

# #094

## Effect of hairiness in Brassica lines on flea beetle feeding behavior

ADDRESS

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Flea beetles are major insect pests that threaten canola production in the Canadian prairies each year. Flea beetles feed on canola seedlings and later on pods, and insecticides are the only control options. Recently, natural lines of Brassica napus exhibiting high levels of hairs on their leaves and stems were identified. The feeding behavior and damages of flea beetles were assessed on doubled-haploid hairy derivatives of the accessions of hairy Brassica lines with a commercial glabrous canola cultivar as control. Flea beetle movement, feeding behavior and feeding damages were assessed using bioassays conducted in growth chambers. Two plant growth stages (cotyledons and 1-2 leaf stage), two plant growth temperatures (18°C/14°C, and 25°C/20°C with 16L/8D photoperiod) and four soil moistures conditions (20%, 40%, 75% and 100% soil moisture content) were used during the experiments. The presence of trichomes on the leaves significantly affects flea beetle movement and feeding behavior. Plant growth stages, temperatures and soil moisture conditions significantly affect feeding damages. Relationship between the hairiness of the plant and feeding damages by flea beetles will be discussed.

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