

North Dakota Flax Variety Trial Results for 2014 and Selection Guide

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This Selection Guide summarizes flax variety performance at the various North Dakota State University Research Extension Centers. Give special attention to yield results of those trials nearest to your production area when evaluating varieties in these trials. Also, attempt to view yield averages of several years rather than using only one year's data as a determining factor. In addition, also consider other agronomic characteristics, such as maturity, disease tolerance, lodging score and oil percentages, if available.

The agronomic data presented are from replicated research plots using experimental designs that enable the use of statistical analysis. The LSD (Least Significant Difference) numbers beneath the columns in tables are derived from the statistical analyses and only apply to the numbers in the column in which they appear. If the difference between two varieties exceeds the LSD value, it means that with 90 percent probability (LSD 0.10) the higher-yielding variety has a significant yield advantage. If the difference between two varieties is less than the LSD value, then the variety yields are considered similar. The abbreviation NS is used to indicate "no significant difference" for that trait among any of the varieties.

The CV is a measure of variability in the trial. The CV stands for coefficient of variation and is expressed as a percentage. Large CVs mean a large amount of variation that could not be attributed to differences in the varieties. In the tables, the mean indicates the average of the observations in the column. Only compare values within the table and look for trends for the desired trait among different experimental sites and years.

Gold ND is a new flax variety released by NDSU in 2014. It is a yellow-seeded flax that is adapted to the north-central flax growing region of the United States. Gold ND has very high yield potential, good oil content and oil drying quality. It is resistant to flax rust and has good tolerance to flax wilt. The variety has blue flowers and medium seed size.

Oil content and harvested seed yield were adjusted to 9 percent moisture. In the table headings (Table 6-10) the lead scientists are acknowledged. Presentation of data for the varieties tested does not imply approval or endorsement by the authors or agencies conducting the tests. NDSU approves the reproduction of any table in this publication only if no portion is deleted, appropriate footnotes are given, the order of the data is not rearranged and NDSU is credited for the data. Research specialists and technicians helped with the field work and data compilation. The assistance given by many secretaries in typing respective portions of the document is very much appreciated. A special thank you goes to Lisa Johnson, Extension Plant Sciences secretary, for assisting in the compilation of this publication.

Table 1. 2014 North Dakota Flax Variety Descriptions.

Table 2. Plant Height of Flax Varieties at Five Locations in North Dakota, 2014.

Table 3. Days to Flower of Flax Varieties at Five Locations in North Dakota, 2014.

Table 4. Yield of Flax Varieties at Five Locations in North Dakota, 2012-2014.

Table 5. Test Weight of Flax Varieties at Five Locations in North Dakota, 2014.

Table 6. 2014 Flax - Carrington - Authors, M. Ostlie, B. Schatz, K. Bjerke and L. Berg.

Table 7. 2014 Flax - Langdon - Authors, B. Hanson, T. Hakanson and L. Henry.

Table 8. 2014 Flax - Minot - Authors, E. Eriksmoen, J. Tarasenko, and J. Effertz.

Table 9. 2014 Flax - Dryland - Williston - Authors, J. Bergman, G. Pradhan and D. Amiot.

Table 10. 2014 Flax - Hettinger - Authors, J. Rickertsen and R. Olson.

Table 1. 2014 North Dakota Flax Variety Descriptions.

| Variety ¹ | Origin ² | Year Released | Relative Maturity | Seed Color | Plant Height | Wilt ³ |
|----------------------|---------------------|---------------|-------------------|------------|--------------|-------------------|
| Carter | ND | 2004 | Med. | Yellow | Med. | MS/MR |
| Cathay | ND | 1998 | Med. | Brown | Med. | MR |
| CDC Arras | Can. | 1999 | Med. | Brown | Med. | MR |
| CDC Bethune | Can. | 1999 | Med.late | Brown | Med.tall | MR |
| CDC Glas | Can. | 2012 | Med. | Brown | Med.tall | MR |
| CDC Mons | Can. | 2003 | Med.late | Brown | Med. | MR |
| CDC Neela | Can. | 2013 | Med.late | Brown | Med. | MR |
| CDC Sanctuary | Can. | 2012 | Med. | Brown | Med.tall | MR |
| CDC Sorrel | Can. | 2007 | Med.late | Brown | Med.tall | MR |
| Gold ND | ND | 2014 | Med. | Yellow | Med.tall | MR/R |
| Hanley | Can. | 2002 | Med.early | Brown | Med. | R |
| Lightning | Can. | 2002 | Late | Brown | Med.tall | R |
| Linott | Can. | 1966 | Med.early | Brown | Med. | MS/MR |
| McGregor | Can. | 1980 | Late | Brown | Med.tall | MR |
| Neche | ND | 1988 | Med. | Brown | Med. | MR/R |
| Nekoma | ND | 2002 | Late | Brown | Med. | MR |
| Omega | ND | 1989 | Med. | Yellow | Med. | MS/MR |
| Pembina | ND | 1998 | Med. | Brown | Med. | MR |
| Prairie Blue | Can. | 2003 | Med.late | Brown | Med.tall | MR |
| Prairie Grande | Can. | 2008 | Med.early | Brown | Med. | MR |
| Prairie Sapphire | Can. | 2012 | Med. | Brown | Med. | MR |
| Prairie Thunder | Can. | 2006 | Med. | Brown | Short | MR |
| Rahab 94 | SD | 1994 | Med. | Brown | Med. | MR |
| Selby | SD | 2000 | Late | Brown | Tall | MR |
| Shape | Can. | 2010 | Med. | Brown | Med. | R |
| Webster | SD | 1998 | Late | Brown | Tall | MR |
| York | ND | 2002 | Late | Brown | Med. | MR/R |

¹ All varieties have resistance to prevalent races of rust; all have good oil yield and oil quality.

² Can. = Canada; ND = North Dakota State University; SD = South Dakota State University.

³ R = resistant; MR = moderately resistant; MS = moderately susceptible.

Table 2. Plant Height of Flax Varieties at Five Locations in North Dakota, 2014.

| Variety | Carrington (inch) | Langdon (inch) | Minot (inch) | Williston (inch) | Hettinger (inch) | Average N.D. (inch) |
|----------------------|----------------------|-------------------|-----------------|---------------------|---------------------|------------------------|
| Carter ¹ | 28 | 25 | 29 | 21 | 25 | 26 |
| CDC Arras | 28 | 26 | 31 | 23 | 27 | 27 |
| CDC Bethune | 29 | 26 | 32 | 22 | 28 | 27 |
| CDC Glas | 29 | 26 | 29 | 21 | 25 | 26 |
| CDC Neela | 30 | 25 | 28 | 21 | 26 | 26 |
| CDC Sanctuary | 30 | 25 | 31 | 22 | 26 | 27 |
| CDC Sorrel | 31 | 27 | 31 | 24 | 28 | 28 |
| Gold ND ¹ | 31 | 27 | 31 | 22 | 27 | 27 |
| Hanley | 26 | 25 | 31 | 22 | 27 | 26 |
| Lightning | 29 | 27 | 30 | 23 | 26 | 27 |
| Neche | 30 | 27 | 31 | 22 | 26 | 27 |
| Nekoma | 29 | 26 | 30 | 21 | 26 | 26 |
| Omega ¹ | 27 | 25 | 28 | 22 | 26 | 26 |
| Pembina | 30 | 26 | 30 | 22 | 26 | 27 |
| Prairie Blue | 25 | 25 | 29 | 20 | 25 | 25 |
| Prairie Grande | 28 | 22 | 28 | 20 | 24 | 25 |
| Prairie Sapphire | 27 | 26 | 27 | 22 | 26 | 25 |
| Prairie Thunder | 27 | 27 | 31 | 22 | 26 | 27 |
| Rahab 94 | 29 | 24 | 28 | 21 | 24 | 25 |
| Shape | 28 | 25 | 30 | 22 | 26 | 26 |
| Webster | 29 | 27 | 32 | 22 | 27 | 28 |
| York | 27 | 25 | 29 | 21 | 25 | 25 |
| Mean | 29 | 26 | 30 | 22 | 26 | 26 |
| CV % | 4.4 | 4.2 | 5.9 | 5.2 | 4.9 | 3.5 |
| LSD 0.10 | 1.5 | 1.3 | 2.0 | 1.3 | 1.5 | 1.0 |

¹Yellow seeded.**Table 3. Days to Flower of Flax Varieties at Five Locations in North Dakota, 2014.**

| Variety | Carrington (DAP) ² | Langdon (DAP) ² | Minot (DAP) ² | Williston (DAP) ² | Hettinger (DAP) ² | Average N.D. (DAP) ² |
|----------------------|----------------------------------|-------------------------------|-----------------------------|---------------------------------|---------------------------------|------------------------------------|
| Carter ¹ | 50 | 49 | 50 | 39 | 53 | 48 |
| CDC Arras | 52 | 49 | 50 | 38 | 53 | 48 |
| CDC Bethune | 49 | 48 | 51 | 36 | 53 | 47 |
| CDC Glas | 52 | 51 | 55 | 37 | 54 | 50 |
| CDC Neela | 52 | 52 | 55 | 40 | 53 | 50 |
| CDC Sanctuary | 51 | 52 | 51 | 38 | 54 | 49 |
| CDC Sorrel | 52 | 52 | 56 | 38 | 54 | 50 |
| Gold ND ¹ | 53 | 50 | 54 | 39 | 55 | 50 |
| Hanley | 46 | 48 | 51 | 38 | 53 | 47 |
| Lightning | 51 | 48 | 51 | 35 | 54 | 48 |
| Neche | 51 | 48 | 51 | 37 | 54 | 48 |
| Nekoma | 50 | 48 | 52 | 34 | 53 | 47 |
| Omega ¹ | 47 | 50 | 49 | 39 | 55 | 48 |
| Pembina | 52 | 51 | 54 | 37 | 53 | 49 |
| Prairie Blue | 44 | 49 | 51 | 36 | 54 | 47 |
| Prairie Grande | 51 | 47 | 48 | 35 | 53 | 47 |
| Prairie Sapphire | 46 | 51 | 49 | 39 | 54 | 48 |
| Prairie Thunder | 50 | 50 | 51 | 38 | 54 | 49 |
| Rahab 94 | 51 | 48 | 51 | 35 | 53 | 48 |
| Shape | 48 | 49 | 49 | 39 | 54 | 48 |
| Webster | 53 | 50 | 53 | 39 | 54 | 50 |
| York | 51 | 48 | 50 | 34 | 54 | 47 |
| Mean | 50 | 49 | 51 | 37 | 54 | 48 |
| CV % | 1.3 | 2.2 | 1.2 | 3.8 | 1.0 | 3.3 |
| LSD 0.10 | 0.8 | 1.3 | 1.0 | 1.7 | 0.6 | 1.7 |

¹Yellow seeded.²DAP = Days after planting.

Table 4. Yield of Flax Varieties at Five Locations in North Dakota, 2012-2014.

| Variety | Carrington | | Langdon | | Minot | | Williston | | Hettinger | | Average N.D. | |
|----------------------|----------------|-------|----------------|-------|------------|-------|--------------|-------|--------------|-------|--------------|-------------------|
| | 2014 | 3 Yr. | 2014 | 3 Yr. | 2014 | 3 Yr. | 2014 | 3 Yr. | 2014 | 3 Yr. | 2014 | 3 Yr. |
| | ----(bu/a)---- | | ----(bu/a)---- | | --(bu/a)-- | | ---(bu/a)--- | | ---(bu/a)--- | | ---(bu/a)--- | |
| Carter ¹ | 31.2 | 19.2 | 39.5 | 38.1 | 25.5 | 27.3 | 18.5 | 19.2 | 29.5 | 22.7 | 28.8 | 25.3 |
| CDC Arras | 29.7 | 18.5 | 39.6 | 37.8 | 22.2 | 23.6 | 18.8 | 18.7 | 30.3 | 24.4 | 28.1 | 24.6 |
| CDC Bethune | 33.2 | 20.0 | 39.2 | 36.6 | 23.8 | 22.9 | 18.2 | 17.4 | 30.4 | 24.7 | 29.0 | 24.3 |
| CDC Glas | 30.7 | -- | 42.6 | 41.2 | 26.2 | 23.0 | 18.8 | 18.2 | 35.2 | -- | 30.7 | -- |
| CDC Neela | 34.1 | -- | 38.6 | -- | 21.8 | -- | 18.1 | -- | 37.6 | -- | 30.0 | -- |
| CDC Sanctuary | 29.2 | 20.4 | 38.2 | 37.5 | 24.8 | 26.6 | 18.5 | 18.7 | 35.6 | -- | 29.3 | -- |
| CDC Sorrel | 34.8 | 23.4 | 38.2 | 36.3 | 24.9 | 27.1 | 19.5 | 20.6 | 32.8 | -- | 30.0 | -- |
| Gold ND ¹ | 30.7 | 20.5 | 37.4 | 38.2 | 26.0 | 26.0 | 19.6 | 19.3 | 32.8 | -- | 29.3 | 26.0 ² |
| Hanley | 26.8 | 18.9 | 36.8 | 37.7 | 25.3 | 23.6 | 18.5 | 18.7 | 32.0 | 23.7 | 27.9 | 24.5 |
| Lightning | 29.7 | 19.7 | 37.9 | 37.5 | 24.8 | 25.4 | 19.3 | 18.7 | 31.8 | 22.6 | 28.7 | 24.8 |
| Neche | 33.0 | 21.0 | 38.4 | 36.9 | 25.5 | 29.3 | 20.6 | 19.7 | 30.3 | -- | 29.6 | -- |
| Nekoma | 31.3 | 22.2 | 38.3 | 36.7 | 22.1 | 27.9 | 20.0 | 18.6 | 32.8 | 24.9 | 28.9 | 26.0 |
| Omega ¹ | 27.4 | 17.2 | 36.1 | 35.5 | 22.3 | 25.2 | 20.8 | 17.7 | 31.2 | -- | 27.6 | -- |
| Pembina | 32.2 | 19.9 | 38.2 | 36.4 | 15.1 | 26.7 | 16.7 | 17.2 | 31.5 | 24.4 | 26.7 | 24.9 |
| Prairie Blue | 26.2 | 16.9 | 39.8 | 36.4 | 18.4 | 23.5 | 20.3 | 19.0 | 34.4 | 26.2 | 27.8 | 24.4 |
| Prairie Grande | 29.8 | 19.2 | 34.8 | 32.8 | 21.5 | 23.9 | 17.5 | 17.5 | 32.8 | 25.7 | 27.3 | 23.8 |
| Prairie Sapphire | 27.9 | 19.0 | 38.3 | 40.3 | 20.1 | 23.9 | 17.4 | 17.8 | 33.7 | 26.8 | 27.5 | 25.5 |
| Prairie Thunder | 29.9 | 19.3 | 41.6 | 41.3 | 23.6 | 26.2 | 18.4 | 17.8 | 33.1 | -- | 29.3 | -- |
| Rahab 94 | 32.8 | 22.1 | 39.6 | 35.5 | 25.2 | 28.7 | 19.5 | 18.8 | 34.4 | -- | 30.3 | -- |
| Shape | 30.4 | 18.9 | 37.9 | 40.0 | 24.2 | 25.1 | 17.5 | 17.1 | 33.2 | -- | 28.6 | -- |
| Webster | 34.2 | 21.2 | 38.9 | 39.6 | 23.9 | 26.2 | 16.2 | 17.2 | 31.7 | 24.7 | 29.0 | 25.8 |
| York | 34.9 | 20.2 | 38.0 | 37.4 | 23.7 | 21.9 | 18.9 | 19.1 | 31.7 | 27.5 | 29.4 | 25.2 |
| Mean | 30.9 | 19.9 | 38.5 | 37.6 | 23.2 | 25.4 | 18.7 | 18.4 | 32.7 | 24.9 | 28.8 | 24.9 |
| CV % | 12.4 | -- | 7.9 | -- | 12.5 | -- | 14.5 | -- | 10.0 | -- | 7.0 | 6.2 |
| LSD 0.10 | 4.5 | -- | NS | -- | 3.4 | -- | 3.3 | -- | 3.8 | -- | 2.1 | 1.6 |

¹Yellow seeded.²Average Carrington, Langdon, Minot and Williston.**Table 5. Test Weight of Flax Varieties at Five Locations in North Dakota, 2014.**

| Variety | Carrington | | Langdon | | Minot | | Williston | | Hettinger | | Average N.D. | |
|----------------------|------------|---------|---------|---------|---------|---------|-----------|---------|-----------|---------|--------------|---------|
| | (lb/bu) | (lb/bu) | (lb/bu) | (lb/bu) | (lb/bu) | (lb/bu) | (lb/bu) | (lb/bu) | (lb/bu) | (lb/bu) | (lb/bu) | (lb/bu) |
| Carter ¹ | 54.6 | 52.1 | 52.1 | 52.6 | 55.2 | 53.3 | | | | | | |
| CDC Arras | 54.1 | 51.8 | 51.7 | 52.7 | 54.7 | 53.0 | | | | | | |
| CDC Bethune | 53.8 | 52.3 | 52.0 | 52.7 | 55.1 | 53.2 | | | | | | |
| CDC Glas | 54.3 | 51.2 | 51.1 | 50.7 | 53.2 | 52.1 | | | | | | |
| CDC Neela | 54.8 | 51.9 | 51.5 | 51.5 | 54.8 | 52.9 | | | | | | |
| CDC Sanctuary | 53.3 | 51.5 | 51.9 | 52.1 | 54.0 | 52.6 | | | | | | |
| CDC Sorrel | 54.1 | 51.8 | 52.0 | 52.2 | 54.5 | 52.9 | | | | | | |
| Gold ND ¹ | 54.6 | 52.2 | 52.8 | 51.3 | 54.5 | 53.1 | | | | | | |
| Hanley | 52.7 | 52.0 | 51.9 | 52.8 | 54.4 | 52.7 | | | | | | |
| Lightning | 54.0 | 52.3 | 51.7 | 52.8 | 55.1 | 53.2 | | | | | | |
| Neche | 54.8 | 52.2 | 51.3 | 53.0 | 55.0 | 53.2 | | | | | | |
| Nekoma | 54.6 | 52.3 | 52.3 | 52.8 | 55.0 | 53.4 | | | | | | |
| Omega ¹ | 54.1 | 52.4 | 52.4 | 53.0 | 55.1 | 53.4 | | | | | | |
| Pembina | 54.3 | 52.0 | 52.4 | 52.6 | 54.4 | 53.1 | | | | | | |
| Prairie Blue | 53.0 | 51.7 | 52.0 | 52.5 | 54.5 | 52.7 | | | | | | |
| Prairie Grande | 53.3 | 51.4 | 51.1 | 52.5 | 52.7 | 52.2 | | | | | | |
| Prairie Sapphire | 53.0 | 51.0 | 50.1 | 51.8 | 54.1 | 52.0 | | | | | | |
| Prairie Thunder | 54.4 | 52.0 | 51.8 | 52.9 | 54.7 | 53.1 | | | | | | |
| Rahab 94 | 54.4 | 51.5 | 50.8 | 51.8 | 53.6 | 52.4 | | | | | | |
| Shape | 54.2 | 51.3 | 50.2 | 52.3 | 54.0 | 52.4 | | | | | | |
| Webster | 54.2 | 52.1 | 52.5 | 52.4 | 55.3 | 53.3 | | | | | | |
| York | 54.5 | 52.0 | 51.0 | 52.8 | 53.7 | 52.8 | | | | | | |
| Mean | 54.0 | 51.9 | 51.7 | 52.3 | 54.4 | 52.9 | | | | | | |
| CV % | 0.8 | 0.5 | 1.7 | 1.1 | 1.0 | 1.0 | | | | | | |
| LSD 0.10 | 0.5 | 0.3 | 1.0 | 0.7 | 0.6 | 0.5 | | | | | | |

¹Yellow seeded.

Table 6. 2014 Flax - Carrington - Authors, M. Ostlie, B. Schatz, K. Bjerke and L. Berg.

| Variety | Days to | Days to | Plant | Oil | Test | Seed Yield | | |
|----------------------|------------------------------|--------------------------|------------------|----------------|-------------------|--------------------------|------------|------------|
| | Flower (DAP) ¹ | PM (DAP) ¹ | Height (inch) | Content (%) | Weight (lb/bu) | 2014 -----(bu/a)----- | 2-yr. Avg. | 3-yr. Avg. |
| Carter ² | 50 | 87 | 28 | 45.7 | 54.6 | 31.2 | 22.3 | 19.2 |
| CDC Arras | 52 | 88 | 28 | 44.6 | 54.1 | 29.7 | 20.5 | 18.5 |
| CDC Bethune | 49 | 87 | 29 | 44.6 | 53.8 | 33.2 | 23.0 | 20.0 |
| CDC Glas | 52 | 90 | 29 | 44.3 | 54.3 | 30.7 | -- | -- |
| CDC Neela | 52 | 85 | 30 | 45.6 | 53.9 | 34.1 | -- | -- |
| CDC Sanctuary | 51 | 88 | 30 | 44.8 | 53.3 | 29.2 | 22.3 | 20.4 |
| CDC Sorrel | 52 | 87 | 31 | 45.1 | 54.1 | 34.8 | 26.2 | 23.4 |
| Gold ND ² | 53 | 88 | 31 | 45.6 | 54.6 | 30.7 | 21.9 | 20.5 |
| Hanley | 46 | 80 | 26 | 47.8 | 52.7 | 26.8 | 20.9 | 18.9 |
| Lightning | 51 | 88 | 29 | 44.3 | 54.0 | 29.7 | 21.1 | 19.7 |
| Neche | 51 | 87 | 30 | 44.1 | 54.8 | 33.0 | 23.1 | 21.0 |
| Nekoma | 50 | 87 | 29 | 44.8 | 54.6 | 31.3 | 24.1 | 22.2 |
| Omega ² | 47 | 84 | 27 | 45.0 | 54.1 | 27.4 | 18.9 | 17.2 |
| Pembina | 52 | 86 | 30 | 44.4 | 54.3 | 32.2 | 22.8 | 19.9 |
| Prairie Blue | 44 | 79 | 25 | 45.8 | 53.0 | 26.2 | 17.4 | 16.9 |
| Prairie Grande | 51 | 86 | 28 | 45.6 | 53.3 | 29.8 | 21.7 | 19.2 |
| Prairie Sapphire | 46 | 82 | 27 | 46.9 | 53.0 | 27.9 | 20.6 | 19.0 |
| Prairie Thunder | 50 | 84 | 27 | 44.1 | 54.4 | 29.9 | 20.7 | 19.3 |
| Rahab 94 | 51 | 87 | 29 | 44.6 | 53.9 | 32.8 | 24.1 | 22.1 |
| Shape | 48 | 84 | 28 | 44.1 | 54.2 | 30.4 | 21.2 | 18.9 |
| Webster | 53 | 88 | 29 | 44.5 | 54.2 | 34.2 | 24.0 | 21.2 |
| York | 51 | 89 | 27 | 43.7 | 54.5 | 34.9 | 24.4 | 20.2 |
| Mean | 50 | 86 | 29 | 45.0 | 54.0 | 30.8 | 22.1 | 20.0 |
| CV % | 1.3 | 1 | 4.4 | 0.8 | 0.8 | 12.4 | -- | -- |
| LSD 0.10 | 0.8 | 1.1 | 1.5 | 0.4 | 0.5 | 4.5 | -- | -- |

Planted: May 21. Harvested: Sept. 15. Previous crop: spring wheat.

¹DAP = Days after planting.²Yellow seeded.

Table 7. 2014 Flax - Langdon - Authors, B. Hanson, T. Hakanson and L. Henry.

| Variety | Days to | Plant | Test | Seed Yield | | | | |
|----------------------|------------------------------|------------------|-------------------|------------|------|------|------------|------------|
| | Flower (DAP) ¹ | Height (inch) | Weight (lb/bu) | 2012 | 2013 | 2014 | 2-yr. Avg. | 3-yr. Avg. |
| Carter ² | 49 | 25 | 52.1 | 36.8 | 38.0 | 39.5 | 38.7 | 38.1 |
| CDC Arras | 49 | 26 | 51.8 | 33.4 | 40.4 | 39.6 | 40.0 | 37.8 |
| CDC Bethune | 48 | 26 | 52.3 | 32.0 | 38.5 | 39.2 | 38.8 | 36.6 |
| CDC Glas | 51 | 26 | 51.2 | 39.2 | 41.8 | 42.6 | 42.2 | 41.2 |
| CDC Neela | 52 | 25 | 51.9 | -- | -- | 38.6 | -- | -- |
| CDC Sanctuary | 52 | 25 | 51.5 | 31.9 | 42.4 | 38.2 | 40.3 | 37.5 |
| CDC Sorrel | 52 | 27 | 51.8 | 33.3 | 37.5 | 38.2 | 37.8 | 36.3 |
| Gold ND ² | 50 | 27 | 52.2 | 37.3 | 39.9 | 37.4 | 38.7 | 38.2 |
| Hanley | 48 | 25 | 52.0 | 35.4 | 40.9 | 36.8 | 38.8 | 37.7 |
| Lightning | 48 | 27 | 52.3 | 35.1 | 39.6 | 37.9 | 38.7 | 37.5 |
| Linott | 49 | 25 | 52.2 | 33.0 | 39.2 | 39.1 | 39.1 | 37.1 |
| McGregor | 49 | 25 | 51.7 | 34.4 | 36.7 | 40.2 | 38.4 | 37.1 |
| Neche | 48 | 27 | 52.2 | 32.9 | 39.5 | 38.4 | 38.9 | 36.9 |
| Nekoma | 48 | 26 | 52.3 | 34.4 | 37.5 | 38.3 | 37.9 | 36.7 |
| Omega ² | 50 | 25 | 52.4 | 31.7 | 38.7 | 36.1 | 37.4 | 35.5 |
| Pembina | 51 | 26 | 52.0 | 33.2 | 37.7 | 38.2 | 38.0 | 36.4 |
| Prairie Blue | 49 | 25 | 51.7 | 35.4 | 34.0 | 39.8 | 36.9 | 36.4 |
| Prairie Grande | 47 | 22 | 51.4 | 33.0 | 30.5 | 34.8 | 32.7 | 32.8 |
| Prairie Sapphire | 51 | 26 | 51.0 | 36.0 | 46.6 | 38.3 | 42.5 | 40.3 |
| Prairie Thunder | 50 | 27 | 52.0 | 37.2 | 45.1 | 41.6 | 43.3 | 41.3 |
| Rahab 94 | 48 | 24 | 51.5 | 34.6 | 32.3 | 39.6 | 36.0 | 35.5 |
| Shape | 49 | 25 | 51.3 | 36.9 | 45.2 | 37.9 | 41.5 | 40.0 |
| Webster | 50 | 27 | 52.1 | 35.3 | 44.6 | 38.9 | 41.7 | 39.6 |
| York | 48 | 25 | 52.0 | 35.2 | 38.9 | 38.0 | 38.4 | 37.4 |
| Mean | 50 | 26 | 51.9 | 34.7 | 40.0 | 38.7 | 39.0 | 37.6 |
| CV % | 2.2 | 4.2 | 0.5 | 6.8 | 10.6 | 7.9 | -- | -- |
| LSD 0.10 | 1.3 | 1.3 | 0.3 | 2.8 | 5.0 | NS | -- | -- |

Planted: May 15. Harvested: Sept. 12.

¹DAP = Days after planting.²Yellow seeded.

Table 8. 2014 Flax - Minot - Authors, E. Eriksmoen, J. Tarasenko and J. Effertz.

| Variety | Days to | Plant | Test | Seed Yield | | | |
|----------------------|------------------|--------|---------|------------|------|------|------------|
| | Flower | Height | Weight | 2012 | 2013 | 2014 | 3-yr. Avg. |
| | DAP ¹ | (inch) | (lb/bu) | (bu/a) | | | |
| Bison | 50 | 31 | 51.9 | -- | -- | 25.3 | -- |
| Carter ² | 50 | 29 | 52.1 | 34.9 | 21.4 | 25.5 | 27.3 |
| CDC Arras | 50 | 31 | 51.7 | 21.7 | 26.8 | 22.2 | 23.6 |
| CDC Bethune | 51 | 32 | 52.0 | 27.7 | 17.3 | 23.8 | 22.9 |
| CDC Glas | 55 | 29 | 51.1 | 21.3 | 21.6 | 26.2 | 23.0 |
| CDC Neela | 55 | 28 | 51.5 | -- | -- | 21.8 | -- |
| CDC Sanctuary | 51 | 31 | 51.9 | 28.3 | 26.6 | 24.8 | 26.6 |
| CDC Sorrel | 56 | 31 | 52.0 | 29.6 | 26.8 | 24.9 | 27.1 |
| Gold ND ² | 54 | 31 | 52.8 | -- | -- | 26.0 | 26.0 |
| Hanley | 51 | 31 | 51.9 | 25.0 | 20.3 | 25.3 | 23.6 |
| Lightning | 51 | 30 | 51.7 | 30.3 | 21.0 | 24.8 | 25.4 |
| Linott | 51 | 31 | 52.0 | 31.5 | 16.0 | 23.3 | 23.6 |
| McGregor | 51 | 28 | 51.7 | 26.3 | 31.8 | 23.3 | 27.1 |
| Neche | 51 | 31 | 51.3 | 30.9 | 31.6 | 25.5 | 29.3 |
| Nekoma | 52 | 30 | 52.3 | 35.3 | 26.2 | 22.1 | 27.9 |
| Omega ² | 49 | 28 | 52.4 | 30.4 | 22.7 | 22.3 | 25.2 |
| Pembina | 54 | 30 | 52.4 | 32.4 | 32.6 | 15.1 | 26.7 |
| Prairie Blue | 51 | 29 | 52.0 | 28.4 | 23.7 | 18.4 | 23.5 |
| Prairie Grand | 48 | 28 | 51.1 | 29.0 | 21.0 | 21.5 | 23.9 |
| Prairie Sapphire | 49 | 27 | 50.1 | 29.3 | 22.4 | 20.1 | 23.9 |
| Prairie Thunder | 51 | 31 | 51.8 | 28.9 | 26.1 | 23.6 | 26.2 |
| Rahab 94 | 51 | 28 | 50.8 | 33.8 | 27.1 | 25.2 | 28.7 |
| Shape | 49 | 30 | 50.2 | 30.7 | 20.4 | 24.2 | 25.1 |
| Webster | 53 | 32 | 52.5 | 31.2 | 23.3 | 23.9 | 26.2 |
| York | 50 | 29 | 51.0 | 23.1 | 19.0 | 23.7 | 21.9 |
| Mean | 52 | 30 | 51.6 | 29.1 | 23.9 | 23.6 | 25.5 |
| CV % | 1.2 | 5.9 | 1.7 | 11.2 | 18 | 12.5 | -- |
| LSD 0.10 | 1 | 2.0 | 1.0 | 4.0 | 5.9 | 3.4 | -- |

Planted: May 21. Harvested: Sept. 12.

¹DAP = Days after planting.²Yellow seeded.

Table 9. 2014 Flax - Dryland - Williston - Authors, J. Bergman, G. Pradhan and D. Amiot.

| Cultivar | Days to | Plant | Test | Oil Content (%) | Seed Yield | | |
|----------------------|------------------------------|------------------|-------------------|-----------------------|----------------|------------|------------|
| | Flower (DAP) ¹ | Height (inch) | Weight (lb/bu) | | 2014 (bu/a) | 2-yr. Avg. | 3-yr. Avg. |
| Bison | 35 | 22 | 52.7 | 38.9 | 17.6 | -- | -- |
| Carter ² | 39 | 21 | 52.6 | 38.8 | 18.5 | 22.5 | 19.2 |
| CDC Arras | 38 | 23 | 52.7 | 38.6 | 18.8 | 23.0 | 18.7 |
| CDC Bethume | 36 | 22 | 52.7 | 38.7 | 18.2 | 21.4 | 17.4 |
| CDC Glas | 37 | 21 | 50.7 | 39.6 | 18.8 | 22.1 | 18.2 |
| CDC Neela | 40 | 21 | 51.5 | 39.3 | 18.1 | -- | -- |
| CDC Sanctuary | 38 | 22 | 52.1 | 39.0 | 18.5 | 22.4 | 18.7 |
| CDC Sorrel | 38 | 24 | 52.2 | 39.4 | 19.5 | 25.8 | 20.6 |
| Gold ND ² | 39 | 22 | 51.3 | 40.0 | 19.6 | 23.5 | 19.3 |
| Hanley | 38 | 22 | 52.8 | 38.7 | 18.5 | 21.7 | 18.7 |
| Lightning | 35 | 23 | 52.8 | 39.2 | 19.3 | 22.8 | 18.7 |
| Linott | 39 | 23 | 52.8 | 38.2 | 18.8 | 22.6 | 18.4 |
| McGregor | 37 | 20 | 53.2 | 38.7 | 17.7 | 21.3 | 17.7 |
| Neche | 37 | 22 | 53.0 | 39.0 | 20.6 | 24.2 | 19.7 |
| Nekoma | 34 | 21 | 52.8 | 39.6 | 20.0 | 22.2 | 18.6 |
| Omega ² | 39 | 22 | 53.0 | 39.1 | 20.8 | 21.5 | 17.7 |
| Pembina | 37 | 22 | 52.6 | 38.9 | 16.7 | 20.4 | 17.2 |
| Prairie Blue | 36 | 20 | 52.5 | 40.1 | 20.3 | 24.3 | 19.0 |
| Prairie Grande | 35 | 20 | 52.5 | 39.0 | 17.5 | 20.8 | 17.5 |
| Prairie Sapphire | 39 | 22 | 51.8 | 40.5 | 17.4 | 20.6 | 17.8 |
| Prairie Thunder | 38 | 22 | 52.9 | 38.5 | 18.4 | 20.8 | 17.8 |
| Rahab 94 | 35 | 21 | 51.8 | 39.7 | 19.5 | 23.0 | 18.8 |
| Shape | 39 | 22 | 52.3 | 40.1 | 17.5 | 20.0 | 17.1 |
| Webster | 39 | 22 | 52.4 | 39.3 | 16.2 | 20.4 | 17.2 |
| York | 34 | 21 | 52.8 | 38.5 | 18.9 | 22.9 | 19.1 |
| Mean | 37 | 22 | 52.4 | 39.2 | 18.6 | 22.1 | 18.4 |
| CV % | 3.8 | 5.2 | 1.1 | 0.7 | 14.5 | -- | -- |
| LSD 0.10 | 1.7 | 1.3 | 0.7 | 0.3 | 3.3 | -- | -- |

Planted: May 9. Harvested: Sept. 16. Previous crop: durum.

¹DAP = Days after planting.²Yellow seeded.

Table 10. 2014 Flax - Hettinger - Authors, J. Rickertsen and R. Olson

| Variety | Days to | Plant | Oil | Test | Seed Yield | |
|----------------------|-----------------------------|------------------|----------------|-------------------|----------------|------------|
| | Bloom (DAP) ¹ | Height (inch) | Content (%) | Weight (lb/bu) | 2014 (bu/a) | 3-yr. Avg. |
| Bison | 53 | 26 | 41.2 | 54.3 | 30.7 | -- |
| Carter ² | 53 | 25 | 41.1 | 55.2 | 29.5 | 22.7 |
| CDC Arras | 53 | 27 | 40.0 | 54.7 | 30.3 | 24.4 |
| CDC Bethume | 53 | 28 | 40.7 | 55.1 | 30.4 | 24.7 |
| CDC Glas | 54 | 25 | 41.7 | 53.2 | 35.2 | -- |
| CDC Neela | 53 | 26 | 41.2 | 54.8 | 37.6 | -- |
| CDC Sanctuary | 54 | 26 | 42.0 | 54.0 | 35.6 | -- |
| CDC Sorrel | 54 | 28 | 41.7 | 54.5 | 32.8 | -- |
| Gold ND ² | 55 | 27 | 41.8 | 54.5 | 32.8 | -- |
| Hanley | 53 | 27 | 40.8 | 54.4 | 32.0 | 23.7 |
| Lightning | 54 | 26 | 40.7 | 55.1 | 31.8 | 22.6 |
| Linott | 54 | 28 | 39.7 | 55.7 | 32.0 | -- |
| McGregor | 54 | 27 | 40.7 | 55.0 | 34.6 | -- |
| Neche | 54 | 26 | 41.1 | 55.0 | 30.3 | -- |
| Nekoma | 53 | 26 | 41.1 | 55.0 | 32.8 | 24.9 |
| Omega ² | 55 | 26 | 40.6 | 55.1 | 31.2 | -- |
| Pembina | 53 | 26 | 40.5 | 54.4 | 31.5 | 24.4 |
| Praire Blue | 54 | 25 | 41.9 | 54.5 | 34.4 | 26.2 |
| Prairie Grande | 53 | 24 | 41.5 | 52.7 | 32.8 | 25.7 |
| Prairie Sapphire | 54 | 26 | 43.3 | 54.1 | 33.7 | 26.8 |
| Prairie Thunder | 54 | 26 | 40.4 | 54.7 | 33.1 | -- |
| Rahab 94 | 53 | 24 | 41.5 | 53.6 | 34.4 | -- |
| Shape | 54 | 26 | 43.0 | 54.0 | 33.2 | -- |
| Webster | 54 | 27 | 41.3 | 55.3 | 31.7 | 24.7 |
| York | 54 | 25 | 40.7 | 53.7 | 31.7 | 27.5 |
| Mean | 54 | 26 | 41.6 | 54.3 | 32.2 | 25.1 |
| CV % | 1 | 4.9 | 1.2 | 1.0 | 10.0 | -- |
| LSD 0.10 | 0.6 | 1.5 | 0.6 | 0.6 | 3.8 | -- |

Planted: May 6. Harvested: Aug. 29. Previous crop: durum wheat.

¹DAP = Days after planting.

²Yellow seeded.