

REACTION OF SWEET CLOVER VARIETIES TO BLACKSTEM

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Sweet Clover trials, including eight different varieties were seeded at Lacombe in the spring of 1962 without a companion crop. Excellent stands were established and, by the end of the growing season, dwarf types ranged from 12 to 18 inches in height, while standard varieties ranged from 24 to 30 inches. In late August some plots were severely infected with *Ascochyta* sp. A test replicated six times was subsequently scored for disease severity using a scale from 1 to 5, where 1 = disease free, 2 = trace, 3 = moderate, 4 = prevalent, 5 = severe). Average ratings for varieties and significance ranges (1% level) were as follows:

<u>Alpha</u>	<u>Denta</u>	<u>Arctic</u>	<u>Madrid</u> <u>(Sask.)</u>	<u>Madrid</u> <u>(USA)</u>	<u>Cumino &</u> <u>Erector</u>	<u>Brandon</u> <u>Dwarf</u>
4.83	2.50	2.33	2.16	2.00	1.38	1.58

Standard error of means = .18

The variety Alpha was very susceptible and extremely sensitive to the disease. Lesions occurred on large portions of the stems and the disease caused severe defoliation. Denta exhibited moderate infection but this variety appeared to possess marked tolerance to blacksten. Plants were vigorous and the foliage showed healthy color. Brandon Dwarf showed greatest resistance to blackstem,

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