2. THE EFFECT OF OTHER CROPS ON TOBACCO

J. P. Jones

The studies that have been made on the effect of other crops on tobacco group themselves under three general heads, viz., (a) effect of other crops on yield and quality of tobacco, (b) association of brown root-rot with crop effects, and (c) the cause of brown root-rot.

EFFECT ON YIELD AND QUALITY

In this paper an attempt has been made to evaluate the effects different crops may have on tobacco in different parts of the country where records were available. In doing this the yields obtained with rotations of various sorts have been rated in relation to the yields of tobacco in continuous culture, the later being rated at 100. In this manner it will be possible to observe the relative response of tobacco to the different crops which preceded and to compare directly results from one section of the country with those from another. The results are tabulated in Tables 1 and 2. It should be recognized that while the continuous tobacco, used as a standard of comparison, was grown on the same general field in each instance it was not in all cases as close to the differently treated plots as might be desirable for the drawing of fine distinctions. In addition to the cropping treatments, the tobacco was fertilized in accord with what is good practice in the locality where the experiment was conducted.

The work of the U. S. Department of Agriculture (4) in Maryland, Connecticut, and Massachusetts (5), and that of the Ohio (6), Connecticut (7), and Massachusetts (6, 7) experiment stations has been used in the preparation of these data. Other stations have done work with rotations, but it was impossible from the information given to compare the results with those for tobacco growing in continuous culture. In fact some stations, particularly in the South, seem to have taken it for granted that the value of rotations for tobacco does not need to be proved and hence have omitted continuous culture of tobacco from their rotation comparisons.

CROPS IN ROTATION

In classifying the data from the different stations the effects of two types of cropping systems were observed, viz., (a) tobacco growing in

1Paper read as part of the symposium on "Tobacco Research" at the meeting of the society held in Washington, D. C., November 23, 1928. Contribution No. 92, Massachusetts Agricultural Experiment Station, Amherst, Mass.
2Research Professor of Agronomy.
3Reference by number is to "Literature Cited," p. 129.