

previously for corn seed.

Preliminary experiments attempting to reverse 480 Kr inhibition of geotropism and growth with indoleacetic acid and naphthaleneacetic acid were unsuccessful.

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2. Physiological study of lazy.

The Coop stock of la, which grew very poorly in Florida, was outcrossed to Florida adapted lines and reisolated. Also, it was separated from su. The breaking strength of lazy and normal sib plant stalks was determined. The weights required to break a six inch span of basal stalk were variable, but the means were not very different. In this stock at least, stalk weakness does not seem to be the basis for the ultimate prostrate growth habit. Although it had been reported by Shafer that lazy plants became ageotropic at an age of ca. 4-7 days, according to temperature, no reference was made to the coleoptile. It was found that shoots of lazy seedlings in the coleoptile stage are normally geotropic, but after breaking through the coleoptile the leaves become ageotropic.

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3. The red pigment formed in corn seedling extracts with anthranilic acid.

The red pigment formed in breis of corn seedling leaves (News Letter 28: 22, 1954) has been further studied. Anthranilic acid disappears as the red material is formed. Paper chromatography and other evidence indicate that the substance in leaf extracts is yellow; crystalline; soluble in ether, acetone, and water but not ligroin; is slightly acidic; gives Craven's test for quinone; and the chromatographed 2, 4-dinitro-phenylhydrazone color suggests a benzoquinone.

The red pigment formed from anthranilic acid is acidic, has no free diazotizable amine, and is decolorized by bisulfite. Tentatively it is suggested that the material which combines with anthranilic acid to form the red pigment may be a partially substituted benzoquinone which would make the red pigment an aminoquinone, specifically an anthranilylquinone. It may be that material, which is almost absent in corn embryos and older plants but which is abundant in young plants, has a function in electron transport like Coenzyme Q, or conceivably is a precursor of Coenzyme Q.

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1. A method for keeping maize plants alive in the tasseling stage after removal from the nursery.

A simple method was developed for transporting and keeping corn plants alive for demonstrations. A mature corn plant undergoing anthesis was dug from the nursery with a shovel. The roots, in a clump