Getting Widespread Use of Improved Varieties of Crops

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ABOUT 12 years ago, when corn hybrids had reached the stage of development that justified their general use, the first question in planning the production of seed stocks was “How much of the corn acreage will ultimately be planted with hybrid seed each year?” Those most closely associated with the development and educational work with corn hybrids differed widely in their guesses which ranged from 25% to 85%, this goal to be achieved in about 10 years. Instead of 25% or 85%, the actual figure is between 95% and 100% in the Corn Belt.

This is cited to illustrate that on the basis of former experience with improved crop varieties, plant breeders did not expect such rapid acceptance of corn hybrids. The rapid acceptance of corn hybrids marked a turning point in the attitude of millions of farmers toward plant breeders and their developments. In Ohio, for example, Thorne wheat was released during the period of rapid growth in our corn hybrid program when enthusiasm for new crop varieties or hybrids had reached a new high. Within five years after its release Thorne was being grown on over half of the wheat acreage. In the northern half of the state where it has been best adapted, it is now grown on more than 70% of the acreage. I believe this represents the highest degree of standardization on one crop variety ever attained in Ohio. In considering ways of getting improved varieties into wide use, the case of Thorne wheat deserves investigation. The following factors played an important part:

1. The variety offered a significant margin of yield superiority over existing varieties. In addition it had other characteristics farmers wanted—stiff straw that stood well for combining, a nonshattering tendency, and medium short straw. Literally, perhaps, as well as figuratively, it was a better “mouse trap”.

2. The seed during the scarce years of increase was reasonably well distributed over the entire wheat-growing area so that farmers had easy access to it.

3. For two years after the variety was released, all seed was produced by growers who agreed to follow through with inspection and certification. Growers further agreed that any seed not meeting certification requirements would not be offered for sale for planting purposes. Purchasers of Thorne seed wheat were able to buy it with confidence.

4. The advantages of Thorne wheat were widely publicized by the Experiment Station and Extension Service through the county agricultural agents. Thorne was advertised by the Ohio Seed Improvement Association.

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