Cassava - sweet potato intercropping recommendations

AKILIMO
we know cassava

Farmer's worksheet

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1 Decide if intercropping is profitable

This depends on the price of sweet potato tubers and cassava roots.

A
_____ TSh / kg
Sale price of 1 kg of sweet potato tubers

B
_____ TSh / kg
Sale price of 1 kg of cassava roots

Is the sweet potato tuber price (A) less than 0.7 × the cassava root price (B)? — **YES** → Monocrop cassava

NO

Is the sweet potato tuber price (A) more than 4 × the cassava root price (B)? — **YES** → Monocrop sweet potato

NO

2 Plant improved varieties

Intercrop improved varieties of cassava and sweet potato. Obtain clean cuttings and vines from an accredited source.

C
_____ ha
Area of your field

3 Plant at the right density and arrangement

Plant cassava on ridges 1 m apart, at 1 m between cuttings. On the same day, plant 1 sweet potato vine in the middle in between each pair of cassava cuttings.

Is your cassava yield usually less than 10 tonnes per hectare? — **YES** → Your soil is very poor. Do not invest in fertilizer

NO

Is your cassava yield usually more than 20 tonnes per hectare? — **YES** → Your soil is very fertile. Do not invest in fertilizer

NO

You can expect 2.5 tonne extra sweet potato tubers and 5 tonnes extra cassava roots per hectare from fertilizer use. Proceed to Step 4.

4 Do a cost benefit analysis

You require the price of NPK fertilizer:

Now do the following calculations:

Increase in sweet potato production	2500 x C	kg	E
Increase in cassava production	5000 x C	kg	F
Increase in gross revenue from sweet potato	E x A	TSh	G
Increase in gross revenue from cassava	F x B	TSh	H
Total gross revenue increase	G + H	TSh	I
Quantity of NPK to apply	C x 400	kg	J
Cost of NPK fertilizer	J x D ÷ 50	TSh	K
Profit from fertilizer	I - K	TSh	L

Is revenue (I) less than the cost (N)? — YES → **Do not apply fertilizer.**

NO ↓

Is revenue less than twice the cost? — YES → Can you accept some risk? — NO ↑ (to Do not apply fertilizer)

NO ↓ / YES ↓

5 Apply fertilizer at the right time

Apply half of the fertilizer at planting; apply the other half around 3 weeks after planting, before the sweet potato canopy closes.

6 Apply fertilizer in the right way

Only apply fertilizer to moist soil. Make half-ring furrows about 15 cm away from the cuttings and vines. Cover fertilizer with soil.