

**Fusarium Damaged Kernel (FDK) and Deoxynivalenol (DON) Comparisons at 10 MCVET Sites for Barley Varieties in 2022**

| Class/Variety<br>(FHB Resistance level)                          | 2022 FDK (%) and DON <sup>1</sup> (ppm) |     |            |     |         |     |          |     |         |                  |         |     |        |     |        |     |          |     |      |      |
|--|---|-----|------------|-----|---------|-----|----------|-----|---------|------------------|---------|-----|--------|-----|--------|-----|----------|-----|------|------|
|  | Arborg                                  |     | Beausejour |     | Brandon |     | Carberry |     | Dauphin |                  | Hamiota |     | Melita |     | Roblin |     | Rosebank |     |      |      |
|  | FDK                                     | DON | FDK        | DON | FDK     | DON | FDK      | DON | FDK     | DON <sup>2</sup> | FDK     | DON | FDK    | DON | FDK    | DON | FDK      | DON |      |      |
| <b>Malting</b>   |   |     |            |     |         |     |          |     |         |                  |         |     |        |     |        |     |          |     |      |      |
| AAC Prairie (I)  | 0.90                                    | bdl | 1.40       | bdl | 0.52    | bdl | 0.10     | bdl | 0.22    | bdl              | 0.46    | bdl | 0.00   | bdl | 0.63   | bdl | 2.70     | bdl | 0.29 | bdl  |
| AAC Synergy (I)  | 1.40                                    | bdl | 0.50       | bdl | 0.93    | bdl | 0.20     | bdl | 1.99    | bdl              | 0.00    | 0.5 | 0.05   | bdl | 0.53   | bdl | 5.00     | bdl | 0.60 | 0.8  |
| Torbellino (S)   | 2.60                                    | bdl | 1.50       | bdl | 0.62    | bdl | 0.50     | bdl | 0.36    | bdl              | 0.20    | 0.8 | 0.36   | bdl | 0.70   | bdl | 2.20     | bdl | 0.34 | 0.7  |
| <b>Food and Feed</b>   |   |     |            |     |         |     |          |     |         |                  |         |     |        |     |        |     |          |     |      |      |
| AAC Lariat (MS)  | 3.50                                    | bdl | -          | -   | -       | -   | -        | -   | 0.82    | bdl              | 0.30    | 1.4 | -      | -   | -      | -   | -        | -   | 1.13 | 0.5  |
| AB Hague (MR)  | 1.20                                    | bdl | 0.60       | bdl | 0.27    | bdl | 0.10     | bdl | 0.46    | bdl              | 0.07    | bdl | 0.07   | bdl | 0.60   | bdl | 1.20     | bdl | 0.20 | bdl  |
| AB Prime (I)   | 0.55                                    | bdl | 0.40       | bdl | 0.21    | bdl | 0.30     | bdl | 0.50    | bdl              | 0.10    | bdl | 0.21   | bdl | 0.07   | bdl | 1.20     | bdl | 0.12 | 0.6  |
| AB Standswell (S)  | 1.60                                    | bdl | 0.90       | bdl | 1.13    | 0.5 | 0.10     | bdl | 0.50    | bdl              | 0.10    | 0.7 | 0.04   | bdl | 0.66   | bdl | 0.90     | 0.7 | 0.73 | 2.6  |
| Bighorn (I)  | 0.60                                    | bdl | 2.00       | bdl | 0.21    | bdl | 0.80     | bdl | 0.23    | bdl              | 0.34    | bdl | 0.25   | bdl | 0.02   | bdl | 2.10     | bdl | 1.26 | 0.5  |
| Cantu (I)  | 0.80                                    | bdl | 1.00       | bdl | 0.38    | bdl | 0.40     | bdl | 0.48    | bdl              | 0.22    | 0.6 | 0.21   | bdl | 0.00   | bdl | 2.10     | bdl | 0.15 | bdl  |
| CDC Austenson (I)  | 1.10                                    | bdl | 1.55       | bdl | 0.09    | bdl | 0.10     | bdl | 0.05    | bdl              | 0.00    | bdl | 0.10   | bdl | 0.30   | bdl | 0.60     | bdl | 0.26 | 0.5  |
| CDC Durango (I)  | 1.00                                    | bdl | 1.20       | bdl | 0.49    | bdl | 0.50     | bdl | 1.07    | bdl              | 0.44    | 0.5 | 0.36   | bdl | 0.97   | bdl | 2.30     | bdl | 0.97 | 0.6  |
| CDC Renegade (MR)  | 2.10                                    | bdl | 1.50       | bdl | 1.61    | bdl | 0.20     | bdl | 0.41    | bdl              | 0.13    | bdl | 0.10   | bdl | 0.00   | bdl | 1.20     | 0.5 | 0.22 | bdl  |
| Ibex (I)   | 1.20                                    | bdl | 1.00       | bdl | 0.52    | bdl | 0.40     | bdl | 0.21    | bdl              | 0.30    | 0.5 | 1.30   | bdl | 0.61   | bdl | 1.20     | bdl | 0.44 | bdl  |
| <b>Varieties being tested for adaptability in Western Canada</b> |   |     |            |     |         |     |          |     |         |                  |         |     |        |     |        |     |          |     |      |      |
| CLO10-004,094  | 3.30                                    | bdl | -          | -   | -       | -   | -        | -   | 0.59    | bdl              | 0.31    | 0.6 | -      | -   | -      | -   | -        | -   | 0.60 | 2.7  |
| CLO10-018,138  | 1.15                                    | bdl | -          | -   | -       | -   | -        | -   | 0.55    | bdl              | 0.10    | bdl | -      | -   | -      | -   | -        | -   | 0.25 | 0.6  |
| CLO10-019,121  | 0.80                                    | bdl | -          | -   | -       | -   | -        | -   | 0.25    | bdl              | 0.09    | 0.8 | -      | -   | -      | -   | -        | -   | 0.15 | 0.5  |
| Esma   | 1.20                                    | bdl | 0.90       | bdl | 0.64    | bdl | 0.10     | bdl | 0.55    | bdl              | 0.26    | bdl | 0.00   | bdl | 0.17   | bdl | 0.90     | bdl | 0.05 | 0.8  |
| KWS Kellie   | 1.60                                    | bdl | 1.30       | bdl | 1.00    | bdl | 0.10     | bdl | 1.04    | bdl              | 0.34    | bdl | 0.38   | bdl | 0.05   | bdl | 1.80     | bdl | 0.19 | 0.7  |
| RGT Planet   | 2.50                                    | bdl | 2.30       | bdl | 4.27    | bdl | 0.20     | bdl | 0.03    | bdl              | 0.19    | bdl | 0.10   | bdl | 0.23   | bdl | 0.90     | bdl | 0.00 | 0.5  |
| Richer   | 1.30                                    | bdl | 0.50       | bdl | 0.36    | bdl | 0.20     | bdl | 0.00    | bdl              | 0.00    | bdl | 0.10   | bdl | 0.00   | bdl | 1.80     | bdl | 0.31 | 0.8  |
| <b>Varieties supported for registration by the PRCOB</b>         |   |     |            |     |         |     |          |     |         |                  |         |     |        |     |        |     |          |     |      |      |
| <b>Malting</b>   |   |     |            |     |         |     |          |     |         |                  |         |     |        |     |        |     |          |     |      |      |
| TR19655 (I)  | 1.20                                    | bdl | -          | -   | -       | -   | -        | -   | 0.81    | bdl              | 0.00    | bdl | -      | -   | -      | -   | -        | -   | 0.87 | 0.5  |
| <b>Food and Feed</b>   |   |     |            |     |         |     |          |     |         |                  |         |     |        |     |        |     |          |     |      |      |
| FB20601 (I)  | 2.50                                    | bdl | -          | -   | -       | -   | -        | -   | 0.31    | bdl              | 0.00    | bdl | -      | -   | -      | -   | -        | -   | 0.41 | 1.4  |
| TR19758 (I)  | 1.70                                    | bdl | -          | -   | -       | -   | -        | -   | 0.65    | bdl              | 0.19    | bdl | -      | -   | -      | -   | -        | -   | 0.29 | 0.7  |
| <b>Grand Mean<sup>2</sup></b>                                    | 1.56                                    | bdl | 1.16       | bdl | 0.83    | bdl | 0.27     | bdl | 0.53    | bdl              | 0.18    | 0.7 | 0.23   | bdl | 0.35   | bdl | 1.76     | bdl | 0.43 | 0.90 |

<sup>1</sup>Detection limit >0.5 ppm and <5.0 ppm. Entries reporting <0.5 ppm DON are reported as bdl (below detection limit).

<sup>2</sup>DON grand mean is the site average for entries where DON was detected.

Thank you to the following:

Manitoba Crop Alliance (MCA) who provided funding to conduct analysis of 2022 samples.

Manitoba Crop Variety Evaluation Team (MCVET) and contractors who provided the harvested samples for analysis.

