HETEROSIS

The yield and quality of maize has been significantly increased over the past century, by common application of hybrid seeds (heterosis) and advanced management technologies. Now production has reached a plateau in many countries.

Heterosis (hybrid vigor) in plants is highly exploited to increase the production of many crops. Among them corn, sugar beet, cotton etc. etc. But not much is known about the genes involved and their molecular mechanisms of action. Xiao et al. (Genome Biology 22, 148, 2021) exploited a new experimental approach, in maize, to identify the quantitative trait loci involved and their mode of action. This paves the way for an optimized design of hybrids by using appropriate gene modifications in the parental lines.