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Poster Abstracts

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Identification of new sources of early-maturity in groundnut core collection

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Early-maturing high-yielding groundnut (*Arachis hypogaea* L.) cultivars are needed for short growing season, multiple cropping, and to avoid late season droughts. In almost all breeding programs only a few sources of early-maturity (Chico, Gangapuri, JL 24; mainly Chico) have been used. The aim of our research was to identify new sources of early-maturity through evaluation of core collection developed at the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Patancheru, India.

The 584 Spanish (*A. hypogaea* subsp. *fastigiata* var. *vulgaris*) and 229 Valencia (*A. hypogaea* subsp. *fastigiata* var. *fastigiata*) for maturity and other agronomic traits at 90 days after sowing (DAS) in the 1999 rainy season. We selected 15 Spanish and 4 Valencia landraces from 13 countries with maturity similar to Gangapuri and evaluated them in Preliminary trail in the 1999/2000 post rainy season at 1240 °Cd (equivalent pod DAS in rainy season at ICRISAT Center, Patancheru) 1470 °Cd (equivalent pod DAS in rainy season at ICRISAT Center, Patancheru) along with Chico, Gangapuri, and JL 24. Considering pod yields, shelling percentages, and 100-seed weight at both harvests, promising lines (Valencia: ICGs 4890, 11605; Spanish: ICGs 3540, 5881, 99427, 11914, 13647, 14390, 14788, 14815) have been selected. The diversity studies using 18 quantitative traits indicated a high degree of divergence among new early-maturity sources.