

Project Title: Western Regional Lentil Trial 2007

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Objective: To evaluate new varieties of spring-seeded lentil (*Lens culinaris*) for grain yield in northwestern Montana.

Results:

Twenty cultivars of lentil were seeded at 10 seeds/ft² in 100 ft² plots. The plots were arranged in a split block design with cultivars randomized within 4 replicates.

Emerged plants were counted on 5/18/07. Date on which 50% of the plants in each plot first flowered was recorded. Maturity date was determined when more than half the plot had turned yellow and pods were beginning to dry. The lentils were harvested with a Hege plot combine, cleaned and weighed to determine plot yield. Samples of 100 intact seeds were weighed to determine seed size.

Stand establishment was excellent with ~100% occupancy in all plots. All cultivars had bloomed by June 29 and reached maturity by Aug. 1. Yields ranged from 1119 lbs/a ('Riveland') to 1903 lbs/a ('LC02601144P'). Seed size ranged from 16270 seeds/lb ('LC03600482T', a Turkish type) to 6411 seeds/lb ('LC02600793L', a large-seeded Laird type).

Summary:

Lentil yields were comparable to those in 2006.

Future Plans:

We shall continue to evaluate lentils for this area if ARS desires.

[See table on next page.]

Lentils 2007

<u>Cultivar</u>	<u>Stand</u> <i>pl/sqft</i>	<u>FstBlm</u> <i>date</i>	<u>Ht</u> <i>in</i>	<u>Maturity</u> <i>date</i>	<u>Yield</u> <i>lbs/a</i>	<u>Seed Size</u> <i>#/lb</i>
Merrit	10	6/21	15.4	7/25	1140	9402
Pardina	11	6/22	13.2	7/25	1504	14391
Pennell	12	6/26	17.2	8/1	1328	7000
Richlea	12	6/26	15.9	7/27	1496	9614
Riveland	10	6/23	16.9	7/27	1119	6581
Crimson	10	6/29	15.0	7/26	1702	14889
Eston	12	6/26	14.9	7/25	1168	14130
LC01602062T	9	6/22	15.0	7/26	1266	11457
LC01602273E	10	6/24	15.0	7/25	1583	14922
LC01602300R	9	6/26	18.2	7/26	1635	10165
LC01602307E	10	6/29	16.8	7/30	1432	10429
LC02600793L	10	6/22	13.7	7/28	1261	6411
LC02601144P	11	6/22	16.6	7/26	1903	13631
LC03600482T	12	6/26	15.2	7/25	1315	16270
LC03601115L	9	6/22	15.3	7/27	1411	7631
LC03601588R	9	6/29	17.6	7/27	1340	10137
LC03601590E	11	6/28	16.5	7/25	1414	12679
LC04600346P	11	6/21	14.2	7/26	1693	12388
LC04600350P	13	6/22	12.6	7/26	1816	11985
LC04600751T	9	6/24	13.0	7/26	1312	15854
mean	10		15.4		1442	11498
Pr>F	0.0773		0.0002		0.0029	<.0001
LSD(0.05)	NS		2.5		409	2023
CV(% mean)	17.8		9.8		17.2	10.7