|             |              |       | Harvest  | Days to | Duration | Days to | Plant  | Oil     | Seed  |
|-------------|--------------|-------|----------|---------|----------|---------|--------|---------|-------|
| Variety     | Seeding Rate |       | Stand    | 10% Blm | of Bloom | Mature  | Height | Content | Yield |
|             | seeds/A      | lbs/A | plants/A | DAP1    | DAP1     | DAP1    | inches | %       | lbs/A |
| HyClass 955 | 50k          | 0.48  | 83,893   | 42      | 21       | 89      | 30     | 46.0    | 442   |
| HyClass 955 | 100k         | 0.96  | 113,579  | 42      | 18       | 85      | 33     | 45.1    | 595   |
| HyClass 955 | 150k         | 2.0   | 94,219   | 43      | 20       | 86      | 35     | 45.0    | 610   |
| HyClass 955 | 200k         | 1.9   | 103,253  | 42      | 16       | 85      | 34     | 46.6    | 615   |
| HyClass 955 | 400k         | 3.8   | 126,485  | 42      | 16       | 82      | 34     | 48.1    | 1104  |
|             |              |       |          |         |          |         |        |         |       |
| HyClass 970 | 50k          | 0.65  | 83,893   | 45      | 24       | 89      | 34     | 43.7    | 490   |
| HyClass 970 | 100k         | 1.3   | 95,509   | 45      | 24       | 92      | 34     | 43.5    | 795   |
| HyClass 970 | 150k         | 1.4   | 118,741  | 46      | 22       | 91      | 34     | 44.4    | 588   |
| HyClass 970 | 200k         | 2.6   | 127,776  | 45      | 24       | 92      | 35     | 43.5    | 995   |
| HyClass 970 | 400k         | 5.2   | 130,357  | 45      | 24       | 92      | 35     | 42.7    | 951   |
| Trial Mean  |              |       | 108,900  | 44      | 21       | 88      | 34     | 44.9    | 719   |
| C.V.%       |              |       | 22.5     | 1.9     | 11.7     | 3.8     | 4.3    | 2.6     | 14.9  |
| LSD 0.05    |              |       | NS       | 1       | 4        | 6       | 3      | 2.0     | 184   |

## **Combined Means**

| Seeding  | Harvest  | Days to          | Duration         | Days to          | Plant  | Oil     | Seed  |
|----------|----------|------------------|------------------|------------------|--------|---------|-------|
| Rate     | Stand    | 10% Blm          | of Bloom         | Mature           | Height | Content | Yield |
| seeds/A  | plants/A | DAP <sup>1</sup> | DAP <sup>1</sup> | DAP <sup>1</sup> | inches | %       | lbs/A |
| 50k      | 83,893   | 44               | 23               | 89               | 32     | 44.9    | 466   |
| 100k     | 104,544  | 44               | 21               | 89               | 33     | 44.3    | 695   |
| 150k     | 106,480  | 44               | 21               | 89               | 34     | 44.7    | 599   |
| 200k     | 115,515  | 44               | 20               | 89               | 35     | 45.1    | 805   |
| 400k     | 128,421  | 43               | 20               | 87               | 34     | 45.4    | 1028  |
| LSD 0.05 | 26,136   | NS               | NS               | NS               | 2      | NS      | 180   |

 $<sup>^{1}</sup>$  DAP = Days after planting.

NS = no statistical difference between seeding rates.

Planting Date: May 17

Row Spacing: 15"

Harvest Date: September 3

Previous Crop: Spring wheat

Tillage System: Transitional No-till (2nd year)

Soil Type: Williams Loam

Note: The trial was grown under severe drought (3.6" of precip from January 1 - June 30).

**Summary:** The trial was planted with Great Plains no-till openers using Monosem seed singulation meters. The month of May was very dry and probably hindered germination and seedling establishment. The trial also sustained severe drought throughout the growing season which limited growth and yield. The harvested plant stand indicated that lower seeding rates were over seeded and that all of the seeding rates produced statistically similar plant stands at harvest. Despite these similarities, there was a direct correlation between harvest stand and yield, with the 400k seeding rate producing the most plants, resulting in significantly higher yields than the lower rates. Additional trials will need to be conducted in order to make firm conclusions on this technology.