COMPARATIVE SMUT RESISTANCE OF WASHINGTON WHEATS.¹

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Damage caused by stinking smut in the northwest.

Washington, Oregon, and Idaho produce over 40,000,000 bushels of winter wheat annually. Stinking smut is more prevalent in the winter-wheat sections of these States than anywhere else in the United States, and probably a larger percentage of the crop is affected than on an equal acreage anywhere else in the world. It is not uncommon to find whole fields with 40 percent of smut. Several county agents in the more important winter-wheat growing counties have estimated that these three States lose in the neighborhood of 15 percent of their winter wheat by smut. This would mean a loss of 6,000,000 bushels, which are worth, at present prices, over $10,000,000. The prevalence of smut in winter wheat seems to be increasing in spite of the most careful methods of seed treatment. This condition is causing many farmers to abandon winter wheat until some measures can be found to control smut. The elimination of winter wheat is undesirable from the standpoint of distribution of labor in seeding and harvesting and from the fact that winter wheat produces from 1 to 5 bushels per acre more than spring wheat.

Present methods of smut control.

Several methods of producing winter wheat with little or no smut are known. It has been found both by experiment and by farm practice that little or no smut is produced when the crop is seeded very early in the season, but this is not desirable on account of overdevelopment in the fall and a consequent reduction in yield. Moreover, in a dry season or when the cultivation has not been the best, the moisture in the soil in July or early August is insufficient to germinate the seed. It is impossible to sow early except on summer fallow. There is also the added expense of carrying over the seed from the previous year's crop.

Little or no smut is produced in fields that are sown abnormally

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