A1469-18

# North Dakota Dry Pea

## *Variety Trial Results for 2018 and Selection Guide*

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**Introduction**

Field pea fits well into small-grain rotations. The green- and yellow-seeded varieties are used for human consumption as dry split peas. Marrowfat are green mature peas, and are used to make mushy peas and the snack food wasabi pea. Field peas also are used as protein concentrates for livestock and pigeon feeds.

Field pea stems grow to a length of 33 to 36 inches, and the plant reaches its maximum height at the early pod-fill stage. A cool growing season (a mean temperature of 55 to 65 degrees) is necessary for optimum pea yields. Hot weather during flowering may result in a reduced seed set.

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In North Dakota, field pea takes about 60 days from seeding until flowering and 90 to 100 days to maturity. The moisture requirement for field pea is similar to that for cereal grains. Field pea can be grown on a wide range of soil types, but drainage must be adequate because field pea does not tolerate saturated or soggy conditions. Field pea can be grown in a no-tillage or conventional-tillage cropping system. Field pea grows best when seeded into a weed-free seedbed and fertile soils. Land preparation for seeding is similar to wheat.

To obtain good soil-to-seed contact, seedbeds should be firm. Avoid seedbeds with large clods. Do not work the soil too finely because subsequent soil crusting following rains may cause poor emergence. Drill the seeds 2 to 3 inches deep in narrow rows (less than 10 inches apart) as early in the spring as possible. The soil should not be excessively wet at seeding.

Seeding can be done with an air seeder or grain drill. Adjust the seeder to prevent cracking of the seed, especially with the large-seeded varieties because cracked seed will not germinate. Having level ground is critical for easy harvesting. Stony fields should be avoided or rolled after seeding to bury loose stones that might be picked up during swathing and harvesting. Do not pack or roll immediately after seeding if the soil moisture is high because excess compaction or crusting can occur.

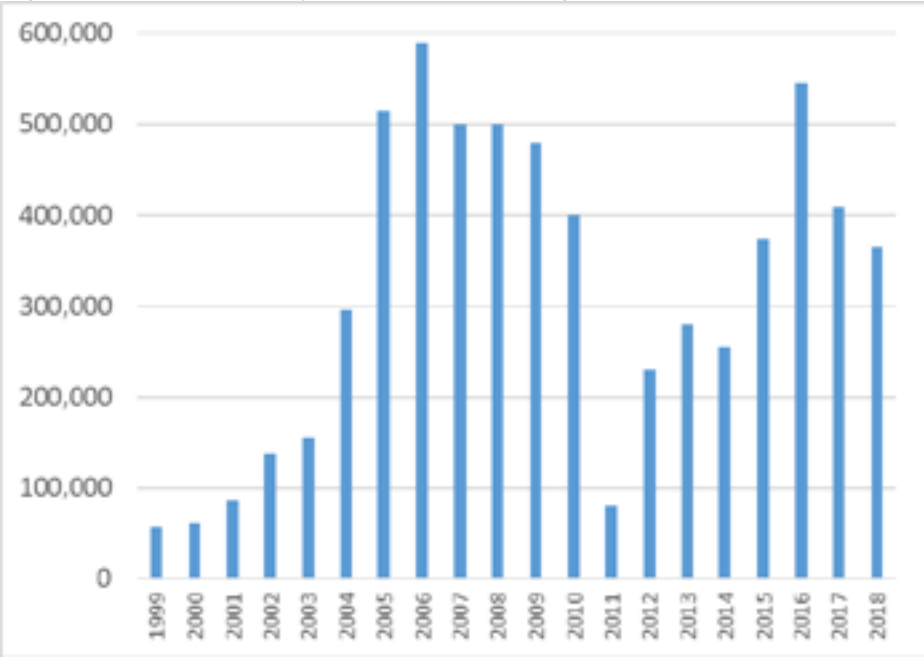
Pea seedlings can withstand considerable frost. Even if the frost is severe enough to kill the main shoot, the pea plant will regrow from buds at one of the nodes at or below the soil surface. However, this will delay plant maturity. The pea seed germination rate increases with increasing temperatures, but at temperatures greater than 64 degrees, the percentage of seed germination decreases.

Field pea is capable of utilizing bacterially fixed atmospheric nitrogen. The specific bacterial association for nitrogen fixation in field pea and lentils is with the bacterium *Rhizobium leguminosarum*, which is a different bacteria species than is used for soybean inoculation. If field pea is to be grown in a field for the first time or pea was not grown there recently, inoculating the seed with the proper *Rhizobium* bacteria prior to planting may be needed to ensure nodulation.

Treating the seed with a fungicide can improve emergence and plant establishment significantly. Fungicide labels should be checked to see if a particular fungicide can be used on field pea.

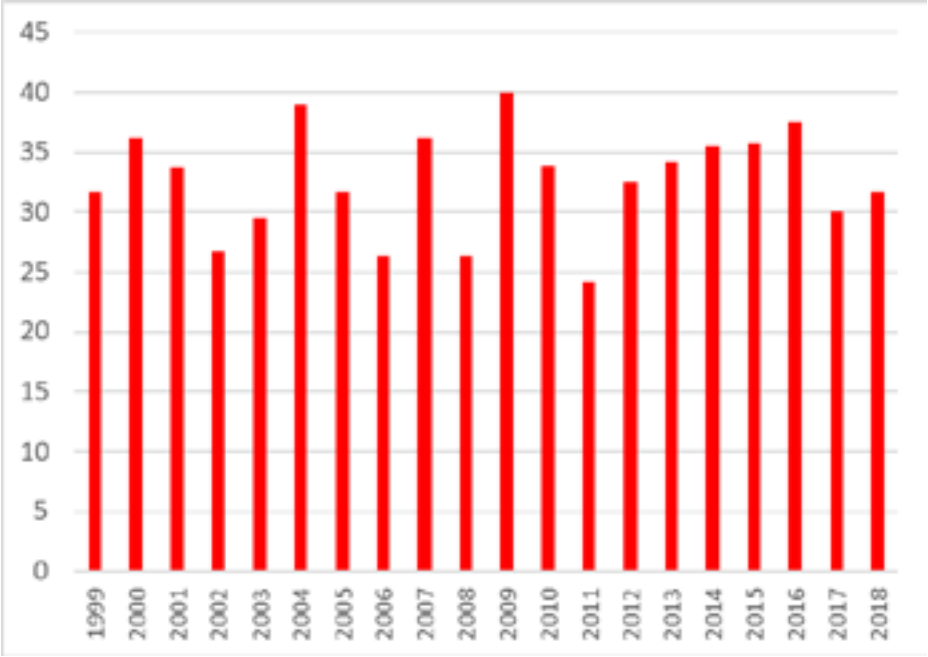
For more production information, see publication A1166, "Field Pea Production" *(www.ag.ndsu.edu/publications/ crops/field-pea-production)*. Dry pea-planted acres and yield have fluctuated during the past 20 growing seasons, as shown in Figure 1 and 2.

Figure 1. North Dakota Dry Pea Harvested Acreage, 1999 to 2018.




Source: North Dakota Agricultural Statistics Service – USDA.

Figure 2. North Dakota Dry Pea Yield in Bushels per Acre, 1999 to 2018.




Source: North Dakota Agricultural Statistics Service – USDA.

**2018 Dry Pea Performance Trials**

Variety trial data from all NDSU Research Extension Centers for all crops can be found at *www.ag.ndsu.edu/varietytrials/*. Weather data are provided in Table 1.

**Table 1. April-September 2018 Average Temperature and Precipitation Rankings for Selected North Dakota Locations.**

| Location | Average Temperature (Ranking) | Total Precipitation (Ranking) |
|---|---|---|
| Bowman | 57.9 F (25th Coolest Period Since 1915) | 12.8 inches (41st Wettest Period Since 1915) |
| Bismarck | 61.4 F (40th Warmest Period Since 1875) | 12.9 inches (63rd Driest Period Since 1875) |
| Cavalier | 58.4 F (43rd Coolest Period Since 1934) | 9.5 inches (14th Driest Period Since 1927) |
| Fargo | 61.3 F (41st Warmest Period Since 1881) | 14.2 inches (50th Driest Period Since 1881) |
| Minot Exp. Station | 58.1 F (55th Coolest Period Since 1905) | 9.6 inches (23rd Driest Period Since 1905) |
| Williston Exp. Station | 59.6 F (59th Warmest Period Since 1894) | 10.1 inches (57th Driest Period Since 1894) |
| North Dakota Average[1] | **58.9 F (50th Coolest Period Since 1895)** | **13.0 inches (54th Driest Period Since 1895)** |

Source: Adnan Akyüz, NDSU, North Dakota state climatologist.
[1]Statewide values are calculated based on all available locations in North Dakota rather than the mathematical average of the list above.

The agronomic data presented in this publication 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 the 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 95 or 90 percent probability (LSD 0.05 or 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.

The abbreviation PM stands for physiologically mature. Physiological maturity is reached when the bottom 75 percent of the pods have turned yellow to brown. At this time, the upper 25 percent of the pods will be a dull green, with the pod surface no longer succulent.

Yields are reported at 15 percent moisture content. The standard for reporting protein in field pea is at 0 percent moisture. The harvest ease score is taken at the time the plants are dried sufficiently to allow threshing or harvesting to occur. Harvest ease is an assessment of combining efficiency. The lower the score, the easier the operator will be able to get the cutter bar underneath the lowest pods and make decent travel speed through the field.

In the tables, the dry pea varieties are arranged in alphabetical order within market class (yellow and green cotyledon types). Footnotes provide more details for the table under which they appear. Characteristics to evaluate for selecting a dry pea variety include market class, yield potential in your area, test weight, reaction to problematic diseases and maturity date.

When selecting a high-yielding and good-quality variety, use data that summarize several years and locations. Table 2 provides information on a core group of varieties that were included in most locations. Choose the variety that, on average, performs the best at multiple locations near your farm during several years.

Presentation of data for the varieties tested does not imply approval or endorsement by the authors or agencies conducting the test. North Dakota State University 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 given credit for conducting the trial.

**Table 2. 2018 Dry Pea Description and Yield of Most Commonly Tested Yellow and Green Cotyledon Varieties.**

| Variety | Vine Length | Harvest Ease | Powdery Mildew Tolerance | Maturity | Seed Size | 2017Avg. Yield 8 locations[1] | 2018Avg. Yield 6 locations[2] |
|---|---|---|---|---|---|---|---|
| **Yellow Cotyledon Type** | | | | | | (bu/a) | (bu/a) |
| Agassiz | Tall | Good | Good | Medium | Medium | 41.3 | 50.7 |
| Bridger | Medium | -- | -- | Medium | -- | -- | 47.0 |
| DS Admiral | Medium | Good | Good | Medium | Medium | 38.4 | 46.6 |
| Durwood | Tall | -- | -- | Medium | -- | -- | 47.2 |
| Hyline | Medium | -- | -- | Medium | -- | -- | 45.8 |
| Navarro | Medium | -- | -- | Early/Med. | -- | -- | 44.3 |
| Nette 2010 | Medium | -- | -- | Medium | -- | -- | 47.6 |
| Salamanca | Tall | -- | -- | Early/Med. | -- | -- | 46.9 |
| Spider | Medium | Fair | Good | Medium | Medium | 33.8 | 51.1 |
| **Green Cotyledon Type** | | | | | | | |
| Arcadia | Medium | Good | Good | Early/Med. | Medium | 42.2 | 45.2 |
| CDC Striker | Medium | Good | Poor | Medium | Medium | 39.9 | 43.9 |
| Cruiser | Medium | Fair | Poor | Medium | Small | 35.9 | 41.1 |
| Mean | | | | | | 38.6 | 46.4 |
| CV % | | | | | | 10.4 | 9.8 |
| LSD 0.05 | | | | | | 4.4 | 5.3 |
| LSD 0.10 | | | | | | 3.6 | 4.4 |

[1]These varieties appeared in all the locations reported in the 2017 publication except for McKenzie and Divide Counties.

[2]These varieties appeared in Carrington, Langdon, Minot, Dickinson, Hettinger and Williston as found in this 2018 publication.

**Table 3. 2018 Locations Where Pea Varieties Were Tested.**

| Pea Variety | Company | Carrington | Carrington Organic | Langdon | Minot | Dickinson | Williston | Divide | Hettinger |
|---|---|---|---|---|---|---|---|---|---|
| **Yellow Cotyledon Type** | | | | | | | | | |
| AAC Asher | Legume Logic | x | -- | -- | x | -- | x | -- | -- |
| AAC Carver | Meridian | x | -- | x | x | -- | x | -- | -- |
| AAC Chrome | Legume Logic | x | -- | -- | x | -- | x | -- | -- |
| AAC Profit | Birdsall Grain | x | -- | x | x | -- | x | -- | x |
| AC Earlystar | Meridian | x | -- | x | x | -- | x | -- | -- |
| Agassiz | Meridian | x | x | x | x | x | x | x | x |
| Banjo | Pulse USA | -- | x | -- | -- | -- | -- | -- | -- |
| Bridger | Great Northern Ag | x | -- | x | x | x | x | -- | x |
| CDC Amarillo | Meridian | x | -- | x | x | -- | x | -- | -- |
| CDC Dakota | Legume Logic | x | -- | -- | x | -- | x | -- | -- |
| CDC Inca | Meridian | x | -- | x | x | -- | x | -- | -- |
| CDC Saffron | Meridian | x | -- | x | x | -- | x | -- | -- |
| DS Admiral | Pulse USA | x | x | x | x | x | x | x | x |
| Durwood | Pulse USA | x | -- | x | x | x | x | -- | x |
| Empire | Legume Logic | x | -- | -- | -- | -- | -- | -- | -- |
| Fiddle | Pulse USA | -- | x | -- | -- | -- | -- | -- | -- |
| Gunner | Legume Logic | x | -- | -- | -- | -- | -- | -- | -- |
| Hyline | Great Northern Ag | x | -- | x | x | x | x | -- | x |
| Jetset | Meridian | x | -- | x | x | -- | x | -- | -- |
| Korando | Pulse USA | x | -- | -- | -- | -- | x | -- | -- |
| LG Amigo | Pulse USA | x | -- | x | x | -- | x | -- | x |
| LG Sunrise | Pulse USA | x | -- | x | x | -- | x | -- | x |
| Majestic | Jerry Blotter Farms | x | -- | -- | x | -- | x | -- | -- |
| Mystique | Pulse USA | x | -- | x | x | -- | -- | -- | -- |
| Navarro | Great Northern Ag | x | -- | x | x | x | x | -- | x |
| Nette 2010 | Pulse USA | x | x | x | x | x | x | x | x |
| Salamanca | Great Northern Ag | x | -- | x | x | x | x | -- | x |
| Spider | Great Northern Ag | x | x | x | x | x | x | x | x |
| SW Midas | Pulse USA | x | -- | x | x | -- | x | -- | x |
| **Green Cotyledon Type** | | | | | | | | | |
| AAC Comfort | Meridian | x | -- | x | x | -- | x | -- | -- |
| Arcadia | Pulse USA | x | x | x | x | x | x | x | x |
| Banner | Pulse USA | x | -- | -- | -- | -- | x | -- | x |
| Bluemoon | JB Farms | x | x | -- | x | -- | x | -- | -- |
| CDC Greenwater | Meridian | x | -- | x | x | -- | x | -- | -- |
| CDC Striker | Nodricks Norsask Seeds I | x | x | x | x | x | x | -- | x |
| Cruiser | Pulse USA | x | x | x | x | x | x | -- | x |
| Flute | Pulse USA | -- | x | -- | -- | -- | -- | -- | -- |
| Ginny | Pulse USA | x | -- | -- | -- | -- | x | -- | x |
| Greenwood | Pulse USA | x | -- | -- | -- | -- | x | -- | x |
| Hampton | USDA-ARS | -- | -- | -- | x | -- | -- | -- | -- |
| LG Koda | Pulse USA | x | x | -- | x | -- | x | -- | x |
| Majoret | Pulse USA | x | x | -- | x | -- | -- | x | -- |
| Shamrock | Great Northern Ag | x | x | x | x | -- | x | -- | x |
| Viper | Pulse USA | x | -- | -- | x | -- | x | -- | x |

**Table 4. 2018 Dry Pea - Carrington - Authors, B. Schatz and M. Ostlie.**

| Variety | Days to Flower | Flower Duration | Days to PM | Canopy Height[1] | Plant Lodge[2] | Harvest Ease | 1,000 Seed Wt. | Seed Protein | Test Weight | Seed Yield | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | 2018 | 3-yr. Avg. |
| | (DAP)[3] | (days) | (DAP) | (inch) | (0-9) | (0-9) | (gram) | (%) | (lb/bu) | -------(bu/a)------- | |
| **Yellow Cotyledon Type** | | | | | | | | | | | |
| AAC Asher | 50 | 13 | 81 | 20.8 | 2.3 | 4.0 | 240 | 23.8 | 65.8 | 47.0 | -- |
| AAC Carver | 51 | 13 | 80 | 21.0 | 3.3 | 4.0 | 227 | 22.0 | 66.3 | 41.3 | 39.0 |
| AAC Chrome | 52 | 12 | 82 | 20.8 | 2.3 | 3.5 | 215 | 23.4 | 65.8 | 44.5 | -- |
| AAC Profit | 53 | 11 | 81 | 24.9 | 2.0 | 3.3 | 207 | 23.0 | 65.8 | 41.4 | -- |
| AC Earlystar | 51 | 14 | 80 | 23.9 | 5.0 | 6.8 | 197 | 23.4 | 66.3 | 41.1 | 41.8 |
| Agassiz | 49 | 16 | 81 | 23.3 | 3.5 | 5.0 | 224 | 24.8 | 65.5 | 48.4 | 46.4 |
| Bridger | 49 | 15 | 79 | 22.9 | 2.0 | 3.3 | 221 | 23.3 | 66.5 | 47.6 | 40.3 |
| CDC Amarillo | 52 | 13 | 82 | 28.4 | 1.8 | 2.8 | 212 | 23.8 | 65.7 | 47.2 | 41.3 |
| CDC Dakota | 55 | 10 | 82 | 25.1 | 1.3 | 2.3 | 204 | 24.8 | 65.1 | 44.2 | -- |
| CDC Inca | 52 | 12 | 82 | 23.5 | 2.8 | 3.3 | 217 | 25.1 | 65.9 | 45.2 | -- |
| CDC Saffron | 51 | 11 | 79 | 20.2 | 3.8 | 5.3 | 216 | 23.9 | 66.1 | 42.8 | 39.2 |
| DS Admiral | 50 | 14 | 81 | 21.6 | 3.5 | 4.5 | 228 | 23.9 | 66.0 | 41.8 | 41.5 |
| Durwood | 51 | 13 | 82 | 24.5 | 2.3 | 2.8 | 233 | 24.3 | 65.9 | 40.1 | 39.8 |
| Empire | 52 | 13 | 83 | 25.5 | 3.0 | 4.0 | 224 | 25.0 | 66.0 | 40.7 | -- |
| Gunner | 50 | 14 | 81 | 21.6 | 3.8 | 5.3 | 215 | 24.8 | 65.7 | 42.3 | -- |
| Hyline | 52 | 13 | 81 | 20.5 | 4.0 | 5.0 | 225 | 23.5 | 65.9 | 36.8 | 37.1 |
| Jetset | 49 | 13 | 78 | 25.1 | 3.3 | 3.8 | 234 | 25.2 | 65.8 | 49.6 | 40.4 |
| Korando | 45 | 19 | 80 | 23.2 | 4.8 | 6.0 | 260 | 25.1 | 66.0 | 36.6 | 37.0 |
| LG Amigo | 50 | 13 | 81 | 21.1 | 4.5 | 5.8 | 219 | 24.3 | 65.3 | 39.2 | -- |
| LG Sunrise | 50 | 15 | 82 | 24.2 | 2.0 | 3.0 | 222 | 23.0 | 66.3 | 46.7 | -- |
| Majestic | 52 | 12 | 82 | 25.7 | 1.8 | 2.0 | 228 | 25.4 | 65.4 | 37.8 | 36.7 |
| Mystique | 52 | 13 | 81 | 21.2 | 3.8 | 5.0 | 225 | 24.3 | 65.6 | 30.3 | 36.6 |
| Navarro | 46 | 18 | 79 | 20.5 | 5.8 | 7.3 | 242 | 25.6 | 65.6 | 34.7 | 35.0 |
| Nette 2010 | 48 | 15 | 79 | 20.7 | 3.5 | 4.8 | 234 | 22.9 | 66.8 | 38.4 | 39.5 |
| Salamanca | 51 | 13 | 80 | 21.5 | 5.0 | 6.0 | 239 | 26.6 | 66.2 | 29.0 | 33.3 |
| Spider | 51 | 13 | 81 | 24.4 | 2.3 | 3.8 | 240 | 24.6 | 66.3 | 50.3 | 38.2 |
| SW Midas | 51 | 13 | 79 | 24.5 | 2.5 | 3.5 | 200 | 21.9 | 65.7 | 44.2 | 37.7 |
| **Green Cotyledon Type** | | | | | | | | | | | |
| AAC Comfort | 54 | 11 | 82 | 23.7 | 2.5 | 3.8 | 212 | 23.0 | 64.9 | 25.9 | -- |
| Arcadia | 49 | 14 | 79 | 18.7 | 6.3 | 8.0 | 200 | 24.2 | 65.9 | 48.5 | 39.8 |
| Banner | 46 | 17 | 78 | 21.3 | 7.0 | 8.0 | 195 | 22.9 | 65.9 | 31.4 | -- |
| Bluemoon | 52 | 11 | 80 | 21.9 | 3.0 | 4.3 | 229 | 23.1 | 65.8 | 39.7 | 37.2 |
| CDC Greenwater | 52 | 12 | 83 | 25.5 | 1.8 | 2.5 | 236 | 23.0 | 65.6 | 48.9 | -- |
| CDC Striker | 50 | 14 | 80 | 19.6 | 5.0 | 7.0 | 199 | 22.7 | 66.2 | 44.6 | 37.1 |
| Cruiser | 49 | 14 | 79 | 22.4 | 4.5 | 6.3 | 203 | 25.5 | 65.1 | 41.2 | 31.4 |
| Ginny | 49 | 13 | 79 | 18.1 | 6.3 | 7.5 | 198 | 23.8 | 66.1 | 34.9 | -- |
| Greenwood | 49 | 14 | 77 | 17.5 | 7.0 | 8.0 | 192 | 23.5 | 66.4 | 29.7 | -- |
| LG Koda | 53 | 11 | 78 | 21.4 | 5.5 | 7.0 | 199 | 22.3 | 66.6 | 29.6 | -- |
| Majoret | 52 | 12 | 82 | 20.4 | 4.0 | 4.8 | 221 | 26.3 | 66.0 | 38.8 | -- |
| Shamrock | 53 | 12 | 82 | 24.8 | 2.8 | 3.5 | 230 | 25.2 | 65.5 | 31.1 | -- |
| Viper | 48 | 16 | 80 | 23.0 | 4.8 | 5.5 | 220 | 26.1 | 64.7 | 30.6 | 32.7 |
| Mean | 50 | 14 | 80 | 22.5 | 3.6 | 4.7 | 224 | 24.2 | 65.9 | 40.9 | 38.2 |
| CV % | 1.6 | 7.1 | 1.3 | 11.4 | 29.2 | 24 | 3.5 | 4.6 | 0.5 | 12.0 | -- |
| LSD 0.05 | 1.1 | 1.3 | 1.5 | 3.6 | 1.4 | 1.6 | 11 | 1.6 | 0.5 | 6.8 | -- |
| LSD 0.10 | 0.9 | 1.1 | 1.2 | 3.0 | 1.2 | 1.3 | 9 | 1.3 | 0.4 | 5.7 | -- |

Planted: May 2. Harvested: July 27. Previous crop: spring wheat.

[1]Height to the top of the canopy at harvest.

[2]Lodging: 0 = none, 9 = lying flat on the ground.

[3]DAP = Days after planting.

**Table 5. 2018 Dry Pea - Organic - Carrington - Authors, S. Zwinger and S. Schaubert.**

| Variety | Days to Flower | Flower Duration | Days to PM | Canopy Height[1] | 1,000 Seed Wt. | Seeds/ Pound | Plant Lodge[2] | Seed Protein | Test Weight | Seed Yield 2018 | Seed Yield 3-yr. Avg. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | (DAP)[3] | (days) | (DAP) | (inch) | (gram) | | (0-9) | (%) | (lb/bu) | --------(bu/a)-------- | |
| **Yellow Cotyledon Type** | | | | | | | | | | | |
| Agassiz | 47 | 13 | 77 | 24 | 210 | 2,165 | 1.0 | 27.3 | 62.8 | 47.1 | 41.1 |
| Banjo | 47 | 11 | 77 | 23 | 215 | 2,113 | 1.3 | 28.4 | 64.4 | 49.7 | -- |
| DS Admiral | 46 | 10 | 74 | 22 | 216 | 2,110 | 0.3 | 26.1 | 63.8 | 42.4 | 36.4 |
| Fiddle | 47 | 11 | 78 | 24 | 233 | 1,946 | 0.5 | 28.3 | 63.8 | 46.8 | -- |
| Nette 2010 | 45 | 12 | 73 | 21 | 242 | 1,879 | 0.0 | 25.9 | 64.7 | 53.1 | 44.0 |
| Spider | 50 | 10 | 79 | 23 | 238 | 1,910 | 0.3 | 28.5 | 64.2 | 41.0 | 33.8 |
| **Green Cotyledon Type** | | | | | | | | | | | |
| Arcadia | 48 | 10 | 77 | 19 | 190 | 2,388 | 0.3 | 25.9 | 63.6 | 42.3 | 40.5 |
| Bluemoon | 48 | 9 | 78 | 21 | 246 | 1,848 | 0.3 | 28.0 | 63.2 | 55.0 | -- |
| CDC Striker | 47 | 10 | 77 | 21 | 197 | 2,315 | 1.0 | 25.9 | 63.6 | 48.1 | 42.0 |
| Cruiser | 45 | 12 | 75 | 20 | 199 | 2,277 | 1.5 | 26.3 | 63.0 | 42.8 | 37.7 |
| Flute | 51 | 10 | 80 | 24 | 198 | 2,291 | 1.0 | 27.2 | 64.0 | 52.6 | -- |
| LG Koda | 50 | 10 | 79 | 22 | 205 | 2,221 | 0.8 | 24.3 | 64.7 | 48.6 | -- |
| Majoret | 50 | 9 | 79 | 21 | 213 | 2,136 | 0.1 | 27.9 | 63.8 | 33.4 | -- |
| Shamrock | 51 | 9 | 80 | 24 | 221 | 2,057 | 0.3 | 27.1 | 63.8 | 43.7 | -- |
| Mean | 48 | 10 | 77 | 22 | 216 | 2,118 | 0.6 | 26.9 | 63.8 | 46.2 | 39.4 |
| CV % | 1.5 | 11.9 | 1.2 | 9.5 | 3.7 | 3.7 | 107 | 1.7 | 0.5 | 10.0 | -- |
| LSD 0.05 | 1.0 | 1.7 | 1.3 | 3.0 | 11.4 | 111 | 0.9 | 0.7 | 0.5 | 6.6 | -- |
| LSD 0.10 | 0.9 | 1.4 | 1.1 | 2.5 | 9.5 | 93 | 0.7 | 0.6 | 0.4 | 5.5 | -- |

Planted: May 2. Harvested: July 30. Previous crop: oats.

[1]Height to the top of the canopy at harvest.

[2]Lodging: 0 = none, 9 = lying flat on the ground.

[3]DAP = Days after planting.

**Table 6. 2018 Dry Pea - Langdon - Authors, B. Hanson, T. Hakanson and L. Henry.**

| Variety | Days to Flower | Days to PM | Canopy Height[1] | Harvest Ease[2] | 1,000 Seed Wt. | Seed Protein | Test Weight | Seed Yield | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 2018 | 2-yr. Avg. | 3-yr. Avg. |
| | (DAP)[3] | (DAP) | (inch) | (0-9) | (gram) | (%) | (lb/bu) | ----------(bu/a)---------- | | |
| **Yellow Cotyledon Type** | | | | | | | | | | |
| AAC Carver | 48 | 80 | 29 | 2 | 263 | 22.9 | 63.9 | 94.5 | 92.7 | 74.7 |
| AAC Profit | 50 | 83 | 29 | 1 | 259 | 25.3 | 64.4 | 99.9 | -- | -- |
| AC Earlystar | 49 | 81 | 23 | 4 | 229 | 21.5 | 64.5 | 92.4 | 83.5 | 71.3 |
| Agassiz | 46 | 81 | 30 | 3 | 259 | 24.2 | 64.2 | 92.3 | 86.3 | 70.8 |
| Bridger | 47 | 79 | 25 | 3 | 241 | 23.7 | 64.3 | 81.0 | -- | -- |
| CDC Amarillo | 50 | 82 | 31 | 1 | 256 | 23.7 | 64.4 | 88.1 | 87.8 | 71.5 |
| CDC Inca | 50 | 82 | 29 | 1 | 253 | 24.4 | 64.7 | 96.6 | 88.7 | -- |
| CDC Saffron | 49 | 81 | 24 | 2 | 265 | 25.0 | 64.4 | 86.5 | 80.8 | 68.4 |
| DS Admiral | 47 | 80 | 24 | 4 | 244 | 23.6 | 64.3 | 84.4 | 81.7 | 71.1 |
| Durwood | 49 | 82 | 31 | 1 | 275 | 25.4 | 64.2 | 91.3 | -- | -- |
| Hyline | 50 | 82 | 28 | 4 | 279 | 23.6 | 64.7 | 94.2 | -- | -- |
| Jetset | 47 | 80 | 27 | 5 | 261 | 25.7 | 63.9 | 91.9 | 82.7 | 74.1 |
| LG Amigo | 49 | 82 | 28 | 3 | 230 | 25.6 | 64.5 | 79.4 | -- | -- |
| LG Sunrise | 44 | 80 | 30 | 2 | 242 | 22.7 | 64.3 | 83.9 | -- | -- |
| Mystique | 50 | 83 | 34 | 2 | 283 | 24.0 | 64.1 | 94.7 | 88.2 | 70.4 |
| Navarro | 43 | 78 | 24 | 3 | 269 | 24.8 | 63.9 | 81.8 | -- | -- |
| Nette 2010 | 46 | 79 | 26 | 3 | 244 | 23.5 | 65.0 | 90.2 | 85.0 | 73.2 |
| Salamanca | 48 | 81 | 30 | 2 | 271 | 26.8 | 64.2 | 90.2 | -- | -- |
| Spider | 50 | 81 | 27 | 2 | 257 | 24.8 | 64.4 | 88.0 | 83.8 | 70.1 |
| SW Midas | 49 | 80 | 25 | 3 | 218 | 23.4 | 64.6 | 84.8 | -- | -- |
| **Green Cotyledon Type** | | | | | | | | -- | -- | -- |
| AAC Comfort | 54 | 86 | 27 | 2 | 303 | 24.4 | 63.7 | 93.4 | 84.1 | -- |
| Arcadia | 47 | 78 | 19 | 5 | 199 | 23.6 | 63.6 | 84.0 | 82.5 | 69.8 |
| CDC Greenwater | 52 | 84 | 32 | 1 | 275 | 24.6 | 64.2 | 88.1 | 88.6 | |
| CDC Striker | 47 | 78 | 16 | 7 | 203 | 23.6 | 63.6 | 89.0 | 87.2 | 72.4 |
| Cruiser | 45 | 78 | 21 | 7 | 212 | 24.9 | 63.6 | 77.7 | 74.1 | 58.9 |
| Shamrock | 50 | 83 | 33 | 1 | 285 | 24.4 | 64.4 | 96.0 | -- | -- |
| Mean | 48 | 81 | 27 | 3 | 253 | 24.2 | 64.2 | 89.0 | 84.8 | 70.5 |
| CV % | 1.7 | 1.4 | 10.2 | 47 | 3.0 | 1.9 | 0.6 | 6.3 | -- | -- |
| LSD 0.05 | 1.2 | 1.6 | 3.9 | 1.8 | 10.8 | 0.7 | 0.5 | 7.9 | -- | -- |
| LSD 0.10 | 1.0 | 1.4 | 3.2 | 1.5 | 9.0 | 0.6 | 0.4 | 6.6 | -- | -- |

Planted: May 8. Harvested: Aug. 24.

[1]Height to the top of the canopy at harvest.

[2]Harvest Ease: 0 = all plants upright (very easy harvest) to 9 = all plants flat (very difficult to direct harvest).

[3]DAP = Days after planting.

**Table 7. 2018 Dry Pea - Minot - Authors, T. Stefaniak and H. Worral.**

| Variety | Days to Flower | Days to PM | Canopy Height | Seeds/ Pound | 1,000 Seed Wt. | Seed Protein | Test Weight | Seed Yield | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 2018 | 2-yr. Avg. | 3-yr. Avg. |
| | (DAP)[2] | (DAP) | (inch) | | (gram) | (%) | (lb/bu) | ----------(bu/a)---------- | | |
| **Yellow Cotyledon Type** | | | | | | | | | | |
| AAC Asher | 49 | 82 | 58 | 1,818 | 250 | 24.8 | 65.0 | 55.4 | -- | -- |
| AAC Carver | 48 | 80 | 62 | 1,952 | 233 | 23.4 | 65.1 | 59.5 | 56.2 | 52.1 |
| AAC Chrome | 49 | 83 | 62 | 2,085 | 218 | 25.3 | 63.5 | 57.7 | -- | -- |
| AAC Profit | 51 | 85 | 72 | 2,234 | 204 | 27.6 | 64.7 | 47.3 | -- | -- |
| AC Earlystar | 48 | 79 | 65 | 2,268 | 200 | 23.3 | 64.6 | 55.9 | 55.9 | 55.7 |
| Agassiz | 48 | 83 | 67 | 1,975 | 230 | 25.8 | 64.7 | 57.6 | 54.7 | 55.0 |
| Bridger | 46 | 81 | 61 | 2,055 | 221 | 24.5 | 64.8 | 58.6 | 56.1 | 53.0 |
| CDC Amarillo | 50 | 82 | 70 | 2,020 | 226 | 24.3 | 65.6 | 55.9 | 57.4 | 54.7 |
| CDC Dakota | 54 | 83 | 72 | 2,090 | 218 | 28.5 | 64.9 | 56.0 | -- | -- |
| CDC Inca | 53 | 84 | 69 | 2,092 | 218 | 24.8 | 65.9 | 52.8 | 53.1 | -- |
| CDC Saffron | 50 | 81 | 53 | 1,908 | 238 | 25.3 | 65.6 | 52.0 | 48.7 | 50.7 |
| DS Admiral | 47 | 83 | 65 | 1,820 | 250 | 24.8 | 65.6 | 54.0 | 49.0 | 51.0 |
| Durwood | 50 | 84 | 70 | 1,953 | 234 | 25.0 | 65.3 | 52.5 | -- | -- |
| Hyline | 50 | 84 | 64 | 1,905 | 239 | 24.3 | 64.9 | 51.6 | 48.9 | 48.2 |
| Jetset | 47 | 82 | 67 | 1,913 | 238 | 25.5 | 65.1 | 50.9 | 51.5 | 50.0 |
| LG Amigo | 48 | 85 | 69 | 1,930 | 235 | 26.0 | 64.8 | 48.0 | -- | -- |
| LG Sunrise | 46 | 81 | 71 | 2,010 | 226 | 24.3 | 65.4 | 59.5 | -- | -- |
| Majestic | 50 | 85 | 76 | 1,781 | 255 | 25.0 | 65.6 | 59.0 | 55.6 | 54.0 |
| Mystique | 50 | 84 | 68 | 1,852 | 245 | 24.8 | 65.1 | 59.1 | -- | -- |
| Navarro | 45 | 81 | 61 | 1,739 | 262 | 25.5 | 64.7 | 57.2 | 56.6 | 52.4 |
| Nette 2010 | 46 | 82 | 66 | 1,890 | 240 | 24.0 | 66.4 | 58.6 | -- | -- |
| Salamanca | 50 | 81 | 71 | 1,838 | 247 | 26.0 | 65.4 | 57.8 | 58.8 | 58.0 |
| Spider | 49 | 84 | 67 | 1,878 | 242 | 26.3 | 65.4 | 56.4 | 45.8 | 44.4 |
| SW Midas | 49 | 81 | 60 | 2,430 | 187 | 24.3 | 64.9 | 55.7 | -- | -- |
| **Green Cotyledon Type** | | | | | | | | | | |
| AAC Comfort | 55 | 87 | 62 | 1,804 | 252 | 25.5 | 64.6 | 51.4 | 57.1 | -- |
| Arcadia | 47 | 80 | 58 | 2,327 | 195 | 23.8 | 64.3 | 52.4 | 54.4 | 51.9 |
| Bluemoon | 48 | 80 | 67 | 1,882 | 241 | 25.0 | 64.4 | 50.8 | 52.5 | 52.4 |
| CDC Greenwater | 49 | 84 | 73 | 1,940 | 234 | 24.5 | 65.3 | 57.6 | 60.6 | -- |
| CDC Striker | 48 | 82 | 64 | 2,186 | 208 | 24.3 | 64.7 | 47.4 | 44.0 | 45.8 |
| Cruiser | 47 | 83 | 74 | 2,278 | 200 | 25.3 | 64.1 | 46.6 | 47.0 | 45.7 |
| Hampton | 50 | 85 | 63 | 2,184 | 208 | 28.3 | 64.2 | 49.7 | -- | -- |
| LG Koda | 50 | 82 | 65 | 2,014 | 226 | 24.0 | 64.7 | 56.7 | -- | -- |
| Majoret | 52 | 87 | 64 | 2,046 | 222 | 26.5 | 65.3 | 46.1 | 47.7 | -- |
| Shamrock | 52 | 84 | 69 | 2,096 | 217 | 25.4 | 65.68 | 51.9 | 48.2 | -- |
| Viper | 46 | 84 | 76 | 2,440 | 206 | 26.3 | 64.26 | 56.9 | -- | -- |
| Mean | 49 | 83 | 66 | 2,018 | 228 | 25 | 65.0 | 54.2 | 52.7 | 51.5 |
| CV % | 2.8 | 2.8 | 15.3 | 9.1 | 6.4 | 3.5 | 1.1 | 0.2 | -- | -- |
| LSD 0.05 | 1.6 | 2.7 | 12.1 | 211 | 17.2 | 1.0 | 0.8 | 8.1 | -- | -- |
| LSD 0.10 | 1.2 | 2.1 | 9.4 | 164 | 13.4 | 0.8 | 0.6 | 6.3 | -- | -- |

Planted: April 30. Harvested: Aug. 1. Previous crop: hard red spring wheat.

[1]Lodging: 0 = none, 9 = lying flat on the ground.

[2]DAP = Days after planting.

**Table 8. 2018 Dry Pea - Recrop - Dickinson - Author, G. Martin.**

| Variety | Days to Flower | Days to PM | Canopy Height[1] | Seeds/ Pound | 1,000 Seed Wt. | Test Weight | Protein | Seed Yield 2018 | Seed Yield 3-yr.Avg. |
|---|---|---|---|---|---|---|---|---|---|
| | (DAP)[2] | (DAP) | (inch) | | (gram) | (lb/bu) | (%) | ---------(bu/a)--------- | |
| **Yellow Cotyledon Type** | | | | | | | | | |
| Agassiz | 53 | 86 | 23 | 2,038 | 223 | 62.6 | 30.1 | 23.1 | 25.3 |
| Bridger | 48 | 86 | 21 | 2,052 | 221 | 63.2 | 28.2 | 23.1 | -- |
| DS Admiral | 52 | 85 | 22 | 1,765 | 258 | 62.8 | 28.2 | 25.7 | 26.2 |
| Durwood | 53 | 89 | 28 | 1,697 | 271 | 64.3 | 27.7 | 25.5 | -- |
| Hyline | 51 | 86 | 22 | 1,676 | 271 | 63.1 | 28.6 | 25.3 | -- |
| Navarro | 49 | 86 | 23 | 1,844 | 247 | 63.0 | 27.8 | 23.4 | -- |
| Nette 2010 | 48 | 83 | 21 | 2,080 | 218 | 63.3 | 29.6 | 21.7 | 25.0 |
| Salamanca | 50 | 87 | 23 | 1,613 | 281 | 62.1 | 29.4 | 26.5 | -- |
| Spider | 51 | 87 | 23 | 1,969 | 231 | 63.0 | 29.2 | 28.8 | 23.3 |
| **Green Cotyledon Type** | | | | | | | | | |
| Arcadia | 49 | 82 | 18 | 2,318 | 199 | 62.2 | 29.1 | 27.9 | 28.0 |
| CDC Striker | 49 | 81 | 20 | 2,178 | 209 | 62.6 | 28.8 | 25.7 | 26.3 |
| Cruiser | 48 | 84 | 20 | 2,233 | 203 | 61.4 | 30.5 | 21.0 | 23.4 |
| Mean | 50 | 85 | 22 | 1,955 | 236 | 62.8 | 28.9 | 24.8 | 25.4 |
| CV % | 1.2 | 2.0 | 10.0 | 7.6 | 7.6 | 1.6 | 2.5 | 17.2 | -- |
| LSD 0.05 | 1.1 | 2.8 | 3.7 | 253 | 30.2 | 1.7 | 1.2 | NS | -- |
| LSD 0.10 | 0.9 | 2.3 | 3.1 | 210 | 25.0 | 1.4 | 1.0 | NS | -- |

Planted: May 3. Harvested: Aug. 8. Previous crop: cover crop. Trial received hail June 16.

[1]Height to the top of the canopy at harvest.

[2]DAP = Days after planting.

**Table 9. 2018 Dry Pea - Williston - Authors, G. Pradhan and J. Bergman.**

| Variety | Days to Flower | Days to PM | Canopy Height[1] | Plant Lodge[2] | 1,000 Seed Wt. | Seed Protein | Test Weight | Seed Yield | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 2018 | 3-yr. Avg. |
| | (DAP)[3] | (DAP) | (inch) | (0-9) | (gram) | (%) | (lb/bu) | --------(bu/a)-------- | |
| **Yellow Cotyledon Type** | | | | | | | | | |
| AAC Asher | 48 | 75 | 11 | 2 | 259 | 26.5 | 61.6 | 35.8 | -- |
| AAC Carver | 48 | 73 | 8 | 3 | 233 | 26.0 | 61.4 | 30.6 | 32.0 |
| AAC Chrome | 48 | 77 | 11 | 3 | 252 | 26.1 | 61.0 | 34.1 | -- |
| AAC Profit | 49 | 75 | 10 | 3 | 241 | 27.5 | 61.7 | 34.3 | -- |
| AC Earlystar | 48 | 74 | 10 | 3 | 204 | 25.4 | 61.2 | 29.2 | -- |
| Agassiz | 45 | 74 | 11 | 3 | 223 | 27.7 | 60.5 | 33.5 | 33.0 |
| Bridger | 46 | 73 | 7 | 5 | 210 | 28.0 | 60.9 | 34.6 | 29.3 |
| CDC Amarillo | 49 | 76 | 11 | 2 | 241 | 26.3 | 62.0 | 26.7 | 27.8 |
| CDC Dakota | 53 | 77 | 12 | 1 | 187 | 30.2 | 61.6 | 30.7 | -- |
| CDC Inca | 49 | 77 | 10 | 2 | 217 | 27.4 | 62.3 | 27.8 | -- |
| CDC Saffron | 49 | 75 | 9 | 3 | 243 | 26.5 | 61.9 | 36.4 | 31.5 |
| DS Admiral | 46 | 72 | 10 | 4 | 236 | 24.9 | 61.2 | 30.9 | 29.1 |
| Durwood | 48 | 75 | 12 | 3 | 231 | 26.6 | 60.6 | 26.6 | 30.0 |
| Hyline | 47 | 74 | 6 | 4 | 217 | 27.0 | 61.2 | 27.2 | 30.8 |
| Jetset | 46 | 73 | 8 | 5 | 227 | 28.3 | 60.3 | 28.5 | 28.1 |
| Korando | 41 | 71 | 8 | 6 | 272 | 28.0 | 60.6 | 32.2 | 30.3 |
| LG Amigo | 45 | 75 | 7 | 5 | 200 | 29.6 | 60.4 | 23.6 | -- |
| LG Sunrise | 43 | 71 | 8 | 4 | 228 | 24.2 | 61.2 | 31.1 | -- |
| Majestic | 49 | 76 | 11 | 2 | 245 | 28.1 | 60.9 | 25.2 | -- |
| Navarro | 41 | 71 | 6 | 5 | 256 | 27.0 | 61.2 | 32.2 | 30.8 |
| Nette 2010 | 46 | 73 | 9 | 5 | 218 | 25.7 | 62.2 | 33.1 | 31.3 |
| Salamanca | 48 | 75 | 8 | 3 | 245 | 29.7 | 60.8 | 29.2 | 31.4 |
| Spider | 48 | 76 | 11 | 2 | 229 | 27.6 | 61.1 | 32.5 | 28.6 |
| SW Midas | 46 | 73 | 9 | 5 | 206 | 24.9 | 60.6 | 32.7 | -- |
| **Green Cotyledon Type** | | | | | | | | | |
| AAC Comfort | 52 | 79 | 11 | 2 | 264 | 26.3 | 60.9 | 23.3 | -- |
| Arcadia | 45 | 73 | 8 | 6 | 199 | 25.5 | 60.5 | 32.0 | 31.3 |
| Banner | 42 | 71 | 6 | 7 | 190 | 23.6 | 60.6 | 26.1 | -- |
| Bluemoon | 48 | 73 | 7 | 5 | 229 | 26.1 | 60.7 | 28.8 | -- |
| CDC Greenwater | 50 | 78 | 11 | 1 | 248 | 26.1 | 61.6 | 27.3 | -- |
| CDC Striker | 46 | 72 | 8 | 7 | 192 | 26.0 | 60.4 | 31.2 | 30.0 |
| Cruiser | 43 | 71 | 7 | 6 | 209 | 25.9 | 59.8 | 24.8 | 26.8 |
| Ginny | 45 | 73 | 8 | 5 | 183 | 25.6 | 60.6 | 24.5 | -- |
| Greenwood | 46 | 72 | 9 | 6 | 189 | 23.0 | 61.3 | 28.4 | -- |
| LG Koda | 50 | 74 | 7 | 4 | 216 | 25.2 | 62.1 | 27.6 | -- |
| Shamrock | 49 | 76 | 9 | 3 | 221 | 27.9 | 61.7 | 23.4 | -- |
| Viper | 45 | 72 | 7 | 5 | 215 | 28.5 | 59.4 | 27.1 | 26.5 |
| Mean | 47 | 74 | 9 | 4 | 224 | 26.6 | 61.1 | 29.5 | 29.9 |
| CV % | 2.0 | 1.5 | 30 | 33 | 6.0 | 2.4 | 0.6 | 10.4 | -- |
| LSD 0.05 | 1.3 | 1.5 | 3.6 | 1.7 | 18.9 | 0.9 | 0.5 | 4.3 | -- |
| LSD 0.10 | 1.7 | 2.0 | 4.8 | 2.3 | 25.0 | 1.2 | 0.7 | 5.6 | -- |

Planted: May 9. Harvested: Aug. 1. Previous crop: small grains.

[1]Height to the top of the canopy at harvest.

[2]Lodging: 0 = none, 9 = lying flat on the ground.

[3]DAP = Days after planting.

**Table 10. 2018 Dry Pea - Divide County (Williston REC) - Authors, G. Pradhan and J. Bergman.**

| Variety | Seed Protein | 1,000 Seed Wt. | Test Weight | Seed Yield 2018 | Seed Yield 3-yr. Avg. |
|---|---|---|---|---|---|
| | (%) | (gram) | (lb/bu) | ----------(bu/a)---------- | |
| **Yellow Cotyledon Type** | | | | | |
| Agassiz | 25.9 | 226 | 61.2 | 45.3 | 43.0 |
| DS Admiral | 24.4 | 266 | 62.4 | 31.5 | 33.3 |
| Nette 2010 | 24.4 | 262 | 64.4 | 33.3 | -- |
| Spider | 27.2 | 232 | 62.6 | 34.0 | -- |
| **Green Cotyledon Type** | | | | | |
| Arcadia | 26.1 | 194 | 62.3 | 42.6 | 38.4 |
| Majoret | 26.5 | 246 | 62.7 | 28.0 | -- |
| Mean | 25.8 | 238 | 62.6 | 35.8 | 38.2 |
| CV % | 4.8 | 5.7 | 0.8 | 5.1 | -- |
| LSD 0.05 | 2.2 | 24.8 | 0.9 | 3.3 | -- |
| LSD 0.10 | 3.2 | 35.3 | 1.3 | 4.7 | -- |

Planted: June 4. Harvested: Aug. 31. Previous crop: soybean.

**Table 11. 2018 Dry Pea - Hettinger - Author, J. Rickertsen.**

| Variety | Days to Flower | Days to PM | Canopy Height[1] | Lodge | 1,000 Seed Wt. | Seeds/ Pound | Seed Yield 2018 | Seed Yield 3-yr. Avg. |
|---|---|---|---|---|---|---|---|---|
| | (DAP)[2] | (DAP) | (inch) | (0-9) | (gram) | | ----------(bu/a)---------- | |
| **Yellow Cotyledon Type** | | | | | | | | |
| AAC Profit | 48 | 83 | 17 | 8 | 237 | 1,919 | 30.0 | -- |
| Agassiz | 46 | 82 | 15 | 7 | 226 | 2,013 | 25.2 | 19.3 |
| Bridger | 44 | 82 | 13 | 5 | 217 | 2,103 | 12.9 | 14.7 |
| DS Admiral | 46 | 82 | 13 | 7 | 239 | 1,898 | 19.6 | 17.2 |
| Durwood | 47 | 82 | 17 | 7 | 208 | 2,191 | 21.2 | 19.1 |
| Hyline | 47 | 83 | 12 | 6 | 236 | 1,923 | 15.4 | 14.9 |
| LG Amigo | 46 | 82 | 14 | 5 | 221 | 2,057 | 17.8 | -- |
| LG Sunrise | 46 | 81 | 15 | 6 | 241 | 1,883 | 19.1 | -- |
| Navarro | 41 | 76 | 11 | 5 | 264 | 1,719 | 11.6 | 15.4 |
| Nette 2010 | 46 | 82 | 14 | 6 | 220 | 2,069 | 18.1 | 17.4 |
| Salamanca | 46 | 81 | 15 | 7 | 226 | 2,012 | 20.1 | 18.5 |
| Spider | 47 | 82 | 16 | 8 | 237 | 1,917 | 26.7 | 17.9 |
| SW Midas | 46 | 82 | 13 | 5 | 211 | 2,156 | 12.0 | 14.1 |
| **Green Cotyledon Type** | | | | | | | | |
| Arcadia | 46 | 82 | 12 | 1 | 202 | 2,255 | 5.7 | 11.9 |
| Banner | 42 | 76 | 10 | 2 | 230 | 1,973 | 7.0 | -- |
| CDC Striker | 46 | 82 | 10 | 3 | 194 | 2,345 | 9.3 | 13.9 |
| Cruiser | 44 | 81 | 13 | 4 | 192 | 2,363 | 13.6 | 14.5 |
| Ginny | 46 | 81 | 13 | 5 | 207 | 2,197 | 12.6 | -- |
| Greenwood | 45 | 81 | 11 | 4 | 218 | 2,082 | 11.6 | -- |
| LG Koda | 48 | 82 | 12 | 6 | 235 | 1,937 | 20.4 | -- |
| Shamrock | 49 | 83 | 15 | 7 | 222 | 2,049 | 18.6 | -- |
| Viper | 44 | 82 | 14 | 6 | 229 | 1,986 | 12.6 | 12.8 |
| Mean | 46 | 81 | 13 | 5 | 223 | 2,048 | 16.4 | 15.8 |
| CV % | 1.4 | 0.9 | 17.4 | 20.4 | 3.3 | 3.5 | 25.9 | -- |
| LSD 0.05 | 0.9 | 1.1 | 3.2 | 1.5 | 10.8 | 98 | 6.1 | -- |
| LSD 0.10 | 0.7 | 0.9 | 2.7 | 1.3 | 9.1 | 82 | 5.1 | -- |

Planted: May 3. Harvested: Aug. 7. Previous crop: oats.

[1]Height to the top of the canopy at harvest.

[2]Days after planting.