

Challenges to mango planting

Inadequate production nurseries

There are few tree nurseries producing improved mango varieties, which cause a general shortage of grafted seedlings. Farmers therefore tend to use inferior, low yielding varieties. Most of the nurseries are owned by smallholders that may not put enough investment to cater for many seedlings and materials for grafting. The smallholders are also not experts are neither experts on varieties nor agronomy. The germplasm for the improved varieties are also not easily available as they are mainly held in prisons or government institutions that sometimes may involve long distance travelling. The materials are basically transferred from farmer to farmer with hardly much guidance from extension agents.

Exorbitant cost of seedlings

Improved mangoes which are mostly grafted are expensive for most smallholder farmers. Grafted seedlings usually cost KES 150.00 and above which is not cheap by any standard to most small scale farmers considering that the product will take four or more years before paying back the money invested in it. That means raising ample finances to establish a half a hectare of an orchard require reasonable saving or some source of capital to initiate the project.

Stand management

A number of orchards are managed in such a way that adding inputs such as manure, fertilizer, pruning and spraying is next to impossible because the tree are big with high canopies. Such stands get big losses owing to pests, diseases and physical damage when fruits hit the ground.

Pest and diseases

In most of the areas surveyed, pests and diseases are already a big challenge to orchard management because more than 80% or the whole crop may be lost. The cost of spraying is also another hindrance to production and this is even made more complex by allowable pesticide level that is still not clear to most farmers. Many farmers would prefer organic crop that is fruits produced and harvested without any chemical sprays which is slowly turning to be unattainable. Most farmers with tall mango trees lack motorized pumps for effective pest and disease control, which leads to flower and fruit fall.

Oversupply of mangoes

The natural cycle of mango production right from flowering to harvesting takes place at the same time in a region, which usually causes a glut in the market chain. The end results of this oversupply are low prices and product losses. Nearly 70% of the mangoes produced are lost on farm or on transit and within the market. Most areas do not have storage facilities which can allow farmers time to keep the products longer as they negotiate for better prices. Also, lacking are mango processing factories near the production areas that can take up large consignment to reduce losses. Most mangoes are sold as fresh fruits for export and local markets.

Transport capacity

Some plantations of mangoes are quite off the all weather road and transporting fruits to the major market centers is a challenge given that products are bulky and are easily spoiled by mechanical bruises. Most producers do not own means for transporting huge consignment and

timely movement to long distance places is a major challenge. It is one of the situations which open ways for farmers to be exploited by middle men/women who tend to offer lower prices. Producers have not formed strong institutions that purchase collective transport and bargain at the market.

Clear felling of mangoes

In some areas in central highlands, big mango trees are being clear felled and cross cut to get quick money from firewood for tea processing (Figure 42). In coastal region mango trees are being cut down to process into timber or for wood carvings. Some trees are also cut for charcoal production. These products are fast paying but are not sustainable therefore they cannot alleviate poverty or improve food security situation.



Figure 42: Mango trees cut down for firewood to be used in tea factories

Capacity building

There is need for extensive capacity building of farmers for them to understand the mango production value chain, starting from nursery management to processing of mango products. Most farmers are still not aware of issues such as maturity index, variety self life, product sorting, grading, packing, product range, alternative markets, traceability, GAP, EUREGAP and the power of associations. These are factors that once understood and adopted in the production cycle will assist farmers to enhance quality of the products and visibility both in the local and external market.

Recommendations

There are more than 70 varieties of mangoes that exist within the counties under study and therefore the following actions can be recommended:

1. Promote mango growing in various counties with appropriate ecological conditions as a way of enhancing food security, industrial potential, poverty alleviation and conservation of varieties.
2. Transfer and expand testing of more than 70 varieties which only exist in a few conservation stands to various agro-ecological zones to determine their yield potentials, seasonality, disease and pest tolerance.
3. Initiate mango improvement programme through selection of new varieties, seedling production, controlled crossing and introduction of new varieties from other countries.
4. Establishment of industrial and cottage processing centers to maximize product range, value addition and reduction on transportation expenses.
5. Build capacity of stakeholders on the mango value chain to enhance productivity, processing and marketing.