

2. Stability of cytoplasmic male sterile corn to chemical spray treatments.

Various environmental conditions have been reported to induce pollen restoration in cytoplasmic male sterile corn. With this in mind, T-sterile and fertile plants of inbred Oh 51A and single cross (Oh 51A x B8) were sprayed in the field when the plants were approximately 12-16" tall. One or more concentrations of the following compounds were used: maleic hydrazide; 2, 4, 5-T; 2, 4-D amine; M.C.P.; Chloro I.P.C.; Sodium Penta; dinitro-ortho secondary butyl phenol; (indole-3) -n-butyric acid; indole-3 -acetic acid; streptomycin sulfate; terramycin HCL; and colchicine. Tassel samples were collected from two replications and pollen counts were made. In all but one treatment, marked stability for the sterile condition was observed, no normal pollen being produced. In both replications, an exceedingly small number of normal pollen grains were observed from steriles treated with dinitro-ortho secondary butyl phenol (Sinox P.E.).