

Ugu Farming Curriculum

Comprehensive Guide to Ugu (Fluted Pumpkin) Farming

Ugu (*Telfairia occidentalis*), also known as fluted pumpkin, is a highly nutritious and profitable vegetable crop commonly grown in Nigeria and other West African countries. It is valued for its edible leaves and seeds, which serve as both food and medicine.

Step-by-Step Guide to Growing Ugu

1. Land Preparation

- **Site Selection:** Choose well-drained, fertile loamy soil rich in organic matter.
 - **Clearing and Tilling:** Remove bushes and weeds; till the soil to improve aeration and rooting.
 - **Bed Preparation:** Form ridges or raised beds to improve water drainage and soil structure.
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2. Seed Selection and Planting

- **Seed Source:** Use mature, healthy ugu seeds with hard black shells sourced from reputable farmers.
- **Soaking:** Soak seeds in clean water for 24 hours to improve germination rate.
- **Planting:**
 - Dig holes 2-3 cm deep.
 - Space seeds 1 meter apart on ridges.
 - Place seeds flat and cover lightly with soil.
 - Water immediately.
- **Germination:** Occurs within 7-10 days under optimal conditions.

3. Watering and Irrigation

- Maintain consistent soil moisture, especially during the dry season.
 - Water at least 3 times per week.
 - Use mulching to conserve moisture and regulate soil temperature.
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4. Weeding and Weed Control

- Weed manually every 2-3 weeks.
 - Apply organic mulch (dry grass or leaves) to suppress weed growth.
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5. Fertilization and Soil Nutrition

- Apply well-decomposed poultry manure or compost before planting.
 - Supplement with NPK 15-15-15 fertilizer every 3-4 weeks.
 - Foliar application of liquid organic fertilizer (e.g., compost tea) boosts leaf development.
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6. Staking and Vine Management

- Train vines to climb using stakes, bamboo poles, or trellises.
 - This prevents the vines from trailing on the ground, reducing disease risk.
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7. Pest and Disease Control

Common Pests and Control:

- **Aphids:** Use neem oil or insecticidal soap.
- **Caterpillars:** Handpick or apply botanical insecticides.
- **Leaf Beetles:** Use wood ash or neem extract.

Common Diseases and Management:

- **Leaf Spot:** Apply copper-based fungicides.
 - **Root Rot:** Improve soil drainage and avoid overwatering.
 - **Powdery Mildew:** Use organic fungicides like baking soda or sulfur spray.
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8. Harvesting Ugu Leaves and Seeds

- **First Leaf Harvest:** Begins 3-4 weeks after planting.
- **Harvesting Technique:** Use a clean knife or scissors to cut mature leaves.
- **Frequency:** Harvest every 7-14 days.

Seed Harvesting:

- Pods mature 3-4 months after planting.
 - Harvest when pods turn brown.
 - Crack open to extract and dry seeds for sale or replanting.
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Management Practices for Better Yield

- **Regular Pruning:** Stimulates new leaf sprouting.
- **Crop Rotation:** Prevents soil-borne diseases and nutrient depletion.
- **Intercropping:** Combine with crops like maize or yam.
- **Organic Inputs:** Minimize chemical use to ensure sustainability.

- **Timely Harvesting:** Promotes continuous vegetative growth.

Value Chains in Ugu Farming

1. Fresh Leaf Production

- High demand in local markets, homes, and restaurants.
- Offers weekly income opportunities.

2. Seed Production and Sales

- Ugu seeds are in demand for planting and oil processing.

3. Processed Ugu Products

- **Dried Leaves:** Sun-dried and packaged.
- **Ugu Powder:** Ground dried leaves for soups and supplements.

4. Oil Extraction from Ugu Seeds

- Used for cooking and herbal purposes.
- Business opportunity for agro-processors.

5. Animal Feed Production

- Vines and husks processed into nutritious livestock feed.

6. Herbal Medicine and Pharmaceuticals

- Used traditionally to treat anemia and boost blood levels.

7. Export Market

- Dried leaves and powder exported to African communities abroad.

Uses of Ugu in All Ramifications

1. Food and Nutrition

- Used in soups (Egusi, Okro), yam porridge, rice, and smoothies.

2. Medicinal Uses

- **Treats Anemia:** High iron content.
- **Boosts Immunity:** Rich in vitamins A, C, and antioxidants.
- **Enhances Fertility:** Traditionally valued in fertility treatment.
- **Regulates Blood Sugar:** Beneficial for diabetics.
- **Improves Lactation:** Encouraged for breastfeeding mothers.

3. Industrial and Commercial Use

- Oil used in cosmetics and soap making.
- Powder used in pharmaceuticals.

4. Livestock Feed

- Residuals used to feed goats, rabbits, poultry.

5. Organic Farming and Sustainability

- Improves soil fertility.
- Ideal for intercropping systems.