

LEAF RUST OR CROWN RUST OF OATS (*Puccinia coronata*, Cda.).

Oats are also attacked by leaf rust. As the name implies, this rust is mainly confined to the leaves, though it may occur to some extent on the leaf bases and stems of the oat plant. Early in the season the leaves and sometimes the leaf bases become thickly covered with small oval or elongated, light red or orange-colored spots. Each spot or pustule is surrounded by the broken skin (epidermis). See Fig. 13. Each of these spots is composed of orange-colored powdery material consisting of numerous spores. Sometimes this red rust on the leaves is so abundant that the whole field will have a decidedly reddish tinge. As the plants mature, the reddish spots on the leaves and leaf bases are replaced by the small, greyish black spots of the black or winter rust. These black spots or pustules remain

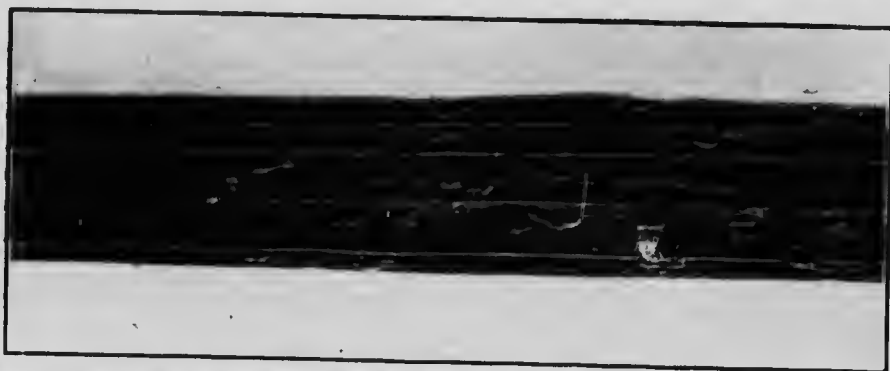


FIG. 13.—Portion of oat leaf, showing the red or summer rust spots of leaf or crown rust of oats. (Magnified between three and four times.)



FIG. 14.—Drawing of the black rust spores (Teleutospores) of leaf rust or crown rust of oats. (Magnified many times.)

covered by the skin (epidermis), and are frequently arranged in circles around the old spots of the red rust. As a rule the spores do not do a great deal of damage, but in this respect the leaf rust of oats is an exception, as its attacks sometimes damage the oat crop very considerably.

LIFE HISTORY.—The life history of this rust is similar to that of the stem rust, except that the cluster cup stage is passed on a shrub known as the Buckthorn instead of on the Barberry. This rust is thus harboured by the buckthorn and not by the L. rberry.