

The background of the cover is a photograph of young maize plants in a field. The plants are green and appear to be in the early stages of growth. The soil is dark brown and contains some small stones and organic matter. The overall scene is a close-up of the plants, with some blurred in the background.

Scholars'
Press

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Breeding of Maize for Acid Soil Tolerance

Heterosis, combining ability and prediction of
hybrid based on SSR markers

**GENETICS AND BREEDING
OF MAIZE FOR ACID SOIL TOLERANCE**

by

P.K. Dewi Hayati

*To my beloved husband, Tatang Subianto,
for his sacrifices and tremendous support,
and to my children,
Faiz Muhammad Husain, Nurul Izzati Subianto
and Muhammad Shabrun Jamil
for making my life more meaningful.*

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Breeding of Maize for Acid Soil Tolerance

Maize is one of important crops which is utilized in a wide variety of human food, animal feed and raw materials to industrial product around the world. In the tropics, maize is usually planted in acidic soils and it's yield is unsatisfactorily in the soils. Planting maize hybrid varieties tolerant to acid soils along with the use of sustainable agronomic practices offers an effective strategy for improving maize productivity in acidic soils. This book describes the process to produce and select maize hybrids tolerant to acid soils. This book covers the heterosis of single cross hybrids and combining ability of their parental inbred lines evaluated in acidic soils, and heritability estimates from the hybrids populations. This book also covers the use of SSR markers to predict heterosis and hybrid performance. It is hoped that the findings from the study may help maize breeders to produce new hybrid varieties having high yielding potential and tolerant to acid soils.

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