YIELD AND BUSHEL WEIGHT OF CORN GRAIN AS INFLUENCED BY TIME OF PLANTING

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The exigencies of the season frequently make late planting of corn unavoidable. To escape maximum injury from certain insects, late planting is sometimes desirable. Experienced corn growers in the Corn Belt know, however, that if a stand can be obtained, moderately early planting is advisable. Whenever planting is delayed because of unfavorable weather, there is no object in trying to estimate the loss of yield occasioned by late planting; but when delay in planting is deliberate in an attempt to reduce disease and insect losses, then the question of sacrifice in yield resulting from this delay is pertinent. Will withholding planting for two or three weeks after the soil is ready cause more loss in the crop than would result from the insect or disease when the crop is planted early?

Delayed planting of corn has been frequently recommended as a means of preventing severe damage from the first generation of the European corn borer. Some data on time of planting corn obtained by the Illinois Agricultural Experiment Station throw light on the wisdom of this recommendation. Date of planting tests were made during the 5-year period, 1927-31. The tests were made before the borer was present in the state and the results are not complicated by the damaging influence of this insect as they would be if conducted now. The corn used was open-pollinated varieties, but there is reason to believe that essentially the same response would have been obtained with hybrids of the same maturity groups.

METHOD

The corn used in the tests was open-pollinated varieties differing in length of season required for maturity. Short-seasoned varieties in northern Illinois tests included All Dakota, Brookings 86, Falconer, Pioneer, Square Deal, Dakota Sunshine, and Payne. Mid-season varieties were Gunn Western Plowman, Pride of the North, Substation White, Substation Yellow, Duncan Yellow Dent, M.A.C. No. 1, Murdock Yellow Dent, Kossuth Reliance, Wimple Yellow Dent, Silver King, and Golden Jewell. Full-season varieties were Station Yellow Dent, Golden King (Mills), Hunt White Dent, Funk 90 Day, and Krug (Pfister).

In central Illinois tests, the mid-season varieties used were Funk 90 Day, Krug (Pfister), Woodburn Yellow Dent, Clarage, and Medina Pride. The full-season varieties were Champion White Pearl, Sommer Yellow Dent, Station Yellow Dent, Illinois Two-Ear, and Eversole White Dent.

Plantings on the two fields were made at three dates as shown in Table 1.

Four blocks, 25 x 40 hills, were planted at each date. Each variety occupied 1 row 25 hills long. Although a check planting of Station Yellow Dent was made in every fifth row in some years and in every second row in other years at Urbana, the yields of the varieties were not adjusted to the check. The variety used as the check at DeKalb was Gunn Western Plowman.

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