Cassava Germplasm in Australia

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ABSTRACT

Information on the origin and productivity of cassava germplasm in Australia is presented. Two distinct sources of genetic material are available to Australian agronomists, physiologists and breeders. One group (denoted by the prefix, M Aus) is made up of the remnants of largely undocumented introductions made early in this century and rediscovered in recent years surviving along roadsides, creek banks, and in household or municipal gardens. The second group consists of material introduced in the last ten years from Thailand, Puerto Rico, and CIAT in Colombia.

Data on root yield and other characters of physiological interest are presented for representatives of both sources of germplasm. The locally collected cultivar, M Aus 7, has given the highest yield under our experimental conditions in southeast Queensland. Recently introduced cultivars are not as productive as locally collected cultivars, particularly during the first year of growth. Some vigorous cultivars of the recent introduction group, in particular Ceiba from Puerto Rico, show improved yield performance during the second year, while the less vigorous types from both groups fail to increase yield substantially after the first year. Some possible physiological reasons for the different yield performance of these two germplasm sources are discussed, and the options open for improvement of cassava germplasm in Australia are considered.