

PROJECT TITLE: **WESTERN REGIONAL SPRING LENTIL YIELD TRIAL**

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OBJECTIVE: Compare yield potential of experimental lentil breeding lines with released varieties in a northwest Montana environment.

METHODS:

Fourteen experimental lentil accessions from Washington State University and 6 named cultivars were seeded into 100 ft² plots at 8.3 seeds/ft² on 4/17/06. The soil was fertilized with 22 lbs. N/a and 104 lbs. P₂O₅/a. Stand counts were taken 5/10/06. Dates were recorded when 50% of each plot had bloomed. When the plants reached maturity (yellow leaves, hard seed) they were harvested with a plot combine. The lentils from each plot were weighed to determine yield and 100-seed samples weighed to determine seed weight (no. seeds/lb).

RESULTS:

All the entries developed excellent stands. First blooms appeared between 6/16 and 6/21. The lentils were direct combined when each plot reached maturity. Lentil yields ranged from 913 lbs/acre ('LC03600482T') to 2369 lbs/acre ('LC01602273E'). 'LC02600793L' had the largest seeds and 'LC03600482T' had the largest.

2006 Western Regional Lentil Yield Trial

Kalispell

| <u>Cultivar</u> | <u>Stand</u> <i>pl/sqft</i> | <u>Bloom</u> <i>date</i> | <u>Maturity</u> <i>date</i> | <u>Height</u> <i>in</i> | <u>Yield</u> <i>lbs/a</i> | <u>Seed Wt.</u> <i>#/lb</i> |
|-----------------|--------------------------------|-----------------------------|--------------------------------|----------------------------|------------------------------|--------------------------------|
| Pennell | 14.9 | 6/18 | 8/6 | 20.7 | 1306 | 6267 |
| LC860359L | 15.4 | 6/21 | 8/7 | 23.7 | 1277 | 6027 |
| LC860616L | 15.7 | 6/16 | 8/8 | 25.0 | 1638 | 6460 |
| LC99600747L | 13.8 | 6/17 | 8/7 | 24.7 | 1270 | 6551 |
| LC01600724L | 15.1 | 6/20 | 8/6 | 20.3 | 1065 | 6579 |
| LC02600793L | 12.8 | 6/16 | 8/8 | 21.7 | 1144 | 5782 |
| Merrit | 13.0 | 6/16 | 8/7 | 21.7 | 1440 | 7008 |
| Richlea | 17.4 | 6/19 | 8/7 | 24.3 | 1704 | 8680 |
| LC01602300R | 16.8 | 6/19 | 8/8 | 23.3 | 1732 | 8934 |
| LC02600193R | 14.2 | 6/17 | 8/6 | 20.7 | 1770 | 8373 |
| Eston | 15.0 | 6/17 | 8/7 | 22.3 | 1235 | 13181 |
| LC01602273E | 16.1 | 6/17 | 8/6 | 22.0 | 2369 | 12506 |
| LC01602307E | 17.1 | 6/19 | 8/9 | 24.3 | 1706 | 10086 |
| LC03601590E | 16.1 | 6/18 | 8/7 | 23.0 | 2174 | 11279 |
| Pardina | 16.6 | 6/17 | 8/6 | 19.7 | 1699 | 11317 |
| LC02601144P | 14.8 | 6/17 | 8/8 | 21.7 | 1085 | 11267 |
| Crimson | 14.6 | 6/18 | 8/7 | 18.7 | 2208 | 12161 |
| LC01602062T | 14.9 | 6/17 | 8/8 | 22.0 | 1811 | 9500 |
| LC02601276T | 14.1 | 6/19 | 8/11 | 21.7 | 1358 | 12123 |
| LC03600482T | 13.6 | 6/16 | 8/8 | 16.7 | 913 | 14495 |
| mean | 15.1 | | | 21.9 | 1545 | 9429 |
| Pr>F | 0.7369 | | | 0.0003 | 0.0005 | < 0.0001 |
| LSD(0.05) | NS | | | 3.2 | 609 | 856 |
| CV(%mean) | 17.4 | | | 8.7 | 24.0 | 5.5 |