B itter Gourd is known in the Philippines as "ampalaya." It is widely grown for its nutrients and medicinal properties. The crop has been a folkloric cure for generations but has now been proven to be an effective herbal medicine for many ailments. Ampalaya contains a mixture of flavonoids and alkaloids which makes the pancreas produce more insulin that regulates the blood sugar in diabetics. It has many other herbal benefits such as antioxidant, paraciticide, antibacterial and antipyretic. It is also a good source of vitamins A, B, and C, iron, folic acid, phosphorus and calcium.

Ampalaya is prepared in various dishes such as stir-fried with ground beef and oyster sauce or with eggs, with diced tomato and pinakbet, a very popular dish of the llocanos. The young shoots and leaves are eaten as greens/salad.

#### **Soil and Climatic Requirements**

Amplaya can be grown in any type of soil. However, the best type and texture of soil for this crop is sandy loam or clay loam with good drainage, high organic matter and with pH ranging from 6 to 6.7.

October-February is the ideal planting season because cool months favor more fertilized flowers thus better production.



# **Preparation of Potting Medium**

Mix 1 part garden soil, 1 part compost/vermicast and 1 part CRH/coir dust/rice hull and put them in pots measuring 12 inches in diameter and 14 inches in height. The bigger the pot, the better. Compact the soil lightly to eliminate air pockets. Leave atleast a quarter of an inch of empty space to accommodate water during watering.

#### **Seed Preparation**

Break the seed coat by cutting the pointed tip of the seed with a nail-cutter. Soak the seeds in clean water for 24 hours. Pre-germinate seeds by wrapping it with moist cloth and incubate in a dark place for 24-48 hours or until seed coat breaks.



# Planting

For direct seeding, sow 1-3 pre-germinated seeds directly in the prepared pots then cover with soil as thick as its diameter. For transplanted, sow pre-germinated seed or in a seedling tray/box then transplant in the pot two weeks after germination. Water the soil to ensure good contact with the seed. It takes 5-10 days before Ampalaya germinates.

#### Water and Nutrient Management

Like Upo, Ampalaya is sensitive to water logging or excessive moisture. It favors disease development. Make sure the pot should have enough holes for good drainage. Water the plants every other 1-2 days and every time you apply fertilizer.

Before transplanting, add a handful of compost/vermicast/manure to the hole as basal fertilizer. To boost plant vigor, apply weekly (spray or drench) organic probiotics preparations like IMO, Vermitea, FAA, OHN and FPJ during vegetative stage. During reproductive stage, apply FFJ, CalPhos or OHN to support flower & fruit development.

For non-organic production, add 2 tbsp. of complete fertilizer (14-14-14) in the hole then cover it with a handful compost prior to planting. Three to four (3-4) weeks after planting, apply 1 tbsp. of urea by burying it in a 1-inch deep hole 3-4 inches away from the stem. Repeat application of urea (46-0-0) every two for 2-3 times more depending on the crop stand.

## **Trellising and Pruning**

Ampalaya requires trellis for better fruit development, unless it is intended for vine production only. Improvise vertical and overhead trellis using available materials like sticks/bamboo, galvanized wires, old nets or plastic twines or let it creep along fences. All leaves and lateral vines within 1 meter from the ground should be removed.

Maintain at least 2 main fruiting vine. Prune unproductive lateral vines and sell it in the market or use it for family consumption. Remove damaged and deformed fruits while still young to prevent nutrient competition.

#### **Pest Management**

Fruitfly is the most destructive insect pest of Ampalaya and bacterial wilt is its most destructive disease. For fruitfly, you can use attractants or immediately wrap the developing fruit to protect it from the insect.

For bacterial wilt, you can use OHN and IMO as soil drench to build up good microorganisms in the soil and prevent growth of harmful organisms. Sanitation or removing diseased or damaged plant or its parts and burying them also helps.

For non-organic production, you can use appropriate chemical pesticides available in the market

# Harvesting

Harvest fruits 18-20 days after blooming or when the fruits attain full size, with seeds still immature. This occurs three (3) weeks after petals fall. To harvest, hold the fruits with one hand then cut from its peduncle using a sharp knife.

Reference:

- https://www.bar.gov.ph/index.php/agfishtech-home/crops/207vegetables/1285-ampalaya
- https://www.pinoybisnes.com/agri-business/ampalaya-production -guide/
- https://www.mnlgrowkits.com/blogs/tips/how-to-grow-ampalaya



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# AMPALAYA PRODUCTION

(For Urban and Home Gardening)





Developed and Produced by: