'Terung Asam Sarawak', a Geographical Indications (GI) – Registered Product of Sarawak

By

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Introduction

Since olden days, Terung Asam or Terung Dayak (*Solanum lasiocarpum* Dunal), of the Solanaceae family, has been one of popular native vegetable in Sarawak. The fruit, with its distinctive sour taste, is a favourite to the locals as a vegetable, or flavouring in many dishes. It can be prepared with fish, made into 'kerabu' or cooked in curry.

Terung Asam is traditionally planted with hill paddy by local farmers and has now been cultivated throughout the State. On average, the production is between 16 to 20 tonnes per hectare. With current good market prices fetching RM6.00-10.00 per kg depending on the size and quality, this old crop has good prospect to be developed and promoted as a cash crop in the State.

In October 2010, the Department of Agriculture Sarawak took the initiative to file Terung Asam under Geographical Indications (GI) certification. The objective of registering the crop under such certification is to protect the authenticity and great value of the crop to the State. The GI certificate, No. GI2010-00002, was granted on 30 June 2011 by the Malaysian Intellectual Property Organisation (MyIPO).

Geographical Indication (GI)

The GI certification is an indication which identifies any goods as originating in a country or territory, or a region or locality in that country or territory, where a given quality, reputation or other characteristic of the goods is essentially attributable to their geographical origin. Geographical indications can be used on natural or agricultural product or any product of handicraft or industry. It is a form of product branding.

At present, Sarawak has registered six of her products under GI certification. Besides Terung Asam Sarawak, the others are Sarawak Pepper, Sarawak Bario Rice, Sarawak Beras Bajong, Sarawak Beras Biris and Sarawak Dabai.

The Terung Asam Plant and Nutrient Content of the Fruit

The Terung Asam plant is a thorny and woody perennial herb, 1.0 - 2.5 m tall, densely pubescent throughout the plant. It has erect and spreading shoots bearing large green leaves, shallowly lobed, and alternate arranged. The inflorescence consists of 2-6 flowers. Flower is

small, white with star-like petals arrangement. It develops into a small to large, round to oval sourish fruit. Immature fruit is green and turns into normally yellow to orange when ripe. Some varieties have fruit with tints of dark purple colour while other varieties have fruit that are purplish black or cream to brownish black in colour.

The proximate nutrient composition per 100g edible portion of the fruit as analysed in the laboratory at the Agriculture Research Centre, Semongok is as follows:

Composition	Terung Asam
Energy(kcal)	36
Moisture (g)	89.5
Protein (g)	1.1
Fat (g)	0.9
Carbohydrate (g)	5.8
Crude fibre (g)	1.7
Ash (g)	0.8
Vitamin C (mg)	8.0
Phosphorus (mg)	27
Potassium (mg)	188
Calcium (mg)	3
Magnesium (mg)	6
fron (mg)	0.6
Manganese (mg)	0.2
Copper (mg)	0.06
Zinc (mg)	0.39

The Prospect of Commercial Cultivation of Terung Asam

With increasing demand and good market prices, Terung Asam has good prospect to be promoted as one of the specialty fruit vegetable of Sarawak, especially among tourists.

Research work has been done by Department of Agriculture Sarawak to support the development of this crop and in 1997, an elite variety called 'Terung Mas' was launched which has potential for commercial production. The only drawback to the intensive production of Terung Asam is bacterial wilt disease. However, research has come up with solution to overcome this problem by

grafting the Terung Asam onto disease resistant *Solanum* species such as Terung Unggul (*Solanum melongena*) as rootstock. Further improvement and development of Terung Asam cultivation system is being carried out by the Department of Agriculture to increase its production and quality.

Besides fresh consumption, Terung Asam fruit has potential to be developed into downstream products such as jam, cordial, juice, canned or confectionery. This will add value for commercialisation. Research work on product development is being conducted by the Postharvest and Food Technology Centre at the Agriculture Research Centre, Semongok.

Given its uniqueness in Sarawak and good prospect for commercial production, GI certification for Terung Asam Sarawak will further add value to the product. This will effectively increase farmers' income and subsequently create greater demand at home and even abroad.



The Terung Asam plant



A fully opened flower

Green immature fruit



Diversity in fruit colour and shape of Terung Asam



An elite variety of Terung Asam, the Terung Mas