

- Detach storage roots from the stem using a sharp bolo.
- Remove soil sticking on the roots using a stick.
- Sell the harvest right away. If not, store the harvest in a shaded place.

COST AND RETURN ANALYSIS

Item	Quantity	Unit	Unit Price	Total	% of TC
A. COST					
1. Land Preparation				3,000.00	16.62
Plowing (1x)	1	pass	1,500.00	1,500.00	8.31
Harrowing (2x)	2	pass	750.00	1,500.00	8.31
2. Planting				5,710.00	31.63
Planting materials	120	bundles	24.25	2,910.00	16.12
Preparation of planting materials		Man day			
1 (MD)			200.00	200.00	1.11
Hauling of seedpieces	2	MD	200.00	400.00	2.22
Planting	10	MD	200.00	2,000.00	11.08
Replanting	1	MD	200.00	200.00	1.11
3. Weeding/Cultivation				5,000.00	27.70
Off-barring	1	(MAD)	500.00	500.00	2.77
Hilling-up	1	MAD	500.00	500.00	2.77
1st weeding	10	MD	200.00	2,000.00	11.08
2nd weeding	10	MD	200.00	2,000.00	11.08
4. Fertilization				13,190.00	73.06
Fertilizer					
Triple 14	6	bags	1,000.00	6,000.00	44.31
Urea	2	bag	1,100.00	1,100.00	6.09
Application					
Basal	1	MD	200.00	200.00	1.11
Sidedress	1	MD	200.00	200.00	1.11

5. Harvesting				5,165.00	28.61
Detopping	3	MD	200.00	600.00	3.32
Uprooting/bagging	12	MD	200.00	2,400.00	13.29
Hauling (farm to coop)	433	sacks	5.00	2,165.00	11.99

Sub Total				32,065.00	
Contingencies (10% of sub total)				3,206.50	

Total Cost				35,271.50	
-------------------	--	--	--	------------------	--

Interest expense: (PhP 15,000.00 x 11.66%)*				1,749.00	
---	--	--	--	----------	--

* Interest at 14%/year.

Item	Quantity	Unit	Unit Price (P)	Total(P)	Unit Price	Total
------	----------	------	----------------	----------	------------	-------

B. RETURN Consider: 2.00-2.50/kg; P30,000_P37,500

1. Gross Return	Low	15,000 kg	2.00	30,000.00	2.50	37,500.00
	Medium	20,000 kg	2.00	40,000.00	2.50	50,000.00
	High	30,000 kg	2.00	60,000.00	2.50	75,000.00

2. Net return before interest expense	Low			(5,271.50)		2,228.50
	Medium			4,728.50		14,728.50
	High			24,728.50		39,728.50

3. Net return after interest expense	Low			(7,020.50)		479.50
	Medium			2,979.50		12,979.50
	High			22,979.50		37,979.50

4. Break even yield (TC/unit price of yield)*				35,271.50		23,514.33
---	--	--	--	-----------	--	-----------

5. Cost/kg (TC/total yield)	Low					2.35
	Medium					1.76
	High					1.18

6. ROI	Low					(0.15)
	Medium					0.13
	High					0.70

Authors: Edwin E. del Rosario, Antonio G. Lalusin, Laureano B. Lanosia Jr, Marilyn M. Beltran

Illustration: Isidro R. Morales

Copyright 2008; UPLB, PCARRD.

Information Bulletin No. 270/2012

For more information, please contact:

Director

Crop Science Cluster-Institute of Plant Breeding
College of Agriculture, UP Los Baños
College, Laguna 4031
Tel. Nos.: (049) 536-5287; 576-0090
Fax Nos.: (049) 536-5287/3438

Executive Director

PCAARRD, Los Baños, Laguna
Tel. Nos.: (049) 536-0015 to 20
Fax Nos. (049) 536-0016/536-7922
Email: pcarrd@pcarrd.dost.gov.ph
Website: <http://www.pcarrd.dost.gov.ph>

DEPARTMENT OF TRADE & INDUSTRY BUREAU OF MICRO, SMALL AND MEDIUM ENTERPRISE DEVELOPMENT (BMSMED)

5/F, Trade and Industry Building
361 Sen. Gil J. Puyat Ave. Makati City
Trunkline No.: 751.0384
Tel. Nos.: (02) 897.1693 / 897.7596 / 890.4968
Fax No.: (02) 896.7916 • Email: bmsmed@dti.gov.ph
www.dti.gov.ph



Philippine Council for Agriculture,
Aquatic and Natural Resources Research
and Development (PCAARRD)
Department of Science and Technology (DOST)



Institute of Plant Breeding (IPB)
Crop Science Cluster
College of Agriculture
University of the Philippines Los Baños (UPLB)



CASSAVA Production

VARIETY DESCRIPTION

Lakan 1 (UPL Cv-2)

- fresh root yield: 32 tons/hectare (t/ha)
- maturity: 10 months after planting
- all-purpose type suitable for food, starch, and feed production
- has yellow root flesh and cream root cortex
- root dry matter content: 45%; root starch content: 33%
- resistant to cassava bacterial blight and leaf spot

Sultan 6 (NSIC Cv-25)

- fresh root yield: 39.1 t/ha
- maturity: 10 months after planting
- industrial type suitable for starch and feed production
- has white root flesh and pink root cortex
- root dry matter content: 35%; root starch content: 23%
- resistant to spider mites, scale insects, bacterial blight
- moderately resistant to leaf spot

Sultan 7 (NSIC Cv-26)

- fresh root yield: 37.9 t/ha
- maturity: 10 months after planting
- industrial type suitable for starch and feed production
- has white root flesh and pink root cortex
- root dry matter content: 34.8%; root starch content: 22.8%
- resistant to spider mites, scale insects, bacterial blight
- moderately resistant to leaf spot

Rajah 3 (NSIC Cv-39)

- fresh root yield: 37.0 t/ha
- maturity: 10 months after planting
- all-purpose type suitable for food, starch, and feed production
- has white root flesh and pink root cortex
- root dry matter content, 37.2%; root starch content, 23.7%
- moderately resistant to major cassava insect pests and diseases

Sultan 10 (NSIC Cv-40)

- fresh root yield: 40.0 t/ha
- maturity: 10 months after planting
- industrial type suitable for starch and feed production
- has white root flesh and cream root cortex
- root dry matter content: 36.4%; root starch content: 26.8%
- moderately resistant to major cassava insect pests and diseases

CROP PRODUCTION

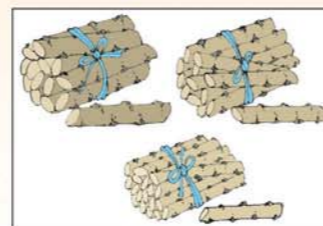
Land Preparation

- Plow and harrow the soil once when using a tractor. When using an animal-drawn implement, plow once and harrow twice.
- Construct ridges that are 1 meter (m) apart.



Planting

- Obtain planting materials from cassava stalks that are less 8 months old, and free from insect pests and diseases.
- Cut the stalks 20–25 cm long.
- Group planting materials according to the part of stalk from which they were derived: base, middle, and top. Plant them by group.
- Stalks stored in a cool shaded place can last up to 3 months. Plant cuttings as soon as possible for better germination.



- Cuttings from the base of the stalk are better planting materials than those from the top in terms of germination, and root and starch yield.
- Plant at a distance of 1 m between ridges and 0.75 m between hills.
- Plant cuttings horizontally, vertically, or slightly inclined—(horizontally in relatively dry field, vertically (where 3–5 cm is left uncovered) in very wet soil or during rainy season; and slightly inclined in a soil with near optimum moisture).
- Plant cuttings in furrows during the dry season and on the ridges during rainy season.
- Replant missing hills 2 weeks after planting.



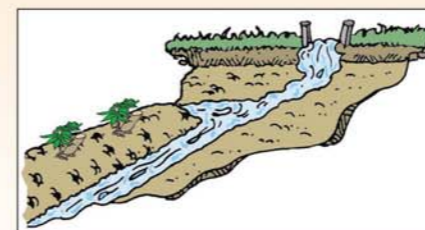
Fertilization

- Apply 6 bags of complete fertilizer (14-14-14) before planting (basal).
- Cover the fertilizer with a thin layer of soil.
- Sidedress with 2 bags of Urea (46-0-0) 2 months after planting.
- Place fertilizer in band 15 cm away from the base of the plant.
- Immediately irrigate the field to dissolve the fertilizer.
- Place compost or dried animal manure (50 bags/ha) while preparing the land to incorporate it well with the soil.



Irrigation

- Irrigate during the dry season especially during the first 3 months after planting.
- Irrigate only when needed during wet season.



Weeding/Cultivation

- Weed during the first 2 months.
- Off-bar 3–4 weeks after planting and hill-up 2–4 weeks later.
- Do not weed after the second months of crop establishment. Simply uproot or cut off tall weeds.



Insect Pest Management

- Spider mite and scale insects are the most destructive insect pests of cassava.
- Spray with appropriate pesticides when needed.

Disease Management

- Cassava bacterial blight and *Cercospora* leaf spot are the usual diseases infecting cassava.
- Use disease-free planting materials.
- Pull out and burn infected plants.

Harvesting

- Eight months after planting, partially sampling to determine if the roots are mature enough to harvest.
- Harvest roots manually if the soil is friable.
- In slightly hard soils, use a bar, dig it in the soil to serve as a lever, or pass an animal-drawn plow at the sides of the plant to break the soil.
- If harvesting is done by hand, cut the stem first, leaving a portion at the base of the plant to serve as handle to pull the storage root up.

