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### Men, Seed, and Machines

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## MEN, SEED, AND MACHINES

Charles E. Vaughan <sup>1/</sup>

Dr. Delouche has introduced us to the basic item of agriculture we call seeds. Without them our agriculture would be vastly different. In fact, our survival depends upon them. But more important to us today is the fact that we are all engaged in occupations that are directly related to seeds. Whether we are farmers, processors, manufacturers, salesmen, educators, control officials or bankers, we are all interested in seeing the quality of seed improved. This affects us in terms of dollars and cents.

Seed as it comes from the field is never pure. Neither is it in the best condition for replanting. In fact there are many processors through which the seed should go from the time it leaves the field until it is ready for market, if the quality is to be improved. These are things about which the general public has little understanding, but about which each of us should be quite familiar. Our objective this week is to discuss the things which can be of greatest benefit in improving seed quality and efficiency of plant operation.

Seed processing is becoming more important each year. Our agricultural experiment stations and commercial plant breeders are spending vast sums in the development of new and superior crop varieties. These new varieties will be of benefit to the farmers only when the seed stocks are kept free or recleaned to be free of noxious weeds, are varietally pure, and are available to them at a reasonable price. Therefore, this year, as always, our emphasis is on seed processing; however, not to the exclusion of other important areas of seed improvement, which will also be discussed this week.

Many types of machines have been put on the market by manufacturing companies during the last half-century. Great strides have been made by them in trying to meet the problems of increasing demand for high quality seed. However, prior to any discussion we may have later this week about the operation of seed processing machinery, we must outline several basic facts. First, there is no all-purpose machine that will remove all the objectionable material from the different kinds of seed. Secondly, seeds show a definite lack of uniformity which makes constant supervision of the cleaning process necessary.

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There are many other factors which enter into the operation of successful seed cleaning plants. Prominent among them is the need for skilled operators who have a basic mechanical knowledge of the equipment and a good fundamental knowledge of seeds and the problems to be solved in their processing. Therefore, we feel that all who are concerned with seed processing can surely benefit this week because of the nature of our emphasis.

1. First we hope to emphasize the seed characteristics that make various separations possible while others are not. Seeds of any crop must differ sufficiently from its contaminants in one or more characteristics for it to be successfully cleaned and processed. These characteristics include, among others, a difference in width, thickness, length, specific gravity, texture of seed coat, degree of roundness and color.
2. We plan to spend much time emphasizing basic principles of operation. We plan to do this with class-room discussions and equipment demonstrations. Our speakers this week represent years of experience, not only in working with the machinery, but also in discussing and explaining the techniques of operation.
3. For the more experienced seedsmen we hope our speakers will go beyond these basic principles and also discuss the fine points of operation and explain how techniques may be improved.
4. We realize, however, that there are several of you who have already acquired even the fine points of operation, but we still feel that we have something for you. We hope that by providing the background and ideal atmosphere that you will benefit from the conversations and associations with others who are attending. Maybe you can pick up some "Smart Tricks" like the Eskimo who made a visit to New York. When he returned home, he took with him a long length of pipe, which he set up in his igloo so it protruded through the roof. His wife asked what it was for. The Eskimo replied, "Smart trick I learned in New York. When you want more heat, you just bang on this pipe."