## NDSU Langdon Research Extension Center 2017 Faba Bean Seeding Rate Trial

## Faba Bean - 2017

| Langdon |
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| Variety/                                 |                     | Plant              | Stalks<br>Harvest  | Days<br>to 1st<br>Flower | Days<br>to End<br>Flower | Days<br>to<br>Mature | Plant<br>Ht | Pod<br>Ht<br>1st Pod | 1000<br>KWT |         | Test<br>Weight | Yield  | 2 yr<br>Avg.<br>Yield |
|--|---------------------|--------------------|--------------------|--------------------------|--------------------------|----------------------|-------------|----------------------|-------------|---------|----------------|--------|-----------------------|
| Seeding Rate<br>(seeds/ft <sup>2</sup> ) | Emergence           | Stand<br>Seedling  |                    |                          |                          |                      |             |                      |             |         |                |        |                       |
|  |                     |                    |                    |                          |                          |                      |             |                      |             | Protein |                |        |                       |
|  | (DAP <sup>1</sup> ) | (ft <sup>2</sup> ) | (ft <sup>2</sup> ) | (DAP <sup>1</sup> )      | (DAP <sup>1</sup> )      | (DAP <sup>1</sup> )  | (in)        | (in)                 | (g)         | (%)     | (lb/bu)        | (bu/a) | (bu/a)                |
| Tabasco-3                                | 19.3                | 2.5                | 3.6                | 52.8                     | 78.0                     | 124.0                | 47.5        | 13.7                 | 405         | 21.6    | 63.2           | 81.2   | 76.6                  |
| Tabasco-4                                | 19.0                | 3.8                | 4.3                | 52.3                     | 77.8                     | 121.8                | 50.1        | 15.6                 | 396         | 20.9    | 63.1           | 88.2   | 86.9                  |
| Tabasco-5                                | 19.0                | 5.3                | 4.9                | 52.8                     | 78.0                     | 123.5                | 48.4        | 16.3                 | 415         | 21.7    | 63.5           | 96.1   | 89.8                  |
| Tabasco-6                                | 18.8                | 5.3                | 6.4                | 52.8                     | 77.8                     | 123.3                | 48.3        | 16.1                 | 398         | 22.3    | 63.1           | 97.3   | 92.8                  |
| Boxer-3                                  | 19.5                | 3.9                | 3.8                | 52.0                     | 78.3                     | 124.5                | 52.1        | 14.8                 | 540         | 24.9    | 63.9           | 108.3  | 102.0                 |
| Boxer-4                                  | 19.0                | 3.8                | 5.1                | 51.3                     | 78.3                     | 123.0                | 53.4        | 17.1                 | 537         | 24.3    | 63.8           | 114.4  | 105.8                 |
| Boxer-5                                  | 19.0                | 4.8                | 5.5                | 51.3                     | 78.0                     | 122.8                | 55.1        | 15.5                 | 511         | 24.8    | 64.3           | 121.6  | 108.8                 |
| Boxer-6                                  | 18.3                | 6.5                | 6.3                | 51.3                     | 78.0                     | 121.5                | 55.1        | 16.6                 | 521         | 24.4    | 64.0           | 125.9  | 114.5                 |
| Mean                                     | 19.0                | 4.5                | 5.0                | 52.0                     | 78.0                     | 123.0                | 51.3        | 15.7                 | 465         | 23.1    | 63.6           | 104.1  |                       |
| C.V. %                                   | 2.1                 | 22.5               | 16.2               | 1.6                      | 0.6                      | 1.1                  | 5.5         | 9.8                  | 4.7         | 3.1     | 0.7            | 5.7    |                       |
| LSD 5%                                   | 0.6                 | 1.5                | 1.2                | 1.2                      | NS                       | NS                   | 4.2         | NS                   | 51.8        | 1.1     | 0.6            | 8.8    |                       |
| LSD 10%                                  | 0.5                 | 1.2                | 1.0                | 1.0                      | NS                       | 1.6                  | 3.5         | NS                   | 41.5        | 0.9     | 0.5            | 7.3    |                       |

## Planting Date: May 9

Previous Crop: Durum Wheat

NS-No statistical difference between Harvest Date: September 29

Tillage: Conventional

Protein adjusted to 16% moistur Row Spacing: 6 inches

Soil Type: Svea Barnes loam

Faba Beans are a long-maturing, cool season, annual legume that grow best under moist conditions. The current recommended seeding rate for Faba Beans is 4 seeds per square foot. Faba Beans have very large seeds often requiring a seeding rate of 3-4 bushels per acre, depending on the seed size. The research objective of this trial was to help determine the optimum seeding rate for our region. The lowest seeding rate had the lowest yield for both varieties. There were no significant differences in yield between the seeding rates 4 and 5 or 5 and 6 seeds/ft<sup>2</sup> for the varieties Boxer and Tabasco. The 2 year average indicated yield increasing numerically as seeding rates increased for both varieties. Most of the other significant differences between agronomic traits occurred between varieties.