

Cassava cultivar evaluation in South-East Queensland

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Since cassava research was initiated in the Agriculture Department in 1971, three cycles of cultivar testing have been completed. The first made a crude assessment of biological and economic yield of cultivars collected in Queensland before 1973 and was followed by further more detailed trials which included four imported accessions. From these trials the high yielding local cultivar M.Aus 7 which has been chosen as a standard by Australian cassava researchers and also M.Aus 10 which has somewhat similar yield characteristics were selected.

The third phase began in 1978 with 28 cultivars and included all local and imported stocks available to us. This trial is still proceeding so far and only yield data for one growth cycle is available.

Results have shown that while the best locally collected cultivars outyield the imported ones after one growth cycle in S. Queensland this is not necessarily the case when harvested after two growth cycles (Evenson and Keating 1978, Harris 1978). In addition 2 semi-dwarf cultivars have been identified which may not necessarily perform at their best at the current standard cassava spacing of 1 x 1 M.

In future, cultivar testing will require that both plant density and growth cycle length will need to be critically evaluated to make the best selections, both of a starch and total fermentables yield. Current best fresh weight trial yields at the Redland Bay Site (Lat. 28°S) are given in the Table below together with previous trial results.

Fresh weight root yield (tonnes ha⁻¹) of local and imported cultivars of cassava over three seasons

Site	Site Mean			Site Range		
	Yield ₁ kg ha ⁻¹	Flowering date Days	Height cm	Yield ₁ kg ha ⁻¹	Flowering date Days	Height cm
Biloela	3359	30.1	90.1	2527-4196	26-34	66-115
Emerald	1455	34.8	89.7	943-2352	27-40	61-124

EVENSON, J.P., and KEATING, B.A. (1976). The potential of cassava as a harvester of solar energy. Institution of Chemical Engineers, New South Wales Group Conference on Alcohol Fuels, Sydney, August 9-11.

HARRIS, N.V. (1978). The potential of cassava in coastal Queensland: some observations at the Yandaran Plantation. Institution of Chemical Engineers, New South Wales Group Conference on Alcohol Fuels, Sydney, August 9-11.