FERTILIZING THE ROTATION:

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While the particular fertilizer formulae adapted for each crop and the amounts to be applied have been given considerable attention by writers upon fertilizer subjects, their relation to the rotation has been rather generally ignored. The best place in the ordinary standard rotation for a fertilizer is the important and ultimate item in good management of artificial manures. Upon what crops will fertilizers pay best and what will be the effect of this application upon the succeeding crops are the questions of vital import to the farmer. The isolated fertilization of each particular crop must soon be a thing of the past. We must fertilize the rotation as a whole, striving to adjust the application in such a way that the greatest net money return may be realized. Nevertheless the return from each crop must be carefully studied in relation to the rotation as a unit.

Very few data even of a direct or indirect nature have been submitted to the public notice calling particular attention to the point in question. Nevertheless any one having good practical experience can state with considerable accuracy the places in the rotation for a rational fertilization. When it comes, however, to the utilization of figures to back up these conclusions, it is not a mere guess to say that even our scientifically grounded fertilizer expert would be at a loss in quoting extended proof. That such data are at hand, if a person will take the time and patience to extract them, is the particular point I wish to demonstrate. Their reliability and the direction in which they point will be evident upon their presentation.

For our first data along fertilizer lines we naturally turn to our oldest consistent field plats in this country, namely those at the Pennsylvania State College. Those familiar with this work will remember the rotation to be, corn, oats, wheat and hay, the fertilizer applied equally to the corn and wheat. This work has been carried out for more than thirty years upon four tiers of plats, giving returns from the whole rotation every year. The following table compiled from

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