

Oil palm intercropped with beans

Spacing

Oil palm is spaced at a triangular spacing of 9m by 9 m giving a population of 143 trees/ha.

Digging holes

Complete digging holes before the beginning of the planting (rainy) season. Holes should be 60 cm diameter and 60 cm deep. In digging holes topsoil should be separated from bottom soil and don't fill the holes until you are about to plant.

Planting

Use only good seedlings and plant them at the beginning of major rains. Where there is animal manure add 10 kg to each hole before planting.

Field maintenance

During the period of immaturity of about 3 years, the crop can be intercropped with leguminous cover crops or annual food crops. The areas immediately around the palms are kept clean weeded and fertilizer applied to promote growth and fruit bearing.



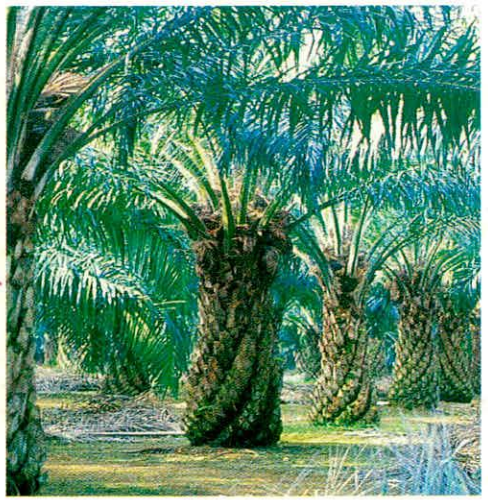
Oil palm flowers after 2 years after planting

The crop should be adequately supplied with nitrogen, phosphate, potassium and magnesium fertilizer and kept free from insect pests and diseases. While Coffee Research Institute is carrying out fertilizer trials to establish the optimum fertilizer rates for oil palm in different areas of Uganda, as a guideline oil palm tree of 3 to 8 years old may require not less than 3 kg of calcium ammonium nitrate, 2 kg of single superphoshate, 2 kg of muriate of potash and 0.6 kg of magnesium sulphate split in two applications per year. With good management, the palms will come into bearing 32 months from the date of planting in the field.

NARO

COFFEE RESEARCH INSTITUTE (CORI)

FIELD MANAGEMENT OF OIL PALM



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Introduction

Successful growing of oil palm requires suitable growing conditions and the technical know-how.

Optimum conditions for growing oil palm

- An evenly distributed annual rainfall exceeding 1800 mm or at least 150 mm each month.
- Monthly mean minimum temperature of 18oC.
- Monthly mean maximum temperature of 28 to 34oC.
- Sunshine period of 5-7 hours per day or solar radiation of around 350 cal per cm2 per day
- Fertile soils of at least 1 metre in depth with high clay content.

If the above conditions are met, the oil palm can yield above 30 metric tons of fresh fruit bunches (FFB) per hectare per year.

Suitable areas for oil palm growing in Uganda

It is anticipated that areas with average annual rainfall of 1400 mm or a minimum of 1200 mm could support oil palm production with estimated fresh fruit bunch yields of 12 to 17 tons/ha/year provided the soils are well drained and can supply adequate levels of organic matter, major plant nutrients such as Nitrogen, phosphorus, potassium, calcium, and magnesium.

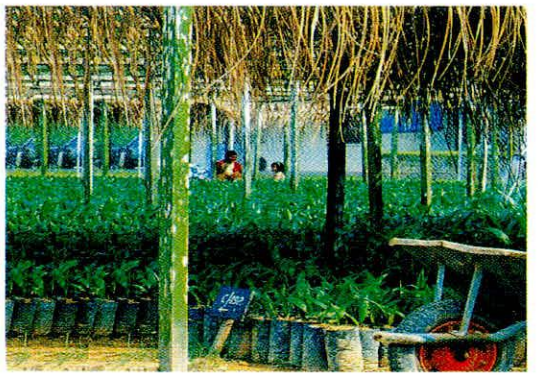
These areas are estimated to cover:

- Kalangala district and the land within a radius of 20 km of the Northern shore of Lake Victoria comprising the districts of Mpigi, Mukono, Jinja, and Iganga.
- The districts of Bundibugyo, Masindi, Hoima, Kibale and Kabarole.

The oil palm nurseries

In order to obtain high yields of crude palm oil, the most important factor is to use recommended varieties. The best planting material at the present is the cross between Dura and Pisifera (DxP), which is known as the Tenera. These materials are available from countries such as Costa Rica and Nigeria.

The germinated seeds are planted in pots of 10cm by 15cm in the pre-nursery and maintained for a period of 4 months



Pre-nursery

After this period the seedlings are planted in the polybags (large bags of 38 cm diameter and 45 cm depth) in the main nursery and maintained for a period of 10- 15 months before planting in the field. In the nurseries adequate irrigation or watering, correct fertilization and immediate remedial treatment of any disease or pest are important to ensure the healthy, well grown seedlings for transplanting in the field.



Main nursery

Field preparation

This should start at least 1 year before planting oil palm in the case of a forest site. Slash the vegetation before felling the trees but avoid burning.

Control perennial weeds by spraying with Touchdown or Roundup at 220 mls and 260 mls of herbicide per 15 litres of sprayer respectively. The land should be tilled to facilitate intercropping with annual crops or/and use of cover crops.