

# KANGKONG

## Introduction

Kangkong (*Ipomoea aquatica* Forsk.) is a fast-growing, creeping herb with succulent hollow stems rooting at the nodes in wet ground. The leaves and stalk may either be green or purplish. It grows well in both wet and dry places.

## Uses and Nutritional Value

Young leaves, petioles and stems are used as vegetable, cooked alone or with meat or fish. The vines are also used as fodder for cattle and pigs.

Each 100 g edible portion contains:

Nutrient	Amount
Water	90.2 g
Protein	3.0 g
Fat	0.3 g
Carbohydrates	5.0 g
Fiber	1.0 g
Ash	1.6 g
Ca	81.0 mg
Mg	52.0 mg
Fe	3.3 mg
Pro Vitamin A	4000-10000 IU
Vitamin C	30.0 - 130.0 mg
Energy Value	134.0 kj

## Production Management

### Varieties

Lunting Pangako-broad leaves  
Pinchit-broad leaves  
Kangkong Tsina-narrow leaves  
Chinese Upland-narrow leaves

### Climatic Requirements

Upland kangkong can be grown from low to mid elevations throughout the year. Production is best in sandy to clay loam soil with a pH of 5.5-6.5.

### Land preparation

Prepare land by plowing and harrowing twice. Prepare raised beds 1 m wide. Spread well-decomposed animal manure at the rate of 1-2 kg/m<sup>2</sup> between beds. Make shallow lines 10 cm apart across the beds before sowing.

### Propagation and Planting

Kangkong can be grown in garden plots and containers. Sow seeds directly in rows or space evenly in containers.

Seeds and cuttings are used from propagation. Plant densities may vary between 30-170 plants/m<sup>2</sup>.

### Fertilization

Apply 1-2 kg/m<sup>2</sup> animal manure before sowing. Topdress urea (46-0-0) or ammonium sulfate (21-0-0) 10-15 days later.

### Irrigation

Water the plants everyday or as needed. Mulch with rice straw or rice hull to cut watering by at least 50%.

### Pest and Disease Management

Caterpillars, whiteflies and aphids cause serious damage. Control by regular pruning of stems. Spray the plants with hot pepper extract or insecticidal soap to get rid of aphids.

White rust can be minimized by regular pruning at three weeks interval.

### Harvesting

Harvest by cutting young shoots 20-50 days after sowing and subsequently at regular intervals. The plants are cut about 5-10 cm above ground. Uprooting can also be practiced at 20-30 days after sowing.

### Seed Production

Upland kangkong flowers in October and seeds start to mature from March to April. For small-scale production, harvest dried or mature fruits individually. Sun-dry until the husk is brittle enough for seed extraction. Each fruit contains 3-4 seeds.

For large-scale seed production, harvest the entire plant when majority of the fruits are mature. Sun-dry for 3-5 days and thresh in the rice thresher. The hay or refuse may be fed to the thresher several times to maximize seed yield. Dry extracted seeds to about 10-11% moisture content.

Winnow to remove debris and poor quality seeds. Pack in moisture-proof containers. Label and store in a cool, dry place. There is no need to treat kangkong seeds with pesticides.