

Project Title: Faba Variety Trial - 2017

Objective: To evaluate Faba for yield and agronomic performance in Northwestern Montana.

Results:

Significant differences were observed for faba bean yield. Mean yield was 64.0 bu/A and ranged from 51.5 bu/A to 76.2 bu/A. Flowering averaged 182 (July 1), flower as a function of days after emergence averaged 37 days. Height at pod fill averaged 44.0 inches and ranged from 33.2 inches to 47.5 inches. Test weight averaged 65.4 lb/bu and ranged from 64.6 to 66.3 lb/bu. Thousand kernel weights averaged 435 grams with a range from 194 (a petite type) to 496 grams. Percent protein mean value was 29.6 percent and ranged from 27.4 to 30.6 percent. No statistical differences were observed for plants density, height at flower or physiological maturity.

Summary:

The nursery was planted under rainfed condition with adequate subsurface moisture on silt loam soil. Weeds were well controlled with the pre-plant incorporated herbicide. This was our first year planting faba, which can be large seeded and irregular, thus slow planting and occasional checking of planter opener was required. Harvest was done while stems were still green as pods were crisp and prone to shatter. The combine fan speed was set to maximum. Tabular data of this nursery will not be present.

Table 1. Materials and Methods.

Seeding Date:	5/11/2017	Harvest Date:	8/19/2017
Julian Date:	131	Julian Date:	231
Seeding rate:	4 plants/sqft	Soil Test:	120-13-160
Previous Crop:	Spring Wheat	Fertilizer:	6-30-30
Tillage:	Conventional	Seed treatment:	Insecticide (Cruiser 5FS) and Fungicide (Apron Maxx RTA)
Irrigation:	None	Herbicide:	Triflurex (pre-plant incorporated)
Soil Type:	Creston silt loam	Insecticide:	Warrior II (June 7)

Table 2. Faba bean aronomic data.

Cultivar	PLNT sqft	FLWR Julian	FLWR DAE	HT FLWR in	HT PF in	HT PM in	YLD lb/A	YLD bu/A	TWT lb/bu	TKW g	PRO %
GNF-17061	4.0	181	37	32.2	47.3	47.4	4571.3	76.2	65.4	487.1	29.83
GNF-17041	5.0	181	37	32.2	47.4	47.3	4257.8	71.0	65.9	490.3	29.33
GNF-17031	6.3	179	35	26.9	45.0	42.3	4169.1	69.5	65.2	491.9	29.60
GNF-17021	3.3	182	38	33.3	45.3	50.1	4027.6	67.1	65.7	490.7	29.87
Boxer	6.3	182	38	30.2	44.1	42.6	4011.0	66.8	64.7	463.9	30.63
GNF-17051	4.7	181	37	30.2	44.6	47.3	3911.9	65.2	64.8	479.4	30.47
Funfare	3.0	182	38	30.1	42.9	46.5	3759.9	62.7	64.6	495.5	30.53
GNP32417 (Petite)	6.7	185	41	28.0	33.2	34.9	3392.3	56.5	66.3	193.5	na
Tabasco	5.7	182	38	29.8	42.9	41.5	3225.8	53.8	65.9	340.8	27.43
GNF-17011	5.0	180	36	29.0	47.5	48.6	3086.4	51.5	65.6	422.2	28.47
Mean	5.0	181.5	37.3	30.2	44.0	44.8	3841.3	64.0	65.4	435.5	29.57
CV	30.8	0.6	3.1	8.5	5.4	11.6	7.5	7.4	0.9	2.8	1.7
LSD	ns	1.9	2.0	ns	4.1	ns	491.1	8.2	1.0	21.2	0.8
Pr>F	0.0909	0.0005	0.0008	0.1406	0.0001	0.0666	0.0001	0.0001	0.0287	0.0001	0.0001

FLWR: 50% flower, DAE: days after emergence, HT FLWR: height at flowering, HT PF: height at pod fill, HT PM: height at physiological maturity, YLD: yield, TWT: test weight, TKW: thousand kernel weight, PRO: protein, ns: nonsignificant.