

of the latter at the time of the attack. Strangely enough, however, one of these autumn crops in the affected area, instead of yielding comparatively well, had produced so poor a yield that it had been decided to burn off the lot. Inquiries elicited the fact, moreover, that this crop had not been attacked at the same time as the others—the presence of the rust having been reported upon it some time before the outbreak became general. The land upon which this crop was grown had two seasons before been occupied by a rust-affected crop, seed from which was used this season. While the outbreak is not considered as due to the use of seed from a rust-affected crop, yet it does seem very likely that this particular autumn crop became very early affected by spores emanating from self-sown plants from the crop of two seasons ago, and that the centre of infection for the remainder of the district in the season now dealt with was this early affected autumn-sown crop.

METHODS OF TREATMENT.

As already shown, it is advisable for the control of the rust to destroy quickly, as far as practicable, all the aftermath of wheat crops and self-sown wheat. The sowing of autumn crops is probably inadvisable, and early spring sowing is undoubtedly good. In the application of fertilizers it is well to remember that excessive nitrogen delays the early maturing of the grain, whilst phosphate fosters it and thus works to the end of getting as much grain-development before the rust appears. Any cultural or other measure which makes for early maturity and vigour is of value.

The so-called rust-proof varieties of other countries or places are more correctly rust-resistant; moreover, they are not necessarily even rust-resistant out of the environment in which they have been raised. It follows, therefore, that each rust-resistant variety will best be evolved in the district where it is eventually destined to be grown for a crop.

There is no satisfactory treatment known for a crop already affected, and the methods of preventing attack are at present still far from satisfactory.

PUCCINIA GRAMINIS AND OATS.

It is worthy of note that the odd oat-plants found here and there in some of the badly rusted wheatfields in the Greenfield district had practically no signs of rust, and had developed well-filled grains.