EFFECT OF CHEMICAL TREATMENTS OF SEED CORN ON
STAND AND YIELD IN KANSAS

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Manufacturers of chemical seed-corn disinfectants claim that treatment with their products will increase yields because of the increases in stand and plant vigor and because of the control of root, stalk, and ear rot diseases. These compounds have been universally recommended for all corn-producing areas in the United States.

The Kansas Agricultural Experiment Station has conducted experiments on the treatment of seed corn over a period of 8 years with the primary purpose of learning (a) what fungous organisms are associated with Kansas seed corn and (b) whether the various advertised commercial seed-corn disinfectants have a beneficial effect on field germination, vigor of plant, final yield, or quality of grain under Kansas conditions.

Some investigators (3, 4, 9) have reported increased yields of corn following corn-seed treatments. Such results have not been obtained by workers (1, 2, 5, 6, 11) in other states. The widely varying conditions in different corn-producing areas of the United States make the drawing of generalized conclusions relative to the influence of any factor extremely hazardous, when data from only a few experimental conditions are available, and indicate the desirability of conducting independent studies with seed-corn disinfection under the different environmental conditions and with the different fungi that are found on seed corn in the various regions.

FUNGOUS ORGANISMS ON KANSAS SEED CORN

Numerous fungous organisms, frequently referred to in literature as “disease organisms,” are associated with seed corn. Some of these, under proper soil moisture and temperature conditions, may produce seedling blights, root rots, and ear rots. The presence of some other

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\(^3\)Reference by number is to “Literature Cited,” p. 917.