

Growing *Miding* as a Commercial Crop

By
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Introduction

Miding, once considered as a 'cheap' vegetable and eaten mostly at home, is now highly sought after by both visitors and the local people of Sarawak. It is readily available at most eating outlets and restaurants. Its popularity and growing demand had led the Research Division of the Department of Agriculture into initiating exploratory studies on miding cultivation in 1997.



Photo 1: Miding ferns

The Plant

Botanically known as *Stenochlaena palustris* (Burm. f.) Bedd, Miding (Photo 1) belongs to the *Blechnaceae* family. It is commonly found growing in fresh water, peat swamps and secondary jungles. The tender frond tips are traditionally used as a vegetable. The frond colour varies from light green to dark green tinted with different shades of red. The fertile fronds with very narrow leaves bearing the spores are usually not eaten (Photo 2).



Photo2: Fertile fronds

Propagation

Miding is usually propagated vegetatively. 4-6 nodes stem cuttings are planted in small polybags filled with top soil and nursed for 2-3 weeks under 60-80 % shade. The plants are then gradually exposed to full sunlight. Frequent watering is necessary. Applications of a few granules of chemical fertilizers and some organic manure such as chicken dung are beneficial for the plant growth.

Field Planting

Miding is adapted to growing on various soils, from the lowland acid-sulphate soils, peat swamps to mineral soils. The area chosen for growing miding should be moist to wet. 3-4 months old rooted cuttings (Photo 3) are transplanted to flats or beds measuring 1.2-1.5 m wide. The plants are spaced 60 cm x 60 cm in double-rows or 30 cm single central row with 1.5-1.8 m inter-row spacing (Photo 4). About 10,000 plants are required for one hectare plot.



Photo 3 - Rooted cuttings for field planting



Photo 4 - Double row planting of miding

Manuring

Miding does not require much fertilizer. Application of 200-400 g/m² organic manure at monthly intervals and 10-20 g/m² NPK fertilizer at fortnight intervals are sufficient for the crop to come to production.

Management

Research findings showed that open field planting on flats is the best planting system for growing miding. Weeding is essential during the establishment and maintenance phases. Irrigation is necessary during the dry season especially on higher grounds.

Pests and Diseases

Miding is relatively free of any serious pests and diseases. As such, chemical spraying is unnecessary. The crop is therefore suitable for production under organic production system.

Harvesting and Post Harvest

Miding comes into production in 6-8 months from field planting. Young fronds are harvested once every 3 days either in the morning or late evening. Harvesting is done by hand plucking. The fronds are collected in a basket and graded for sale.

The Research Division has come up with grading system for fronds as grade A, B and C (Photo 5). Fronds are cut to 15 cm length from the tips and bundled to 200–250 g. Each bundle is wrapped with a leaf and tied with a rubber band. In order to maintain its freshness, the bundles are placed in a container with the cut ends dipped in 0.5 cm water. For longer storage period, they are wrapped with paper, placed in plastic bags and stored in a cool box.

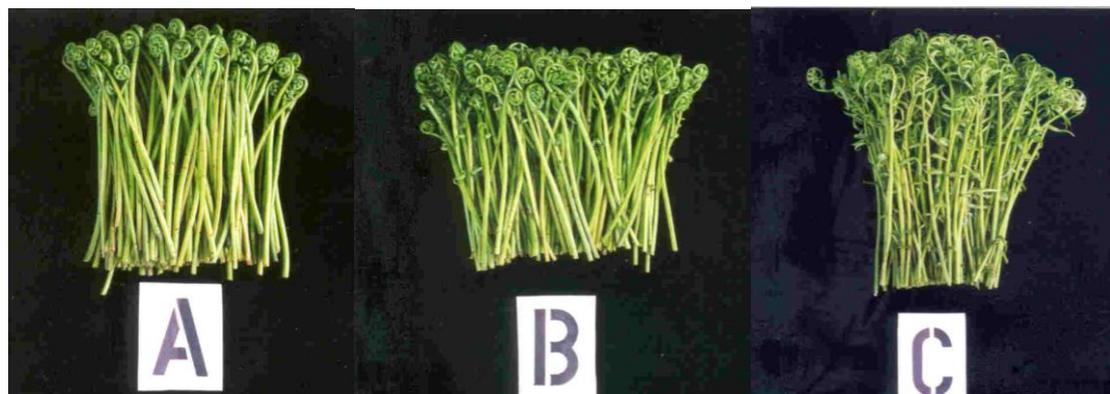


Photo 5. Frond grading

Grade A: Frond curls with no open leaf

Grade B: Frond curls with 2-4 open leaves

Grade C: Frond curls with many open leaves

Financial Returns

The average annual frond production is 5-18 mt/ha. 20% of these are Grade A fronds. It is estimated that RM4,000 is required to establish one hectare of miding. If Grade A miding fronds are sold at a farm - gate price of RM4-8/kg, a net margin of RM2-4/kg can be expected.