Traditional Agriculture and Indigenous Knowledge - Section 2

Crops grow in Association (intercropping; mixed cropping)

Association of legumes with cereals and/or tubers

Advantages:
- replenish soil fertility
- diet

Layering of crops, or mumin natural forest patterns
- Type of crop succession and mix
- Cash crops with home consumption
- Timing of crops
- Long- and short-lived

Examples of Crops Grown In Association

1. Sweet potatoes with Cassava
   - 4-8 month growing season
   - 14-24 month growing season
   - After sweet potatoes, vegetables planted between cassava stalks.

II. Potatoes with beans
Careful plant associations help control pests

When rows of cowpeas are interplanted with rows of maize, the maize forms barriers, inhibiting insect movement, thereby controlling the pest.
starchy food (banana)
cereal (maize)
legume (bean)
starchy food (coco-yam)
coco yam

sweet potato

vegetables

coffee

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Crop Association and Productivity

Ex: Intercropping with coffee

- Soil preparation and coffee growth
  - Clips coffee roots and stimulates more root development

- Effects of annual crops
  - Beans: enrich soil
  - Cocoyam: loosens soil when dug; coffee roots penetrate deeper
  - Corn: roots deeper than coffee; break up soil deeper
  - Banana: competes with coffee, but produces compost

- Effects on yields:
  - Individual crops lower
  - Total, including coffee, higher