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SEED-BORNE PARASITES—A GENERAL CONSIDERATION OF THE PROBLEM¹

INTRODUCTION

AGRICULTURE is the basic industry of the world. The problems relating to the improvement of this industry are therefore of vital interest universally, even though this fact may not be recognized generally by the mass of humanity.

While agriculture has progressed steadily during the past few decades it has not kept pace with the progress of certain other industries which *may appear* to be more generally dependent upon the progress of the fundamental sciences. One reason for this seems to lie with the farmers, who have not generally reached the point where they realize the need and the possibilities of improving their industry through the adoption of better practices based upon sound scientific principles. An example of such an attitude on the part of the farmer may be taken from one of the best established disease control principles. It has been known for years that the spraying of fruits is one of the most profitable practices for the orchardist, but in spite of this it is doubtful if more than a relatively small percentage of the fruit trees on this or any other continent are systematically sprayed. The spraying of potatoes was known before 1900 to be very profitable in the regions where the late blight or rot prevails, but even to-day there are many thousands of acres of potatoes which are unsprayed annually in these same areas. More recently we have been able to show that spraying potatoes, with the proper materials, at the proper time, and in the proper manner, is extremely profitable in most large potato-growing sections of the United States, but still the great majority of potato-growers hang back and fail to take advantage of this knowledge. The chief remedy for this situation of course lies in more effective extension work, although we must admit that further investigation is needed to clear up some of the more obscure phases of the spraying problem.

The examples above are cited for the purpose of showing how slowly the agricultural industry takes

¹ Invitation address delivered before the Canadian Branch, American Phytopathological Society, Kingston, Ontario, December 20, 1923. Contribution from the Department of Botany, The Pennsylvania State College, No. 45.

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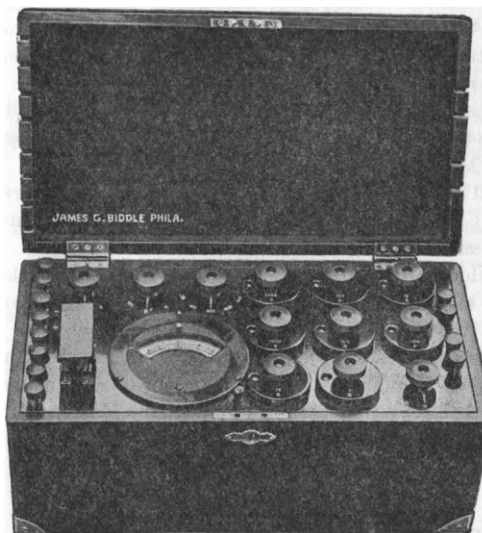


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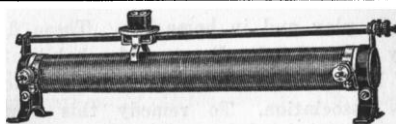
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