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## 1994 MANGO EXPORT PROMOTION PROGRAM

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The first exports of fresh mangoes from Guinea-Bissau were certainly fruits from Conakry which were purchased in that country, brought by truck to Bissau where they were selected, boxed and shipped by air to Lisbon. The inherent high risks in such an adventurous endeavor has practically reduced these exports to near zero in the past two years.

In June of 1993, in a USAID/BISSAU assisted program, a test air shipment was made to Lisbon using mangoes from new orchards coming into production. The results were modest but certainly contributed to the learning process among potential exporters in Bissau.

The current status of mango production and exports, as well as future prospects, are discussed below. As the focus of this report is the export market and Guinea-Bissau's potential to participate in that market, the present document works from the market, i.e., importing markets requirements, back to the reality of mango production in Guinea-Bissau.

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<u>Export Market Varieties</u>	<u>Number of Trees</u>
Kent	60,910
Keitt	34,237
Palmer	19,438
Smith	9,403
<u>Total</u>	<u>123,988</u>

Source: MDRA, Guinea-Bissau. Inquerito Frutícola 1992/93

The study mentioned above also verified that the improved varieties totally dominate young orchards (under 13 years old) while local varieties are no longer being cultivated rationally in orchard systems or are only disseminated randomly by humans and animals.

Another pertinent factor identified by the "Inquerito Frutícola" was the number of farmers engaged in mango production which was estimated to be slightly over 47,000 which demonstrates this activity's importance in the rural community.

Though the regions of Oio, Cacheu and Bafatá have the greatest number of farmers growing mangoes and the largest areas under cultivation, mango production is an important activity in all eight regions of Guinea-Bissau.

### C. Production Estimates

#### Local Market Varieties

Historical data collected in Guinea-Bissau would indicate an average annual production per tree for adult mango at around 40 kilos. Given the current population of local market varieties, we would have the following projected production for 1994:

414,430 trees X 40 kilos = 16,577 metric tons

The major portion of this projected production will go to the local commercial market, a small part will be consumed by farmers and their families and the balance lost in the field.

Among the varieties cultivated in the principal exporting countries which meet market preferences are:

Tommy Atkins  
Haden  
Kent

Of the improved varieties most widely grown in Guinea-Bissau, Kent is well accepted while the Keitt is generally considered too large (avg. 500-800 grams per fruit) and not colorful in appearance. Unfortunately, to date, very little Tommy Atkins has been planted in Guinea-Bissau and this is certainly the most widely accepted variety in the market place today.

#### E. 1993 Export Assistance Program

The USAID sponsored program did not clearly define the role and responsibilities of the exporters who imagined that "someone" was going to do practically "everything" for them. The Brazilian consultants involved in the program eventually took the lead and did do "everything" in an attempt to avoid total failure. The growers and exporters who did in fact participate, a total of three, at least had their first contact with what goes on downstream from the harvesting of mangoes up to the actual shipment. Sales prices were determined by the consultants and a local Guinea-Bissau firm, with no prior experience in exporting, was used to legally carry out the transaction.

Even those few growers who participated in the exercise were poorly prepared financially to cover inputs such as harvesting costs and export quality packaging materials.

#### F. Grower Interest in the Exportation of Mango

The current population of improved varieties, some 600 hectares plus, is the prime indicator of the interest in cultivating mangoes of exportable quality. Certainly the "ponteiros" who are cultivating at least a third of the improved varieties have their sights set on the external market.

The success of larger mango producers among the "ponteiros" is critical to the growth of mango exporting as an important commercial activity in Guinea-Bissau. As these producers become viable exporters, they will also in turn become potential buyers for exportable quality mangoes

Since Guinea-Bissau does not produce either cardboard nor cartons these inputs are not available locally and will have to be sourced from abroad.

Cold storage holding facilities in Bissau must be identified and if necessary adapted for the storage of fresh mangoes for shipment by air and by sea as available.

### Exportation

The transportation of fresh mangoes from Bissau to the European market is certainly one of the most serious constraints at the moment. For all practical purposes no space is currently available on the regular weekly flights from Bissau to Lisbon and when an opening does occur the space available is normally only around 2 metric tons.

Some reefer containers are available on vessels calling at the port of Bissau for Rotterdam and Lisbon but with very unpredictable schedules and always subject to the importation of refrigerated cargo to Bissau.

Air cargo charters could provide an emergency solution but certainly the most costly on a per carton or per kilo basis. None the less, in light of no other viable options, chartering planes must be evaluated.

The export taxes levied on mango shipments requires more precise definition since freight forwarders contacted in Bissau had diverging opinions on the various duties which are collected. Current customs practices would indicate that exports would be subject to two taxes totaling 7% on the FOB value of the mango. On the other hand, Decree N° 8/87 of May 4, which promotes exports from Guinea-Bissau, exempts exports from the aforementioned taxes. This subject requires explicit clarification.

The current legislation covering exchange contracts in export transactions is quite liberal and should cause no hindrances.

Port facilities at Bissau for handling medium size vessels appear adequate and the specific costs incurred by exporters are in line with similar charges in other exporting countries not creating any disadvantage for exporters from Guinea-Bissau.

### III. Conclusions

International trade in fresh mango has expanded dramatically over the past twenty years and is now about 100,000 metric tons per year with about half of that total imported into north-America and half into the European market. As refrigerated sea shipments of mango increased over the last decade the final consumer price of fresh mangoes came down and the fruit has become more widely consumed throughout importer markets.

The European market is well supplied throughout most of the year from producer countries located in both the northern and southern hemispheres. Even with adequate supplies importers are always interested in looking into new, alternative sources especially if the product is of good quality with competitive pricing. In general the market is receptive to new sources of supply.

Guinea-Bissau has the basic soil and climatic conditions to become an exporter of fresh fruit and vegetables, including mangoes. Good quality soils and a relatively even and adequate rainfall allied with proper temperature and relative humidity ranges makes Guinea-Bissau a potential supplier of export quality fruit and vegetables to the European market.

Though in direct competition with other mango exporting countries in west Africa, Guinea-Bissau's geographic location is certainly a positive factor vis a vis the European market.

The current population and age of "improved" varieties under cultivation, the number of farms and producers involved in growing mangoes gives Guinea-Bissau the minimum critical mass to begin to develop a mango export activity of certain stature.

This report recommends that growers progressively substitute the late bearing Keitt and mid-season Kent varieties for early bearing Tommy Atkins and Haden. At the current stage of financial and business development it is important that growers initiate their practical business activities with the existing stands (orchards), gain some level of experience and especially cash flow, before entering into a program of varietal substitution (top-working or over grafting) which should take place over a period of 4 or 5 years.

## Field Practices

### **Irrigation**

Supplemental irrigation, where possible, during the first 3 years of the setting in of mango orchards will certainly lead to stronger stands of adult trees which under normal rainfall will not require additional irrigation.

### **Fertilization**

Despite the basic adaptability of soils in Guinea-Bissau for mango cultivation, additional soil analysis is recommended to identify individual mango orchards specific NPK and micro nutrient requirements

### **Pruning**

Systematic, yearly clearing out of interior growth as well as specific pruning of fruit sets to enhance coloring must be adopted

Subsequent to any pruning activities the remaining cuttings must be removed from the groves or broken up and incorporated as mulch.

### **Picking**

Proper fruit maturity levels must be identified according to the fruit's appearance on the tree and time of picking as per the mode of transportation, i.e. by air or by sea.

Once cut from the tree by with a scissors, the mango is placed on the ground in the shade under the tree, stem down to drain the sap left in the stem which, if dripped on the skin, will discolor and disqualify the fruit for export.

- plastic straps, seals for pallets
- corner boards (wood or cardboard) for pallets

#### **D. Export Operations:**

Export documentation must be prepared by the exporter or his freight forwarder. Export licenses, foreign exchange contracts, phyto-sanitary certificates and other documentary procedures for exportation are not a principal impediment to the efficient operation of this activity.

Customs legislation pertaining to the exportation of fresh fruits in general and mango in particular needs to be clarified so as to properly define operational costs of this activity at the FOB level.

#### **E. Logistics/Transportation**

The single most important link in the chain in the development of a mango export program in Guinea-Bissau is certainly the transportation question.

In the short term, air cargo charters of 707s or 737s may well provide an emergency outlet but this is certainly not the answer to the solid development of the mango exporting industry in Guinea-Bissau..

Sea shipments, via reefer containers on a regular schedule, must be developed to lower costs and make Guinea-Bissau fresh produce more competitive.

#### **F. Sales and Marketing**

Given the target markets as described above, the grower/exporters must identify trading partners in the Portuguese and Dutch markets to handle air and sea shipments respectively.

Exporter efforts must be directed initially and preferentially to production of exportable quality produce in the near term and, as volume grows, to the more complex questions of transport/logistics and marketing agreements with importers in Portugal and Holland; by air and "as available" sea shipments.