Performance of New Banana Germplasm in South Florida

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Abstract. In 1995, 37 new dessert and cooking bananas (Musa spp.) were introduced into South Florida for evaluation under local edaphic and environmental conditions. The number of pseudostems per mat, height at fruiting, and cycling time were determined during the first fruiting cycle, and bunch number and bunch weight were recorded from 1996 to 1998. A productivity index (PIX), calculated as 100 × mean bunch weight in kg/cycling time in days, was used to determine the productivity of the clones over time. Informal taste panels assessed the appearance and organoleptic qualities of fruit on a subjective 1 to 4 scale. In a separate experiment, the susceptibility of 30 of the clones to fusarium wilt, caused by Fusarium oxysporum f. sp. cubense, was assessed. Some of the most popular and productive clones were susceptible to fusarium wilt and are not recommended for production in areas that have a history of this disease. The dessert clones ‘Pisang Ceylan’, FHIA01’, FHIA02’, and FHIA17’ and the cooking accessions ‘Kandrian’, ‘Kumunamba’, and ‘Saba’ resisted fusarium wilt, produced moderate to high yields (PIX ≥ 1) of good to excellent fruit (mean ratings ≥ 3), and are recommended for use in all areas in Florida.

Banana has been an important tropical fruit crop in Florida for over a century (Stambaugh, 1952). Production occurred initially as far north as Jacksonville (30°N), and profits from some operations were said to have financed a few of the first large citrus plantations in the state. Commercial production is now consolidated in southeastern Miami–Dade County (25.5°N). In 1997, an estimated 140 of the 141 ha of banana in the state were in this county, which produced fruit valued at $2.5 million per annum (Crane, 1997; Degner et al., 1997).

Despite the history and importance of banana in Florida, the crop is poorly adapted to conditions in the state. It grows best in deep, well-drained alluvial soils, has fairly demanding nutritional requirements, and does not tolerate cold temperatures (Stover and Simmonds, 1987). Thus, conditions in Miami–Dade County are less than optimum. Winter temperatures are frequently low enough to damage plants or reduce their growth, and high wind during the winter and early spring severely damages banana leaves. Although leaf tearing reduces leaf temperature in the Musaceae (Taylor and Sexton, 1972), water loss from such leaves can be substantial (Brun, 1961). Agricultural soils in the area are usually alkaline, shallow, and nutritionally deficient, and are very low in organic matter and cation exchange capacity (Noble et al., 1996). Finally, a lethal disease, fusarium wilt, is widespread in the area and has had a considerable impact on production (Ploetz and Shepard, 1989).

Prior to the mid-1990s, there were 60 different banana cultivars in Miami–Dade (Don and Katy Chapin, personal communication). However, only four of these, ‘Bluggoe’ (known locally as ‘Burro’ or ‘Orinoco’), ‘Hua Moa’ (‘Hawaiiano’), ‘Mysore’, and ‘Silk’ (‘Manzano’), were important.

Each of the above cultivars is deficient. ‘Bluggoe’, ‘Hua Moa’, and ‘Silk’ are susceptible to fusarium wilt. The disease has essentially eliminated production of ‘Silk’ in the county, and is beginning to impact the production of ‘Bluggoe’ and ‘Hua Moa’. ‘Hua Moa’ is also very cold-sensitive, and is affected by a postharvest fingerprint, caused by Lasiodiplodia theobromae (Pat.) Grifon & Maubl., and a yield-decline phenomenon that may be caused by the spiral nematode, Helicotylenchus multicinctus (Cobb) Golden (Ploetz, unpublished). Although ‘Mysore’ is a hardy banana that possesses good resistance to fusarium wilt, clones of the cultivar in South Florida are infected with banana streak virus (BSV).

Campbell and Popenoe (1971) categorized 24 different banana cultivars based upon their ease of care and productivity in South Florida. Their report represents the only prior evaluation of banana germplasm in Florida. The objectives of the current project were to: 1) introduce new banana accessions to South Florida, 2) evaluate their adaptability to local soils and winter conditions, and 3) assess their productivity and the quality of their fruit. Ancillary work to determine the resistance of the accessions to fusarium wilt is described in another paper (Ploetz et al., 1999), but is summarized below.

Materials and Methods

Of the 37 dessert and cooking cultivars selected for evaluation (Table 1), 32 were from the in vitro collection of the International Transit Center (ITC) at the Katholieke Universiteit in Leuven, Belgium. Each of these accessions was indexed for the three most important Musa viruses, banana bunchy top virus, cucumber mosaic virus, and banana streak virus. Notably, the ‘Mysore’ accession included in these studies, ‘Pisang Ceylan’, is the only accession of this cultivar that is known to be free of banana streak virus. The five remaining accessions were from the in vitro collection of the Queensland Dept. of Primary Industry (QDPI) in Maroochy, Australia. All accessions were multiplied via standard meristem tissue culture in Dr. Mike Smith’s QDPI laboratory in Maroochy. In Fall 1995, the micropropagated germplasm was shipped, with Australian phytosanitary certification and under APHIS permit, from QDPI to the Univ. of Florida’s Tropical Research and Education Center in Homestead (TREC). Plantlets were grown in 3.8-L polybags filled with potting mix (Reliable Peat, Miami) prior to use in the field.

Two accessions, ‘Niyrma yik’ and ‘Rimina’, a Fe’i banana, were cold-sensitive and were killed in a shadehouse prior to the initiation of field experiments during Winter 1995–96. On 20 May 1996, the 35 remaining accessions were planted in a completely randomized design in a field at TREC. Each accession was replicated seven times; replicates consisted of pairs of plants. Rows were planted on raised beds 0.2 m in height, that were aligned from east to west and 4.5 m apart. Within rows, plants were separated by 2.5 m. Bi-weekly irrigation and fertilization practices for banana in the area were followed for the duration of the experiment (I. Ganessingh, personal communication).

Beginning 4 months after planting, suckering and height of the accessions were recorded monthly. The number of suckers that were produced in a mat and height at fruiting (distance in meters from the base of the stem to the top of the peduncle) were determined for each accession at the end of the first fruiting cycle. Cycling time (the number of days elapsed between planting and harvest) was also recorded for the first fruiting cycle, and bunch weight (weight in kg of all hands in a bunch without the raceme) was recorded from 1996...
to 1998. Informal taste panels at TREC and at agricultural festivals in Homestead and West Palm Beach evaluated the appearance and organoleptic qualities of fruit from the experiments in which these accessions were included. Subjective 1–4 scales were used for both parameters where: 1 = poor, 2 = fair, 3 = good, and 4 = excellent. Ratings were computed from 743 evaluations by >200 testers.

To determine a clone’s yield potential, a productivity index (PIX) was computed as:

$$\text{PIX} = 100 \times \frac{\text{BW}}{\text{CT}}$$

where BW = bunch weight in kg and CT = cycling time in days.

Data were analyzed statistically with the GLM procedure of SAS for PCs. Mean separations for bunch weight and PIX were conducted only for clones for which at least four bunches were harvested, and statistical analyses of fruit taste and appearance were conducted for those accessions for which a total of 10 or more evaluations were available.

### Results

Mean suckering rate per mat ranged from 3.6 to 11.6 during the first fruiting cycle (Table 2). Suckering generally decreased as the ploidy of clones increased, with diploids exhibiting a significantly higher rate than triploids or tetraploids (respectively, 7.34 vs. 5.56 and 4.82; $P < 0.05$; data not shown). No obvious relationship was observed between genome and suckering rate.

Height at fruiting and cycling time also varied significantly among the clones. ‘Kandrian’ was ≈2 m taller than the shortest clones, and cycling time varied from 372 d for ‘Kumunamba’ to 826 d for ‘Kandrian’ (Table 2). Neither trait was significantly correlated with ploidy or genome (data not shown).

| Cultivar       | Genome | Accession(s) | Usage | Origin          | Synonyms          | Affinities, attributes |
|----------------|--------|--------------|-------|-----------------|-------------------|------------------------|
| Niyama yik     | AA     | 0477/563     | D     | Philippines     | banksii           |                        |
| Pamotu on      | AA     | 1229/576/--- | D     | Malaysia        | banksii           |                        |
| Pisang jari buya | AA   | 0312/577/--- | D     | Malaysia        | Used as parent in FHIA breeding program |
| Pisang lemak manis | AA   | 1183/578/--- | D     | Malaysia (Philippines) | ‘Daui’, ‘Sucrer’ | Wide distribution; very sweet fruit; Aromatic; cold sensitive; used in CIRAD-FHLOR breeding program |
| Pisang mas     | AA     | 0653/579/--- | D     | Indonesia       | ‘Goldfinger’      | Synthetic hybrid; marketed as ‘Pelipita’ |
| ‘Rose’         | AA     | 0712/574/--- | D     | Indonesia       | ‘Mona Lisa’       | Very hardy cultivar; synthetic hybrid; marketed as ‘Pelipita’ |
| Señorita       | AA     | 1230/580/--- | D     | Philippines     | ‘Pisang Berlin’   | An AA and an AAB clone exist with the same name |
| Veinte cohol   | AA     | 1031/582/--- | D     | Philippines     | ‘Pisang Berlin’   |                                |
| Kunnan         | AB     | 1034/583/--- | D     | India           | Nye poovan subgroup |
| Ney poovan     | AB     | .../398/---   | D     | Honduras (India) |                                |
| Ney poovan     | AB     | 0459/584/--- | D     | Australia (India) |                                |
| Inamibal       | AAA    | 0477/563/--- | D     | Philippines (Honduras) | ‘Pisang Berlin’ | Synthetic hybrid |
| Pisang nangka  | AAA    | 1062/585/--- | D     | Malaysia        |                                |
| Williams       | AAA    | 0570/587/--- | D     | Southeast Asia  | ‘Giant Cavendish’ | Iaota subgroup; interesting pineapple-like flavor |
| Yangambi km5   | AAA    | 1123/586/--- | D     | Congo           |                                |
| Kofi           | AAB    | 0912/355/310 | D     | Papua New Guinea | Iholena subgroup |
| Kumunamba      | AAB    | 0824/337/195 | D     | Papua New Guinea | ‘Yamunamba’       | Only ‘Mysore’ accession free of BSV |
| Pisang Ceylon  | AAB    | 0650/589/--- | D     | Sri Lanka       | ‘Mysore’          |                                |
| Popoulou       | AAB    | 0335/588/--- | C     | Polynesia       |                            |
| Prata anã      | AAB    | 0962/590/--- | D     | Brazil          | Pome subgroup       |
| Silk (sport)   | AAB    | 1222/591/--- | D     | Tanzania        | ‘Apple’, ‘Manzano’ | Wide distribution; ‘Silk’ |
| ‘Sugar’        | AAB    | .../404/---   | D     | Australia       | ‘Rajapuri’         | Wide distribution |
| Wahia          | ABB    | 1033/592/--- | D     | India           | ‘Chato’, ‘Moko’    | Wide distribution |
| Bluggoe        | ABB    | .../261/---   | C     | Australia (India) | ‘Pisang awak’     | Very hardy cultivar |
| Ducasse        | ABB    | .../256/---   | D     | C                 |                                |
| Dwarf kalapua  | ABB    | 0812/368/171 | C     | Papua New Guinea |                                |
| Kluai namwa khom | ABB  | 0526/593/--- | D, C  | Thailand        | ‘Pisang awak’      |                                |
| Kandrian       | ABB    | 0803/367/148 | C     | Papua New Guinea | Vigorous            |
| Pelipita       | ABB    | 0472/564/--- | C     | Honduras (Philippines) | Pelipita’          | Resistant to Moko disease |
| Pelipita       | ABB    | .../595/---   | C     | Australia (Philippines) | Pelipita’ | Resistant to Moko disease |
| Saba           | ABB    | 1138/594/--- | C     | Guadeloupe (Philippines) |                                |
| FHIA02         | AAAA   | 0505/597/--- | D     | Honduras        | ‘Mona Lisa’        | Synthetic hybrid; marketed as “pesticide-free” banana in Canada |
| FHIA17         | AAAA   | 1264/599/--- | D     | Honduras        |                                |
| FHIA23         | AAAA   | 1265/600/--- | D     | Honduras        |                                |
| FHIA01         | AAAAB  | 0504/596/--- | D     | Honduras        | ‘Goldfinger’        | Hybrid, one of first bred bananas to be widely deployed |
| FHIA03         | ABBB   | 0506/598/--- | C     | Honduras        |                                |
| Rimina         | ---    | 1010/.../201 | C     | Papua New Guinea | Fe’s banana; extremely sensitive to cold temperatures |
Table 2. Mean growth characteristics of new accessions of banana

| Cultivar*          | Pseudostems/mat | Height at fruiting* | Cycling time (d) |
|--------------------|-----------------|---------------------|------------------|
| Panomi on          | 9.0 b           | 2.8 j–l             | 521 e–i          |
| Pisang jari buaya  | 5.8 e–g         | 3.2 f–k             | 720 b–o          |
| Pisang lemak manis | 7.9 c–d         | 2.9 h–l             | 541 d–i          |
| Pisang mas         | 5.7 e–h         | 3.3 d–j             | 610 b–f          |
| Rose               | 11.6 a          | 2.9 h–l             | nd               |
| Senòrita           | 6.2 e–f         | 2.7 j–l             | 495 f–i          |
| Veinte cohoh       | 5.1 f–i         | 2.6 l               | 548 d–i          |
| Inarnibal          | 5.3 e–i         | 3.1 g–l             | 633 b–d          |
| Pisang nangka      | 5.4 e–i         | 3.3 d–j             | 573 c–g          |
| Williams           | 4.9 g–j         | 1.3 m               | 472 g–i          |
| Yangambi km5       | 8.9 b           | 2.9 i–l             | 637 b–c          |
| Kofi               | 5.3 e–i         | 3.3 d–j             | 502 f–i          |
| Kumunamba          | 3.6 k           | 3.8 b–c             | 372 j            |
| Pisang ceylan      | 6.3 e–i         | 3.8 b–d             | 616 b–f          |
| Popoula            | 5.2 e–i         | 3.2 e–k             | 427 i–j          |
| Prata anã          | 4.0 j–k         | 3.3 d–j             | 442 i–j          |
| Silk (sport)       | 4.6 h–k         | 3.3 e–f             | 519 e–l          |
| Sugar              | 4.9 g–j         | 3.4 c–i             | 573 c–g          |
| Kunnan             | 8.5 b–c         | 3.2 e–k             | 516 e–l          |
| Ney poovan 398     | 5.9 e–g         | 3.5 c–h             | 451 g–l          |
| Ney poovan 584     | 7.7 c–d         | 3.6 b–g             | 426 i–j          |
| Bluggoe            | 7.4 d           | 3.8 b–e             | 538 d–i          |
| Ducausse           | 5.4 e–i         | 3.3 d–j             | 562 d–h          |
| Dwarf kalapua      | 4.9 g–j         | 2.8 j–l             | 548 d–i          |
| Kandrian           | 5.0 g–j         | 4.5 a               | 826 a            |
| Klui namwa khom    | 5.4 e–i         | 2.7 l               | 514 e–i          |
| Popoulu            | 6.0 e–g         | 3.7 b–f             | 520 e–i          |
| Popoula            | 6.3 e           | 4.0 b               | 513 e–i          |
| Saba               | 6.2 e–f         | 3.9 b–c             | 506 f–i          |
| FHIA01             | 5.4 e–i         | 3.2 e–k             | 500 f–i          |
| FHIA02             | 4.4 j–k         | 3.2 f–k             | 525 e–i          |
| FHIA03             | 3.6 k           | 3.6 b–g             | 453 g–i          |
| FHIA17             | 5.1 f–i         | 3.2 f–k             | 690 b–c          |
| FHIA23             | 5.6 e–h         | 3.4 c–i             | 716 b            |

* Cultivar genome, source, and synonyms are listed in Table 1.
* Height in meters from base of plant to top of peduncle.
* Days from planting to first fruit harvest.
* Mean separation within columns by Duncan’s multiple range test, P < 0.05.

Bunch weight was highly correlated with accession, ploidy and genome, ranged from 0.8 kg for ‘Pisang mas’ to 14.4 kg for ‘Kandrian’, and was significantly lower for diploids than for tetraploids and tetraploids (Table 3 and data not shown).

Productivity indices ranged from 0.1 for ‘Pisang mas’ to 2.7 for ‘Popoulu’ (Table 3). Twenty-two clones had PIXs >1, an arbitrary level of acceptable productivity in this study. No diploid AA accession approached this level, whereas tetraploids had higher, but not significantly different (P < 0.05), mean indices than tetraploids (respectively, 1.27 vs. 1.2).

Eleven of 20 cooking clones had mean ratings of 3 or higher (good to excellent), of which ‘Kofi’ rated highest (3.8; Table 3), Sixteen dessert clones had mean taste ratings of 3 or higher, and 11 of these had a mean appearance rating of 3 or greater. Statistical analyses of the taste and appearance data were conducted for 21 of the dessert cultivars for which a total of 10 or more evaluations were made (no cooking clone met the latter criterion). Of these, the 398 accession of ‘Ney poovan’ from QDPI had the highest taste rating, 3.79, although this was not significantly different from the rating for 12 other accessions.

**Discussion**

The banana germplasm that is described in this paper had not been grown before in South Florida. Four of the accessions, ‘Kofi’, ‘Kumunamba’, ‘Dwarf kalapua’, and ‘Kandrian’, were collected in the late 1980s in Papua New Guinea, a major center of *Musa* diversity (Arnaud and Horry, 1997; Sharrack, 1990). These clones had not been tested previously in the Western Hemisphere. Fourteen other accessions, ‘Pamati on’, ‘Pisang jari buaya’, ‘Pisang lemak manis’, ‘Rose’, ‘Senòrita’, ‘Veinte cohoh’, ‘Inarnibal’, ‘Pisang nangka’, ‘Yangambikm5’, ‘Popoulu’, ‘Kunnan’, ‘Ney poovan’ 398 and 584, and ‘Kluai namwa khom’, were either new in the hemisphere or were found previously only in the collection of the Fundación Hondureña de Investigación Agrícola (FHIA) in La Lima, Honduras.

Although cultivars that are represented by most of the remaining accessions had been grown before in South Florida, the specific accessions had not. A large-fruited sport of ‘Silk’ from Tanzania and ‘Sugar’, the Australian version of this popular clone, were tested, even though they were presumed to be susceptible to fusarium wilt. Their performance in these plants were at least 50% shorter than normal ‘Williams’ and produced smaller than normal bunches and fingers (Table 2). Since the ‘Williams’ accession was not true-to-type, to our knowledge, the sensitivity of ‘Niyarma yik’ and ‘Yangambi km 5’ had not been reported previously.

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The inverse relationship between suckering rate and increased ploidy was observed previously by Vakili (1967). Autotetraploids of *Musa balbisiana* Colla produced fewer suck-
ers than did the diploid parent. Although Vakili (1967) also noted that the tetraploids were taller, ploidy was not related to the stature of accessions in the current study.

Several of the tested clones had an AA genome. All shared the genome’s fruit characteristics of thin fruit skin and sweet flesh, and four, ‘Pamoti on’, ‘Pisang lemak manis’, ‘Veinte cohol’, and ‘Señorita’, originated in the Philippines, a country with a great diversity of AA dessert bananas (Pascua, 1990). Unfortunately, none of the AA clones in this study was very productive, corroborating previous conclusions about the poor performance of AA clones (Stover and Simmonds, 1987). Twenty-two of 33 accessions had PIXs > 1, but no AA accession approached this level of productivity. Interestingly, both accessions of ‘Ney poovan’, an AB diploid, had PIXs of 1.2 and 1.4 that approached or exceeded ratings for many triploids and tetraploids in the study (Table 3).

Fruit taste and appearance evaluations were conducted throughout 1997 and 1998. To ensure that the evaluations adequately reflected the characteristics of fruit the clone would produce over the range of weather conditions it would encounter in South Florida, only 21 accessions, which were evaluated at least 10 times over the 2-year period, were statistically analyzed (Table 3). Of the 21 dessert clones that were evaluated at least 10 times, 13 had mean ratings that were identical, statistically, to the highest rated clone, ‘Ney poovan’ 398 (mean = 3.79). ‘Pisang mas’ had a perfect score of 4, but was evaluated only six times.

Most of the accessions displayed at least one meritorious characteristic. However, only seven dessert and eight cooking clones produced reasonably high yields of acceptable fruit (PIXs of 1 or higher and 3 or higher in taste tests) (Table 4). Unfortunately, three of the dessert clones, ‘Ney poovan’ 398, ‘Ney poovan’ 584, and ‘Silk’ (sport), and three of the cooking clones, ‘Popoulu’, ‘Bluggoe’, and ‘Kluai namwa khom’, that met these standards were susceptible to fusarium wilt (Ploetz et al., 1999). Another acceptable clone, ‘Pelipita’ 595, was not tested, but is probably susceptible, since another accession of the cultivar, ‘Pelipita’ 564, did succumb during the screening trials (Ploetz et al., 1999). These clones are not recommended for production in areas that have a history of fusarium wilt, but could be used in other areas. Certainly, the excellent flavor of ‘Ney poovan’ 398 and outstanding productivity of ‘Popoulu’ suggest that these clones could become commercially important in South Florida despite their major flaw of susceptibility.

Another acceptable clone, ‘Kofi’, was not evaluated in the fusarium wilt trials, so its susceptibility is not known. The remaining accessions in Table 4 are resistant to fusarium wilt, and appear to have potential in all production areas in Miami–Dade County. The dessert clones ‘Pisang Ceylon’, ‘FHIA01’, ‘FHIA02’, and ‘FHIA17’, and the cooking clones ‘Kumunamba’, ‘Kandrian’ and ‘Saba’, are recommended for use in all areas in South Florida.

| Cultivar | No. bunches harvested | Mean bunch wt (kg) | Productivity index* | Dessert Appearance | Cooking Taste |
|---|---|---|---|---|---|
| Pamoti on | 29 | 1.7 | 0.2 | 2.50 | 3.50 |
| Pisang jari buaya | 6 | 3.9 | 0.6 | 1.63 | 2.00 |
| Pisang lemak manis | 22 | 3.2 | 0.3 | 2.75 | 3.67 |
| Pisang mas | 4 | 0.8 | 0.1 | 2.00 | 4.00 |
| Rose | 1 | 5.9 | nd | nd | nd |
| Señorita | 4 | 3.8 | 0.7 | 3.35 | a–b |
| Veinte cohol | 24 | 2.6 | 0.3 | 2.15 | e–f |
| Inarinal | 12 | 6.3 | 1.0 | 2.50 | 2.50 |
| Pisang nangka | 16 | 8.6 | 1.4 | 2.15 | 1.50 |
| Williams | 12 | 1.3 | 0.3 | nd | nd |
| Yangambi km5 | 11 | 2.0 | 0.3 | 3.17 | a–b |
| Kofi | 12 | 8.8 | 1.1 | nd | 3.00 |
| Kumunamba | 40 | 9.5 | 1.5 | 2.91 | a–b |
| Pisang ceylan | 24 | 7.0 | 1.0 | 2.94 | a–b |
| Popoulu | 25 | 12.8 | 2.7 | 3.10 | a–b |
| Prata anã | 23 | 7.3 | 1.1 | 2.72 | a–e |
| Silk (sport) | 27 | 6.0 | 1.0 | 2.33 | c–a |
| Sugar | 9 | 4.3 | 0.8 | 2.50 | b–e |
| Walha | 1 | 5.5 | nd | nd | nd |
| Kuman | 22 | 4.1 | 0.6 | 2.44 | b–e |
| Ney poovan 398 | 39 | 5.7 | 1.2 | 3.38 | a–b |
| Ney poovan 584 | 49 | 6.3 | 1.4 | 3.07 | a–e |
| Bluggoe | 42 | 8.2 | 1.4 | 2.67 | a–e |
| Ducasse | 24 | 6.6 | 1.0 | 2.78 | a–e |
| Dwarf kalapua | 39 | 6.4 | 1.0 | 2.10 | e |
| Kandrian | 7 | 14.4 | 2.0 | 3.00 | |
| Kluai namwa khom | 27 | 8.6 | 1.0 | 2.63 | a–b |
| Pelipita 564 | 18 | 7.4 | 1.3 | 1.00 | |
| Pelipita 595 | 16 | 6.4 | 1.3 | 2.00 | |
| Saba | 50 | 10.1 | 1.9 | 2.86 | a–d |
| FHIA01 | 28 | 8.9 | 1.3 | 3.11 | a–b |
| FHIA02 | 25 | 7.2 | 1.1 | 3.08 | a–e |
| FHIA03 | 24 | 8.9 | 1.6 | 3.08 | a–e |
| FHIA17 | 16 | 9.9 | 1.3 | 3.14 | a–b |
| FHIA23 | 10 | 7.4 | 0.7 | 4.00 | |

*Productivity index = 100 × bunch weight/cycling time.

**Mean separation within columns by Duncan’s multiple range test.

Table 3. Yield characteristics of new accessions of banana.

Table 4. Summary of acceptability, yield performance, and susceptibility to fusarium wilt of the highest rated accessions of banana.

| Cultivar | Taste | Cooking | Productivity | Susceptible to fusarium wilt? |
|---|---|---|---|---|
| Ney poovan 398 | 3.79 | --- | 1.2 | + |
| Ney poovan 584 | 3.05 | --- | 1.4 | + |
| Kofi | --- | 3.8 | 1.1 | not tested |
| Kumunamba | --- | 3.67 | 1.5 | |
| Popoulu | --- | 3.33 | 2.7 | + |
| Silk (sport) | 3.29 | --- | 1.0 | + |
| Bluggoe | --- | 3.4 | 1.4 | + |
| Kluai namwa khom | --- | 3.0 | 1.0 | + |
| Kandrian | --- | 3.33 | 2.0 | + |
| Saba (3.13)* | 3.43 | 1.9 | 3.0 | |
| Pelipita 595 | --- | 3.0 | 1.3 | ? |
| FHIA01 | 3.19 | --- | 1.3 | |
| FHIA02 | 3.07 | --- | 1.1 | |
| FHIA17 | 3.29 | (3.0)* | 1.3 | |

*Only clones with mean taste ratings of 3 or higher and productivity indices of 1 or higher are included in this table.

**Susceptibility is based on results reported in Ploetz et al. (1999). Since ‘Pelipita’ 564 was susceptible in field screenings, ‘Pelipita’ 595 may also be susceptible.

‘Saba’ and ‘FHIA17’ are usually used as, respectively, cooking and dessert clones.
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