

## Banana Cultivar Names and Synonyms In Southeast Asia

(A Preliminary Report)

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### Introduction

Banana classification and nomenclature have been a complicated issue from the very beginning. The problem started with the simplistic description of plantain, *Musa paradisiaca* Linn. and dessert banana, *Musa sapientum* Linn. by Karl Linnaeus, the father of modern botanical nomenclature. The complication emanated from the very limited specimens available to Linnaeus in Europe where the original names were given. While the differentiation between plantains, a special type of cooking banana and dessert bananas is readily applicable in Africa and Latin America, their adoption in Southeast Asia has led to confusion. This is because in the center of *Musa* diversity, many local cultivars possess characteristics that transcend the diagnostic characters used elsewhere to differentiate bananas from plantains.

Another common problem confronting banana workers and horticulturists in Southeast Asia is the presence of numerous cultivar names and synonyms in the different languages of the region. Wasteful duplication in the conduct of basic studies could have been avoided had the researchers in Southeast Asia known that the banana cultivars they studied separately were actually one and the same clone. Knowledge of synonyms can also promote regional understanding and communication as well as banana trade and commerce. Solutions to these problems were the subject of a regional workshop held at the Southeast Asian Banana Germplasm Resources Center in Davao, Philippines on September 1–4, 1999. The workshop was co-sponsored by INIBAP-ASPNET (International Network for the Improvement of Banana and Plantain) and BPI/DNCRDC (Bureau of Plant Industry/Davao National Crop Research and Development Center) of the Department of Agriculture, Philippines. The participants were the curators of National Banana Germplasm Collections of Malaysia, Indonesia, Thailand, Vietnam and the Philippines.

### Status of Banana Classification and Nomenclature in Southeast Asia

The first scientific term given to banana is *Musa paradisiaca* Linn. published by Linnaeus in his book *Species Plantarum* in 1753, the origin of modern botanical nomenclature. His simple description was based on a plantain cultivar bearing long and slender fruits that remain starchy even when fully ripe. The fruits are cooked before they become palatable and consumed. The male flowers and bracts of plantains are usually persistent and remain as dried relics on the male bud rachis. Later, Linnaeus published *Musa sapientum* Linn. in *Systema Naturae* in 1759 to describe a dessert banana which bear sweet fruits that are eaten fresh upon ripening. The male flowers and bracts of the second species are dehiscent exposing a clean rachis. The two scientific names remained in wide usage for almost two centuries but its adoption in Southeast Asia generated controversies from early on.

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In the center of diversity for bananas, many cultivars are classified as dual purpose, the fruits are consumed either fresh or cooked. There are also many starchy, cooking cultivars with short, stout and angular fruits with dehiscent male flowers and bracts. These culinary bananas are distinct from the plantains and cannot be classified under *Musa paradisiaca*. Furthermore, the great diversity of dessert bananas in terms of plant stature, fruit size and color (yellow, green, red, and orange) far exceed the rather limited description of the original *Musa sapientum*. To cope with the wealth in germplasm

diversity in its center of origin, subsequent banana taxonomists applied such descriptive names as *Musa nana* Lour. for the Dwarf Cavendish, *Musa rubra* Firming. von Wall. for the Red banana, *Musa corniculata* Lour. for the horn plantain, and many others. The proliferation of scientific names added more confusion to banana nomenclature and the situation would have worsened if it were not for Cheesman (1948) and Simmonds and Shepherd (1955) who explained the origin of edible bananas and proposed a new classification scheme.

Drawing upon their expertise in genetics and vast experience in cytotaxonomy, Simmonds and Shepherd concluded that the Linnean scientific names *Musa paradisiaca* and *Musa sapientum* were based on hybrid cultivars and recommended their abolition. They likewise concluded that the edible bananas originated from two wild and seedy species, *Musa acuminata* Colla and *Musa balbisiana* Colla which are endemic to Southeast Asia. Cheesman recognized three groups of morphologically distinct cultivars. The first group shows predominantly the botanical characters of *Musa acuminata* while the second group of cultivars primarily exhibits the morphological features of *Musa balbisiana*. The third group possesses characteristics that blend the morphological characters of the two wild species and are considered as their natural hybrids. The primitive edible bananas were diploids that evolved through the development of sterility and parthenocarpy in *Musa acuminata*. Through human selection, various clones were brought under cultivation particularly in the rainy parts of Southeast Asia. Later, through chromosome restitution, seedless triploid cultivars developed. Since triploids proved to be more vigorous and productive, they gained greater popularity. Cheesman argued that the seedless, edible diploid cultivars of *Musa acuminata* must be treated in the same species as their wild parents as they retained the morphological characteristics of their wild ancestors. Likewise, the seedless and edible triploid cultivars that developed through chromosome restitution must also be recognized as the same species as their parents because the addition of one set of chromosomes through autopolyploidy did not introduce anything new to the genetic constitution of the clone. In the drier areas of Southeast Asia where the wild and seedy *Musa balbisiana* predominate, a parallel evolutionary development occurred which led to the appearance of pure diploid and triploid *balbisiana* cultivars (Valmayor, *et al.*, 1991). Since the development of sterility and parthenocarpy did not significantly alter the morphological characteristics of the resultant clones, the scientific name *Musa balbisiana* should also be applied to the edible diploid and triploid cultivars derived from the wild *balbisiana* parents. In the center of origin of bananas, the natural distribution of wild *Musa acuminata* and *Musa balbisiana* overlap and since the two species are cross compatible, hybridization occurred. The hybrids that evolved from the two natural species include diploids, triploids and a few tetraploids in various genome combinations. Figure 1 shows the various pathways leading to the development of edible bananas. A major concern about the original terms *Musa paradisiaca* and *Musa sapientum* is their hybrid nature. But according to ICNCP rules (International Code of Nomenclature for Cultivated Plants) hybrids can also be given a scientific name. However, the epithet must carry the prefix x to indicate the hybrid nature of the species. In the case of hybrid banana cultivars, *Musa x paradisiaca* Linn. should be adopted as this binomial was published ahead of *Musa sapientum* and is in fact recognized as the type species for the banana. *Musa x paradisiaca* Linn. is applicable to all hybrids of *Musa acuminata* and *Musa balbisiana* notwithstanding their genome composition (Greuter, 1995 and Karamura, 1998).

### Current Regional Banana Classification Scheme in Southeast Asia

Two natural species and a hybrid complex make up the edible bananas of today. This complicated situation has rendered the identification of cultivars difficult. To cope with the problem, the authors agreed to adopt the three tiers system namely – species, genome group, and cultivar in classifying bananas and identifying cultivar names and synonyms of the region. The taxonomic scorecard suggested by Silayo and Chomchalow (1987), a modified version of the original designed by Simmonds and Shepherd was found very useful in segregating the numerous banana varieties into six genome groups. Table 1 presents the 15 diagnostic characters used to differentiate *Musa acuminata* clones from *Musa balbisiana* cultivars and their hybrids. The cultivars are classified by inspecting the expression of each of the 15 characters and assigning a score of 1 for each character that adheres closely with wild *acuminata* and 5 for characters with extreme *balbisiana* expression. This scoring technique provides for a range of 15 (15 x 1) for wild *acuminata* and 75 (15 x 5) for wild *balbisiana* species. Intermediate expressions of the characters are assigned scores ranging from 2, 3, or 4 depending on intensity. The hybrid cultivars,

therefore, should have total scores between 15 and 75. In actual practice, slight deviations are allowed. Table 2 shows the six-genome groups and the expected range of scores the cultivars under study will generate. Pure *acuminata* varieties should have scores between 15 to 25 while pure *balbisiana* cultivars should range between 70 to 75. The hybrids are expected to score between 26 to 69 points.

**Table 1. Characters used in the classification of bananas through a taxonomic Scorecard.**

Character	<i>Musa acuminata</i>	<i>Musa balbisiana</i>
Pseudostem color	More or less heavily marked with brown or black blotches	Blotches slight or absent
Petiole canal	Margin erect or spreading, with scarious wings below, not clasping pseudostem	Margin enclosed, not winged below, clasping pseudostem
Peduncle	Usually downy or hairy	Glabrous
Pedicels	Short	Long
Ovules	Two regular rows in each loculus	Four irregular rows in each loculus
Bract shoulder	Usually high (ratio < 0.28)	Usually low (ratio > 0.30)
Bract curling*	Bract reflex and roll back after opening	Bracts lift but do not roll
Bract shape	Lanceolate or narrowly ovate, tapering sharply from the shoulder	Broadly ovate, not tapering sharply
Bract apex	Acute	Obtuse
Bract color	Red, dull purple or yellow outside; pink, dull purple or yellow inside	Distinctive brownish-purple outside; bright crimson inside
Color fading	Inside bract color fades to yellow towards the base	Inside bract color continuous to base
Bract scars	Prominent	Scarcely prominent
Free tepal of male flower	Variably corrugated below tip	Rarely corrugated
Male flower color	Creamy white	Variably flushed with pink
Stigma color	Orange or rich yellow	Cream, pale yellow or pale pink

\*In varieties with persistent male bracts, curling is weak or absent, regardless of genotype. (Source: Simmonds and Shepherd, 1955).

**Table 2. Genome groups and their respective score ranges.**

Genome Group	Score
AA/AAA	15-25
AAB	26-46
AB	49
ABB	59-63
ABBB	67-69
BB/BBB	70-75

(Source: Silayoi and Chomchalow)

After identifying the species and genome group, the individual cultivars are classified following the latest version of Descriptors for Banana (*Musa* spp.) and *Musa* Germplasm Information System (MGIS) published by INIBAP/IPGRI and CIRAD. The highly discriminating descriptors on plant stature, pseudostem and leaf characteristics, bunch and fruit characters, male bud and male flower characters are recorded. Horticultural performance such as data from planting to flowering, from flowering to harvest, harvest to first ratoon, number of suckers at first harvest, bunch weight, number of hands and fingers, fruit size and quality are observed. With the aid of botanical illustrations, photographs and actual field study and observation at the regional banana variety collection of BPI in Davao, an inventory of cultivar names and synonyms was prepared by the curators of national banana variety collections of Southeast Asia. Table 3 presents the list of banana cultivar names and synonyms of Southeast Asia while Table 4

contains the list of cultivars unique to each country of the region. Table 5 shows some popular cultivars and their synonyms in each country of Southeast Asia. The workshop refrained from using the few internationally recognized sub-groups, as the present list is very limited and ill defined. The authors also refrained from using the system of nomenclature proposed by Simmonds and Shepherd, which replaced the species name with genome groups that could easily lead to errors and confusion. They adopted instead the simple but precise and stable method of Cheesman and the International Code of Nomenclature for Cultivated Plants.

**Table 3. Banana cultivar names and synonyms in Southeast Asia.**

Species, Genome	Philippines	Malaysia	Indonesia	Thailand	Vietnam	International
<i>Musa acuminata</i> Diploid AA (dessert)	Amas	Pisang Mas	Pisang Mas	Kluai Khai	Chuoï Trung	Sucrier
	Kinamay Dalaga	Pisang Pinang	Pisang Pinang	Kluai Lep Mu Nang		
	Tudlo Datu	Pisang Jari Buaya	Pisang Jari Buaya		Chuoï Tieu	Jari Buaya
	Tudlo Tumbaga		Pisang Kole			
	Señorita		Pisang Gadis	Kluai Thong Ruang	Chuoï Ngu Thoc	
	Bata-Bata			Kluai Sa	Chuoï Ngu Tien	
	Pamoti-on				Chuoï Cau Trang	
	Inarnibal	Pisang Empat Pulu Hari	Pisang Lampung			
		Pisang Lemak Manis Terenganu	Pisang Lemak Manis			
		Pisang Lemak Manis Kelantan	Pisang Muli			
Diploid AA (dual purpose, consumed either fresh or cooked)		Pisang Lilin	Pisang Lilin			
		Pisang Mas Sagura		Kluai Thong Ki Maew		
Diploid AA (dual purpose, consumed either fresh or cooked)	Alaswe	Pisang Kapas	Pisang Kapas			
	Pogpogon				Chuoï Tien	
Diploid /triploid AA/AAA (dessert)	Lakatan <sup>1</sup>	Pisang Berangan	Pisang Barangan Kuning	Kluai Hom Maew		
			Pisang Barangan Merah	Kluai Nga Phaya		
<i>Musa acuminata</i> Triploid AAA (dessert)	Sulay Baguio	Pisang Serendeh	Pisang Badak	Kluai Hom Khieo Khom	Chuoï Tieu Lun	Dwarf Cavendish
	Tudok	Pisang Bua i	Pisang Ambon Putih		Chuoï Tieu Nho	Robusta
	Tumok		Pisang Ambon Hijau		Chuoï Tieu Xanh	Giant Cavendish
	Bungulan	Pisang Masak Hijau	Pisang Ambon Lumut	Kluai Hom Khieo	Chuoï Tieu Cao #1	Tall Cavendish
	Pastilan		Pisang Ambon Filippina			
	Grande Naine		Pisang Ambon Jepang			Grande Naine
	Ambon	Pisang Embun	Pisang Ambon Kuning	Kluai Hom Thong	Chuoï Tieu Cao #2	Gros Michel
	Bangan			Kluai Dok Mai	Chuoï Tieu Vua	
		Pisang Susu	Pisang Susu	Kluai Nam Nom		
	Morado	Pisang Raja Udang Merah <sup>2</sup>	Pisang Photo Merah	Kluai Nak	Chuoï Com Lua	Red
	Moradong Puti	Pisang Raja Udang Hijau <sup>2</sup>	Pisang Photo Hijau	Kluai Kung Khieo		Green Red
				Kluai Khai Bong	Chuoï Bom	
		Pisang Amping	Pisang Ampyang			
		Pisang Pelimbing	Pisang Palembang			

<b><i>Musa x paradisiaca</i></b> <b>Triploid AAB</b> (dessert)	Latundan <sup>2</sup>	Pisang Rastali	Pisang Raja Sereh			Silk Fig
	Inangel	Pisang Keling <sup>3</sup>	Pisang Keling	Kluai Lanka	Chuoï Com Chua	Mysore
	Galamay Señora	Pisang Kelat Air	Pisang Longong	Kluai Nam Phat	Chuoï Muop	Pome
	Radja	Pisang Raja <sup>3</sup>	Pisang Raja	Kluai Khai Boran <sup>3</sup>		
		Pisang Seribu	Pisang Seribu	Kluai Roi Wi	Chuoï Tram Nai	
<b>Triploid AAB</b> (cooking)	Tindok	Pisang Tanduk	Pisang Tanduk	Kluai Nga Chang		Horn Plantain
	Dahyao	Pisang Lang	Pisang Byar	Kluai Klai	Chuoï Sung Bo	
	Patag		Pisang Agung			
	Bungaoisan		Pisang Candi			
		Pisang Nangka	Pisang Nangka	Kluai Niu Charakne		
	Laknau	Pisang Gading	Pisang Gading			
	Maia Maole		Pisang Maole			Maia Maole
	Pisang Raja Talong	Pisang Raja Talun				
			Pisang Uli		Chuoï Voi	
<b><i>Musa x paradisiaca</i></b> <b>Triploid ABB</b> (dual purpose)	Katali	Pisang Awak Biji <sup>3</sup>	Pisang Awak <sup>3</sup>	Kluai Namwa Luang		Awak
	Siusok	Pisang Awak <sup>3</sup>	Pisang Siem <sup>3</sup>	Kluai Namwa Daeng	Chuoï Tay	
		Pisang Rasa			Chuoï Mat Boket	
<b><i>Musa x paradisiaca</i></b> <b>Triploid ABB</b> (cooking)	Matavia	Pisang Abu Keling	Pisang Kepok Hijau	Kluai Som	Chuoï Ngop Lun	Bluggoe
	Katsila	Pisang Abu Perak	Pisang Kepok Awu	Kluai Hak Muk		Silver Bluggoe
	Maduranga	Pisang Abu Bujal		Kluai Nom Mi	Chuoï Ngop Cau	
		Pisang Kari		Kluai Tip		
	Pelipia				Chuoï Ngop Cao	Pelipita
Pondol				Chuoï Ngop Dui Duc		
<b><i>Musa x paradisiaca</i></b> <b>Tetraploid ABBB</b>	Tiparot	Pisang Abu Siam		Kluai Thepparot	Chuoï Gao	Tiparot
<b>Triploid BBB</b> (cooking)	Saba	Pisang Nipah	Pisang Kepok	Kluai Hin		
	Cardaba		Pisang Kepok Besar		Chuoï Mat	
	Gubao			Kluai Phama Haek Kuk	Chuoï Ngu	
	Pa-a Dalaga				Chuoï Chua	
	Turangkog		Pisang Kepok Kuning		Chuoï Sap	
	Sabang Puti	Pisang Kepor (?)	Pisang Kepok Putih			
	Pisang Chematu		Kluai Lep Chang Kut			

<sup>1</sup> Chromosome counts in the Philippines, diploid; in Malaysia and Thailand, triploid; at the International Atomic Energy Commission in Vienna sometimes diploid, other times triploid.

<sup>2</sup> Sometimes cooked.

<sup>3</sup> Preferred cooked.

**Table 4. Banana cultivars unique to each country in Southeast Asia.**

Species, Genome	Philippines	Malaysia	Indonesia	Thailand	Vietnam
<i>Musa acuminata</i> <b>Diploid AA</b> (dessert)	Eda-an Veinte Cohol Morong Princesa Ga-o Baukas Manang Suyak Inabaca Binaktong Lonsing Talipan Katil Bu-oy	Pisang Serindek Pisang Jarum Pisang Ekor Kuda	Pisang Lidi Pisang Masan Pisang Hutan Pisang Berlin Pisang Cici Kuning Pisang Cici Merah	Kluai Khai Boran #1 Kluai Lai Kluai Hom Thong Son Kluai Hom Jan Kluai Nam Thai	Chuoï Tay But Chuoï Cau Man
<b>Diploid AA</b> (dual purpose, consumed either fresh or cooked)	Canara				
<b>Diploid AA</b> (cooking)	Saroesoc Binawe Guyod Golimpang Talip Tarakitok				
<i>Musa acuminata</i> <b>Triploid AAA</b> (dessert)	Tanggung Binalatong Oma	Pisang Buloh <sup>1</sup>	Pisang Angleng Pisang Bilitung Pisang Bakar Pisang Byok		Chuoï La Rung Chuoï Cau Tay Chuoï Tieu Cao Hong
<i>Musa x paradisiaca</i> <b>Diploid AB</b> (dessert)					Chuoï Dong Chuoï La'ta Chuoï Nanh Heo Chuoï Com Lao Chuoï La Nang Tien Chuoï Mit Chuoï Thom Chuoï Simmon
<i>Musa x paradisiaca</i> <b>Triploid AAB</b> (dessert)	Hilao-Hinog Daliri Dalaga Ternate Reynis		Pisang Jambe Pisang Triolin Pisang Raja Bali Pisang Sri Pisang Lampenang	Kluai Nam Kluai Khom Kluai Nom Sao	Chuoï Man
<b>Triploid AAB</b> (dual purpose, consumed either fresh or cooked)				Kluai Wan	Chuoï Goong Chuoï Tay Bot Chuoï Cha Chuoï Xiem Mat
<b>Triploid AAB</b> (cooking)	Muracho Popo'ulo	Pisang Raksa			
<i>Musa x paradisiaca</i> <b>Triploid ABB</b> (dual purpose, eaten either fresh or cooked)	Pitogo		Pisang Kates Pisang Selendang Pisang Kastrolí	Kluai Namwa Dam Kluai Namwa Khao Kluai Namwa Khom	Chuoï Mo Giang Chuoï La Chuoï Tay Tia Chuoï Bot
<b>Triploid ABB</b> (cooking)	Moko		Pisang Usak Pisang Longok	Kluai Pluak Na	Chuoï Nam
<b>Tetraploid AABB</b> (cooking)				Kluai Ngoen	
<b>Diploid BB</b> (cooking)	Abuhon				
<b>Diploid BB</b> (seeded, multi-purpose)					Chuoï Hot Qua Lep <sup>2</sup>

<b>Triploid BBB</b> (cooking)	Inabaniko Bigihan Saba sa Hapon Mundo				
<i>Musa fehi</i>			Pisang Tongkat Langit Kuning Pisang Tongkat Langit Merah		
<b>Unclassified</b>	Inambak				

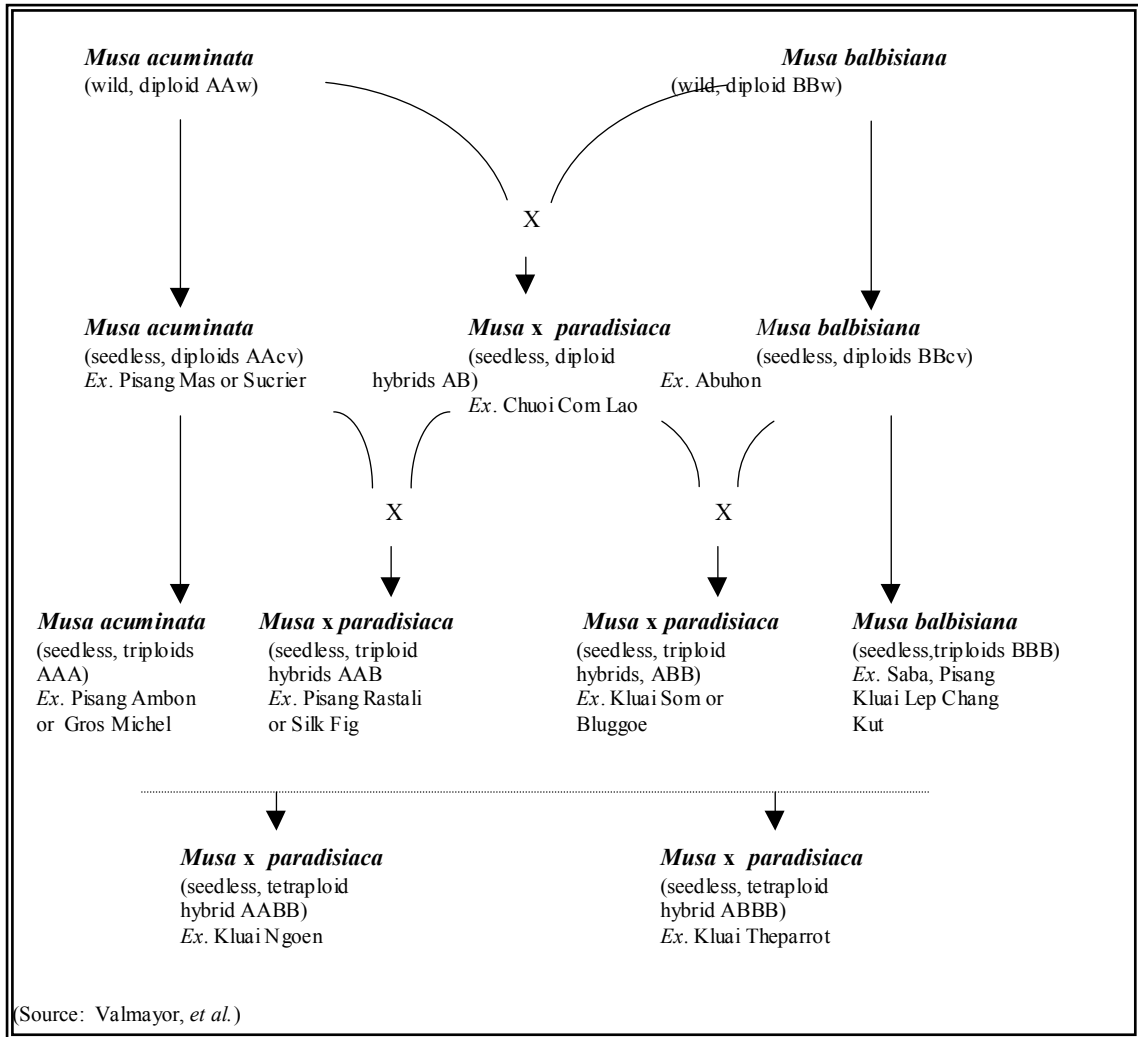
<sup>1</sup> Sometimes eaten cooked.

<sup>2</sup> Many aborted seeds; leaves are used as wrapping material, male bud is cooked as vegetable or eaten fresh in various salad preparations, pseudostems are fed to animals, fruits with seeds eaten fresh.

**Table 5. The popular cultivars in Southeast Asia and their synonyms.**

	<b>Common Names</b>	<b>Synonyms</b>
Philippines	Latundan Buluᅇgulan Sulay Baguio Inarnibal Tudlo Datu Katali Matavia Katsila Turangkog Pelipia Tindok Saba	Tundan, Turdan Buluᅇgulan, Balaᅇᅇgon Tampuhin, Po-ot Seᅇorita, Monkoy Morong Datu Lagkitan Dacosta, Galaᅇᅇgan Sabang Kastila Calibo, Sab-a Pinipita, Pelipita Tondoc Dippig
Malaysia	Pisang Mas P. Ampat Pulu Hari P. Rastali P. Embun P. Masak Hijau P. Awak P. Raja P. Jari Buaya P. Raja Udang Hijau P. Keling P. Abu Keling P. Nipah	P. Mas Besar, P. Mas Kampung P. Boyan P. Rastali Besar P. Bunga P. Jelai P. Awak Besar P. Raja Talun P. Rotan P. Mundam P. Ceylon P. Kelat Abu P. Abu Nipah
Indonesia	Pisang Ambon P. Badak P. Uli P. Mas P. Raja P. Photo Merah P. Photo Hijau P. Nangka P. Awak P. Kepok Hijau P. Kepok Awu P. Kepok	P. Ambon Kuning P. Morosebo P. Jantan P. Emas P. Raja Bulu P. Potho Merah, P. Kidang P. Telor P. Lampeng P. Siem P. Kosta P. Kosta Putih P. Kepok Putih
Thailand	Kluai Kai K. Lep Mu Nang K. Thong Ruang K. Hom Thong K. Hom Khieo K. Hom Khom K. Nak K. Lanka K. Nam Phat K. Namwa K. Som K. Thepparot	Kluai Jek Bong K. Thong Dok Mak, K. Mak K. Nam Nom K. Hom K. Khieo, K. Khrao K. Hom Tia, K. Tia K. Khrang, K. Kung K. Chin K. Nam Phat Dam K. Tai K. Hakmuk Luang K. Tiparot, K. Pli Hai

Figure 1. Diagram showing the various pathways leading to the development of edible bananas.



The diagram illustrated in Figure 1 highlights the role of *Musa acuminata* and *Musa balbisiana* in the evolution of edible bananas. It also shows that the two species comprise both wild and cultivated forms. The chart also projects the important role of interspecific hybridization in the proliferation of edible clones. The parents of hybrid triploids are not limited to the seedless diploids as shown in the simplified chart. Figure 1 no longer show the term *Musa sapientum* the popular term for dessert bananas. The tetraploids could evolve through various possible combinations.

### Results and Recommendations

The curators of national banana variety collections in Southeast Asia evaluated the existing banana classification schemes and agreed on a common and standardized format, which is simple but precise and stable system of nomenclature to identify the species and cultivars of banana.

The three-tier system using species, genome group and cultivar was adopted. Following Cheesman’s recommendations, the edible diploid and triploid derivatives of *Musa acuminata* Colla and *Musa balbisiana* Colla will adopt the name of their respective wild parents. The hybrids of the two species will

be classified under *Musa x paradisiaca* Linn as recognized by the International Code of Nomenclature for Cultivated Plants.

The banana taxonomists of the region identified 62 cultivars with synonyms in Southeast Asia and listed them in Table 3. Many other cultivars were found to be unique to the countries of the region and their names are presented in Table 4.

The banana researchers of Southeast Asia who participated in the International *Musa* Testing Program (IMTP) coordinated by INIBAP are concerned with the wrong identity of the accession Saba. Since this experimental material was distributed to several cooperating countries, its correct identity, cultivar Gubao, must be adopted to avoid confusion.

The workshop participants are apprehensive about recommendations published in internationally distributed reports to reclassify a very popular plantain in Malaysia and Indonesia, Pisang Nangka, as a dessert banana. Results of the same molecular characterization studies also proposed to reclassify Bata-Bata, a diploid AA dessert cultivar of the Philippines to AAB plantain. Another alarming recommendation is the reclassification of Morong Principe and Inabaca, two frail looking, diploid AA clones of the Philippines to Cavendish, a vigorous group of AAA cultivars.

The author of the molecular taxonomy studies reported that her Cavendish conclusions were verified with living specimens growing in Guadeloupe, a portion of tissue-culture germplasm obtained from the International Transit Center (ITC) for her advanced laboratory studies. These taxonomic problems coupled with the wrong entry for Saba in the IMTP trials, which were also supplied by ITC, point to the urgent need to review the banana germplasm accessions at the International Transit Center in Leuven, Belgium and verify their authenticity.

The curators of national banana variety collections of Southeast Asia are holders of the original and authentic accessions of Southeast Asian *Musa* germplasm. They offer assistance in the proper identification of banana cultivars that originated from the region. They also recommend the development and adoption of a referral system wherein banana taxonomists from the other regions of the world could get advice on the correct identity of banana varieties from the concerned national curator.

The banana taxonomists of Southeast Asia recommend the sorting out of synonyms that exist in the Indian subcontinent, Sri Lanka, Bangladesh, Myanmar and possibly Pakistan. Equal importance should be given to the problem of synonymy in the South Pacific. The participation of a national curator in Southeast Asia is suggested to facilitate the eventual integration of banana cultivar names and synonyms in Asia and the Pacific.

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