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NITROGEN RATES AND POPULATION STUDIES ON CORN

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John Watts and C. E. Wyatt, Extension Agronomists in the Purchase Area, have conducted nitrogen rates and population studies on corn for several years. The following data relative to these variables are reported from the 1967 tests.

Yields of corn varied as much as 68.4 bushels per acre at different levels of population and nitrogen fertility in the University of Kentucky research plots on the Harold Potts Farm in Hickman county during 1967.

All plots received 150 pounds of P_2O_5 and 180 pounds of K_2O per acre, so that population rates and nitrogen fertilizer amounts would be the only variable factors.

In general, about 18,000 stalks per acre gave the best yields with medium height hybrids, while 22,000 stalks per acre proved best with the short, early-maturing hybrids. The best yields were gained by using 150 pounds of nitrogen per acre.

The averages of corn plots on the Potts Farm with the nitrogen and population variables were as follows:

Lbs of Nitrogen	17,700 Stalks per acre S X 31 Variety	17,700 Stalks per acre S X 9 Variety	22,000 Stalks per acre S X 9 Variety
200	136.6	134.7	137.0
150	145.6	129.9	130.7
100	137.1	111.0	133.5
50	127.9	118.2	113.6
None	86.8	85.0	77.2

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