NDSU North Central Research Extension Center 2017 Faba Bean Seeding Rate Trial at Minot

	Seeding	Seedling	Seedling	Harvest	Days to	Days to	Days to	Plant		Height of	Grain	Test	1000	Seed
Variety	Rate	Emergence	Stand	Stand	10% Blm	90% Blm	Mature	Height	Lodging	1st Pod	Protein	Weight	KWT	Yield
	Seeds/sq ft	DAP ¹	# / sq ft	#/sqft	DAP ¹	DAP ¹	DAP ¹	inches	0-9 ²	inches	%	lbs/bu	g	lbs/A
Tabasco	3	13	2.5	3.3	49	73	94	20	0	7	20.6	57.7	367	1002
Tabasco	4	13	4.1	3.5	49	73	94	20	0	7	20.5	57.6	344	1325
Tabasco	5	13	5.2	4.4	48	72	93	18	0	7	21.5	57.4	361	1310
Tabasco	6	13	4.6	3.2	49	72	93	19	0	7	21.1	56.6	349	1274
Boxer	3	13	4.1	3.1	46	73	94	20	0	8	22.7	57.8	403	1478
Boxer	4	13	3.7	3.9	47	73	93	21	0	7	24.1	57.1	458	1777
Boxer	5	13	4.5	4.0	45	73	93	21	0	8	24.1	57.2	429	1675
Boxer	6	13	3.7	4.6	45	72	92	21	0	9	22.5	57.7	437	2048
Trial Mean		13	4.1	3.7	47	73	93	20	0	8	22.1	57.4	394	1486
C.V.%		0.0	20.9	17.4	1.1	0.6	1.5	9.7	0	13.5	2.4	1.4	2.9	16.0
LSD 5%		NS	1.5	1.1	1	NS	NS	NS	NS	NS	0.9	NS	20	416
LSD 10%		NS	1.2	0.9	1	NS	NS	NS	NS	1	0.8	1.1	17	342

Combined Means

Seeding	Seedling	Seedling	Harvest	Days to	Days to	Days to	Plant		Height of	Grain	Test	1000	Seed
Rate	Emergence	Stand	Stand	10% Blm	90% Blm	Mature	Height	Lodging	1st Pod	Protein	Weight	KWT	Yield
Seeds/sq ft	DAP ¹	# / sq ft	#/sqft	DAP ¹	DAP ¹	DAP ¹	inches	0-9 ²	inches	%	lbs/bu	g	lbs/A
3	13	3.3	3.2	48	73	94	20	0	8	21.7	57.7	385	1240
4	13	3.9	3.7	48	73	94	21	0	7	22.3	57.3	401	1551
5	13	4.9	4.2	47	73	93	19	0	7	22.8	57.3	395	1493
6	13	4.2	3.9	47	72	93	20	0	8	21.8	57.1	393	1661
LSD 5%	NS	1.1	0.9	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

¹ DAP = Days after planting.

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

NS = *no* statistical difference between treatments.

Planting Date: April 28 Previous Crop: Canola Harvest Date: August 28 Tillage System: Transitional No-till (2nd year) Row Spacing: 7.5"

Soil Type: Williams Loam

Note: Grain protein, test weight and seed yield have been adjusted to 16% moisture.

Summary: Faba beans are large seeded crop, requiring a large volume of seed to be planted, thus restricting the planting speed and number of acres that can be planted in a day. Results of this trial would indicate that seeding rates higher than 4 seeds per square foot do not impact agronomic characteristics, seed quality or yield. The trial sustained a severe drought which did affect agronomic characteristics, seed quality and seed yields.