

Project Title: Lentil Variety Trial - 2018

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

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Summary:

The trial was planted under rainfed conditions with adequate subsurface moisture on silt loam soil. A pre-plant incorporated herbicide (Triflurex) was applied, but weeds persisted in the trial, and thus weeds were also controlled manually. Table 1 shows the detailed management information.

Besides plant height at maturity, no other traits were significant in the 2018 lentil trial. Plant height at maturity ranged from 31.8 to 21.3 inches (Table 2).

Table 1. Management information

Seeding date:	5/8/2018	Harvest date:	9/7/2018
Julian date:	128	Julian date:	250
Seeding rate:	12 plants/ft <sup>2</sup>	Soil nutrient residual (lbs/A):	93-7-84 (Fall, 2017)
Previous crop:	Spring wheat	Nutrient fertilizer applied (lbs/A):	0/50/0
Tillage:	conventional	Insecticide:	Warrior2
Irrigation:	None	Inoculant:	N-charge
Soil type:	Creston Silt loam	Seed treatment:	Cruiser 5FS, Apron Maxx RTA

Table 2. Lentil agronomic data

Variety/line	PLNT sqft	FLWR days	HT in	LOD %	YLD lb/A	TWT lb/bu	TKW g
LC9978094	9.4	59	24.8	52.5	3045.6	64.2	37.1
CDC Impala	10.2	62	31.5	37.5	3023.9	63.6	35.7
LC99780571	9.7	61	29.7	60	3009	63.9	36.2
Avondale	9.6	64	23	90	2958.8	63.7	35.2
LC9979016	10.7	60	25.3	70	2798.2	64	36.9
CDC Invincible	9.9	62	22.3	70	2736.5	64.9	33.3
CDC Richlea	10	60	31.8	65	2681.1	64	38.6
LC9979120	10.5	60	26.9	60	2615.5	64.5	37.5
LC9977019	11.6	65	21.3	85	2588	63.3	36.4
CDC Maxim	8.5	62	22.3	60	2552.3	64.8	33.2
WA8649090	9.6	59	22.3	75	2481.6	64.2	33.2
LC9977116	9.3	64	30.9	50	2450.5	63.8	30.7
LC99709065	9.6	61	25.2	67.5	2228.4	65.1	32.8
LC9976079	9.4	64	26.1	82.5	1886.6	64.4	30.6
Mean	2646.9	64	34.8	62.1	9.9	26.0	66.1
CV	11.9	0.8	7.0	3.0	7.3	13.7	21.0
LSD	ns	ns	ns	ns	ns	7.4	ns
Pr>F	0.2271	0.7812	0.7922	0.5518	0.7639	0.0008	0.3197

YLD: yield, TWT: test weight, TKW: thousand kernel weight, FLD: days to flower, PLNT: stand count, HT: plant height at maturity, LOD: lodging  
 ns: not significant (alpha = 0.05).