Project Title: Statewide Lentil Variety Trial - 2016

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

Results:

Significant difference was observed for lentil yield. Average yield was 48.3 bu/A (Table 2) and ranged from 36.9 bu/A for CDC Imigreen to 55.3 bu/A for Eagle. Test weights averaged 63.3 lb/bu. Thousand kernel weights were significant with an average of 38.3 grams. Statistical differences were observed for height at pod fill, with an average of 14.8 inches. No significant differences were observed for heights at flowering or at physiological maturity.

Summary:

The nursery was planted under rainfed condition with adequate moisture. This trial faced weed interference despite the use of Dimetric.

Table 1. Materials and Methods.

Seeding Date:	4/22/2016	Harvest Date:	7/29/2016
Julian Date:	113	Julian Date:	211
Seeding Rate:	12 plants/sqft	Soil Test:	116-11-125
Previous Crop:	Barley	Fertilizer:	6-30-30
Tillage:	Conventional	Herbicide:	Dimetric (metribuzin) 1/3 lb/A
Irrigation:	None	Insecticide:	Warrior II 1.92 fl oz/A
Soil Type:	Creston Silt Loam		

Table 2. Lentil agronomic data.

Cultivar	FLWR Julian	HT FLWR in	HT PF in	HT PM in	YLD lb/A	YLD bu/A	TWT lb/bu	TKW g
Eagle	193	19.0	15.3	24.3	3318.7	55.3	63.5	35.1
CDC Redcoats	193	14.8	15.5	23.5	3153.2	52.6	64.0	38.1
CDC Impala CL	193	16.0	15.3	23.0	3044.9	50.8	65.2	28.5
CDC Viceroy	193	18.0	15.5	25.3	3020.0	50.3	64.3	30.9
Avondale	193	14.0	13.5	22.0	2991.7	49.9	62.3	43.1
Imvincible	193	18.5	17.3	22.5	2740.1	45.7	64.5	31.3
CDC Richlea	193	13.5	12.8	24.3	2674.8	44.6	61.3	46.0
CDC Imigreen	193	16.8	13.5	26.0	2215.3	36.9	61.0	53.7
Mean	193	16.3	14.8	23.8	2894.8	48.3	63.3	38.3
CV	0	17.1	12.0	13.2	10.8	10.8	0.4	3.5
LSD	ns	ns	2.6	ns	459.8	7.7	0.4	2.0
Pr>F	1	0.0706	0.0369	0.6338	0.0022	0.0023	0.0001	0.0001

FLWR: 50% flower, 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, ns: nonsignificant.