

exception. In this case the plants, on May 10th, were recorded as being somewhat less upright than those in the other cultures. The plants thus deviating were closely studied and their progeny carefully compared from year to year with the progeny of the original pureline. In 1911, it was found that the aberrant type was much more susceptible to cold than was the original mother line. Other evident differences between the two showed conclusively that a new form had arisen. Moreover, the new form showed its own modification curve, and therefore cannot be regarded as a modification of the original line. After much discussion as to an explanation of the origin of this new form Kiessling finally concludes the new type is an example of DeVries mutations.

J. R. F.

NOTES ON THE APOTHECIAL STAGE OF *SCLEROTINIA CINEREA* IN ONTARIO.

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This fungus was known as *Monilia fructigena*, Pers., until placed in the genus *Sclerotinia* by Woronin in 1899. Recent investigations show that the American Brown Rot fungus of stone fruits is not identical with *Sclerotinia fructigena* occurring in Europe on pome fruits. It agrees more clearly with *Sclerotinia cinerea* and should be referred to that species. In the spring of 1902, Norton found the apothecial stage in abundance in peach and plum orchards in Maryland. In 1906, this stage was reported as being very common in the United States throughout the west. Up to the present time, however, pathologists have not regarded the apothecial stage of importance in the propagation of the fungus. Conidia adherent to bark or bud scales and the mycelium of the mummied fruits or blighted twigs have been considered to be the chief sources of infection. While these are undoubtedly important sources of infection, observations made by the writer during the spring of 1912 point to the possibility that in wet seasons the apothecial stage may be of primary importance in the dissemination of the fungus and the chief source of blossom infection.

In the course of some studies on the life-history of *Sclerotinia cinerea* a careful watch was kept for the appearance of the apothecial stage. On May 25th, 1912, Mr. W. A. McCubbin, my colleague in this work, found numerous apothecia under wild plum trees (*Prunus americana*) at Cedar Mills, Ontario. The soil in this locality is a sandy loam. Apothecia were produced from old plums buried from one to two inches in the sand and