

LUARS Research 2022 – Results from Canola Varieties Experiments

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Liberty Canola Varieties (Seeded on June 11, 2022):

- Twelve varieties were evaluated; some of them new and half of which had Clubroot resistance/or shatter reduction trait.
- Delayed seeding (prolonged winter and wet May) and dry weather (total rainfall during June and July 87 mm only) kept the seed yields low (trial mean 2.61 MT/ha). Growth as seen from straw yield (7.69 MT/ha) didn't get converted into seed yield.
- Seed yield was in the order of *LA344PC* (3.34 MT/ha) \geq *L357P* (3.09 MT/ha) = *P501L* (3.09 MT/ha). Seed yield in other varieties ranged from 1.98 MT/ha in *L340PC* to 2.79 MT/ha in *L252*.
- *L357P* recorded the highest straw yield (9.55 MT/ha). Straw yield in other varieties ranged from 6.11 MT/ha in *DKLL-82SC* to 9.12 MT/ha in *LA356PC*.
- Averaged over 2018-2022, three top seed yielding varieties were *L252* (3.86 MT/ha), *P501L* (3.01 MT/ha) and *LA344PC* (2.90 MT/ha). Straw yield was higher with *L357P* (8.39 MT/ha) and *LA344PC* (8.12 MT/ha) than with the other varieties (6.12-7.61 MT/ha).
- *P* stands for 'Shatter Reduction' and *C* for 'Clubroot Resistance'.

Roundup Ready Canola Varieties (Seeded on June 11, 2022):

- Eight varieties were compared for their production potential.
- Three top seed yielding varieties were *6086CR* (3.62 MT/ha), *BY6204TF* (3.24 MT/ha), and *CS2300* (2.89 MT/ha). Seed yield in other varieties ranged between 1.95 to 2.78 MT/ha.
- Straw yield was highest with *BY6204TF* (11.82 MT/ha).
- Averaged over 2020 to 2022 (7 varieties), *CS2600CR-T* (3.55 MT/ha), *LR344PC* (3.46 MT/ha) and *BY6204TF* (3.11 MT/ha) gave higher seed yield than the other varieties. Highest straw yield was obtained with *CS2300* (8.25 MT/ha) and *BY6076CR* (8.23 MT/ha).
- *CR* stands for Clubroot resistance and *TF* for Truflex.

Clearfield Canola Varieties (Seeded on June 13, 2022):

- Five varieties were compared for their production potential.
- Seed yield was in the order of *5545CL* (3.47 MT/ha) \geq *2028CL* (2.92 MT/ha) \geq *CS2500CL* (2.82 MT/ha). Straw yield was highest (7.77 MT/ha) with *5545CL*.
- Averaged over 2021-2022, *5545CL* produced the highest seed (2.85 MT/ha), straw (6.40 MT/ha) and biomass (8.92 MT/ha) yields.

Recommendations:

- For rotation of herbicides and to avoid the problem of herbicide resistant weeds, Liberty canola varieties should be grown. Considering both the seed yield and the straw yield, *L357P* could be preferred over other varieties.
- Those who wish to grow Roundup Ready canola, may choose *CS2600CR*/or *LR344PC*. The latter has both the Liberty and the Roundup Ready traits.
- Those who have concern for GM Technology/and want to crush canola for oil, may prefer *5545CL*, which has given consistently higher seed and straw yields as compared to the other varieties.