



Smut of oats.

Loose-smut of wheat.

Stinking-smut of wheat.

Covered-smut of barley.

smut of wheat and barley is more difficult. In practice, it has been found that the only satisfactory method of treatment is to immerse the grain before sowing in water heated to a temperature sufficient to kill the hyphae without injuring the embryo. Treatment often lowers the germinating vigour of the seed, and increases the time it takes the seedling to appear above ground.

### *Clean Seed Lines*

In the main cereal growing districts of New Zealand much work has been done in freeing the principal varieties of wheat and barley from loose-smut infection, and relatively clean seed lines are now available either in certified (wheat) or commercial lines of wheat and barley. These may be several times removed from an origi-

nally hot-water treated line yet show high smut-freedom, as they have not been subject to reinfection.

In the Nelson district, where milling wheat is not grown, the variety Major is commonly sown as a feed wheat. Seed has for many years been saved from crops containing appreciable percentages of loose-smut, but control of this disease is now being undertaken.



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