

## **SUNFLOWER HYBRID PERFORMANCE TRIALS**

Elm Creek 2022

Oil Sunflower markets - include birdfood, oil crush and de-hull. Variety selection becomes more important when trying to capture de-hull markets. Choose varieties with better de-hull ratio, larger size and higher test weight. Environment will contribute greatly to final product. Plant population and environment will contribute greatly to the final product. Percent (%) oil content was unavailable at press time, visit www.mbcropalliance.ca for more details.

| OILS ELM CREEK 2022 |   |                       |                           |                  |                 |                           |                    |                                 |            |  |
|---------------------|---|-----------------------|---------------------------|------------------|-----------------|---------------------------|--------------------|---------------------------------|------------|--|
| Hybrid              | Herbicide/Disease<br>Tolerance <sup>1</sup> | Oil Type <sup>2</sup> | Company                   | Yield<br>(lb/ac) | Moisture<br>(%) | Maturity³<br>(days to R9) | Height<br>(inches) | Test Wt <sup>4</sup><br>(lb/bu) | Oil<br>(%) |  |
| P63HE60             | ExSun/DM                                    | но                    | Pioneer Hi-Bred           | 2861             | 10.5            | 114                       | 65                 | 29.2                            | 46.9       |  |
| P63ME80             | ExSun/DM                                    | NS                    | Pioneer Hi-Bred           | 2980             | 11.0            | 118                       | 69                 | 29.0                            | 47.8       |  |
| N4H302 E            | ExSun                                       | но                    | Nuseed                    | 2587             | 10.4            | 117                       | 62                 | 26.7                            | 43.9       |  |
| Talon               | ExSun                                       | NS                    | Nuseed                    | 2734             | 10.1            | 112                       | 61                 | 25.1                            | 43.4       |  |
| CP432E              | ExSun                                       | NS                    | WinField United   CROPLAN | 2789             | 8.6             | 115                       | 62                 | 29.8                            | 45.8       |  |
| CP455E              | ExSun                                       | но                    | WinField United   CROPLAN | 3064             | 11.6            | 119                       | 62                 | 28.9                            | 45.9       |  |
| Experimental lin    | es being tested/proposed for                | registration in       | Canada                    |                  |                 |                           |                    |                                 |            |  |
| P63HE501            | ExSun                                       | но                    | Pioneer Hi-Bred           | 2774             | 10.1            | 119                       | 66                 | 30.2                            | 43.0       |  |
| P63HE920            | ExSun                                       | но                    | Pioneer Hi-Bred           | 3191             | 10.9            | 120                       | 64                 | 31.8                            | 44.5       |  |
| N4H161 CL           | CL  | но                    | Nuseed                    | 2494             | 11.2            | 110                       | 44                 | 29.6                            | 40.8       |  |
| Camaro II           | CL  | NS                    | Nuseed                    | 2945             | 13.0            | 121                       | 67                 | 29.7                            | 46.4       |  |
| X4219               | ExSun                                       | NS                    | Nuseed                    | 2718             | 11.2            | 119                       | 61                 | 30.3                            | 46.0       |  |
| Site Average        |   |                       |                           | 2831             | 10.8            | 117                       | 62                 | 29.1                            |            |  |
| CV%                 |   |                       |                           | 6.97             | 10.16           | 0.77                      | 2.77               | 2.33                            |            |  |
| Sign Diff           |   |                       |                           | Yes              | Yes             | Yes                       | Yes                | Yes                             |            |  |
| LSD (0.05)          |   |                       |                           | 336              | 1.9             | 2                         | 3                  | 1.2                             |            |  |
| Planting Date       |   |                       |                           | June 6, 2022     |                 |                           |                    |                                 |            |  |
| Desiccation Date    |   |                       |                           |                  |                 |                           |                    |                                 |            |  |
| Harvest Date        |   |                       |                           | October 31, 2022 |                 |                           |                    |                                 |            |  |

<sup>1</sup> Genetic traits include CL = Clearfield herbicide tolerance; ExSun = Express SG herbicide tolerance; DM = Downy Mildew Resistance.

All sunflowers varieties listed are susceptible to sclerotinia and sunflower rust strains present in Manitoba. Genetic resistance to verticillium wilt is rated as moderately susceptible to moderately resistant for all sunflower varieties presented. Plant population and environment will contribute greatly to the final product.

| NON-OILS ELM CREEK 2022 |                    |                     |                     |                 |                       |        |                                      |        |        |                       |
|-------------------------|--------------------|---------------------|---------------------|-----------------|-----------------------|--------|--------------------------------------|--------|--------|-----------------------|
| Hybrid                  | Genetic            | Company             | Yield (lb/ac)       | Moisture<br>(%) | Maturity <sup>1</sup> | Height | 2022 Seeding Sizing (%) <sup>2</sup> |        |        | Test Wgt <sup>4</sup> |
|                         | Trait <sup>3</sup> |                     |                     |                 |                       |        | >22/64                               | >20/64 | <20/64 | (lb/bu A)             |
| 6946 DMR                | DM                 | Nuseed              | 3006                | 9.0             | 112                   | 63     | 26                                   | 40     | 34     | 24.6                  |
| Panther DMR             | DM                 | Nuseed              | 2427                | 10.2            | 113                   | 58     | 53                                   | 29     | 19     | 24.0                  |
| Experimental I          | ines being test    | ed/proposed for reg | istration in Canada |                 |                       |        |                                      |        |        |                       |
| EX 570309               | ExSun              | MCA                 | 2509                | 9.1             | 113                   | 60     | 53                                   | 15     | 32     | 24.2                  |
| EX 359239               | ExSun              | MCA                 | 2583                | 10.0            | 120                   | 66     | 88                                   | 6      | 6      | 22.3                  |
| EX 20057                | ExSun              | MCA                 | 2450                | 9.1             | 117                   | 61     | 76                                   | 13     | 12     | 24.0                  |
| EX 20306                | ExSun              | MCA                 | 2434                | 9.0             | 116                   | 56     | 85                                   | 10     | 5      | 23.3                  |
| EX 200239               | ExSun              | MCA                 | 2573                | 10.3            | 114                   | 66     | 89                                   | 6      | 6      | 23.7                  |
| NJKE05926               | ExSun              | Nuseed              | 2494                | 9.2             | 111                   | 59     | 10                                   | 12     | 78     | 26.9                  |
| NJKM65823               | IMI                | Nuseed              | 2282                | 10.3            | 119                   | 58     | 51                                   | 33     | 16     | 23.7                  |
| NDKM15700               | IMI                | Nuseed              | 2708                | 9.8             | 114                   | 56     | 70                                   | 16     | 14     | 22.0                  |
| NDKM16761               | IMI                | Nuseed              | 2331                | 9.0             | 118                   | 55     | 55                                   | 31     | 14     | 22.2                  |
| 20-EXP3                 | ExSun              | CHS Sunflower       | 2465                | 9.8             | 118                   | 58     | 72                                   | 21     | 7      | 22.5                  |
| 21-EXP1                 | ExSun              | CHS Sunflower       | 2222                | 11.8            | 120                   | 61     | 40                                   | 39     | 21     | 19.4                  |
| Site Average            |                    |                     | 2499                | 9.7             | 116                   | 60     |                                      |        |        | 23.3                  |
| CV %                    |                    |                     | 6.10                | 7.82            | 0.92                  | 3.17   |                                      |        |        | 3.39                  |
| Sign Diff               |                    |                     | Yes                 | Yes             | Yes                   | Yes    |                                      |        |        | Yes                   |
| LSD (0.05)              |                    |                     | 257                 | 1.3             | 2                     | 3      |                                      |        |        | 1.3                   |
| Planting Date           |                    |                     | June 6, 2022        |                 |                       |        |                                      |        |        |                       |
| Desiccation Date        |                    |                     |                     |                 |                       |        |                                      |        |        |                       |
| Harvest Date            |                    |                     | October 31, 2022    |                 |                       |        |                                      |        |        |                       |

 $<sup>1\,</sup>Physiological\ maturity\ for\ sunflowers\ is\ R9, where\ the\ bracts\ on\ the\ head\ are\ almost\ completely\ brown.$ 



<sup>2</sup> Oil Type designations are NS=NuSun; HO=High Oleic; CO = ConOil

<sup>3</sup> Physiological maturity for sunflowers is R9, where the bracts on the head are almost completely brown.

<sup>4</sup> Test weights are reported in lbs per Avery (Canadian) bushel.

 $<sup>2\,\</sup>mbox{Totals}$  may not add to 100% due to rounding.

<sup>3</sup> Genetic traits include CL = Clearfield tolerance; ExSun = Express tolerance; DM = Downy Mildew Resistance.

<sup>4</sup> Test weights are reported in lbs per Avery (Canadian) bushel.