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APTITUD COMBINATORIA GENERAL Y ESPECÍFICA DE LÍNEAS PURAS DE MAÍZ AMARILLO DURO Y SELECCIÓN DE HÍBRIDOS SIMPLES

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GENERAL AND SPECIFIC COMBINING ABILITY IN YELLOW FLINT MAIZE INBRED LINES AND SIMPLE HYBRIDS SELECTION

Abstract

General and specific combining ability, is used to identify hybrid combinations among inbred lines perform better or worse than average expected behavior of the parental lines. The aim of this study was to identify and choose maize simple high yield hybrids by studying the effects of general and specific combining ability, evaluated in three contrasting environments of the Ecuadorian coast. So that, were evaluated 75 experimental hybrids formed by crossing 32 inbred lines S4 (females) and three male elite inbred lines, generated in Pichilingue Tropical Experiment Station. These parameters were estimated using genetics models proposed by Griffing (1956) and Sprague and Tatum (1941), respectively. The inbred lines: PHAEOS 1AS2-4-1-1-1-1 (female) and L-237-2-1-3 Pob A1 (male), were showed the highest general combining ability effects, while CML-171-5 × L-1-2-11-7 B-520 and CML-171-5 × L-237-2-1-3 Pob A1 hybrids, were showed greater specific combining ability in different assessment environments and between them; moreover, they showed a yield average upper to 7 t ha^{-1}.

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