



Sprouting mini stems in the Nursery bed

Plant on a raised well drained bed of upto 30cm and 50 cm between adjacent beds to allow for working space, ensure a leveled surface at the top.

For hard wood ministem cuttings, plant horizontally, at a spacing of 10 by 10 cm and a depth of 4cm to 5 cm. do not plant cuttings too shallow otherwise they become exposed and dehydrated.

For semi-mature ministem cuttings, plant vertically at a spacing of 10 cm by 10cm with two- thirds of the cuttings and the old ends buried in the soil.

For Tip- shoot cuttings, plant vertically. Tip shoots are sensitive to low humidity. Water the tip shoots lightly 3 times daily.

NURSERY MAINTENANCE

Water the cuttings immediately after planting

Water twice a day, once in the morning and once in the evening. After rain, it may not be necessary to apply water as too much causes rotting.

Label the beds, indicating variety and planting date.

Cover cuttings that become exposed during watering with soil

Sprouting and establishment

Mini stem cuttings especially hard wood and semi- mature cuttings sprout 7-10 days after planting. Hard wood cuttings give the highest establishment, tip shoot cuttings the lowest because they are tender and dehydrate or rot easily

Multiplication in the nursery

Cut back young stems 8-12 weeks after planting of cuttings in the nursery and use the resulting tip shoots for further multiplication

Cutting back is called rationing. You can cut tip shoots as many as three times in a year when the nursery is well managed

Keep mini stem cuttings in the nursery for 4-6 weeks before transplanting onto the field.

Harvesting of stems

Cut stems at 20-25 cm above the ground .be sure they mature and free from pests and diseases. Do not up root plants while harvesting

Leave the stumps standing after cutting stems to allow them to sprout and this practice is called ratooning



IMPROVED CASSAVA VARIETIES FOR NABUIN ZONE



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CASSAVA

Cassava is a survivor; it's the best crop for smallholder farmers in northern Uganda threatened by climate change. Cassava thrives in high temperatures and if drought hits; it simply shuts down until the rains come again.

The weather condition in the north eastern Agro ecological zone is rapidly changing with areas that used to receive a lot of rainfall now have limited rainfall and temperature is rising. This has affected production and productivity of mostly cereals, oil crops and legumes.

Cassava therefore, is a plant that could help farmers in northern Uganda cope with climate challenges. Nabuin ZARDI has so far recommended the four varieties Nase14, Nase3, Nase18 and var. 52TME14, that performed better under natural drought stress to the farmers.

Nabuin ZARDI is multiplying the most newly bred cassava varieties that are resistant to a highly epidemic cassava brown streak disease (CBSD), cassava green and red mites. Maturity days are 12 months, high dry matter content & good flesh taste and also make good atapa (cassava & sorghum baking flour). The varieties include Nase14, 16, 17, 18 and 52 TME14 and Nase 3 (Nigeria).



Drought stress effects



Mealybug attack



NASE 14 at Nabuin ZARDI



CASSAVA RAPID MULTIPLICATION TECHNIQUE

- ◆ A cassava stem 25-30 cm yields 10 stem cuttings in 12 months, while in a maize seed yields a cob of 300 seeds in 4 months.
- ◆ Cassava is said to have a low multiplication ratio, hence need to have a rapid multiplication technology.

Preparing mini stem cuttings Hard wood mini stem cutting (1- 2 nodes)

- ◆ Prepare hardwood and semi- mature Mini stem cuttings using shears, secateurs, hand saws or machetes.
- ◆ Tools must be sharp to ensure that ends are clean
- ◆ Place each mini stem in water immediately to prevent dehydration

Tip shoots mini stem cuttings (6-10 nodes)

- ◆ Prepare tip shoots using secateurs or sharp knives (6-10 nodes)
- ◆ Strip off all leaves carefully from tip shoots leaving the youngest leaves
- ◆ Take care not to damage the auxiliary buds place each tip shoot in water immediately to prevent dehydration.

