

Recent Progress in Cassava Research in Vietnam

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INTRODUCTION

In Vietnam, cassava has been changing its role from a “food crop” to an “industrial crop” for starch processing and animal feed industry. Presently, about 560,000 hectare with production 9.359 million tones. The total cassava starch is estimated about 857,000 tones, 70% for export and 30% for domestic use. Vietnam is now probably the second largest exporter of cassava products, after Thailand. The situation has changed because of the development of sustainable cultivation techniques and new high-yielding varieties with the availability of a large and growing market demand.

RESULTS

Breeding and transferring new cassava varieties

In the period of 1981- 1990, Hung Loc Agricultural Research Center had collected and valued 33 cassava breeding material from locals and had identified three promising varieties such as HL23, HL24, HL20 with good cooking quality, growth 6-10 months time suitable for eating demand (HL23, HL24). These varieties had been quickly released in the South of Vietnam with cultivated area of 70,000 ha per year. 20 cassava varieties were collected by Thai Nguyen University and the best local one (Xanh Vinh Phu) had been developed.

During the period of 1991- 2009, the Vietnam Cassava Program, in cooperation with CIAT and other cassava processing factories had developed and disseminated seven new high yielding varieties: KM60, KM94, SM937-26, KM95, KM98-1, KM98-5, KM140, KM98-7. Cassava yield and production in several provinces had doubled and brought by the construction of new large-scale cassava processing factories, especially in the south of Vietnam.

Table 1. Characteristics of six major cassava varieties developed by HARC from 1998- 2009

Variety	Duration (months)	Fresh root yield (t/ha)	Dry matter content (%)	Starch content (%)	Starch yield (t/ha)	Score of plant type	HCN content (mg/kg fresh root)
KM140	7-9	33.4	40.2	27.0	9.5	10	105.9
KM98-5	7-9	35.5	40.1	27.5	9.8	9	163.7
KM98-1	7-9	31.2	38.8	26.6	8.3	8	178.0
KM146	7-9	38.0	35.2	18.7	7.1	10	146.7
KM112	7-9	29.4	40.2	27.7	8.1	10	183.7
KM94	9-11	28.1	40.3	27.4	7.6	8	291.0

Progress in Cassava Agronomy Research in Vietnam

From 1994- 2009, the Nippon Foundation Cassava Project and the Minister of Agricultural had implemented the programme on cassava agronomy research in Vietnam. With the results, the following new technology components had been released and adopted by the farmers on the large scale as follows:

- Intercropping cassava with *Leucaena sp*, *Gliricidia sepium* and peanut had maintained soil fertility, cassava root yield and the net income after 15 years planted cassava in the same site.
- The balanced NPK fertilizer with 80N+ 40P₂O₅+ 80K₂O could maintained cassava root yield 18 years continuously planting cassava.

- Soil erosion control by planting contour lines with *Tephrosia sp.* and vertiver grass had reduced the soil lost and maintained cassava root yield.

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