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Research Protocol

First Report Regarding Tassel Ears (Corn Cobs in Tassels) in CORN PLANTS from India

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Introduction

This unique symptom has observed at Agronomy Farm of Jaipur National University, Jaipur (Rajasthan) in the month of September, 2019 and being considered as first report from India.

Figure 1: Tassel-Ear in Corn (Photo by V.K .Agrawal, 2019).

Observational details

Flowering behavior in corn plant

A corn plant has a monoecious flowering habit where the plant has both male and female flowers but both flowers are initially bisexual . During the course of development the female components (gynoecia) of the male flowers and the male components (stamens) of the female flowers abort, resulting in tassel (male) and ear (female) development.

Observed symptoms

Tassel and ear combined in the same structure. These tassel ears are produced at a terminal position on the tiller where a tassel would normally appear. The symptom bearing plants were generally from crop edges.

Survival of the female floral parts on the tassel

Present observation is very uncommon where Corn Cobs in Tassels has observed in corn field which indicates the outcomes of environmental changes which are being going on in present time. No literature is available for the factor for causing these symptoms.

Probable causes in literature

Tassel ears are often produced by tillers (suckers) that result when the plant's growing point is destroyed or injured by hail, wind (green snap), animal feeding, frost, flooding, herbicides, and mechanical injury before V6.