



The Exploration of
Musaceae
in Maluku Islands

18 November - 14 December 1996



Research Institute for Fruits
Central Research Institute for Horticulture



International Network for the Improvement
of Banana and Plantain

THE EXPLORATION OF *Musaceae* IN MALUKU ISLANDS

18 November – 14 December 1996



Research Institute for Fruits
Central Research Institute for Horticulture



International Network for the Improvement
of Banana and Plantain

BACKGROUND

Germplasm as genetic resources collection is a key of plant breeding to improve cultivars. The germplasm might be collected by importation or exploration for the wild species.

According to the exploration done by Nasution (1982) and Hambali (1986), some species had been collected such as *Musa lolodensis* Cheesman from Halmahera and the variegated *Musa* sp. from Teluk Bintuni, Irian Jaya and also *Musa ingen*, the highest herb in the world, from Papua New Guinea, the close area from Irian Jaya (Anonym, 1993).

As a native area of *Musa*, Indonesia has great amount of genetic diversity of *Musa* and its pest. At least, there were found four important banana diseases, such as fusarial wilt (Panama disease), bacterial wilt (Moko and blood disease), Sigatoka leaf spot and bunchy top disease. Concerning fusarial disease, Moore *et al.* (1995) said that fifteen of 21 VCGs of *Foc* were in Asia, including eight Indonesian-VCGs.

In the Eastern Indonesia, especially Maluku, Irian Jaya and Sulawesi islands were believed as a native area of the *Musa* diseases (Moore *et al.*, 1995; Eden-Green, 1994 and Jones, 1990). The agent of banana blood disease is named *Pseudomonas celebensis* because the disease was found in Sulawesi (Celebes) in the first time. By the prediction of dissemination speed of the disease 25 km. per year, it came out in South Sulawesi in 1990s and currently the disease in Northern Maluku. In the same case, Sigatoka leaf spot disease was found in Halmahera and Irian Jaya islands in 1970 (Stover, 1978 in Jones, 1990).

The aim of the exploration was to get the information, to collect the commercial and wild *Musa* in Maluku (Ambon district and Central Maluku District) as a germplasm resource and to get the information of the diseases.

METHODOLOGY

The exploration was carried out at the central area of banana, the local market for commercial banana and at the forest for wild *Musa*. Under the information from The Assessment Institute for the Agriculture Technology (AIAT)

Ambon, the locations were chosen in the Islands that have various genetic diversity of *Musa* such as Ambon District and Central Maluku Region. The accessions were collected in RIF as an *in vitro* and *in vivo* collection.

Beside collection of *Musa* activity, agronomical characters and its diseases were observed. The activities of agronomical characters observations were:

1. Identification of accessions according the reference or information in the native area
2. Samples documentation by equipment (camera, stationery, etc.)
3. Taking parts of the plant such as corm, suckers and seeds

The observations of *Musa* diseases were including:

1. Recording the data of main *Musa* diseases, such as:
 - a. Fusarial wilt disease (Moore *et al.*, 1995)
 - b. Bacterial wilt disease (Eden-Green, 1994)
 - c. Banana Bunchy Top Disease (Thomas, 1994)
 - d. Sigatoka Disease (Jones and Mourichon, 1993)
2. Documentation and description of the diseases

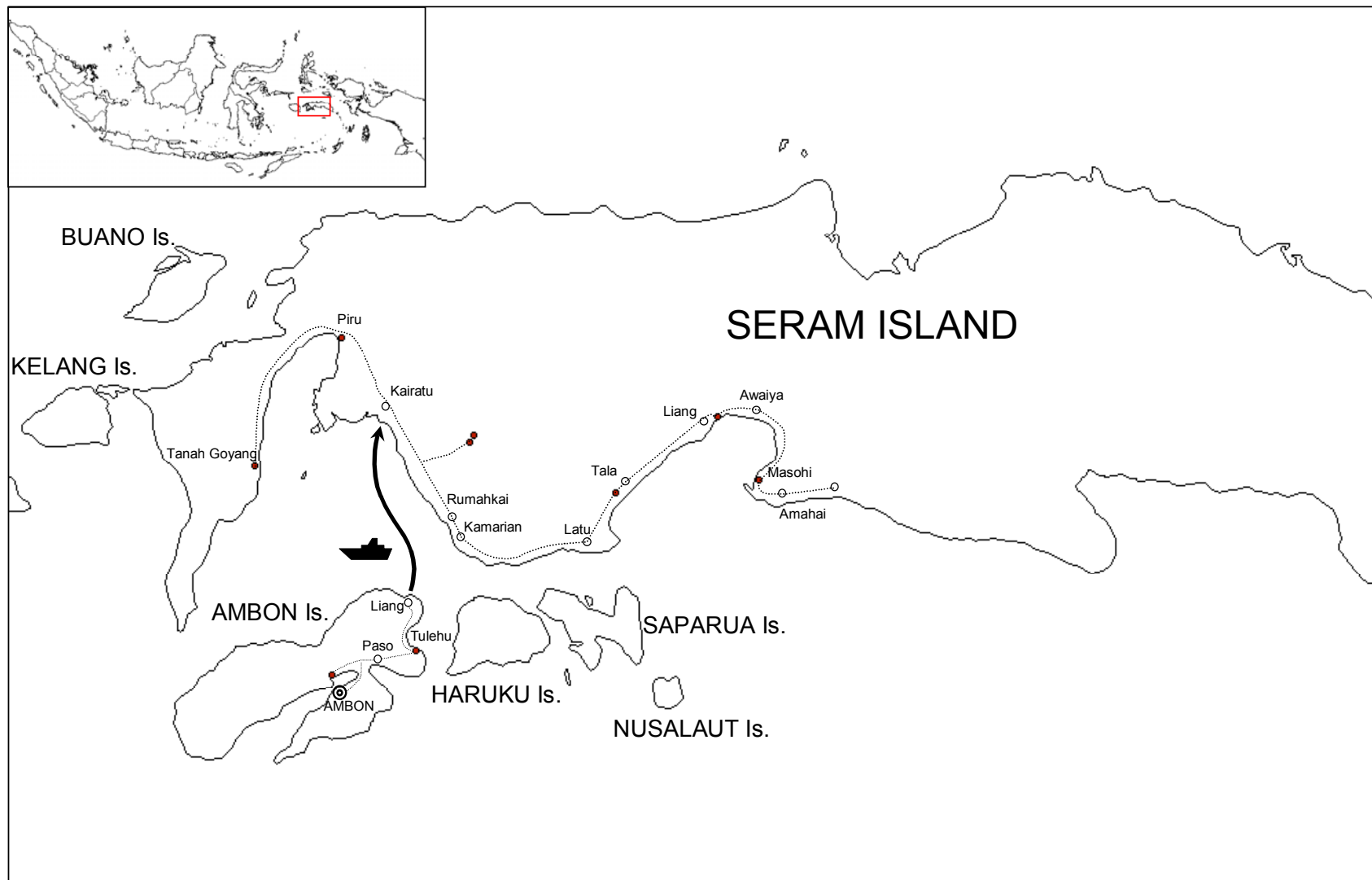


Figure 1. Sites visited during the exploration

RESULT

The activities were started by the coordination with AIAT Ambon. According to the letter of Director of RIF No.Lb.120.611.8.2.1005, AIAT Ambon issued the letter No. Lb.610.5.8.577 to the Province Staple Food Service, Province Forest Service and the Branch of Forestry Agency of Maluku.

The searching of *Musa* was begun in the Ambon island and part of Central Maluku district by visiting local market to get the information regarding commercial banana. Some cultivars sold in the market, such as: Pisang Abu-abu (Kepok, ABB/BBB), Pisang Dewaka/ Jawaka (ABB/BBB), Pisang Jarum (AA), Pisang Susu Putih, Pisang Susu Hitam (Silk, AAB) and Pisang Tongkat Langit. Under the seller information, the searching of *Musa* was continued to Telaga Pange (5 km from the main road) and we found Pisang Tongkat Langit, but the plant was no fruit anymore. The best Pisang Tongkat Langit was found in Hunut, subdistrict of Baguala. Inflorescence, young fruits and mature fruits were observed. Beside P. Tongkat Langit, we obtained P. Dewaka. Pisang Susu Ternate was found in Tulehu, subdistrict of Salahutu.

Looking for *Musa* was continued to Seram Island. We started to visit BPP Waimital, subdistrict of Kairatu. The detail information of distribution and varieties of *Musa* was found in this office. Under the guidance of Mr. Ucuk (one of the official of BPP Waimital), searching of *Musa* was carried out to Honitetu (Kairatu km 23). In this location we found P. Mulu Bebe/Gaba-gaba Putih in the home garden and P. Hutan-1 (Wild *Musa*/WM-1 at Kairatu km 20) in the forest near from the road. Another cultivars were P. Nenek Tua (Dwarf Cavendish), P. Raja, P. 40 Hari and P. Jawaka/Dewaka. Pisang Mas was found in Sokowati.

The exploration was continued to Kowatu, Rumberu. We got P. Kulit Bawang, P. Omol, P. Gaba-gaba/P. Bitu, P. Bodo Masak, P. Ekor Kusu, P. Jarum, P. Gabu, P. Abu-abu (kepok) and P. Raja. Besides bananas we found Horn Plantain in this area. This plantain was called P. Tanduk Rusa.

In the subdistrict of Piru, the exploration was started from Neniari. In this location, we discovered P. Langsung (P. Mas), P. Makasar Merah (P. Udang/Red Banana), P. Setan (P. Hutan-2/WM-2), P. Anim-1 and P. Anim-2 (Red Green Banana-like). P. Ternate, Pisang Haruku Gunung and the bacterial wilt disease-infected of P. Dewaka and P. Raja were found at Tanah Goyang. Another bananas were Pisang Haruku (P. Raja), P. Saba (Bluggoe), P. 40 hari, P. Bulan Terang (P. Mas) and P. Tanduk (Horn Plantain).

The searching of *Musa* was continued to subdistrict of Amahai (Masohi district), in the middle part of Seram Island. Two kinds of wild *Musa* (P. Hutan-3 and P. Hutan-4) were discovered along the way to Amahai. At the housing shelters garden of Makariki research station, some officials grew bananas brought from Sulawesi such as P. Sepatu Amora (P. Kepok with no male bud flower), P. Gapi (P. Barangan), P. Batu Sangir and P. Goroho Matahari.

In this exploration, we got twenty-eight accessions included wild *Musa*, cooking, dessert and plantain-like banana. At least three suckers per accessions were brought for collection.

During the exploration, we found the bacterial wilt disease widespread in all location visited. The susceptible varieties were P. Dewaka, P. Abu-abu, P. Raja and P. Susu Ternate. Beside of bacterial wilt disease, banana leaf streak was present at almost all varieties, but we did not recognize the diseases exactly yet. Some of them were Sigatoka disease, Cordana leaf streak disease, black cross disease and unknown leaf streak disease. Twelve leaf specimens and three fruit specimens of infected plant were brought for further characterization. The one of all varieties discovered that resistant to bacterial wilt disease is P. Sepatu Amora. In all of locations explored, Banana Buncy Top Virus did not exist.

CONCLUSION

In all visited location (the district of Ambon, Kairatu, Piru and Amahai), P. Raja, P. 40 Hari, P. Jawaka and P. Abu-abu is always existing. There were some various of characters and potential usages of banana, such as high

potential of yield (P. Haruku Gunung, P. Sepatu Amora, Jawaka Obie, P. Bodo Masak), resistant to bacterial disease (P. Sepatu Amora, for dessert bananas: P. Nona/Mas, P. Kulit Bawang, P. Omol, P. Batu Sangir, P. Susu Ternate, P. Jarum, P. Asam, P. Gapi), for cooking bananas (P. Jawaka, P. Gaba-gaba, P. Mulu Bebe, P. Kulit Bawang, P. Ekor Kusu, P. Raja, P. Gabu, P. Makasar Merah, P. Sepatu Amora, for a medicine: P. Tongkat Langit) and as a staple food (P. Goroho Matahari).

SUGGESTION

In the end of exploration, we had the information that there are some genetic variations in Buru and Saparua Islands, but we did not have time any more, so the next exploration should be carried out at Buru and Saparua Islands. The terms of descriptor list should be added, especially the fruit description.

ACKNOWLEDGMENT

This work was carried out under the collaboration of **International Network for the Improvement of Banana And Plantain and Central Research Institute for Horticulture**. This work had been done by Research Institute for Fruits, The Assessment Institute for the Agriculture Technology and The Indonesian Science Institute.

REFERENCES

- Anonym. 1993. *Musa ingens* - The world's tallest wild banana. Infomusa. Vol. 2(2): 8.
- Hambali, G. 1996. *Musa paradisiaca variegata* (pisang hias) pisang dari Fak-fak, Irian Jaya. Trubus. No. 319.
- Jones, D.R. 1990. Black sigatoka in the Southeast Asian-Pacific Region. Musarama. INIBAB. Vol. 3(1): 2-5.
- Jones, D.R. and X. Mourichon. 1993. Black leaf streak/Black Sigatoka disease. Musa Disease Fact Sheet No 2. INIBAB
- Moore, N.Y., S. Bentley, K.G. Pegg and D.R. Jones. 1995. Fusarium wilt of banana. *Musa* Disease Fact Sheet No. 5. INIBAB
- Nasution, R.E. 1993. Rediscovery of two wild seeded bananas of Indonesia. Infomusa. Vol. 2(2): 16-17.
- Pegg, K.G., N.Y. Moore and S. Sorensen. 1994. Variability in population of *Fusarium oxysporum* f.sp. *ubense* from the Asia/Pacific region. *In: The Improvement and Testing of Musa: a Global Partnership. Ed. by D.R. Jones. INIBAB. 70-82.*
- Thomas, J.E., M-L Iskra-Caruana and D.R. Jones. 1994. Banana bunchy top disease. *Musa* Disease Fact Sheet No. 4.

COLLECTORS

1. **EDISON H.S.**
Plant Breeding
Solok Research Institute for Fruits
PO. Box. 5 Solok 27301, West Sumatra, Indonesia
Telp. (0755) 20137
Fax. (0755) 20592
E-mail: rif@padang.wasantara.net.id
2. **AGUS SUTANTO**
Plant Breeding and Biotechnology
Solok Research Institute for Fruits
PO. Box. 5 Solok 27301, West Sumatra, Indonesia
Telp. (0755) 20137
Fax. (0755) 20592
E-mail: bagusutanto@plasa.com
3. **CATUR HERMANTO**
Plant Protection
Solok Research Institute for Fruits
PO. Box. 5 Solok 27301, West Sumatra, Indonesia
Telp. (0755) 20137
Fax. (0755) 20592
E-mail: c_her@plasa.com
4. **Nazaruddin Razak**
The Assessment Institute for Agriculture Technology Ambon
Poka, Ambon, Maluku Islands, Indonesia
5. **Tahan Uji**
The Indonesian Science Institute
Jl. Juanda, Bogor, West Java, Indonesia
Telp.
Fax.
E-mail:

TONGKAT LANGIT

Accession code: IIE
 Collectors: Edison H.S., Agus Sutanto, Catur Hermanto, Tahan Uji and Nasaruddin Razak
 Genus: *Musa*
 Subspecies/subgroup:
 Genom:
 Origin: Hunut Village
 Elevation:
 Longitude: E 128.1833°

Date of collecting: 26 November 1996
 Species/group: Fe'i
 Local name: Pisang Tongkat Langit
 Synonym:
 District: Baguala
 Soil pH: 6,2
 Latitude: S 3.6443°

Plant descriptors

Leaf habit: intermediate
 Pseudostem height: 5.24m
 Pseudostem circumference: 82 cm
 Pseudostem aspect: Robust
 Pseudostem colour: Green
 Pseudostem appearance: Shiny
 Pigmentation of the underlying pseudostem: green
 Sap colour: watery
 Number of suckers: 8
 Development of suckers: $\frac{2}{3}$ of the parent
 Blotches at the petiol base: small blotches
 Blotches colour: blue-purple

Male flower

Compound tepal basic colour:
 Compound tepal pigmentation:
 Lobe colour of compound tepal:
 Free tepal appearance:
 Style shape:
 Stigma colour:
 Ovary basic colour:
 Ovary pigmentation:

Fruit

Fruit position: Curved toward stalk
 Number of hands per bunch: 5-8
 Number of fruits per hand:: 10-12
 Fruits length: 22-24 cm
 Transverse section of fruits: Blunt-tipped
 Fruit pedicel length: 2.5 cm

Petiol/midrib/leaf

Petiol canal leaf III: Wide with erect margins
 Colour of midrib dorsal surface: light green
 Colour of cigar leaf dorsal surface: green
 Blotches on leaf of water suckers: none

Inflorescence/male bud

Peduncle length:
 Peduncle hairness: hairless
 Bunch position: erect
 Rachis type: No male bud
 Rachis position:
 Rachis position:
 Male bud type:
 Male bud shape:
 Bract apex shape:
 Bract imbrication:
 Colour of the bract external face:
 Colour of the bract internal face:
 Bract scars on rachis:
 Fading of colour on bract base:
 Bract behaviour before failing:
 Wax on the bract:

Remains of flower relicts at fruit apex: base of the style prominent
 Mature fruit peel colour: red
 Pulp in fruit: with pulp
 Pulp colour in maturity: orange
 Presence of seed with source of pollen: -
 Seed shape: -



Complementary information:

Fruits are boiled or burned before eaten, for diabetes therapy

JAWAKA

Accession code: IIIE
 Collectors: Edison H.S., Agus Sutanto, Catur Hermanto, Tahan Uji and Nasaruddin Razak
 Genus: *Musa*
 Subspecies/subgroup:
 Genom: ABB/BBB
 Origin: Hunut Village
 Elevation:
 Longitude: E 128.1833°

Date of collecting: 26 November 1996
 Species/group:
 Local name: Pisang Jawaka
 Synonym: Pisang Dewaka
 District: Baguala
 Soil pH: 6,2
 Latitude: S 3.6443°

Plant discriptors

Leaf habit: intermediate
 Pseudostem height: 5.30m
 Pseudostem circumference: 95 cm
 Pseudostem aspect: robust
 Pseudostem colour: green
 Pseudostem appearance: shiny
 Pigmentation of the underlying pseudostem: Dark brown
 Sap colour: watery
 Number of suckers: 3
 Development of suckers: $\frac{2}{3}$ of the parent
 Blotches at the petiol base: small blotches
 Blotches colour: Dark brown

Male flower

Compound tepal basic colour: cream
 Compound tepal pigmentation: no pigmentation
 Lobe colour of compound tepal: yellow
 Free tepal appearance: simple folding under apex
 Style shape: straight
 Stigma colour: cream
 Ovary basic colour: cream
 Ovary pigmentation: no pigmentation

Fruit

Fruit position: parallel to the stalk
 Number of hands per bunch: 9
 Number of fruits per hand: 12 – 14
 Fruits length: 15 – 18 cm
 Transverse section of fruits: pronounced ridged
 Fruit apex: bottle-necked
 Fruit pedicel length: 20 mm

Petiol/midrib/leaf

Petiol canal leaf III: Margins curved inward
 Colour of midrib dorsal surface: light green
 Colour of cigar leaf dorsal surface: Green
 Blotches on leaf of water suckers: None

Inflorescence/male bud

Peduncle length: 65 cm
 Peduncle hairness: hairless
 Bunch position: hanging at angle 45°
 Rachis type: present and male bud may be degenerate or persistent
 Rachis position: falling vertically
 Male bud type: normal
 Male bud shape: intermediate
 Bract apex shape: obtuse and split
 Bract imbrication: young bracts slightly overlap
 Colour of the bract external face: red-purple
 Colour of the bract internal face: red
 Bract scars on rachis: very prominent
 Fading of colour on bract base: colour homogenous
 Bract behaviour before failing: revolute
 Wax on the bract: very waxy

Remains of flower relicts at fruit apex: base of the style prominent
 Mature fruit peel colour: yellow
 Pulp in fruit: with pulp
 Pulp colour in maturity: yellow
 Presence of seed with source of pollen: -
 Seed shape: -



Complementary information:

Before eaten fruits are boiled or fried, Kepok-like but bigger, more cosmopolitan than Kepok in Maluku island, but the price is cheaper.

PISANG MULU BEBE/GABA-GABA PUTIH

Accession code: VE
 Collectors: Edison H.S., Agus Sutanto, Catur Hermanto, Tahan Uji and Nasaruddin Razak
 Genus: *Musa*
 Subspecies/subgroup:
 Genom: AAB
 Origin: Honitetu
 Elevation: 175 asl.
 Longitude: E 128.4333°

Date of collecting: 30 November 1996
 Species/group:
 Local name: Pisang Mulu Bebe
 Synonym: Pisang Gaba-gaba Putih
 Sub district: Kairatu
 Soil pH: 5.0
 Latitude: S 3.2333°

Plant descriptors

Leaf habit: erect
 Pseudostem height: 2.7 m
 Pseudostem circumference: 55 cm
 Pseudostem aspect: normal
 Pseudostem colour: Yellowish green
 Pseudostem appearance: dull
 Pigmentation of the underlying pseudostem: brown
 Sap colour: watery
 Number of suckers: 3
 Development of suckers: $\frac{1}{4}$ of the parent
 Blotches at the petiol base: small blotches
 Blotches colour: Dark brown

Male flower

Compound tepal basic colour: cream
 Compound tepal pigmentation: no pigmentation
 Lobe colour of compound tepal: yellow
 Free tepal appearance: simple folding under apex
 Style shape: straight
 Stigma colour: cream
 Ovary basic colour: cream
 Ovary pigmentation: no pigmentation

Fruit

Fruit position: perpendicular to the stalk
 Number of hands per bunch: 6 - 8
 Number of fruits per hand: 14 - 18
 Fruits length: 18 - 20 cm
 Transverse section of fruits: slightly ridged
 Fruit apex: Lengthly pointed
 Fruit pedicel length: 10 mm

Petiol/midrib/leaf

Petiol canal leaf III: Straight with erect margins
 Colour of midrib dorsal surface: light green
 Colour of cigar leaf dorsal surface: Green
 Blotches on leaf of water suckers: None

Inflorescence/male bud

Peduncle length: 65 cm
 Peduncle hairness: hairy
 Bunch position: hanging vertically
 Rachis type: present and male bud may be degenerate or persistent
 Rachis position: falling vertically
 Male bud type: normal
 Male bud shape: intermediate
 Bract apex shape: intermediate
 Bract imbrication: old bracts overlap at apex
 bract
 Colour of the bract external face: red-purple
 Colour of the bract internal face: red
 Bract scars on rachis: very prominent
 Fading of colour on bract base: colour homogenous
 Bract behaviour before failing: revolute
 Wax on the bract: Slightly waxy

Remains of flower relicts at fruit apex: base of the style prominent
 Mature fruit peel colour: yellow
 Pulp in fruit: with pulp
 Pulp colour in maturity: yellow
 Presence of seed with source of pollen: -
 Seed shape: -



Complementary information:
 Fruits are boiled or fried before eaten

PISANG BITU/GABA-GABA

Accession code: XE Date of collecting: 1 December 1996
 Collectors: Edison H.S., Agus Sutanto, Catur Hermanto, Tahan Uji and Nasaruddin Razak
 Genus: *Musa* Species/group:
 Subspecies/subgroup: Local name: Pisang Bitu
 Genom: AAB Synonym: Pisang Gaba-gaba
 Origin: Kowatu-Rumberu Sub district: Kairatu
 Elevation: 70 asl. Soil pH: 5.9
 Longitude: E 128.4265° Latitude: S 3.2455°

Plant discriptors

Leaf habit: erect
 Pseudostem height: 4 m
 Pseudostem circumference: 72 cm
 Pseudostem aspect: normal
 Pseudostem colour: Pink
 Pseudostem appearance: Dull
 Pigmentation of the underlying pseudostem: brown
 Sap colour: watery
 Number of suckers: 5
 Development of suckers: 1/2 of the parent
 Blotches at the petiol base: small blotches
 Blotches colour: Dark brown

Male flower

Compound tepal basic colour: cream
 Compound tepal pigmentation: no pigmentation
 Lobe colour of compound tepal: yellow
 Free tepal appearance: several folding under apex
 Style shape: straight
 Stigma colour: yellow
 Ovary basic colour: light green
 Ovary pigmentation: no pigmentation

Fruit

Fruit position: perpendicular to the stalk
 Number of hands per bunch: 6 - 8
 Number of fruits per hand: 12 - 14
 Fruits length: 17 - 20 cm
 Transverse section of fruits: slightly ridged
 Fruit apex: Lengthly pointed
 Fruit pedicel length: 26 mm

Petiol/midrib/leaf

Petiol canal leaf III: Straight with erect margins
 Colour of midrib dorsal surface: light green
 Colour of cigar leaf dorsal surface: Green
 Blotches on leaf of water suckers: None

Inflorescence/male bud

Peduncle length: 50 cm
 Peduncle hairness: Slightly hairy
 Bunch position: hanging vertically
 Rachis type: present and male bud may be degenerate or persistent
 Rachis position: falling vertically
 Male bud type: normal
 Male bud shape: intermediate
 Bract apex shape: intermediate
 Bract imbrication: old bracts overlap at apex
 Colour of the bract external face: red-purple
 Colour of the bract internal face: Pink-purple
 Bract scars on rachis: very prominent
 Fading of colour on bract base: colour homogenous
 Bract behaviour before failing: revolute
 Wax on the bract: Slightly waxy

Remains of flower relicts at fruit apex: base of the style prominent
 Mature fruit peel colour: yellow
 Pulp in fruit: with pulp
 Pulp colour in maturity: yellow
 Presence of seed with source of pollen: -
 Seed shape: -



Complementary information:
 Fruits are boiled or fried before eaten

PISANG BODO MASAK

Accession code: XI E
 Collectors: Edison H.S., Agus Sutanto, Catur Hermanto, Tahan Uji and Nasaruddin Razak
 Genus: *Musa*
 Subspecies/subgroup:
 Genom: AAA?
 Origin: Kowatu-Rumberu
 Elevation: 70 asl.
 Longitude: E 128.4265°

Date of collecting: 1 December 1996
 Species/group:
 Local name: Pisang Bodo Masak
 Synonym:
 Sub district: Kairatu
 Soil pH: 5.9
 Latitude: S 3.2455°

Plant descriptors

Leaf habit: intermediate
 Pseudostem height: 5.64 m
 Pseudostem circumference: 87 cm
 Pseudostem aspect: normal
 Pseudostem colour: Pink
 Pseudostem appearance: Dull
 Pigmentation of the underlying pseudostem: Dark brown
 Sap colour: watery
 Number of suckers: 5
 Development of suckers: 1/2 of the parent
 Blotches at the petiol base: Small blotches
 Blotches colour: Dark brown

Male flower

Compound tepal basic colour: Cream
 Compound tepal pigmentation: no pigmentation
 Lobe colour of compound tepal: yellow
 Free tepal appearance: several folding under
 Apex: straight
 Style shape: straight
 Stigma colour: yellow
 Ovary basic colour: light green
 Ovary pigmentation: no pigmentation

Fruit

Fruit position: curved towards stalk
 Number of hands per bunch: 6 - 8
 Number of fruits per hand: 16 - 18
 Fruits length: 14 - 18 cm
 Transverse section of fruits: slightly ridged
 Fruit apex: Blunt-tipped
 Fruit pedicel length: 14.13 mm

Petiol/midrib/leaf

Petiol canal leaf III: Straight with erect margins
 Colour of midrib dorsal surface: light green
 Colour of cigar leaf dorsal surface: Green
 Blotches on leaf of water suckers: None

Inflorescence/male bud

Peduncle length: 65 cm
 Peduncle hairness: Slightly hairy
 Bunch position: hanging vertically
 Rachis type: present and male bud may be degenerate or persistent
 Rachis position: falling vertically
 Male bud type: normal
 Male bud shape: intermediate
 Bract apex shape: intermediate
 Bract imbrication: young bracts slightly overlap
 Colour of the bract external face: red-purple
 Colour of the bract internal face: Pink-purple
 Bract scars on rachis: very prominent
 Fading of colour on bract base: colour discontinuing toward the base
 Bract behaviour before failing: revolute
 Wax on the bract: Slightly waxy

Remains of flower relicts at fruit apex: base of the style prominent
 Mature fruit peel colour: yellow
 Pulp in fruit: with pulp
 Pulp colour in maturity: yellow
 Presence of seed with source of pollen: -
 Seed shape: -



Complementary information:

Difficult to become yellow-peel if the fruits are harvested at immature

PISANG OMOL

Accession code: IX E
 Collectors: Edison H.S., Agus Sutanto, Catur Hermanto, Tahan Uji and Nasaruddin Razak
 Genus: *Musa*
 Subspecies/subgroup:
 Genom: AA
 Origin: Kowatu-Rumberu
 Elevation: 80 asl.
 Longitude: E 128.4264°

Date of collecting: 1 December 1996
 Species/group:
 Local name: Pisang Bodo Masak
 Synonym:
 Sub district: Kairatu
 Soil pH: 5.9
 Latitude: S 3.2456°

Plant descriptors

Leaf habit: intermediate
 Pseudostem height: 2.18 m
 Pseudostem circumference: 39 cm
 Pseudostem aspect: normal
 Pseudostem colour: green
 Pseudostem appearance: Dull
 Pigmentation of the underlying pseudostem: brown
 Sap colour: watery
 Number of suckers: 5
 Development of suckers: ¾ of the parent
 Blotches at the petiol base: Small blotches
 Blotches colour: brown

Male flower

Compound tepal basic colour: Cream
 Compound tepal pigmentation: no pigmentation
 Lobe colour of compound tepal: yellow
 Free tepal appearance: several folding under
 Apex: straight
 Style shape: straight
 Stigma colour: yellow
 Ovary basic colour: light green
 Ovary pigmentation: no pigmentation

Fruit

Fruit position: Curved upward
 Number of hands per bunch: 5
 Number of fruits per hand: 12 - 14
 Fruits length: 7 - 12 cm
 Transverse section of fruits: slightly ridged
 Fruit apex: rounded
 Fruit pedicel length: 10 mm

Petiol/midrib/leaf

Petiol canal leaf III: wide with erect margins
 Colour of midrib dorsal surface: light green
 Colour of cigar leaf dorsal surface: Green
 Blotches on leaf of water suckers:

Inflorescence/male bud

Peduncle length: 60 cm
 Peduncle hairness: Slightly hairy
 Bunch position: hanging vertically
 Rachis type: present and male bud may be degenerate or persistent
 Rachis position: With a curve
 Male bud type: Normal
 Male bud shape: Intermediate
 Bract apex shape: Intermediate
 Bract imbrication: old bracts overlap at apex
 bract
 Colour of the bract external face: light green
 Colour of the bract internal face: yellow
 Bract scars on rachis: very prominent
 Fading of colour on bract base: colour homogenous
 Bract behaviour before failing: revolute
 Wax on the bract: without wax

Remains of flower relicts at fruit apex: persistent style
 Mature fruit peel colour: Yellow
 Pulp in fruit: with pulp
 Pulp colour in maturity: Cream
 Presence of seed with source of pollen: -
 Seed shape: -



Complementary information:
 Dessert banana, soft pulp and suitable for old people

PISANG KULIT BAWANG

Accession code: X E
 Collectors: Edison H.S., Agus Sutanto, Catur Hermanto, Tahan Uji and Nasaruddin Razak
 Genus: *Musa*
 Subspecies/subgroup:
 Genom: AA
 Origin: Kowatu-Rumberu
 Elevation: 80 asl.
 Longitude: E 128.4264°

Date of collecting: 1 December 1996
 Species/group:
 Local name: Pisang Kulit Bawang
 Synonym:
 Sub district: Kairatu
 Soil pH: 5.9
 Latitude: S 3.2456°

Plant descriptors

Leaf habit: intermediate
 Pseudostem height: 3.1 m
 Pseudostem circumference: 50 cm
 Pseudostem aspect: normal
 Pseudostem colour: Pink
 Pseudostem appearance: Dull
 Pigmentation of the underlying pseudostem: brown
 Sap colour: watery
 Number of suckers: 6
 Development of suckers: ¾ of the parent
 Blotches at the petiol base: Small blotches
 Blotches colour: brown

Male flower

Compound tepal basic colour: Cream
 Compound tepal pigmentation: no pigmentation
 Lobe colour of compound tepal: yellow
 Free tepal appearance: several folding under
 Apex: straight
 Style shape: straight
 Stigma colour: yellow
 Ovary basic colour: light green
 Ovary pigmentation: no pigmentation

Fruit

Fruit position: Curved upward
 Number of hands per bunch: 5
 Number of fruits per hand: 10 - 12
 Fruits length: 9 - 12 cm
 Transverse section of fruits: slightly ridged
 Fruit apex: Bottle necked
 Fruit pedicel length: 12 mm

Petiol/midrib/leaf

Petiol canal leaf III: wide with erect margins
 Colour of midrib dorsal surface: light green
 Colour of cigar leaf dorsal surface: Green
 Blotches on leaf of water suckers:

Inflorescence/male bud

Peduncle length: 60 cm
 Peduncle hairness: Slightly hairy
 Bunch position: hanging vertically
 Rachis type: present and male bud may be degenerate or persistent
 Rachis position: With a curve
 Male bud type: Normal
 Male bud shape: Intermediate
 Bract apex shape: Intermediate
 Bract imbrication: old bracts overlap at apex
 Colour of the bract external face: Red-pink
 Colour of the bract internal face: Pink
 Bract scars on rachis: Very prominent
 Fading of colour on bract base: colour discontinuing toward the base
 Bract behaviour before failing: revolute
 Wax on the bract: slightly waxy

Remains of flower relicts at fruit apex: persistent style
 Mature fruit peel colour: Yellow
 Pulp in fruit: with pulp
 Pulp colour in maturity: Cream
 Presence of seed with source of pollen: -
 Seed shape: -



Complementary information:

Dessert and boiled banana, the colour of mature fruits are yellow and purple line along the ridges.

PISANG EKOR KUSU

Accession code: XIII E
 Collectors: Edison H.S., Agus Sutanto, Catur Hermanto, Tahan Uji and Nasaruddin Razak
 Genus: *Musa*
 Subspecies/subgroup:
 Genom: AA
 Origin: Kowatu-Rumberu
 Elevation: 70 asl.
 Longitude: E 128.4265°

Date of collecting: 1 December 1996
 Species/group:
 Local name: Pisang Ekor Kusu
 Synonym:
 Sub district: Kairatu
 Soil pH: 5.9
 Latitude: S 3.2455°

Plant descriptors

Leaf habit: intermediate
 Pseudostem height: 2.78 m
 Pseudostem circumference: 38 cm
 Pseudostem aspect: normal
 Pseudostem colour: Pink
 Pseudostem appearance: Dull
 Pigmentation of the underlying pseudostem: brown
 Sap colour: watery
 Number of suckers: 4
 Development of suckers: ¾ of the parent
 Blotches at the petiol base: Small blotches
 Blotches colour: Dark brown

Male flower

Compound tepal basic colour: Cream
 Compound tepal pigmentation: no pigmentation
 Lobe colour of compound tepal: yellow
 Free tepal appearance: several folding under
 Apex: straight
 Style shape: straight
 Stigma colour: yellow
 Ovary basic colour: light green
 Ovary pigmentation: no pigmentation

Fruit

Fruit position: Perpendicular to the stalk
 Number of hands per bunch: 5
 Number of fruits per hand: 10 - 12
 Fruits length: 10 - 12 cm
 Transverse section of fruits: slightly ridged
 Fruit apex: Rounded
 Fruit pedicel length: 16 mm

Petiol/midrib/leaf

Petiol canal leaf III: Straight with erect margins
 Colour of midrib dorsal surface: light green
 Colour of cigar leaf dorsal surface: Green
 Blotches on leaf of water suckers: None

Inflorescence/male bud

Peduncle length: 65 cm
 Peduncle hairness: Slightly hairy
 Bunch position: hanging vertically
 Rachis type: present and male bud may be degenerate or persistent
 Rachis position: With a curve
 Male bud type: Normal
 Male bud shape: Intermediate
 Bract apex shape: Intermediate
 Bract imbrication: old bracts overlap at apex
 Bract: Bract
 Colour of the bract external face: Red-pink
 Colour of the bract internal face: Pink
 Bract scars on rachis: Very prominent
 Fading of colour on bract base: colour discontinuing toward the base
 Bract behaviour before failing: Revolute
 Wax on the bract: slightly waxy

Remains of flower relicts at fruit apex: persistent style
 Mature fruit peel colour: Yellow
 Pulp in fruit: with pulp
 Pulp colour in maturity: yellow
 Presence of seed with source of pollen: -
 Seed shape: -



Complementary information:

Boiled banana, the peduncle is long similar to nail of *Kus-kus*.

PISANG HARUKU

Accession code: XIV E
 Collectors: Edison H.S., Agus Sutanto, Catur Hermanto, Tahan Uji and Nasaruddin Razak
 Genus: *Musa*
 Subspecies/subgroup:
 Genom: AAB
 Origin: Kowatu-Rumberu
 Elevation: 80 asl.
 Longitude: E 128.4263°

Date of collecting: 1 December 1996
 Species/group:
 Local name: Pisang Haruku
 Synonym: Pisang Raja
 Sub district: Kairatu
 Soil pH: 5.9
 Latitude: S 3.2457°

Plant descriptors

Leaf habit: Dropping
 Pseudostem height: 5.74 m
 Pseudostem circumference: 101 cm
 Pseudostem aspect: robust
 Pseudostem colour: green
 Pseudostem appearance: dull
 Pigmentation of the underlying pseudostem: dark brown
 Sap colour: milky white
 Number of suckers: 6
 Development of suckers: ¾ of the parent
 Blotches at the petiol base: sparse blotching
 Blotches colour: -

Male flower

Compound tepal basic colour: cream
 Compound tepal pigmentation: no pigmentation
 Lobe colour of compound tepal: yellow
 Free tepal appearance: several folding under apex
 Style shape: straight
 Stigma colour: yellow
 Ovary basic colour: cream
 Ovary pigmentation: no pigmentation

Fruit

Fruit position: curved upward
 Number of hands per bunch: 9
 Number of fruits per hand: 16 – 17
 Fruits length: 20 – 25 cm
 Transverse section of fruits: slightly ridged
 Fruit apex: pointed
 Fruit pedicel length: 19 mm

Petiol/midrib/leaf

Petiol canal leaf III: straight with erect margins
 Colour of midrib dorsal surface: light green
 Colour of cigar leaf dorsal surface: green
 Blotches on leaf of water suckers: without blotches

Inflorescence/male bud

Peduncle length: 31-60 cm
 Peduncle hairness: very hairy
 Bunch position: hanging vertically
 Rachis type: present and male bud may be degenerate or persistent
 Rachis position: falling vertically
 Male bud type: normal
 Male bud shape: ovoid
 Bract apex shape: obtuse and split
 Bract imbrication: young bracts greatly overlap
 Colour of the bract external face: red-purple
 Colour of the bract internal face: red
 Bract scars on rachis: very prominent
 Fading of colour on bract base: colour homogenous
 Bract behaviour before failing: not revolute
 Wax on the bract: very waxy

Remains of flower relicts at fruit apex: without any floral relicts
 Mature fruit peel colour: yellow
 Pulp in fruit: with pulp
 Pulp colour in maturity: yellow
 Presence of seed with source of pollen: -
 Seed shape: -



Complementary information:

The most popular cooking banana in Maluku, the size of finger is bigger than P. Raja in Java and Sumatera.

PISANG JARUM

Accession code: XII E
 Collectors: Edison H.S., Agus Sutanto, Catur Hermanto, Tahan Uji and Nasaruddin Razak
 Genus: *Musa*
 Subspecies/subgroup:
 Genom: AA
 Origin: Kowatu-Rumberu
 Elevation: 70 asl.
 Longitude: E 128.4265°

Date of collecting: 1 December 1996
 Species/group:
 Local name: Pisang Jarum
 Synonym:
 Sub district: Kairatu
 Soil pH: 5.7
 Latitude: S 3.2455°

Plant descriptors

Leaf habit: intermediate
 Pseudostem height: 3.06 m
 Pseudostem circumference: 40 cm
 Pseudostem aspect: normal
 Pseudostem colour: Pink
 Pseudostem appearance: Dull
 Pigmentation of the underlying pseudostem: purple
 Sap colour: milky white
 Number of suckers: 5
 Development of suckers: taller than parent
 Blotches at the petiol base: large blotches
 Blotches colour: dark brown

Male flower

Compound tepal basic colour: Cream
 Compound tepal pigmentation: no pigmentation
 Lobe colour of compound tepal: yellow
 Free tepal appearance: several folding under
 Apex
 Style shape: straight
 Stigma colour: yellow
 Ovary basic colour: light green
 Ovary pigmentation: no pigmentation

Fruit

Fruit position: curved upward
 Number of hands per bunch: 8
 Number of fruits per hand: 11-12
 Fruits length: 8.5 cm
 Transverse section of fruits: rounded
 Fruit apex: bottle-necked
 Fruit pedicel length: 10 mm

Petiol/midrib/leaf

Petiol canal leaf III: straight with erect margins
 Colour of midrib dorsal surface: pink-purple
 Colour of cigar leaf dorsal surface: green
 Blotches on leaf of water suckers: little or narrow blotches

Inflorescence/male bud

Peduncle length: 31-60 cm
 Peduncle hairness: very hairy
 Bunch position: curve at angle 45°
 Rachis type: present and male bud may be degenerate or persistent with a curve
 Rachis position: normal
 Male bud type: like a top
 Male bud shape: small shoulder
 Bract apex shape: old bracts overlap at apex
 Bract imbrication: bract
 Colour of the bract external face: pink-purple
 Colour of the bract internal face: cream
 Bract scars on rachis: very prominent
 Fading of colour on bract base: colour discontinuing towards the base
 Bract behaviour before failing: revolute
 Wax on the bract: slightly waxy

Remains of flower relicts at fruit apex: base of the style prominent
 Mature fruit peel colour: yellow
 Pulp in fruit: with pulp
 Pulp colour in maturity: yellow
 Presence of seed with source of pollen: -
 Seed shape: -



Complementary information:

The most popular dessert banana in Maluku, the pedicels surface are hairy

PISANG GABU

Accession code: XV E
 Collectors: Edison H.S., Agus Sutanto, Catur Hermanto, Tahan Uji and Nasaruddin Razak
 Genus: *Musa*
 Subspecies/subgroup:
 Genom: AAB?
 Origin: Kowatu-Rumberu
 Elevation: 50 asl.
 Longitude: E 128.4255°

Date of collecting: 1 December 1996
 Species/group:
 Local name: Pisang Gabu
 Synonym:
 Sub district: Kairatu
 Soil pH: 4.6
 Latitude: S 3.2465°

Plant descriptors

Leaf habit: intermediate
 Pseudostem height: 4.6 m
 Pseudostem circumference: 97 cm
 Pseudostem aspect: normal
 Pseudostem colour: green
 Pseudostem appearance: Dull
 Pigmentation of the underlying pseudostem: Brown
 Sap colour: milky white
 Number of suckers: 5
 Development of suckers: ½ than parents
 Blotches at the petiol base: small blotches
 Blotches colour: dark brown

Male flower

Compound tepal basic colour: Cream
 Compound tepal pigmentation: no pigmentation
 Lobe colour of compound tepal: yellow
 Free tepal appearance: several folding under
 Apex: straight
 Style shape: straight
 Stigma colour: yellow
 Ovary basic colour: light green
 Ovary pigmentation: no pigmentation

Fruit

Fruit position: curved toward stalk
 Number of hands per bunch: 6 - 8
 Number of fruits per hand: 16 - 18
 Fruits length: 8.5 cm
 Transverse section of fruits: Slightly ridged
 Fruit apex: Blunt-tipped
 Fruit pedicel length: 15 mm

Petiol/midrib/leaf

Petiol canal leaf III: straight with erect margins
 Colour of midrib dorsal surface: Light green
 Colour of cigar leaf dorsal surface: green
 Blotches on leaf of water suckers:

Inflorescence/male bud

Peduncle length: 40 cm
 Peduncle hairness: Slightly hairy
 Bunch position: Hanging vertically
 Rachis type: present and male bud may be degenerate or persistent
 Rachis position: Falling vertically
 Male bud type: normal
 Male bud shape: intermediate
 Bract apex shape: intermediate
 Bract imbrication: old bracts overlap at apex
 bract
 Colour of the bract external face: red-purple
 Colour of the bract internal face: Pink-purple
 Bract scars on rachis: very prominent
 Fading of colour on bract base: colour discontinuing towards the base
 Bract behaviour before failing: revolute
 Wax on the bract: slightly waxy

Remains of flower relicts at fruit apex: base of the style prominent
 Mature fruit peel colour: yellow
 Pulp in fruit: with pulp
 Pulp colour in maturity: yellow
 Presence of seed with source of pollen: -
 Seed shape: -



Complementary information:
 Mature fruits are boiled before eaten

PISANG LANGSAT

Accession code: XVI E
 Collectors: Edison H.S., Agus Sutanto, Catur Hermanto, Tahan Uji and Nasaruddin Razak
 Genus: *Musa*
 Subspecies/subgroup: *sucrier*
 Genom: AA
 Origin: Neniari
 Elevation: 80 asl.
 Longitude: E 128.2000°

Date of collecting: 2 December 1996
 Species/group:
 Local name: Pisang Langsat
 Synonym: Pisang Mas, Pisang Nona, Pisang Bulan Terang
 Sub district: Piru
 Soil pH: 5.2
 Latitude: S 3.0666°

Plant descriptors

Leaf habit: intermediate
 Pseudostem height: 2.77 m
 Pseudostem circumference: 94 cm
 Pseudostem aspect: normal
 Pseudostem colour: yellowish green
 Pseudostem appearance: shiny
 Pigmentation of the underlying pseudostem: red-purple
 Sap colour: milky white
 Number of suckers: 5
 Development of suckers: ¾ of the parent
 Blotches at the petiol base: sparse blotching
 Blotches colour: brown

Male flower

Compound tepal basic colour: cream
 Compound tepal pigmentation: No pigmentation
 Lobe colour of compound tepal: yellow
 Free tepal appearance: several folding under apex
 Style shape: straight
 Stigma colour: yellow
 Ovary basic colour: cream
 Ovary pigmentation: No pigmentation

Fruit

Fruit position: curved upward
 Number of hands per bunch: 7 - 9
 Number of fruits per hand: 14 - 18
 Fruits length: 8.4 cm
 Transverse section of fruits: rounded
 Fruit apex: blunt-tipped
 Fruit pedicel length: 11 mm

Petiol/midrib/leaf

Petiol canal leaf III: straight with erect margins
 Colour of midrib dorsal surface: medium green
 Colour of cigar leaf dorsal surface: green
 Blotches on leaf of water suckers:

Inflorescence/male bud

Peduncle length: 40 cm
 Peduncle hairness: very hairy
 Bunch position: Hanging vertically
 Rachis type: present and male bud may be degenerated
 Rachis position: With a curve
 Male bud type: normal
 Male bud shape: intermediate
 Bract apex shape: intermediate
 Bract imbrication: old bracts overlap at apex bract
 Colour of the bract external face: red-purple
 Colour of the bract internal face: cream
 Bract scars on rachis: very prominent
 Fading of colour on bract base: colour discontinuing towards the base
 Bract behaviour before failing: revolute
 Wax on the bract: no sign of wax

Remains of flower relicts at fruit apex: persistent style
 Mature fruit peel colour: bright yellow
 Pulp in fruit: with pulp
 Pulp colour in maturity: yellow
 Presence of seed with source of pollen: -
 Seed shape: -



Complementary information:

Another synonym of this banana is P. Mas (Java), the taste of flesh is similar to P. Berlin but sweeter.

PISANG MAKASAR MERAH

Accession code: XVII E Date of collecting: 2 December 1996
 Collectors: Edison H.S., Agus Sutanto, Catur Hermanto, Tahan Uji and Nasaruddin Razak
 Genus: *Musa* Species/group:
 Subspecies/subgroup: Red Green Banana Local name: Pisang Makasar Merah
 Genom: AAA Synonym: Pisang Kidang, Pisang Udang, Pisang Tembaga
 Origin: Neniari Sub district: Piru
 Elevation: 80 asl. Soil pH: 5.2
 Longitude: E 128.2000° Latitude: S 3.0666°

Plant descriptors

Leaf habit: intermediate
 Pseudostem height: 4.22 m
 Pseudostem circumference: 90 cm
 Pseudostem aspect: normal
 Pseudostem colour: Red purple
 Pseudostem appearance: dull
 Pigmentation of the underlying pseudostem: brown
 Sap colour: milky white
 Number of suckers: 6
 Development of suckers: ¾ of the parent
 Blotches at the petiol base: sparse blotching
 Blotches colour: Dark brown

Male flower

Compound tepal basic colour: cream
 Compound tepal pigmentation: No pigmentation
 Lobe colour of compound tepal: yellow
 Free tepal appearance: several folding under apex
 Style shape: straight
 Stigma colour: yellow
 Ovary basic colour: cream
 Ovary pigmentation: No pigmentation

Fruit

Fruit position: Parallel to the stalk
 Number of hands per bunch: 6 - 8
 Number of fruits per hand: 11 - 17 cm
 Fruits length: 8 - 16 cm
 Transverse section of fruits: rounded
 Fruit apex: blunt-tipped
 Fruit pedicel length: 15 mm

Petiol/midrib/leaf

Petiol canal leaf III: Wide erect margins
 Colour of midrib dorsal surface: medium green
 Colour of cigar leaf dorsal surface: green
 Blotches on leaf of water suckers:

Inflorescence/male bud

Peduncle length: 50 cm
 Peduncle hairness: very hairy
 Bunch position: Hanging vertically
 Rachis type: present and male bud may be degenerated
 Rachis position: Falling vertically
 Male bud type: normal
 Male bud shape: intermediate
 Bract apex shape: intermediate
 Bract imbrication: old bracts overlap at apex of bud
 Colour of the bract external face: red-purple
 Colour of the bract internal face: Pink purple
 Bract scars on rachis: very prominent
 Fading of colour on bract base: colour discontinuing towards the base
 Bract behaviour before failing: Revolute
 Wax on the bract: Slightly waxy



Complementary information:

Remains of flower relicts at fruit apex: persistent style
 Mature fruit peel colour: Pink purple
 Pulp in fruit: with pulp
 Pulp colour in maturity: ivory
 Presence of seed with source of pollen: -
 Seed shape: -

PISANG ANIM-1

Accession code: XX E
 Collectors: Edison H.S., Agus Sutanto, Catur Hermanto, Tahan Uji and Nasaruddin Razak
 Genus: *Musa*
 Subspecies/subgroup:
 Genom: AAA?
 Origin: Neniari
 Elevation: 80 asl.
 Longitude: E 128.2000°

Date of collecting: 2 December 1996
 Species/group:
 Local name: Pisang Anim-1
 Synonym: Pisang Goroho Matahari
 Sub district: Piru
 Soil pH: 5.2
 Latitude: S 3.0666°

Plant descriptors

Leaf habit: intermediate
 Pseudostem height: 3.58 m
 Pseudostem circumference: 54 cm
 Pseudostem aspect: normal
 Pseudostem colour: Reddish green
 Pseudostem appearance: dull
 Pigmentation of the underlying pseudostem: brown
 Sap colour: milky white
 Number of suckers: 6
 Development of suckers: ¾ of the parent
 Blotches at the petiol base: sparse blotching
 Blotches colour: Dark brown

Male flower

Compound tepal basic colour: cream
 Compound tepal pigmentation: No pigmentation
 Lobe colour of compound tepal: yellow
 Free tepal appearance: several folding under apex
 Style shape: straight
 Stigma colour: yellow
 Ovary basic colour: cream
 Ovary pigmentation: No pigmentation

Fruit

Fruit position: perpendicular to the stalk
 Number of hands per bunch: 3 - 4
 Number of fruits per hand: 8 - 12 cm
 Fruits length: 16 - 18 cm
 Transverse section of fruits: rounded
 Fruit apex: rounded
 Fruit pedicel length: 20 mm

Petiol/midrib/leaf

Petiol canal leaf III: Wide erect margins
 Colour of midrib dorsal surface: medium green
 Colour of cigar leaf dorsal surface: green
 Blotches on leaf of water suckers:

Inflorescence/male bud

Peduncle length: 60 cm
 Peduncle hairness: very hairy
 Bunch position: Hanging vertically
 Rachis type: present and male bud may be degenerated
 Rachis position: Falling vertically
 Male bud type: normal
 Male bud shape: intermediate
 Bract apex shape: intermediate
 Bract imbrication: old bracts overlap at apex of bud
 Colour of the bract external face: red-purple
 Colour of the bract internal face: Pink
 Bract scars on rachis: very prominent
 Fading of colour on bract base: colour discontinuing towards the base
 Bract behaviour before failing: Revolute
 Wax on the bract: Slightly waxy

Remains of flower relicts at fruit apex: persistent style
 Mature fruit peel colour: with pulp
 Pulp in fruit:
 Pulp colour in maturity:
 Presence of seed with source of pollen: -
 Seed shape: -



Complementary information:

PISANG ANIM-2

Accession code: XX E Date of collecting: 2 December 1996
 Collectors: Edison H.S., Agus Sutanto, Catur Hermanto, Tahan Uji and Nasaruddin Razak
 Genus: *Musa* Species/group:
 Subspecies/subgroup: Red Green Banana Local name: Pisang Anim-2
 Genom: AAA Synonym: Pisang Godok, Pisang Rojomolo
 Origin: Neniari Sub district: Piru
 Elevation: 80 asl. Soil pH: 5.2
 Longitude: E 128.2000° Latitude: S 3.0666°

Plant descriptors

Leaf habit: intermediate
 Pseudostem height: 4.08 m
 Pseudostem circumference: 86 cm
 Pseudostem aspect: normal
 Pseudostem colour: green
 Pseudostem appearance: dull
 Pigmentation of the underlying pseudostem: brown
 Sap colour: milky white
 Number of suckers: 8
 Development of suckers: ¾ of the parent
 Blotches at the petiol base: sparse blotching
 Blotches colour: Dark brown

Male flower

Compound tepal basic colour: cream
 Compound tepal pigmentation: No pigmentation
 Lobe colour of compound tepal: yellow
 Free tepal appearance: several folding under apex
 Style shape: straight
 Stigma colour: yellow
 Ovary basic colour: cream
 Ovary pigmentation: No pigmentation

Fruit

Fruit position: Curved upward
 Number of hands per bunch: 6 - 8
 Number of fruits per hand: 12 - 18 cm
 Fruits length: 13 - 16 cm
 Transverse section of fruits: rounded
 Fruit apex: blunt-tipped
 Fruit pedicel length: 11 mm

Petiol/midrib/leaf

Petiol canal leaf III: Wide erect margins
 Colour of midrib dorsal surface: medium green
 Colour of cigar leaf dorsal surface: green
 Blotches on leaf of water suckers: none

Inflorescence/male bud

Peduncle length: 50 cm
 Peduncle hairness: very hairy
 Bunch position: Hanging vertically
 Rachis type: present and male bud may be degenerated
 Rachis position: Falling vertically
 Male bud type: normal
 Male bud shape: intermediate
 Bract apex shape: intermediate
 Bract imbrication: old bracts overlap at apex of bud
 Colour of the bract external face: red-purple
 Colour of the bract internal face: Pink
 Bract scars on rachis: very prominent
 Fading of colour on bract base: colour discontinuing towards the base
 Bract behaviour before failing: Revolute
 Wax on the bract: Slightly waxy

Remains of flower relicts at fruit apex: Base of the style prominent
 Mature fruit peel colour: yellow
 Pulp in fruit: with pulp
 Pulp colour in maturity: ivory
 Presence of seed with source of pollen: -
 Seed shape: -



Complementary information:

Dessert or cooking banana, similar to Pisang Makasar Putih (Maluku) or Red-green banana

WILD *Musa* #1

Accession code: IV E	Date of collecting: 30 November 1996
Collectors: Edison H.S., Agus Sutanto, Catur Hermanto, Tahan Uji and Nasaruddin Razak	
Genus: <i>Musa</i>	Species/group: <i>acuminata</i>
Subspecies/subgroup:	Local name: Pisang Hutan-1
Genom: AAw	Synonym:
Origin: Honitetu	Sub district: Kairatu
Elevation: 175 asl.	Soil pH: 5.0
Longitude: E 128.4333°	Latitude: S 3.2333°

Plant descriptors

Leaf habit:	intermediate
Pseudostem height:	5.2 m
Pseudostem circumference:	57 cm
Pseudostem aspect:	normal
Pseudostem colour:	green
Pseudostem appearance:	Shiny
Pigmentation of the underlying pseudostem:	brown
Sap colour:	watery
Number of suckers:	6
Development of suckers:	¾ of the parent
Blotches at the petiol base:	sparse blotching
Blotches colour:	Dark brown

Male flower

Compound tepal basic colour:	cream
Compound tepal pigmentation:	No pigmentation
Lobe colour of compound tepal:	yellow
Free tepal appearance:	several folding under apex
Style shape:	straight
Stigma colour:	yellow
Ovary basic colour:	cream
Ovary pigmentation:	No pigmentation

Fruit

Fruit position:	Curved upward
Number of hands per bunch:	7
Number of fruits per hand:	16 – 18 cm
Fruits length:	14.2 cm
Transverse section of fruits:	Slightly ridge
Fruit apex:	pointed
Fruit pedicel length:	4.5 mm

Petiol/midrib/leaf

Petiol canal leaf III:	Wide erect margins
Colour of midrib dorsal surface:	Medium green
Colour of cigar leaf dorsal surface:	Green
Blotches on leaf of water suckers:	

Inflorescence/male bud

Peduncle length:	30 cm
Peduncle hairness:	very hairy
Bunch position:	horizontal
Rachis type:	Present and male bud may be degenerated
Rachis position:	horizontal
Male bud type:	Normal
Male bud shape:	intermediate
Bract apex shape:	intermediate
Bract imbrication:	old bracts overlap at apex of bud
Colour of the bract external face:	red-purple
Colour of the bract internal face:	Pink
Bract scars on rachis:	very prominent
Fading of colour on bract base:	colour discontinuing towards the base
Bract behaviour before failing:	Revolvute
Wax on the bract:	Waxy



Complementary information:

Remains of flower relicts at fruit apex:	Base of the style prominent
Mature fruit peel colour:	Yellow
Pulp in fruit:	with pulp
Pulp colour in maturity:	Ivory
Presence of seed with source of pollen:	> 20
Seed shape:	Piramid

WILD *Musa* #2

Accession code: IV E	Date of collecting: 2 December 1996
Collectors: Edison H.S., Agus Sutanto, Catur Hermanto, Tahan Uji and Nasaruddin Razak	
Genus: <i>Musa</i>	Species/group: <i>acuminata</i>
Subspecies/subgroup:	Local name: Pisang Setan
Genom: AAw	Synonym:
Origin: Neniari	Sub district: Piru
Elevation: 80 asl.	Soil pH: 4.6
Longitude: E 128.2000°	Latitude: S 3.0666°

Plant descriptors

Leaf habit:	intermediate
Pseudostem height:	3.97 m
Pseudostem circumference:	45 cm
Pseudostem aspect:	slender
Pseudostem colour:	Greenish pink
Pseudostem appearance:	Shiny
Pigmentation of the underlying pseudostem:	brown
Sap colour:	watery
Number of suckers:	3
Development of suckers:	¼ of the parent
Blotches at the petiol base:	sparse blotching
Blotches colour:	Dark brown

Male flower

Compound tepal basic colour:	cream
Compound tepal pigmentation:	No pigmentation
Lobe colour of compound tepal:	yellow
Free tepal appearance:	several folding under apex
Style shape:	straight
Stigma colour:	yellow
Ovary basic colour:	cream
Ovary pigmentation:	No pigmentation

Fruit

Fruit position:	Curved upward
Number of hands per bunch:	4
Number of fruits per hand:	10 – 12 cm
Fruits length:	7.0 cm
Transverse section of fruits:	Slightly ridge
Fruit apex:	pointed
Fruit pedicel length:	10 mm

Petiol/midrib/leaf

Petiol canal leaf III:	Wide erect margins
Colour of midrib dorsal surface:	Medium green
Colour of cigar leaf dorsal surface:	Green
Blotches on leaf of water suckers:	

Inflorescence/male bud

Peduncle length:	40 cm
Peduncle hairness:	very hairy
Bunch position:	horizontal
Rachis type:	Present and male bud may be degenerated
Rachis position:	Falling vertically
Male bud type:	Normal
Male bud shape:	Like a top
Bract apex shape:	intermediate
Bract imbrication:	old bracts overlap at apex of bud
Colour of the bract external face:	red-purple
Colour of the bract internal face:	Pink
Bract scars on rachis:	very prominent
Fading of colour on bract base:	colour discontinuing towards the base
Bract behaviour before failing:	Revolute
Wax on the bract:	Waxy

Remains of flower relicts at fruit apex:	Base of the style prominent
Mature fruit peel colour:	Yellow
Pulp in fruit:	with pulp
Pulp colour in maturity:	Cream
Presence of seed with source of pollen:	> 20
Seed shape:	Piramid



Complementary information:

WILD *Musa* #3

Accession code: XXIV E	Date of collecting: 4 December 1996
Collectors: Edison H.S., Agus Sutanto, Catur Hermanto, Tahan Uji and Nasaruddin Razak	
Genus: <i>Musa</i>	Species/group: <i>acumintata</i>
Subspecies/subgroup: <i>banksii</i> ?	Local name: Pisang Hutan-3
Genom: AAw	Synonym:
Origin: Waitala	Sub district: Kairatu
Elevation: 10 asl.	Soil pH: 3.7
Longitude: E 128.6833°	Latitude: S 3.3333°

Plant descriptors

Leaf habit:	intermediate
Pseudostem height:	4 m
Pseudostem circumference:	68 cm
Pseudostem aspect:	slender
Pseudostem colour:	green
Pseudostem appearance:	Shiny
Pigmentation of the underlying pseudostem:	pink
Sap colour:	watery
Number of suckers:	4
Development of suckers:	¾ of the parent
Blotches at the petiol base:	sparse blotching
Blotches colour:	brown

Male flower

Compound tepal basic colour:	cream
Compound tepal pigmentation:	No pigmentation
Lobe colour of compound tepal:	yellow
Free tepal appearance:	several folding under apex
Style shape:	straight
Stigma colour:	yellow
Ovary basic colour:	cream
Ovary pigmentation:	No pigmentation

Fruit

Fruit position:	Curved upward
Number of hands per bunch:	6
Number of fruits per hand:	16 – 18 cm
Fruits length:	10.5 cm
Transverse section of fruits:	rounded
Fruit apex:	pointed
Fruit pedicel length:	10 mm

Petiol/midrib/leaf

Petiol canal leaf III:	Wide erect margins
Colour of midrib dorsal surface:	Medium green
Colour of cigar leaf dorsal surface:	Green
Blotches on leaf of water suckers:	none

Inflorescence/male bud

Peduncle length:	30 cm
Peduncle hairness:	very hairy
Bunch position:	horizontal
Rachis type:	Present and male bud may be degenerated
Rachis position:	horizontal
Male bud type:	Normal
Male bud shape:	intermediate
Bract apex shape:	intermediate
Bract imbrication:	old bracts overlap at apex of bud
Colour of the bract external face:	yellow
Colour of the bract internal face:	Whitish yellow
Bract scars on rachis:	very prominent
Fading of colour on bract base:	colour homogenous
Bract behaviour before failing:	Revolvute
Wax on the bract:	Slightly waxy



Complementary information:

Fruits are seeded and the colour of male bud flower is yellow.

WILD *Musa* #4

Accession code: XXV E	Date of collecting: 4 December 1996
Collectors: Edison H.S., Agus Sutanto, Catur Hermanto, Tahan Uji and Nasaruddin Razak	
Genus: <i>Musa</i>	Species/group: <i>acumintata</i>
Subspecies/subgroup: <i>malacensis?</i>	Local name: Pisang Hutan-4
Genom: AAw	Synonym:
Origin: Waina	Sub district: Amahai
Elevation: 5m asl.	Soil pH: 4.6
Longitude: E 128.8635°	Latitude: S 3.2016°

Plant descriptors

Leaf habit:	intermediate
Pseudostem height:	3.68 m
Pseudostem circumference:	47 cm
Pseudostem aspect:	slender
Pseudostem colour:	green
Pseudostem appearance:	Shiny
Pigmentation of the underlying pseudostem:	pink
Sap colour:	watery
Number of suckers:	2
Development of suckers:	¼ of the parent
Blotches at the petiol base:	sparse blotching
Blotches colour:	brown

Male flower

Compound tepal basic colour:	cream
Compound tepal pigmentation:	No pigmentation
Lobe colour of compound tepal:	yellow
Free tepal appearance:	several folding under apex
Style shape:	straight
Stigma colour:	yellow
Ovary basic colour:	cream
Ovary pigmentation:	No pigmentation

Fruit

Fruit position:	Curved upward
Number of hands per bunch:	6
Number of fruits per hand:	18 – 20 cm
Fruits length:	7.4 cm
Transverse section of fruits:	rounded
Fruit apex:	pointed
Fruit pedicel length:	20 mm

Petiol/midrib/leaf

Petiol canal leaf III:	Straight with erect margins
Colour of midrib dorsal surface:	Medium green
Colour of cigar leaf dorsal surface:	Green
Blotches on leaf of water suckers:	

Inflorescence/male bud

Peduncle length:	30 cm
Peduncle hairness:	very hairy
Bunch position:	horizontal
Rachis type:	Present and male bud may be degenerated
Rachis position:	horizontal
Male bud type:	Normal
Male bud shape:	intermediate
Bract apex shape:	intermediate
Bract imbrication:	old bracts overlap at apex of bud
Colour of the bract external face:	Red-purple
Colour of the bract internal face:	Pink-purple
Bract scars on rachis:	very prominent
Fading of colour on bract base:	colour discontinuing towards the base
Bract behaviour before failing:	Revolute
Wax on the bract:	Waxy



Complementary information:

Remains of flower relicts at fruit apex:	None
Mature fruit peel colour:	Yellow
Pulp in fruit:	with pulp
Pulp colour in maturity:	Ivory
Presence of seed with source of pollen:	> 20
Seed shape:	Piramid

PISANG TERNATE

Accession code: XXII E
 Collectors: Edison H.S., Agus Sutanto, Catur Hermanto, Tahan Uji and Nasaruddin Razak
 Genus: *Musa*
 Subspecies/subgroup:
 Genom: AAB?
 Origin: Tanah Goyang
 Elevation: 3 asl.
 Longitude: E 128.0489°

Date of collecting: 3 December 1996
 Species/group:
 Local name: Pisang Ternate
 Synonym: Pisang Asam
 Sub district: Piru
 Soil pH: 5.5
 Latitude: S 3.2879°

Plant descriptors

Leaf habit: intermediate
 Pseudostem height: 4.23 m
 Pseudostem circumference: 88 cm
 Pseudostem aspect: normal
 Pseudostem colour: Reddish green
 Pseudostem appearance: dull
 Pigmentation of the underlying pseudostem: brown
 Sap colour: milky white
 Number of suckers: 3
 Development of suckers: ¼ of the parent
 Blotches at the petiol base: sparse blotching
 Blotches colour: Dark brown

Male flower

Compound tepal basic colour: cream
 Compound tepal pigmentation: No pigmentation
 Lobe colour of compound tepal: yellow
 Free tepal appearance: several folding under apex
 Style shape: straight
 Stigma colour: yellow
 Ovary basic colour: cream
 Ovary pigmentation: No pigmentation

Fruit

Fruit position: Curved upward
 Number of hands per bunch: 8 – 10
 Number of fruits per hand: 16 – 20 cm
 Fruits length: 9.5 – 10 cm
 Transverse section of fruits: Slightly ridged
 Fruit apex: pointed
 Fruit pedicel length: 20 mm

Petiol/midrib/leaf

Petiol canal leaf III: Wide erect margins
 Colour of midrib dorsal surface: medium green
 Colour of cigar leaf dorsal surface: green
 Blotches on leaf of water suckers: none

Inflorescence/male bud

Peduncle length: 30 cm
 Peduncle hairness: slightly hairy
 Bunch position: Hanging with angle 45°
 Rachis type: present and male bud may be degenerated
 Rachis position: With a curve
 Male bud type: normal
 Male bud shape: intermediate
 Bract apex shape: intermediate
 Bract imbrication: old bracts overlap at apex of bud
 Colour of the bract external face: red-purple
 Colour of the bract internal face: Pink
 Bract scars on rachis: very prominent
 Fading of colour on bract base: colour discontinuing towards the base
 Bract behaviour before failing: Revolute
 Wax on the bract: Slightly waxy

Remains of flower relicts at fruit apex: Base of the style prominent
 Mature fruit peel colour: yellow
 Pulp in fruit: with pulp
 Pulp colour in maturity: ivory
 Presence of seed with source of pollen: -
 Seed shape: -



Complementary information:

Dessert or cooking banana, the taste of pulp is slightly sour

PISANG HARUKU GUNUNG

Accession code: XXIII E
 Collectors: Edison H.S., Agus Sutanto, Catur Hermanto, Tahan Uji and Nasaruddin Razak
 Genus: *Musa*
 Subspecies/subgroup:
 Genom: AAA?
 Origin: Tanah Goyang
 Elevation: 3 asl.
 Longitude: E 128.0489°

Date of collecting: 3 December 1996
 Species/group:
 Local name: Pisang Haruku Gunung
 Synonym:
 Sub district: Piru
 Soil pH: 4.4
 Latitude: S 3.2879°

Plant descriptors

Leaf habit: intermediate
 Pseudostem height: 5.06 m
 Pseudostem circumference: 96 cm
 Pseudostem aspect: normal
 Pseudostem colour: Reddish green
 Pseudostem appearance: dull
 Pigmentation of the underlying pseudostem: brown
 Sap colour: milky white
 Number of suckers: 3
 Development of suckers: ¾ of the parent
 Blotches at the petiol base: sparse blotching
 Blotches colour: Dark brown

Male flower

Compound tepal basic colour: cream
 Compound tepal pigmentation: No pigmentation
 Lobe colour of compound tepal: yellow
 Free tepal appearance: several folding under apex
 Style shape: straight
 Stigma colour: yellow
 Ovary basic colour: cream
 Ovary pigmentation: No pigmentation

Fruit

Fruit position: Parallel toward stalk
 Number of hands per bunch: 8
 Number of fruits per hand: 13 - 15 cm
 Fruits length: 14 - 20 cm
 Transverse section of fruits: Slightly ridged
 Fruit apex: Bottle neck
 Fruit pedicel length: 15 mm

Petiol/midrib/leaf

Petiol canal leaf III: Straight erect margins
 Colour of midrib dorsal surface: Medium green
 Colour of cigar leaf dorsal surface: Green
 Blotches on leaf of water suckers:

Inflorescence/male bud

Peduncle length: 65 cm
 Peduncle hairness: slightly hairy
 Bunch position: Hanging vertically
 Rachis type: present and male bud may be degenerated
 Rachis position: Falling vertically
 Male bud type: normal
 Male bud shape: intermediate
 Bract apex shape: intermediate
 Bract imbrication: old bracts overlap at apex of bud
 Colour of the bract external face: red-purple
 Colour of the bract internal face: Pink
 Bract scars on rachis: very prominent
 Fading of colour on bract base: colour discontinuing towards the base
 Bract behaviour before failing: Revolute
 Wax on the bract: Slightly waxy

Remains of flower relicts at fruit apex: Base of the style prominent
 Mature fruit peel colour: yellow
 Pulp in fruit: with pulp
 Pulp colour in maturity: yellow
 Presence of seed with source of pollen: -
 Seed shape: -



Complementary information:

Dessert or cooking banana, the size of finger bigger than P. Raja/P. Haruku.

PISANG JAWAKA OBIE

Accession code: XXIII E
 Collectors: Edison H.S., Agus Sutanto, Catur Hermanto, Tahan Uji and Nasaruddin Razak
 Genus: *Musa*
 Subspecies/subgroup:
 Genom: ABB/BBB
 Origin: Tanah Goyang
 Elevation: 3 asl.
 Longitude: E 128.0489°

Date of collecting: 3 December 1996
 Species/group:
 Local name: Pisang Jawaka Obie
 Synonym: Pisang Jawaka
 Sub district: Piru
 Soil pH: 4.8
 Latitude: S 3.2879°

Plant discriptors

Leaf habit: intermediate
 Pseudostem height: 6.60 m
 Pseudostem circumference: 155 cm
 Pseudostem aspect: robust
 Pseudostem colour: green
 Pseudostem appearance: shiny
 Pigmentation of the underlying pseudostem: Dark brown
 Sap colour: watery
 Number of suckers: 3
 Development of suckers: ¾ of the parent
 Blotches at the petiol base: sparse blotching
 Blotches colour: Dark brown

Male flower

Compound tepal basic colour: cream
 Compound tepal pigmentation: no pigmentation
 Lobe colour of compound tepal: yellow
 Free tepal appearance: simple folding under apex
 Style shape: straight
 Stigma colour: cream
 Ovary basic colour: cream
 Ovary pigmentation: no pigmentation

Fruit

Fruit position: parallel to the stalk
 Number of hands per bunch: 9 - 10
 Number of fruits per hand: 12 - 14
 Fruits length: 17 cm
 Transverse section of fruits: pronounced ridged
 Fruit apex: bottle-necked
 Fruit pedicel length: 37 mm

Petiol/midrib/leaf

Petiol canal leaf III: Margins curved inward
 Colour of midrib dorsal surface: light green
 Colour of cigar leaf dorsal surface: Green
 Blotches on leaf of water suckers: None

Inflorescence/male bud

Peduncle length: 65 cm
 Peduncle hairness: hairless
 Bunch position: hanging at angle 45°
 Rachis type: present and male bud may be degenerate or persistent
 Rachis position: falling vertically
 Male bud type: normal
 Male bud shape: intermediate
 Bract apex shape: obtuse and split
 Bract imbrication: young bracts slightly overlap
 Colour of the bract external face: red
 Colour of the bract internal face: very prominent
 Bract scars on rachis: colour homogenous
 Fading of colour on bract base: revolute
 Bract behaviour before failing: very waxy
 Wax on the bract: 65 cm

Remains of flower relicts at fruit apex: Base of the style prominent
 Mature fruit peel colour: yellow
 Pulp in fruit: with pulp
 Pulp colour in maturity: yellow
 Presence of seed with source of pollen: -
 Seed shape: -



Complementary information:

PISANG SEPATU AMORA

Accession code: XIX E
 Collectors: Edison H.S., Agus Sutanto, Catur Hermanto, Tahan Uji and Nasaruddin Razak
 Genus: *Musa*
 Subspecies/subgroup:
 Genom: ABB/BBB
 Origin: Makariki
 Elevation: 10 asl.
 Longitude: E 128.9366°

Date of collecting: 5 December 1996
 Species/group:
 Local name: Pisang Sepatu Amora
 Synonym: Pisang Kepok
 Sub district: Amahai
 Soil pH: 5.9
 Latitude: S 3.3107°

Plant discriptors

Leaf habit: intermediate
 Pseudostem height: 4.68 m
 Pseudostem circumference: 99 cm
 Pseudostem aspect: robust
 Pseudostem colour: green
 Pseudostem appearance: shiny
 Pigmentation of the underlying pseudostem: Blue-purple
 Sap colour: watery
 Number of suckers: 4
 Development of suckers: ¾ of the parent
 Blotches at the petiol base: sparse blotching
 Blotches colour: Blue-purple

Male flower

Compound tepal basic colour:
 Compound tepal pigmentation:
 Lobe colour of compound tepal:
 Free tepal appearance:

Style shape:
 Stigma colour:
 Ovary basic colour:
 Ovary pigmentation:

Fruit

Fruit position: parallel to the stalk
 Number of hands per bunch: 16 - 20
 Number of fruits per hand: 12 - 14
 Fruits length: 14 cm
 Transverse section of fruits: pronounced ridged
 Fruit apex: Blunt-tipped
 Fruit pedicel length: 35 mm

Petiol/midrib/leaf

Petiol canal leaf III: Margins curved inward
 Colour of midrib dorsal surface: light green
 Colour of cigar leaf dorsal surface: Green
 Blotches on leaf of water suckers: None

Inflorescence/male bud

Peduncle length: 65 cm
 Peduncle hairness: hairless
 Bunch position: hanging at angle 45°
 Rachis type: No male bud
 Rachis position:
 Male bud type:
 Male bud shape:
 Bract apex shape:
 Bract imbrication:

Colour of the bract external face:
 Colour of the bract internal face:
 Bract scars on rachis:
 Fading of colour on bract base:
 Bract behaviour before failing:
 Wax on the bract:

Remains of flower relicts at fruit apex: Base of the style prominent
 Mature fruit peel colour: yellow
 Pulp in fruit: with pulp
 Pulp colour in maturity: yellow
 Presence of seed with source of pollen: -
 Seed shape: -



Complementary information:

P. Kepok-like, but no male bud flower, 20 hands per bunch, boiled banana, originally from Sulawesi, potential resistant to bacterial disease.

PISANG GAPI

Accession code: XXVII E
 Collectors: Edison H.S., Agus Sutanto, Catur Hermanto, Tahan Uji and Nasaruddin Razak
 Genus: *Musa*
 Subspecies/subgroup:
 Genom: AAA
 Origin: Makariki
 Elevation: 10 asl.
 Longitude: E 128.9366°

Date of collecting: 5 December 1996
 Species/group:
 Local name: Pisang Gapi
 Synonym: Pisang Barangan
 Sub district: Amahai
 Soil pH: 5.9
 Latitude: S 3.3107°

Plant descriptors

Leaf habit: erect
 Pseudostem height: 4.32 m
 Pseudostem circumference: 92 cm
 Pseudostem aspect: normal
 Pseudostem colour: green
 Pseudostem appearance: dull
 Pigmentation of the underlying pseudostem: purple
 Sap colour: watery
 Number of suckers: 6
 Development of suckers: ¾ of the parent
 Blotches at the petiol base: sparse blotching
 Blotches colour: blue-purple

Male flower

Compound tepal basic colour: cream
 Compound tepal pigmentation: no pigmentation
 Lobe colour of compound tepal: yellow
 Free tepal appearance: several folding under apex
 Style shape: slightly curved
 Stigma colour: yellow
 Ovary basic colour: cream
 Ovary pigmentation: no pigmentation

Fruit

Fruit position: parallel to the stalk
 Number of hands per bunch: 6
 Number of fruits per hand: 13 - 16
 Fruits length: 15 - 20 cm
 Transverse section of fruits: rounded
 Fruit apex: blunt tip
 Fruit pedicel length: 18 mm

Petiol/midrib/leaf

Petiol canal leaf III: open with margins spreading
 Colour of midrib dorsal surface: light green
 Colour of cigar leaf dorsal surface: green
 Blotches on leaf of water suckers:

Inflorescence/male bud

Peduncle length: 75 cm
 Peduncle hairness: very hairy
 Bunch position: hanging vertically
 Rachis type: present and male bud may be degenerated
 Rachis position: falling vertically
 Male bud type: normal
 Male bud shape: intermediate
 Bract apex shape: intermediate
 Bract imbrication: young bracts slightly overlap
 Colour of the bract external face: red-purple
 Colour of the bract internal face: pink purple
 Bract scars on rachis: very prominent
 Fading of colour on bract base: colour discontinuing toward the base
 Bract behaviour before failing: revolute
 Wax on the bract: moderately waxy

Remains of flower relicts at fruit apex: persistent style
 Mature fruit peel colour: light yellow
 Pulp in fruit: with pulp
 Pulp colour in maturity: yellow
 Presence of seed with source of pollen: -
 Seed shape: -



Complementary information:

Introduced from Sulawesi, the most commercial dessert banana in Sulawesi..

PISANG BATU SANGIR

Accession code: XXVIII E
 Collectors: Edison H.S., Agus Sutanto, Catur Hermanto, Tahan Uji and Nasaruddin Razak
 Genus: *Musa*
 Subspecies/subgroup:
 Genom: AAB?
 Origin: Makariki
 Elevation: 10 asl.
 Longitude: E 128.9366°

Date of collecting: 5 December 1996
 Species/group:
 Local name: Pisang Batu Sangir
 Synonym:
 Sub district: Amahai
 Soil pH: 5.9
 Latitude: S 3.3107°

Plant descriptors

Leaf habit: intermediate
 Pseudostem height: 5.27 m
 Pseudostem circumference: 96 cm
 Pseudostem aspect: normal
 Pseudostem colour: green
 Pseudostem appearance: dull
 Pigmentation of the underlying pseudostem:
 Sap colour: brown
 Milky white
 Number of suckers: 6
 Development of suckers: ¾ of the parent
 Blotches at the petiol base: sparse blotching
 Blotches colour: Dark brown

Male flower

Compound tepal basic colour: cream
 Compound tepal pigmentation: no pigmentation
 Lobe colour of compound tepal: yellow
 Free tepal appearance: several folding under apex
 Style shape: slightly curved
 Stigma colour: yellow
 Ovary basic colour: cream
 Ovary pigmentation: no pigmentation

Fruit

Fruit position: Curve upward
 Number of hands per bunch: 8 - 9
 Number of fruits per hand: 16 - 18
 Fruits length: 10 - 12 cm
 Transverse section of fruits: rounded
 Fruit apex: pointed
 Fruit pedicel length: 22 mm

Petiol/midrib/leaf

Petiol canal leaf III: wide erect margins
 Colour of midrib dorsal surface: light green
 Colour of cigar leaf dorsal surface: green
 Blotches on leaf of water suckers:

Inflorescence/male bud

Peduncle length: 75 cm
 Peduncle hairness: very hairy
 Bunch position: hanging vertically
 Rachis type: present and male bud may be degenerated falling vertically
 Rachis position: normal
 Male bud type: intermediate
 Male bud shape: intermediate
 Bract apex shape: intermediate
 Bract imbrication: young bracts slightly overlap
 Colour of the bract external face: red-purple
 Colour of the bract internal face: pink purple
 Bract scars on rachis: very prominent
 Fading of colour on bract base: colour discontinuing toward the base
 Bract behaviour before failing: revolute
 Wax on the bract: moderately waxy

Remains of flower relicts at fruit apex: persistent style
 Mature fruit peel colour: light yellow
 Pulp in fruit: with pulp
 Pulp colour in maturity: yellow
 Presence of seed with source of pollen: -
 Seed shape: -



Complementary information:
 Introduced from Sulawesi, dessert banana

PISANG GOROHO MATAHARI

Accession code: XXIX E
 Collectors: Edison H.S., Agus Sutanto, Catur Hermanto, Tahan Uji and Nasaruddin Razak
 Genus: *Musa*
 Subspecies/subgroup:
 Genom: AAA?
 Origin: Makariki
 Elevation: 10 asl.
 Longitude: E 128.9366°

Date of collecting: 5 December 1996
 Species/group:
 Local name: Pisang GoroHo Matahari
 Synonym: Pisang Anim-1
 Sub district: Amahai
 Soil pH: 5.9
 Latitude: S 3.3107°

Plant descriptors

Leaf habit: intermediate
 Pseudostem height: 3.67 m
 Pseudostem circumference: 65 cm
 Pseudostem aspect: normal
 Pseudostem colour: Reddish green
 Pseudostem appearance: dull
 Pigmentation of the underlying pseudostem: brown
 Sap colour: Milky white
 Number of suckers: 5
 Development of suckers: ¾ of the parent
 Blotches at the petiol base: sparse blotching
 Blotches colour: Dark brown

Male flower

Compound tepal basic colour: cream
 Compound tepal pigmentation: no pigmentation
 Lobe colour of compound tepal: yellow
 Free tepal appearance: several folding under apex
 Style shape: slightly curved
 Stigma colour: yellow
 Ovary basic colour: cream
 Ovary pigmentation: no pigmentation

Fruit

Fruit position: perpendicular to the stalk
 Number of hands per bunch: 5 - 6
 Number of fruits per hand: 16 - 20 cm
 Fruits length: 16 - 18 cm
 Transverse section of fruits: rounded
 Fruit apex: rounded
 Fruit pedicel length: 20 mm

Petiol/midrib/leaf

Petiol canal leaf III: wide erect margins
 Colour of midrib dorsal surface: light green
 Colour of cigar leaf dorsal surface: green
 Blotches on leaf of water suckers:

Inflorescence/male bud

Peduncle length: 60 cm
 Peduncle hairness: very hairy
 Bunch position: Hanging vertically
 Rachis type: present and male bud may be degenerated
 Rachis position: Falling vertically
 Male bud type: normal
 Male bud shape: intermediate
 Bract apex shape: intermediate
 Bract imbrication: old bracts overlap at apex of bud
 Colour of the bract external face: red-purple
 Colour of the bract internal face: Pink
 Bract scars on rachis: very prominent
 Fading of colour on bract base: colour discontinuing towards the base
 Bract behaviour before failing: Revolute
 Wax on the bract: Slightly waxy

Remains of flower relicts at fruit apex: persistent style
 Mature fruit peel colour: with pulp
 Pulp in fruit: with pulp
 Pulp colour in maturity:
 Presence of seed with source of pollen: -
 Seed shape: -



Complementary information:

Introduced from Sulawesi, similar to P. Anonim-1, boiled, mixed with sauce and eaten soon after harvested.

PISANG SUSU TERNATE

Accession code: XXX E
 Collectors: Edison H.S., Agus Sutanto, Catur Hermanto, Tahan Uji and Nasaruddin Razak
 Genus: *Musa*
 Subspecies/subgroup: Mysore
 Genom: AAB
 Origin: Tulehu
 Elevation: 90 asl.
 Longitude: E 128.3310°

Date of collecting: 8 December 1996
 Species/group:
 Local name: Pisang Susu Ternate
 Synonym: Pisang Pulo
 Sub district: Salahutu
 Soil pH: 5.6
 Latitude: S 3.6012°

Plant discriptors

Leaf habit: intermediate
 Pseudostem height: 4.2 m
 Pseudostem circumference: 81 cm
 Pseudostem aspect: normal
 Pseudostem colour: Red-purple
 Pseudostem appearance: dull
 Pigmentation of the underlying pseudostem: Dark brown
 Sap colour: Milky white
 Number of suckers: 5
 Development of suckers: ¾ of the parent
 Blotches at the petiol base: sparse blotching
 Blotches colour: Dark brown

Male flower

Compound tepal basic colour: cream
 Compound tepal pigmentation: no pigmentation
 Lobe colour of compound tepal: yellow
 Free tepal appearance: simple folding under apex
 Style shape: **rolling**
 Stigma colour: cream
 Ovary basic colour: cream
 Ovary pigmentation: no pigmentation

Fruit

Fruit position: Curve upward
 Number of hands per bunch: 10 – 12
 Number of fruits per hand: 18 - 20
 Fruits length: 8 - 10 cm
 Transverse section of fruits: slightly ridged
 Fruit apex: pointed
 Fruit pedicel length: 25 mm

Petiol/midrib/leaf

Petiol canal leaf III: Margins curved inward
 Colour of midrib dorsal surface: light green
 Colour of cigar leaf dorsal surface: Green
 Blotches on leaf of water suckers:

Inflorescence/male bud

Peduncle length: 50 cm
 Peduncle hairness: hairv
 Bunch position: hanging at angle 45°
 Rachis type: present and male bud may be degenerate or persistent
 Rachis position: falling vertically
 Male bud type: normal
 Male bud shape: intermediate
 Bract apex shape: intermediate
 Bract imbrication: old bracts overlap at apex of bud
 Colour of the bract external face: red-purple
 Colour of the bract internal face: red
 Bract scars on rachis: very prominent
 Fading of colour on bract base: colour homogenous
 Bract behaviour before failing: revolute
 Wax on the bract: very waxy

Remains of flower relicts at fruit apex: Base of the style prominent
 Mature fruit peel colour: yellow
 Pulp in fruit: with pulp
 Pulp colour in maturity: yellow
 Presence of seed with source of pollen: -
 Seed shape: -



Complementary information:

Dessert banana, slightly acid of pulp taste, seedless.

PISANG BUAGAMUTU

Accession code: XVIII E
 Collectors: Edison H.S., Agus Sutanto, Catur Hermanto, Tahan Uji and Nasaruddin Razak
 Genus: *Musa*
 Subspecies/subgroup:
 Genom: AA?
 Origin: Neniari
 Elevation: 80 asl.
 Longitude: E 128.2000°

Date of collecting: 8 December 1996
 Species/group:
 Local name: Pisang Buagamutu
 Synonym:
 Sub district: Piru
 Soil pH: 4.6
 Latitude: S 3.0666°

Plant descriptors

Leaf habit:
 Pseudostem height:
 Pseudostem circumference:
 Pseudostem aspect:
 Pseudostem colour:
 Pseudostem appearance:
 Pigmentation of the underlying pseudostem:
 Sap colour:
 Number of suckers:
 Development of suckers:
 Blotches at the petiol base:
 Blotches colour:

Male flower

Compound tepal basic colour:
 Compound tepal pigmentation:
 Lobe colour of compound tepal:
 Free tepal appearance:

Style shape:
 Stigma colour:
 Ovary basic colour:
 Ovary pigmentation:

Fruit

Fruit position: Curve upward
 Number of hands per bunch:
 Number of fruits per hand:
 Fruits length: 7.5 cm
 Transverse section of fruits: slightly ridged
 Fruit apex: rounded
 Fruit pedicel length: 10 mm

Petiol/midrib/leaf

Petiol canal leaf III: Straight erect margins
 Colour of midrib dorsal surface: light green
 Colour of cigar leaf dorsal surface: Green
 Blotches on leaf of water suckers:

Inflorescence/male bud

Peduncle length:
 Peduncle hairness:
 Bunch position:
 Rachis type:

Rachis position:
 Male bud type:
 Male bud shape:
 Bract apex shape:
 Bract imbrication:

Colour of the bract external face:
 Colour of the bract internal face:
 Bract scars on rachis:
 Fading of colour on bract base:
 Bract behaviour before failing:
 Wax on the bract:

Remains of flower relicts at fruit apex: Base of the style prominent
 Mature fruit peel colour: yellow
 Pulp in fruit: with pulp
 Pulp colour in maturity: yellow
 Presence of seed with source of pollen: -
 Seed shape: -



Complementary information:

Few fingers per hand, not good condition so that no character observation