nuda), in Manitoba; High Bluff 12%, Manson, 6%, Ashville, Headingly and Ste. Agathe, 5%; In Saskatchewan; Stenen, 10%, Wawota, 3%. False loose smut (Ustilago nigra), in Manitoba; Manitonas 10%, Benito, 8%. Covered smut (Ustilago hordei), In Manitoba; Ashville, 5%; in Saskatchewan; Mont Nebo, 10% Fenton, 6%, Kendal and Kelstern, 5%, and Stenen, 4%; in Alberta; Sylvan Lake, 10%.

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SEVERE LOOSE SMUT IN YORK BARLEY IN SOUTH-WEST ONTARIO

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The first report of an unusually high level of loose smut in barley was received in mid-July from Mr. Don Black, the Agricultural Representative for Wellington County. A spore germination study confirmed that Ustilago nuda was the causal organism. Two more reports followed in quick succession and field and laboratory tests again showed U. nuda to be the pathogen concerned. In all three cases York was the barley variety affected. The amount of smut varied from 6 to 20 per cent as determined by the average of 4 counts of 100 heads in each of 4 rows selected at random.

Immediately following these reports a survey was made in 8 other barley fields in the area. Two were free of smut; 4 showed less than one per cent; one had 10 per cent and one had 19 per cent loose smut. Both fields with the high smut incidence were sown to the variety York.

York is a comparatively new variety which was licensed for sale in 1958. It has high yielding capacity and possesses resistance to stem rust and powdery mildew. Apparently, a number of seed stocks of this variety were turned down for registration in 1959 because of high loose smut rating as determined by the embryo test, It is possible that some of these stocks were marketed as commercial seed which would account, at least in part, for the high incidence of loose smut in the 1960 crop.

It is apparent that York barley is highly susceptible to loose smut as there have been no reports of such high smut incidence in any of the other varieties grown in this area.

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