

GENETIC POTENTIAL OF BRAZILIAN LANDRACES OF MAIZE. Nass LL, Araújo PM and Miranda Filho JB. CENARGEM/EMBRAPA, Brasília (DF) ,IAPAR, Londrina (PR), ESALQ/USP, Piracicaba (SP). jbmirand@carpa.ciagri.usp.br

Twenty three maize (*Zea mays* L.)landraces from the State of Paraná were studied in relation to their genetic potential for breeding purposes. The landraces and their testcrosses with two testers (BR 105 and BR 106) were evaluated in Ponta Grossa (PR). Two outstanding landraces (GI 018 and GI 041)were identified and their mean yields were equivalent to 97% and 96%, respectively, of the hybrid check. The range of variation for other traits was 228 to 293 cm for plant height (PH), 115 to 210 cm for ear height (EH), 0.47 to 0.86 for ear placement index (EP), 0 to 24% for stalk lodging (SL), 0 to 22% for broken plants (BP), 0.92 to 1.14 for prolificacy (PR), 83 to 99 days for female flowering (FF), and 5,854 to 10,190 kg/ha for grain yield (GY). Estimates of mid-parent heterosis for GY varied from 51% to 71.9% and from 4.9% to 53.0% in crosses with BR-105 and BR-106, respectively. For other traits mid-parent heterosis reached values of 15.6 and 14.4% for PH, 17.9 and 22.3% for EH, 21.5 and 24.9% for PR, 9.7 and 1.6% for FF, in crosses with BR-105 and BR-106, respectively. Estimates of general combining ability for GY varied from -1,554 kg/ha (GI 105) to 1,365 kg/ha (GI 008). Órgão Financiador : ---