THE EFFECT OF TILLAGE ON ERADICATION OF 
COTTON ROOT ROT

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Several workers have emphasized the importance of host plants in the maintenance and spread of the cotton root-rot disease, Phymatotrichum omnivorum (Shear) Duggar (5, 7, 10, 11, 12). With a view of eradicating these host plants, various tillage operations have been suggested and recommended as a means of reducing the losses from the disease. As early as 1907, Shear and Miles (8, 9) reported a reduction of the disease following deep plowing of infected areas. Taubenhaus and Killough (10) later failed to find depth of plowing an important factor, but recommended types of tillage designed to eradicate host plants of the disease from infected fields. One-year fallow with repeated tillage operations was suggested as a means of eradicating host plants. Reynolds and Killough (7) emphasize tillage operations in their report that the effectiveness of crop rotations in controlling root rot was dependent largely upon the clean cultivation given the crops in the rotations. McNamara and Hooton (5) obtained inconsistent results with 1-year fallow in reducing root rot infections, but indicated that a longer period showed promise.

As a part of an extensive series of investigations on the cotton root rot disease, the Texas Agricultural Experiment Station began several field experiments with farmers in different parts of the Blackland Prairie region of Texas in November, 1927, to obtain further and more definite information of the effect of tillage on the development and

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3Reference by number is to “Literature Cited,” p. 771.