REPLACEMENT OF FARM MANURE BY COMMERCIAL FERTILIZERS IN GROWING TOBACCO

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(Abstract)

Attention was directed to the diminishing supply of purchasable manure and that produced on tobacco farms. Early experiments by the Connecticut and Massachusetts stations, in which there is some comparison between manure and commercial fertilizers, were reviewed. In the Massachusetts experiments there was no evidence of the superiority of manure and in the early work in Connecticut "there is nothing to show that manure may not be satisfactorily supplemented or even replaced by fertilizer chemicals."

Recent experiments at the Windsor (Connecticut) Tobacco Station show average yields as follows:

- 4,000 pounds tobacco fertilizer, 1,540 pounds tobacco.
- 4,000 pounds tobacco fertilizer, plus 10 tons horse manure, 1,514 pounds tobacco.
- 4,000 pounds tobacco fertilizer, plus 10 tons cow manure, 1,928 pounds tobacco.

Since the tobacco grown with fertilizer alone carried 35% light wrappers, which was slightly in excess of the percentage in that grown with manure, the author is of the opinion that the results with the fertilizer alone are satisfactory. At the Massachusetts Station the average yield for one year from fertilized plats was 1,315 pounds; and from plats treated with the same kind and amount of fertilizer plus about 8 tons of manure, the yield was 1,331 pounds per acre.

Reviewing the results in tobacco growing reported by the Ohio, Pennsylvania, and Virginia experiment stations, the writer concluded that tobacco can be grown continuously, for a short time at least on certain soils, when fertilized with commercial materials alone. It does not follow, however, that it is a sound practice economically or from the standpoint of soil fertility. It is recognized that replacing manure with commercial fertilizers means that a soil continuously cropped with tobacco may be seriously depreciated in its organic matter content.

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