5. APPLICATION OF PLAT RESULTS TO AGRICULTURAL PRACTISE

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The farmer thinks to a large extent in terms of operations. He is primarily concerned with the "what" rather than the "why." Experimental results affect him only in so far as they are sufficiently conclusive to justify a change in his practices. His conservatism in making such changes has often prevented mistakes being made. While willing to modify methods, past experience justifies his following old practices until, through experiments, a change is very definitely shown to be desirable.

There has been a material change the last 25 years in the attitude of the farmer towards agricultural colleges and experiment stations. Experience has strengthened his confidence in the recommendations of agronomists and other agricultural workers. The results of field plat experiments have been of great value in giving the agronomist justification for advising definite soil- and crop-management practices. In fact, by means of plat experiments, results secured through research conducted in the laboratory or greenhouse are checked under field conditions and their application to practical crop production more definitely ascertained. Furthermore, data secured from the field carry more weight with the farmer than do those coming directly from the research laboratory. As a result they supply the extension agronomist with valuable teaching material.

In the application of plat results to agricultural practise the agronomist should consider three factors, viz., (1) the practical interpretation of results, (2) the publication of results, and (3) the utilization of results in extension teaching.

PRACTICAL INTERPRETATION OF RESULTS

Agronomists have given much attention the last decade to the mathematical measurement of error in plat results. They have attempted to determine whether or not such results are significant. The various factors influencing yields have been considered, and conclusions have been drawn less often from results that are within experimental error.

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