mixture is to aid even distribution of the seeds during broadcasting or drilling.

v. Planting method: Plant seeds immediately after treatment either by drilling or broadcasting method. For drilling, on each bed, tracks should be spaced 20 cm apart and about 0.5 cm deep. Seed-ash mixture should be planted in equal measure along the tracks while broadcast seeding is done by random distribution, ensuring even distribution within the bed. The advantage of drilling is that field management is easier, particularly fertilizer application, weeding, pest control and harvesting without the risk of trampling on other plants.



Measuring seeds for planting

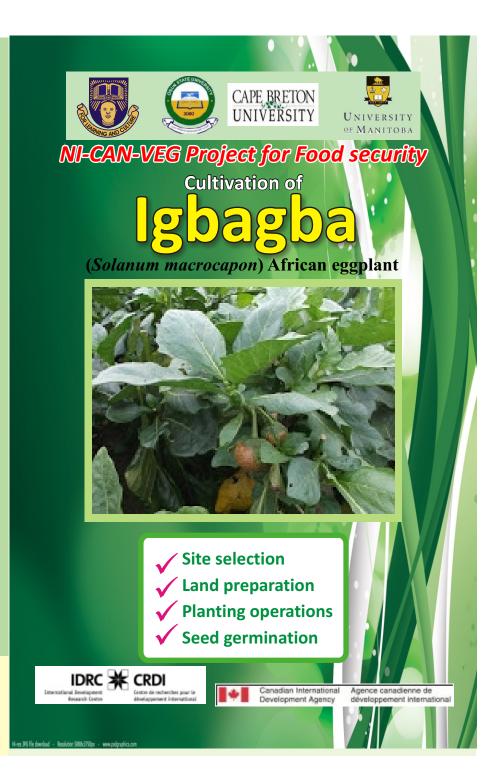
Germination: Well treated seeds germinate 7 to 9 days after planting while dry and untreated seeds will

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Site selection and land preparation: Select land that is rich in organic matter with sandy loam texture and neutral pH. As much as possible, avoid water-logged soils. Clear the land of vegetation, remove stumps, remove the debris, mark out the plots and prepare the beds. The beds, for convenience are usually $2 \text{ m} \times 3 \text{ m}$ or $3 \text{ m} \times 3 \text{ m}$ or $3 \text{ m} \times 4 \text{ m}$ or any suitable dimension. Ensure that the beds are well tilled, pulverized and of fine tilth. Locate beds across slope to minimize risk for erosion



Land Preparation

Planting operations:

- i. Seeds: For good plot establishment, use high quality and viable seeds. Mature seeds are extracted from mature fresh fruits. The freshly extracted seeds are planted directly onto the field or may be first raised in the nursery for subsequent transplanting onto the main field. You can also use dry seeds for planting but you must process the seeds to break the temporary dormancy.
- ii. Preparation of seeds for planting and breaking of dormancy: For freshly extracted seeds, wash very well with clean water to remove the gummy substance





Fresh fruit

Matured fruits



Dry seeds

and sow immediately. For dry seeds, to break the temporary dormancy, soak the seeds in water at \sim 40 °C for 12 hours (7.00 pm to 7.00 am). Rinse thoroughly (three times) with mild water. These procedures dissolve the hardened gummy substance and remove it from the seeds. The seeds are thereafter treated as described below for immediate planting.

- iii. Seed treatment: The seed is treated with insecticide/fungicide mixture formulated as Seed Plus 30 ws, Cibadrex, Seedrex, or Apron Plus to prevent attack by insects and fungi. The resulting chemical mix is toxic, therefore care should be taken and necessary precautions such as use of gloves, gown, plastic apron, nose guard and rain boots, appropriate handling and disposal of chemical containers after used, washing and drying of hands should be done during application.
- iv. Seeding density: For 2m × 3m plot, use two spoonfuls of treated seeds. First mix the treated seeds thoroughly with four milk tins full of ash or sand. The reason for the

Uses of Igbagba leaf

Fresh and tender leaves are cooked and consumed as a vegetable

The leaves are eaten as a separate dish or sauces together with other ingredients including pepper, tomato, onions, locust beans and fish or meat.

Importance of Igbagba to human health

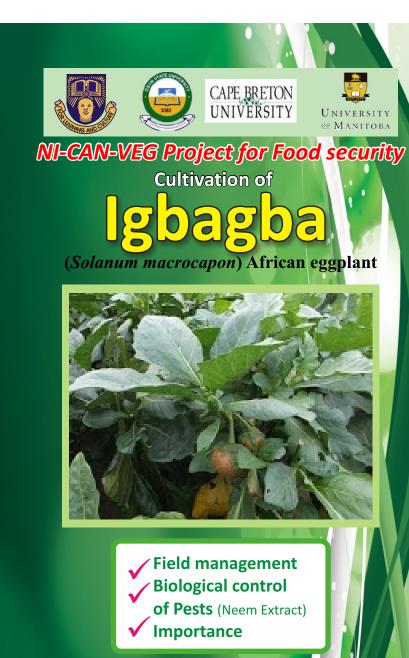
- It contains vitamins and minerals including vitamins A, C, E, folic acid, niacin, potassium, thiamin, riboflavin etc that contribute to growth and the maintenance of good health.
- It contains appreciable amounts of antioxidants (flavonoids, phenolics, ascorbic acid and tocopherols) which have been shown to be scavengers of harmful radicals that are known to cause cellular damage, heart diseases, cancer, parkinson's disease and Alzheimer's disease.
- It is rich in dietary fiber which is an important nutrient found only in plant foods. As part of a healthy diet, fiber helps scour bad cholesterol out of arteries, thus lowering risk of heart disease. Fiber keeps digestive system running smoothly.

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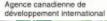
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Field Management:

- i. Weeding: Remove weeds manually when necessary (avoid the use of herbicides).
- ii. Fertilizer application: Apply organic fertilizer (farm yard manure) supplemented with mineral fertilizer e.g. NPK or Urea.
- iii. Irrigation: Water supply is critical for realizing optimum leaf yield of African eggplant. Irrigate when there is shortage of water, especially during the dry season vegetable production. Irrigation should be done early in the morning and late in the evening.
- iv. Pest Bio-control: Insect leaf defoliators and some pathogenic infections are often noticed on African eggplant. To control these pests, use neem plant extract (*Azadiractha indica*). The neem plant is called "dongoyaro" in southwest Nigeria. Neem leaf extract is very effective in controlling insect pests of vegetables.

Preparation and application of neem extracts

Collect mature neem leaves and rinse with water to remove contaminants. Fill one *kongo* with fresh neem leaves (about 200 g). Add into a pot containing ten *kongos* of water (5L) and boil (100 °C) for five minutes (caution: over boiling may render it ineffective). Allow the extract to cool and then sieve to remove the leaves. Dilute the extract at 1 part into 10 parts of water (10%) and apply to the plants. Repeat application two weeks after.

- i. Harvesting: First harvesting takes place at 28 to 30 days after emergence while harvesting continues fortnightly for up to 24 months (2 years). It is known that beyond 1 year, gradual decline in leaf yield and quality is noticed. Application of fertilizer as and when due is recommended as soon as symptom of nutritional deficiency is noticed on the plants.
- ii. Expected leaf yield: 40 kg/m² (40,000 kg/ha) throughout the harvesting cycle.
- iii. Expected income: \mathbb{N} 3,680/m² (\mathbb{N} 3,680,000/ha) throughout the harvesting



Yoruba Name: Apiroko or Iroko or Ugu

English Name: Fluted pumpkin

Botanical Name: *Telfairia occidentalis*

Nutritional value: Good source of dietary fibre,

minerals, vitamins, and antioxidants





Yoruba Name: Ogunmo

English Name: Scarlet eggplant

Botanical Name: *Solanum scabrum*Nutritional value: Rich in calcium, iron,

phosphorus, and vitamin C

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- **✓** Better life







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Yoruba Name: Igbagba or Igbo English Name: African eggplant

Botanical Name: *Solanum macrocarpon*Nutritional value: Rich in protein and

dietary fibre



Yoruba Name: Odu

English Name: African nightshade Botanical Name: Solanum nigrum

Nutritional value: Rich in calcium, iron,

phosphorus, and vitamin C



Yoruba Name: Woorowo

Botanical Name: *Solanecio biafrae* Nutritional value: Rich in protein,

vitamin A, and iron



Yoruba Name: Tete atetedaye

English Name: Amaranth

Botanical Name: *Amaranthus viridis*Nutritional value: Good source of folate,
vitamins A and C, thiamin, and riboflavin