1923-AVT-RI-TS-TAS-NWPZ, 2019-20**  
**STATE AND ZONAL MEANS (q/ha)**

| SN         | Variety               | Code      | Delhi |    |   | J&K   |    |   | Haryana |    |   | Punjab |    |   | U.P.  |    |   | UTK   |    |   | Rajasthan |    |   | ZONAL |    |   |
|------------|-----------------------|-----------|-------|----|---|-------|----|---|---------|----|---|--------|----|---|-------|----|---|-------|----|---|-----------|----|---|-------|----|---|
|            |                       |           | 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          | HUW838 <sup>#WB</sup> | NW-RI-301 | 58.1  | 3  | 1 | 64.4  | 1  | 1 | 56.9    | 3  | 0 | 56.4   | 2  | 1 | 52.5  | 3  | 0 | 64.1  | 1  | 1 | 77.7      | 5  | 0 | 58.6  | 2  | 1 |
| 2          | DBW296                | NW-RI-304 | 61.5  | 1  | 1 | 51.2  | 4  | 0 | 57.7    | 2  | 1 | 57.4   | 1  | 1 | 54.4  | 2  | 1 | 61.2  | 4  | 0 | 79.4      | 4  | 1 | 58.6  | 1  | 1 |
| 3          | JAUW672               | NW-RI-307 | 48.9  | 8  | 0 | 57.8  | 2  | 0 | 60.1    | 1  | 1 | 50.9   | 3  | 0 | 50.5  | 7  | 0 | 45.3  | 9  | 0 | 81.6      | 2  | 1 | 54.5  | 3  | 0 |
| 4          | HD3043 (C)            | NW-RI-302 | 54.5  | 5  | 0 | 50.9  | 5  | 0 | 50.0    | 9  | 0 | 43.1   | 9  | 0 | 47.2  | 9  | 0 | 62.0  | 3  | 0 | 71.4      | 7  | 0 | 50.2  | 8  | 0 |
| 5          | PBW644 (C)            | NW-RI-303 | 55.1  | 4  | 0 | 53.1  | 3  | 0 | 52.3    | 6  | 0 | 45.1   | 7  | 0 | 50.6  | 6  | 0 | 49.6  | 8  | 0 | 50.4      | 8  | 0 | 49.6  | 9  | 0 |
| 6          | WH1080 (C)            | NW-RI-306 | 53.9  | 6  | 0 | 37.2  | 9  | 0 | 50.9    | 7  | 0 | 48.5   | 5  | 0 | 51.2  | 5  | 0 | 62.2  | 2  | 0 | 73.5      | 6  | 0 | 52.0  | 5  | 0 |
| 7          | WH1142 (C)            | NW-RI-308 | 52.8  | 7  | 0 | 41.0  | 8  | 0 | 50.7    | 8  | 0 | 43.7   | 8  | 0 | 55.1  | 1  | 1 | 54.7  | 7  | 0 | 79.6      | 3  | 1 | 51.5  | 6  | 0 |
| 8          | HI1628(I)(C)          | NW-RI-305 | 47.8  | 9  | 0 | 48.6  | 6  | 0 | 56.0    | 4  | 0 | 50.8   | 4  | 0 | 50.2  | 8  | 0 | 54.8  | 6  | 0 | 47.5      | 9  | 0 | 51.1  | 7  | 0 |
| 9          | NIAW3170(I)(C)        | NW-RI-309 | 61.4  | 2  | 1 | 45.4  | 7  | 0 | 55.7    | 5  | 0 | 48.3   | 6  | 0 | 51.7  | 4  | 0 | 58.8  | 5  | 0 | 82.3      | 1  | 1 | 54.4  | 4  | 0 |
| G.M.       |                       |           | 54.9  |    |   | 50.0  |    |   | 54.5    |    |   | 49.4   |    |   | 51.5  |    |   | 57.0  |    |   | 71.5      |    |   | 53.4  |    |   |
| S.E.(M)    |                       |           | 2.017 |    |   | 2.261 |    |   | 1.109   |    |   | 0.906  |    |   | 0.617 |    |   | 0.493 |    |   | 1.269     |    |   | 0.439 |    |   |
| C.D. (10%) |                       |           | 4.9   |    |   | 5.5   |    |   | 2.6     |    |   | 2.1    |    |   | 1.5   |    |   | 1.2   |    |   | 3.1       |    |   | 1.0   |    |   |

**Summary of Disease Data and Agronomic Characteristics**

**North Western Plains Zone**

**Trial: AVT-RI-TS-TAS, 2019-20**

| SN | Variety               | Code      | Disease Reaction |      |      |      | Agronomic Characteristics |      |         |       |        |      |       |      | Grain Characteristics |      |       |       |
|----|-----------------------|-----------|------------------|------|------|------|---------------------------|------|---------|-------|--------|------|-------|------|-----------------------|------|-------|-------|
|    |                       |           | Br               | ACI  | YI   | ACI  | Hd.R                      | Hd.M | Mat.R   | Mat.M | Ht.R   | Ht.M | Lod.M | Thr. | Col.                  | Tex. | TGW.R | TGW.M |
| 1  | HUW838 <sup>#WB</sup> | NW-RI-301 | 0                | 0.0  | 10MS | 2.4  | 91-112                    | 99   | 134-168 | 150   | 76-116 | 101  | 30    | Ey   | A                     | H    | 35-45 | 41    |
| 2  | DBW296                | NW-RI-304 | 40S              | 11.7 | 40S  | 11.8 | 93-116                    | 103  | 138-170 | 151   | 80-120 | 102  | 35    | Ey   | A                     | SH   | 37-52 | 44    |
| 3  | JAUW672               | NW-RI-307 | 40S              | 14.3 | 40S  | 18.3 | 90-115                    | 101  | 134-172 | 150   | 71-114 | 96   | 30    | Ey   | A                     | SH   | 31-45 | 40    |
| 4  | HD3043 (C)            | NW-RI-302 | 80S              | 39.2 | 20S  | 8.9  | 97-120                    | 106  | 136-172 | 152   | 74-126 | 104  | 35    | Ey   | A                     | SH   | 31-43 | 37    |
| 5  | PBW644 (C)            | NW-RI-303 | 60S              | 18.3 | 40S  | 18.3 | 92-120                    | 103  | 137-172 | 151   | 78-116 | 104  | 45    | Ey   | A                     | SH   | 32-47 | 41    |
| 6  | WH1080 (C)            | NW-RI-306 | 60S              | 16.7 | 40S  | 16.7 | 90-115                    | 102  | 138-170 | 151   | 65-115 | 97   | 30    | Ey   | A                     | SH   | 34-47 | 40    |
| 7  | WH1142 (C)            | NW-RI-308 | 60S              | 16.7 | 60S  | 33.5 | 92-122                    | 103  | 138-172 | 152   | 75-119 | 99   | 40    | Ey   | A                     | SH   | 33-45 | 38    |
| 8  | HI1628(I)(C)          | NW-RI-305 | 20S              | 3.3  | 60S  | 24.3 | 83-116                    | 98   | 135-170 | 150   | 73-122 | 106  | 30    | Ey   | A                     | SH   | 27-48 | 41    |
| 9  | NIAW3170(I)(C)        | NW-RI-309 | 10S              | 1.7  | 60S  | 20.8 | 86-116                    | 99   | 136-169 | 150   | 72-122 | 105  | 30    | Ey   | A                     | SH   | 38-51 | 44    |

1. Ancillary data from Balachaur, Bharatpur, Bulandshahr, Delhi, Gurdaspur, Hisar, Jammu, Karnal, Ludhiana, Modipuram, Nagina, Pantnagar and Sriganaganagar; Lodging data reported from Bulandshahr, Gurdaspur, Hisar, Karnal, Ludhiana and Pantnagar.
2. Yellow rust data from Balachaur, Gurdaspur Jammu, Karnal, Ludhiana and Pantnagar.
3. Brown rust data from Gurdaspur, Hisar, Jammu, Karnal, Ludhiana and Pantnagar.

**Individual Station Rust Data**

| SN | Variety               | Code      | Yellow rust |          |        |       |           |           | Brown rust |          |        |       |           |       |   |
|----|-----------------------|-----------|-------------|----------|--------|-------|-----------|-----------|------------|----------|--------|-------|-----------|-------|---|
|    |                       |           | Gurdaspur   | Ludhiana | Karnal | Jammu | Pantnagar | Balachaur | Gurdaspur  | Ludhiana | Karnal | Jammu | Pantnagar | Hisar |   |
| 1  | HUW838 <sup>#WB</sup> | NW-RI-301 | 0           | 5MR      | 10MS   | 0     | 5MS       | tR        | 0          | 0        | 0      | 0     | 0         | 0     | 0 |
| 2  | DBW296                | NW-RI-304 | 0           | 0        | 20MS   | 40S   | 5S        | 10S       | 0          | 40S      | 0      | 20S   | 10S       | 0     | 0 |
| 3  | JAUW672               | NW-RI-307 | 5S          | 20S      | 40MS   | 10MS  | 5S        | 40S       | 5S         | 40S      | 0      | 20MS  | 5S        | 20S   | 0 |
| 4  | HD3043 (C)            | NW-RI-302 | 5S          | 20S      | 10MS   | 20S   | 0         | tR        | 5S         | 80S      | 20S    | 60S   | 30S       | 40S   | 0 |
| 5  | PBW644 (C)            | NW-RI-303 | 5S          | 20S      | 40S    | 40S   | 0         | 5S        | 10S        | 60S      | 0      | 0     | 20S       | 20S   | 0 |
| 6  | WH1080 (C)            | NW-RI-306 | 0           | 10S      | 40S    | 40S   | 0         | 10S       | tR         | 60S      | 0      | 20S   | 10S       | 10S   | 0 |
| 7  | WH1142 (C)            | NW-RI-308 | 0           | 20S      | 60S    | 60S   | tS        | 60S       | 5S         | 60S      | 0      | 10S   | 20S       | 5S    | 0 |
| 8  | HI1628(I)(C)          | NW-RI-305 | 0           | 10S      | 20MS   | 60S   | 0         | 60S       | 0          | 20S      | 0      | 0     | 0         | 0     | 0 |
| 9  | NIAW3170(I)(C)        | NW-RI-309 | 5S          | 60S      | 40S    | 20S   | 0         | 0         | 0          | 10S      | 0      | 0     | 0         | 0     | 0 |