September 1970

1969 ASSESSMENT OF BLACKBIRD DEPREDATIONS ON FIELD CORN IN OHIO AND MICHIGAN

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In 1966, when the annual damage survey was initiated, Dr. C. R. Weaver, Statistician at the Ohio Agriculture Research and Development Center, Wooster, Ohio, drew up a sampling plan, balancing costs against desired precision. The plan included three combinations of fields to be sampled and stations per field for high damage areas, three combinations for moderate damage areas, and two combinations for light damage areas. Alternatives for the high damage area included (1) 497 fields with two stations per field (± .48), (2) 775 fields with two stations per field (± .26), and (3) 235 fields with ten stations per field (± .68). For the moderate damage areas, the alternatives were (1) 441 fields with three stations per field (± .26), (2) 155 fields with three stations per field (± .50), and (3) 235 fields with ten stations per field (± .32). The light damage area alternatives were (1) 297 fields with three stations per field (± .26), and (2) 81 fields with three stations per field (± .50).

The original survey in 1966 sampled eight counties in three regions. In 1967, 14 counties in the same three regions were sampled. Two new counties were added to one region and two new regions with two counties each (treated as one region for sampling purposes) were added to the 1968 survey. The 1968 survey was of sufficient size to be representative of the corn damage picture in Ohio and Southeast Michigan. The 1969 survey was identical to the 1968 survey.

Fields to be sampled are located by dividing each region into consecutively numbered square mile blocks (county road maps). The desired number of sample fields are selected from a table of random numbers (one field per square mile block) for each region, and the corresponding numbered blocks are located and marked on the maps. The first field encountered upon entering each marked block is the sample field. Areas such as cities and large bodies of water are not included in the sample. When no corn field can be found in a chosen block, the worker proceeds to the block on the north. If none is found there, he proceeds clockwise through the blocks surrounding the marked block until a field is located.

Upon arriving at the field to be sampled, the worker locates each sampling station by choosing two sets of numbers from a table of random numbers. One number represents rows of corn, and the other the number of steps down the row. When the worker arrives at the predetermined station location, he examines ten consecutive ears of corn (one per stalk) estimating and recording the percent of damage sustained by each ear caused by blackbirds. Percent of damage is recorded in increments of 1 when from 0 to 5 percent, increment of 5 when from 5 to 30 percent, and increments of 10 when from 30 to 100 percent. If the ears of corn sampled are molded or sprouting (secondary damage), this is also recorded on the form.
Eleven workers spent approximately 588 hours on the survey. Five workers were new on the survey, and were checked out by accompanying an experienced worker on their first day in the field. All workers were cautioned about recognizing raccoon, woodchuck, and other miscellaneous animal damage, and not to include it in the survey.