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**CYTOPLASMIC MALE STERILITY.**

**RESTORING GENES IN CORN**

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*Cytoplasmic male infertility (sterility) is common in higher plants and is characterized by maternal inheritance, pollen infertility, and normal development of the pistil.*

*CMS is widely used for the production of hybrid corn seeds. However, the genetic mechanisms underlying the restoration of fertility, is very complicated.*

 *This review is devoted to the study and practical application of the sign of cytoplasmic male sterility in the selection and seed production of hybrid corn seeds. Scientific materials and research on the history of the discovery and origin of the phenomenon of CMS in higher plants are summarized. The mechanisms of restoring the fertility of CMS types T, M and S are described. The susceptibility of maize hybrids to southern helminthosporiosis depending on the type of CMS is shown. The expediency of application and practical significance of the CMS system in breeding and seed production in maize is indicated. Valuable genomic resources are presented for understanding the molecular mechanism underlying the restoration of fertility of CMS types.*

**Keywords:** cytoplasmic male sterility, types of CMS, genes that restore fertility, sterility, hybrids, maize.

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