EFFECT OF LEAF RUST INFECTION ON YIELD OF CERTAIN VARIETIES OF WHEAT

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It often has been stated by investigators as well as farmers that very little loss results from heavy infection with leaf rust of wheat, *Puccinia triticina*. Even today losses from this source usually are underestimated and frequently entirely overlooked. This tendency is partially due to the failure of most people to differentiate between the type of injury caused by stem rust and that caused by leaf rust. Stem rust is by far the more destructive and more spectacular parasite when conditions favor its development. Frequently striking late in the season, it often ruins a promising crop within a few days, leaving only light, shriveled, poorly-matured grain scarcely worth harvesting.

Leaf rust, on the other hand, frequently is present much earlier in the season than stem rust and gradually increases until the crop reaches maturity. Thus it is not spectacular, but rather insidious in its effect on the crop. Furthermore, its distribution, season after season, is much more widespread than that of stem rust. Leaf rust is found nearly every season in almost every part of the world where wheat is grown. It is true the amount of infection varies from season to season, but the average amount is much greater than that of stem rust. The latter rust may be very serious in one season and then may be practically absent for a period of several years. This is especially true in the hard red winter wheat growing area of the southern Great Plains where heavy infections of leaf rust occur almost annually.

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