

Yield increase

LENTIL

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OBJECTIVE

To evaluate the effect of mycorrhizal inoculation (*Glomus intraradices*) on lentil yield.

METHODS

The experiment was located in Swift Current, Saskatchewan and in Taber, Alberta. Both soils were classified as loam. Plots were 18 rows wide (23 cm [10 inches] spacing) in Swift Current and 6 rows wide in Taber by 5.5 m long (18 feet). They were arranged in a complete block design with 7 replicates. For the inoculated treatments, the mycorrhizal inoculant was mixed with the seed just before seeding. Lentil cv 'CL Improve' (SK) and 'Laird' (AB) were seeded

on cereal stubble at a rate of 90 kg /ha (80 lb/a) and 45 kg/ha (40 lb/a) respectively. Two rates of phosphorus fertilization was also tested, the recommended rate according to each location and 50% of the phosphorus rate. The usual pesticides were applied throughout the season.

RESULTS

At the recommended phosphorus rate, yield was significantly higher by 13.5 % in mycorrhizal inoculated plots compared to the control in Taber and 14.8 % higher in Swift Current, even though yield was very low because of severe drought.

