

# A survey of cultivated bananas in Perak

What are the bananas cultivated now? What's gone? What's new?

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The cultivated bananas are maintained by cultivation alone. If a particular variety is no longer cultivated anywhere, it would disappear for good because it cannot propagate itself. Conversely, if a genetic change (mutation) occurs, the new form may be propagated, given a name, and become a new variety.

## **Worldwide, over 1000 named varieties of bananas have been recorded**

In 1919, J. N. Milsum, the Superintendent of Government Plantations in Selangor and Negeri Sembilan, recorded 34 varieties grown in the country then called 'Malaya'. Today, some of his varieties are still recognizable by their names and descriptions, but many others cannot be traced and there are no photographs to show what they looked like. Some new varieties seem to have come into existence after Milsum. The world of cultivated bananas may be much more variable and changeable than what is suggested in the literature on bananas. Most varieties exist in two or more different forms, and the older growers remember bananas in the past that were somewhat different from the ones bearing the same names today. Keeping track of changes would require surveys to be carried out periodically. In this survey, each variety is recorded by its local name, with photographs and a list of characteristic features. The photos are in a standard format to facilitate comparison, and incorporate a scale.

A banana fruit or 'finger' is described as 'short' if its length is about 3 inches, 'medium' if about

6 inches, 'long' if about 12 inches. Intermediate fingers are described as 'medium-short' or 'medium-long'.

Banana fingers are grouped into combs, also known as hands. Each finger is attached to its comb by a stalk. The stalked end of the finger is called its base. The base is usually merged gradually into the stalk, but in some varieties the base is rounded and the connection to the stalk is rather abrupt. The stalk is sometimes called a neck and some varieties (e.g. Pisang Rastali) are notorious for 'weak-neck' in which the fruit breaks off at its neck as soon as it begins to ripen. At the other extreme are strong-necked fruits that can only be separated cleanly from the comb with a knife.

The free end of the finger is called its apex. The apex may be rounded, teat-shaped or 'blunt-tipped'. The teat has also been called a bottleneck, beak or knob.

'Blunt-tipped' is the intermediate condition between rounded and teat-shaped, in which

the apex is tapered to a more-or-less abrupt end. The end may be clean or the remains of the flowers may still be attached, twisted and dried up, but if so, such remains are usually brushed away before the fruits are displayed in the market.

Each finger has five ridges running longitudinally from base to apex. In cross section, the finger may be rounded or angular. If fully rounded, all the ridges would be faint. If angular, each angle would correspond with a prominent ridge. An angular finger would have two, three, four or five prominent ridges or angles.

The combs are borne on a thick stem known as a peduncle. A peduncle together with its combs is called a fruit bunch. The young fruit bunch usually grows out more or less horizontally from the top of the banana stem but as the fruits develop the weight of the bunch causes the bunch to droop.

The differences between cooking and dessert bananas have never been fully investigated. While Pisang Tanduk is starchy and may be cooked like a potato, other cooking bananas are not particularly starchy and may ripen soft and palatable, just like dessert bananas. Cooking bananas are cooked in many different ways and different varieties are preferred for different dishes. There are also differences in ease of handling and appearance of the fruits. The dessert bananas can be neatly separated from the comb by hand and peeled cleanly to expose a smooth surface. In contrast, the

cooking bananas tend to be strong-necked, in some cases needing a knife to separate the fingers neatly from the comb; furthermore, the skin may peel roughly so that the surface of the peeled fruit may look rough. Cooking bananas also keep better: when the skin of a dessert banana is discolored, it is time for the fruit to be discarded, but with cooking bananas, the flesh is often firm and palatable after the skin has gone black. Handling convenience and elegance in appearance may have contributed to the shaping of preferences and culinary traditions.

### **Banana Survey**

Between the months of May and November 2014, field surveys to the countryside of Lenggong, Selama, Bagan Serai, Sg Siput, Tg Tualang, Gopeng, Kampar and Bidor were carried out to investigate, collect and correlate specimens. In most cases, it is quite impossible to identify cultivars from a tree's vegetative parts because visually they possess similar tree architecture and form; with the exception of height which may differ depending on cultivar. Therefore, it was necessary to wait for a tree to bear mature fruit to enable positive identification.

Villagers who grew bananas in their compounds provided insider accounts and preferences about each variety. When taking photographs, all efforts were made to ensure that fruit characteristic features, colours and variations were adequately highlighted. Further details were obtained by interviewing banana vendors in the local markets including *pisang goreng* (banana fried in batter) vendors.

**Pisang Abu.** The ash banana is so-called because in some forms the fruits look like they are covered in a layer of ash.

Fingers medium to medium-short, prominently angled in cross section, with 3, 4 or all 5 ridges prominent, strong-necked, the skin thick and peeling rather roughly from the flesh, with apex blunt-tipped except one form (Pisang Abu Bujal) that has a swollen tip.

A cooking banana with three forms in Perak: Pisang Abu Batu, Pisang Abu Kapas, Pisang Abu Bujal.

The forms of Pisang Abu ripen soft and mildly sweet-sour, but are almost never used as dessert. Abu is favoured for *pisang goreng*. In Penang, the Indian community uses Abu Bujal to make a curry dish.



*Pisang Abu Batu*



*Pisang Abu Kapas*



*Pisang Abu Bujal*

**Pisang Awak.** Fingers medium-short, angular in cross-section, blunt-tipped; often containing seeds. The stalks are relatively longer than in other varieties. Flesh sweet. Consumed fresh or cooked. A *pisang goreng* vendor claims that Awak fingers can keep for a week if retained on the intact fruit bunch, but they ripen and spoil faster on separated combs. The succulent stems of Awak are used to feed pigs, which apparently prefer Awak to other banana stems. The degree of seediness is variable, and seedless forms of fruits are typically smaller than seeded forms. Awak trees are noticeably taller than most other banana trees and more resistant to disease.

**Pisang Berangan.** The chestnut banana. Fingers usually medium but sometimes medium-long, rounded in cross-section, parallel-sided, with apex usually rounded but sometimes slightly blunt-tipped. Flesh sweet. Skin thick. A popular dessert banana. There are several forms of Berangan. A form propagated by tissue-culture has been marketed by United Plantations under the name of Intan.

**Pisang Embun.** The dew banana, the name sometimes abbreviated to 'Boon'. Fingers medium-long, rounded in cross-section, with apical teats, thick skinned. Flesh sweet, fragrant. A popular dessert banana. The first internationally-promoted variety Gros



*Pisang Awak*



*Pisang Berangan*



*Pisang Embun*

Michel is thought to have been derived from Embun. The characteristic 'banana fragrance' is the fragrance of Embun / Gros Michel. When ripe, the peel colour is typically green-yellow.

**Pisang Jari.** The finger banana. Fingers medium-short, slender, with very prominent teats. Flesh sweet. A small, dessert banana that seems to have appeared in cultivation about 30 years ago, according to the ethnic Chinese farmers, who call it *mo jiu* or hairy banana because of fine velvety hairs covering the fruits, comb and peduncle. The degree of hairiness is variable and in one form the fingers are quite smooth, but the stalks and peduncle are always velvety. This variety is prolific in producing multiple



*Pisang Jari*

offshoots to form dense clumps of stems and it is relatively immune to diseases. The stems are relatively slender, soft and easily broken in storms, but the close-clumping habit provides the stems with mutual support. Of all the cultivated bananas this comes closest to the Malayan wild lowland variety of *Musa acuminata* that has slender fingers with prominent teats. The wild banana is heavily seeded while Jari only rarely contains a seed.

**Pisang Jari Buaya.** The crocodile-finger banana. This differs from Pisang Jari in the fruits more elongated, with smoother shiny skin, and long teats reminiscent of the claws of a crocodile.



*Pisang Jari Buaya*

**Pisang Kapas.** The cotton banana. Fingers short, rounded in cross-section, blunt-tipped. Skin thin but peeling easily, milky yellow when ripe. A dessert banana with mildly sweet-sour taste.



*Pisang Kapas*

**Pisang Lemak Manis.** *Lemak manis* refers to a smooth pleasant flavour that has no English-language equivalent. Fingers short, rounded in cross-section, with prominent teats. Flesh sweet. A small dessert banana, sometimes confused with Mas but distinguished by its pronounced teat and slightly thicker skin that peels cleanly.



*Pisang Lemak Manis*

**Pisang Lilin.** The candle banana, so-called because the basal combs make an almost complete circle round the peduncle, like candles in a candelabrum. Fingers medium-short, rounded in cross-section, with prominent teats. The stalks and base of the fingers have a unique waxy appearance. Mildly sweet with a distinct pungent fragrance and flavour. In Perak, it is used in the Malay community like an avocado, dipped in sugar or salt.



*Pisang Lilin*

**Pisang Mas** or **Emas**. The golden banana. Fingers short, with sides bulging, widest in the middle, rounded in cross-section, with apex rounded to slightly blunt-tipped. Skin thin and often sticking to the flesh instead of peeling off cleanly. Ripening golden-yellow. Flesh sweet to sweet-sour. A popular small dessert banana.



*Pisang Mas or Emas*

**Pisang Nangka**. The jackfruit banana. Fingers medium-long, rounded to slightly angular in cross-section, with apical teats; flesh sour-sweet. A popular banana for *pisang goreng*. After frying it is deliciously sour. When raw it has the fragrance of jackfruit. The fragrance is strongest in the inside surface of the skin. In the literature the fingers are reported to ripen yellow-orange but the ones in this survey ripen green.



*Pisang Nangka*

**Pisang Raja**. The raja or rajah banana. Fingers medium-short, somewhat angular in cross section, with blunt-tipped to teat-shaped apex. The stalk is short and stout, moderately strong-necked; the skin moderately thick and peeling roughly from the flesh. The flesh is sweet-sour. The fruit has excellent keeping properties and is used for *pisang goreng* and banana *bubur cacar*, a sweet boiled dessert incorporating yams, sweet potatoes and beans.



*Pisang Raja*

**Pisang Rastali.** The rastali banana, the name sometimes abbreviated to 'Tali'. Fingers medium-short, rounded in cross-section, with blunt-tipped apex; the skin often closely dotted with freckle spots that are induced by exposure to sun and absent if the fruit bunch is bagged in development. Flesh sweet-sour. A popular dessert banana. The fingers tend to break off easily at the stalk upon ripening and such bananas are said to be weak-necked.



*Pisang Rastali*

**Pisang Serendah.** The dwarf banana. A plant of short stature, about 6 ft tall. Fingers medium to medium-long, rounded in cross-section, with blunt-tipped to teat-shaped apex. Flesh sweet. A form of dwarf banana from China was the stock from which the Cavendish banana was developed.



*Pisang Serendah*

**Pisang Susu.** The milk banana. Fingers medium, rounded in cross-section, with rounded base and rounded apex, bulging like a plump sausage. The stalk is relatively short; the flesh sweet-sour or sweet. A dessert banana.



*Pisang Susu*





*Pisang Tanduk*

**Pisang Tanduk.** The horn banana. Fingers long, rounded in cross-section, with blunt-tipped to teat-shaped apex. This banana does not ripen and soften suddenly. If harvested early it may stay hard and green for three weeks or longer and in this condition, the skin can be sliced off with a knife and the firm flesh cooked like a potato or yam. The flavour is rather bland.

When fully ripe the skin is yellow, thin, and easy to peel and the flesh is soft but still stiff and starchy, with a mildly sweet taste. The fruit bunch bears only one to three combs and there are only a few fingers per comb. This is the biggest of all bananas and unmistakable by its size. The flesh in this survey is pale yellow, not golden-red as recorded by Milsum.

**Pisang Udang Merah.** The red prawn banana, also known as Pisang Raja Udang. Fingers red (some varieties are brownish or maroon), of medium length, round in cross-section, with rounded to blunt-tipped apex. Flesh sweet and somewhat greasy if eaten raw. It is better steamed or baked in an oven with the skin on, and served with grated coconut.



*Pisang Udang Merah*