

GROWTH REGULATOR INDUCED ROOTLESS CORN RESULTING FROM PREEMERGENCE APPLICATIONS OF 2,4-D AND DICAMBA. Kevin L. Hahn, DuPont Ag and Nutrition, Bloomington, IL 61704.

Rootless corn, floppy corn, and high crown syndrome are terms that are often used to describe situations in which corn plants have had problems developing secondary (nodal) roots. This results in corn plants lodging at about V3 to V8 growth stages. Several factors have been identified as possible causes of rootless corn. These include shallow planting, planting in loose fluffy soils, poor seed furrow closure, cloddy or compacted soils, etc. Personal observations during service calls and the ability to recreate rootless corn with preemergence applications of plant growth regulator herbicides 2,4-D and dicamba in research and demonstration plots has shown that these herbicides can cause rootless corn syndrome by inducing a hyper-elongation of the of the mesocotyl which places the nodal roots at or above the soil surface.