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
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Inheritance of Grain Yield in a Half-Diallel Maize Population

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 [Keywords](#)
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Abstract: Inheritance of grain yield, heterosis and combining ability were investigated in maize populations obtained from half-diallel crossing among 9 inbred parental lines. General and specific combining ability effects were significantly different among parental lines. The grain yield was under the dominance gene effect. The parents W 552 and DNB were considered suitable according to their yield capacities and general combining ability effects. The midparent heterosis values ranged from 46.10% (H.96 x DNB) to 573.12% (ALKD 222 x A 632) whereas the useful heterosis values varied between -46.47% (A 619 x A 632) and 10.78% (N 7A x ALKD 90-1), and only 9 crosses had higher grain yields than that of the check variety. Of these crosses, N 7A x ALKD 90-1, N 7A x DNB and N 7A x IDRN Cornell, were considered promising hybrids.

Key Words: Maize, diallel analysis, combining ability, heterotic effect

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