Field Preparation

- Planting takes place when there is rain or else the garden is watered immediately.
- Place the seedling in the hole and put back the sub soil up to the root collar.
- Water the seedlings after planting if there is no sufficient moisture.

Benefits from improved mango fruit tree

- The fruits are highly nutritious as they are a source of vitamins, e.g. vitamin C and minerals.
- They are a source of house hold incomeas one mango fruit may cost up to Ush. 1,000 on the farm and twice as much in the super market.
- One scion for grafting may cost between Ush. 300-Ush 500.
- Mango fruits provide shade for humans and animals, wood and other products from pruning
- They also act as wind breaks and control soil erosion.

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BULINDI ZONAL AGRICULTURAL RESEARCH & DEVELOPMENT INSTITUTE

Bulindi ZARDI

A GUIDE TO PROPAGATION AND GROWING OF MANGOES

NARO

MINISTRY OF AGRICULTURE, ANIMAL INDUSTRY AND FISHERIES (MAAIF) UGANDA

FOR GOD AND MY COUNTRY

THE REPUBLIC OF UGANDA

Back ground

Mango*(Mangiferaindica)* is one of the most popular fruits around the world. Mango fruits are relished for their succulence, exotic flavour and sweet taste. Mostly eaten fresh, they are also sold in canned or dried forms and have found their way into an enormous range of processed foods and drinks. Mango trees can grow up to 40 m high which presents a problem through harvesting, spraying and other management. Mango trees are topped with a rounded canopy of foliage. They may live for more than 100 years. They are usually improved by grafting onto the rootstocks of smaller trees so that they can't grow as tall. Some varieties which grow in Lake Albert Crescent Zone are: Keit, Tommy artkins, Bire, Zillate, Apple, Kent, and Boribo. Mangoes originated in northeast India, north western Myanmar and Bangladesh.

Improved mango fruit tree growing

Mangoes are improved by grafting or budding with materials of superior qualities as scions which are always on top of the graft union while the root stock is normally of indigenous origin and best suited to the local soil conditions. All the leaves or branches which may sprout below the graft union on the root stock must be quickly removed as they are of inferior quality.

Why improved mango fruit trees?

- Improved mango fruits yield better than local or ungrafted fruit trees (200-600 fruits per tree) during on years and these fruits weigh between 300grams - 2 Kg. a yield of 8-10 tons/ha can be obtained depending on management, variety and age of the orchard.
- Shortened time of maturity period of 2-3 years (cf with a local mango that takes 8-10 years) after establishment and time from flowering to maturity is only 100-150 days depending on the variety
- Fetch higher market prices as one mango is valued up to 1,000 U shs on the farm and twice as much in the supermarket
- Sweeter than the local varieties, have more juice, and are bigger than the local varieties .
- Can grow well in lake Albertine Crescent of Uganda with loamy, sand clay soils.
- They are Easier to manage like spraying since they are short.
- More than one desired varieties can be grafted on one rootstock which has many branches.

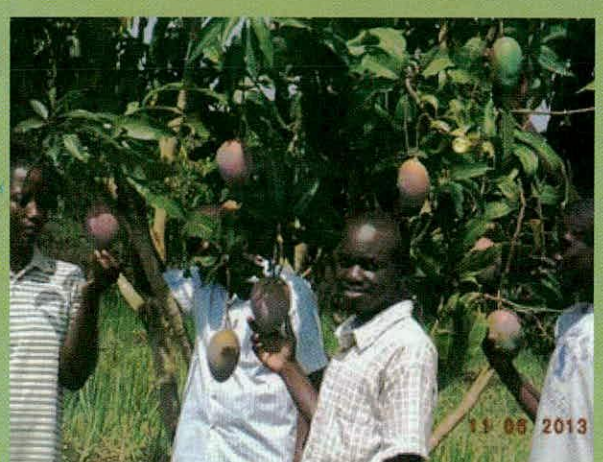

Plate 1: Keit mango variety mother garden at BUZARDI

Improved mango planting guidelines

- Collect fresh, clean seed with no weevils from local mango variety (Kagogwa) and remove the seed coat to fasten germination.
- Mix 60 parts of forest top soil to provide micorrhiza with 20 parts of manure and 20 parts of lake sand.
- Ensure that the mixture is moist for easy potting. Use polythene bags with size of 20 cm height 8cm diameter.
- Put the 3/4 of mixture in the pot leave a space for seed. Put the seed in the pots and add more soil on top.
- Water twice daily using a horse pipe and put the pots under the shade.
- Germination is between 2-3 weeks

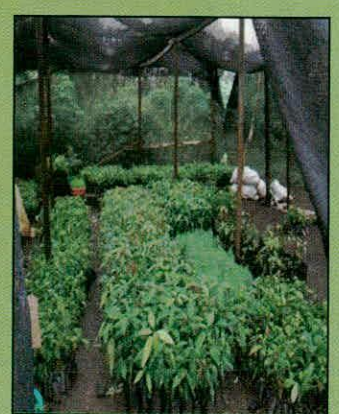

Plate 2: Mango rootstocks raised for grafting at BuZARDI

Field preparation

- The field is laid out by pegging points 8x8 m spacing in between where pits will be established. Pitting is done 2 weeks before planting.
- The holes are dug out at 60x60 cm depth and diameter.
- Put the top soil on one side and sub soil on the other side, mix manure with top soils in the pit.