Scheduled Planting and Harvest Recommendations for Cassava

Choosing the right time to plant and harvest your cassava is one of the most important decisions to make. The root yield and revenue you obtain from your crop depend on when you plant and harvest.

Consider these 3 aspects:
- Impact of weather
- Implications on cultivation practices
- Outlet market and price considerations

Impact of Weather

Cassava changes its growth dependent on when it receives rain (see examples below). You must consider the rainfall pattern to decide when to plant and harvest your cassava crop.

### Example 1: Planting at the beginning of the rainy season

- **Planting**: There must be at least 3 months of rainfall after planting to ensure good crop establishment.
- **Initiation of bulking**: Thick roots begin to swell.
- **Starch Accumulation**: Storage roots develop and accumulate starch at maximal rate, if the crop receives sufficient rainfall.
- **Start of dry season**: Bulking slows down and stops after about 6 weeks of drought.
- **Harvest**: Uprooting can be difficult during the dry season, uproot after 1-2 rains before roots start losing starch.

### Example 2: Planting in the middle of the rainy season

- **Planting**: Planting can be done later in the rainy season, but the crop needs at least 3 months of rainfall to establish well.
- **Initiation of bulking**: The crop should not suffer drought stress at this point as this will severely affect the final yield.
- **Starch Accumulation**: Starch accumulation restarts after cassava has regrown its stems and leaves.
- **Start of dry season**: Bulking slows down and stops after about 6 weeks of drought.
- **Starch content decreases**: Avoid harvesting during the first 4 weeks after rains resume.
- **Rains resume**: Cassava will use the starch stored in the roots to regrow stems and leaves.
- **Harvest**: You can now harvest and obtain a good yield. If rains continue, yield will continue to increase.

In some soils, planting late in the rainy season (October or November) is possible if the soil is deep and loamy and has stored a lot of moisture during the rainy season. In such soils, the cassava can establish with little rain, and wait for the start of the next rainy season.
Implications on Cultivation Practices

**Land clearing.** Clearing land by slashing is typically easier in the dry season. However, the vegetation must be lush and green for herbicides to work effectively.

**Fertilizer application.** Plant your cassava early enough in the rainy season to ensure enough rainfall during the first 4 months for the fertilizer to dissolve. See our recommendations on Tailored fertilizer application recommendations for cassava for more details.

**Tillage operations.** Ploughing must be done while the soil is moist. Ridging will help avoid breakage and make it easier to pull roots out of dry and heavy clay soils.

**Pest and disease management.** During the drought period, younger plants are more susceptible to damage by pests than older plants. Always avoid planting close to older cassava fields that show severe disease symptoms and obtain disease-free cuttings of a disease tolerant variety such as TME 419, TMS 30572 or TMS 98/0581 from a certified source.

**Weed control.** Good weed control is critical during the first months after planting. See our recommendations on Best Planting Practices and Weed Management for more details.

Outlet Market and Price Considerations

Consider the month in which you intend to plant, and the age of the crop when you intend to harvest. Use the tables in the separate flyer to evaluate the expected root yield for your choice of planting and harvest schedule. Now evaluate how your root yield changes if you postpone or bring forward planting and/or harvest.

**Two types of markets can be considered**

**Selling to a starch processing factory where prices are based on the starch content of the roots.** Starch content is highest when harvested between September and November (end of rainy season), and lowest between February and April (beginning of rainy season) in Nigeria. Check the graph (right) to estimate your expected starch content.

**Selling to a regular fresh root market where prices are fixed based on the unit weight of fresh roots.** It’s important to be well-informed about price changes throughout the harvest window. Prices are based on demand, so it may be beneficial to delay harvesting if you expect prices to increase.

Revenue for your proposed planting and harvest schedule

**Gross Revenue Calculation**
Repeat this process using multiple harvest schedules to decide which provides the highest gross revenue.

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\text{Expected gross value (NGN)} = \text{Price of 1 tonne of cassava roots (NGN)} \times \text{Expected yield (tonnes/ha)}
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**Note:** The yields from the flyer are averages under adequate management and medium soil fertility. Your root yield and starch content may differ depending on rainfall conditions, the variety grown and your cropping practices.

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