

6.0 Mulching

Mulching in young coffee is done in order to;

- Preserve moisture
- Suppress weed growth
- Supply nutrients
- Improve soil structure
- Moderate soil temperatures
- Reduce incidences of thrips

7.0 Weed control

Hand weeding is recommended in young coffee.

8.0 Fertilization

Apply 50 g of CAN per tree six months after establishment.

9.0 Irrigation of young coffee

To be done using buckets, hoses, furrows or drip irrigation.

10.0 Highlights on good agricultural/hygienic practices

- Coffee should be grown in environments which are free from any contaminants either biological or chemical
- Avoid deep planting and water logging.
- Avoid contact of the mulch with the stem in order to discourage fungal and insect pest attack on the tree

- Use **ONLY** recommended pesticides and fertilizers
- To reduce pesticide usage particularly fungicides, planting of disease resistant cultivars is encouraged



Proper establishment and mulching



Compiled by:

D.A. Odeny, J.M. Minai and J.M. Luusa

For Further Information, Contact:

The Institute Director

Coffee Research Institute,

P. O. Box 4-00232, Ruiru, Kenya

Tel : +254 724 527 611, +254 733 333 060

Farmers enquiries: 0700 756 753

E-mail: director.cri@kalro.org

<http://www.kalro.org>

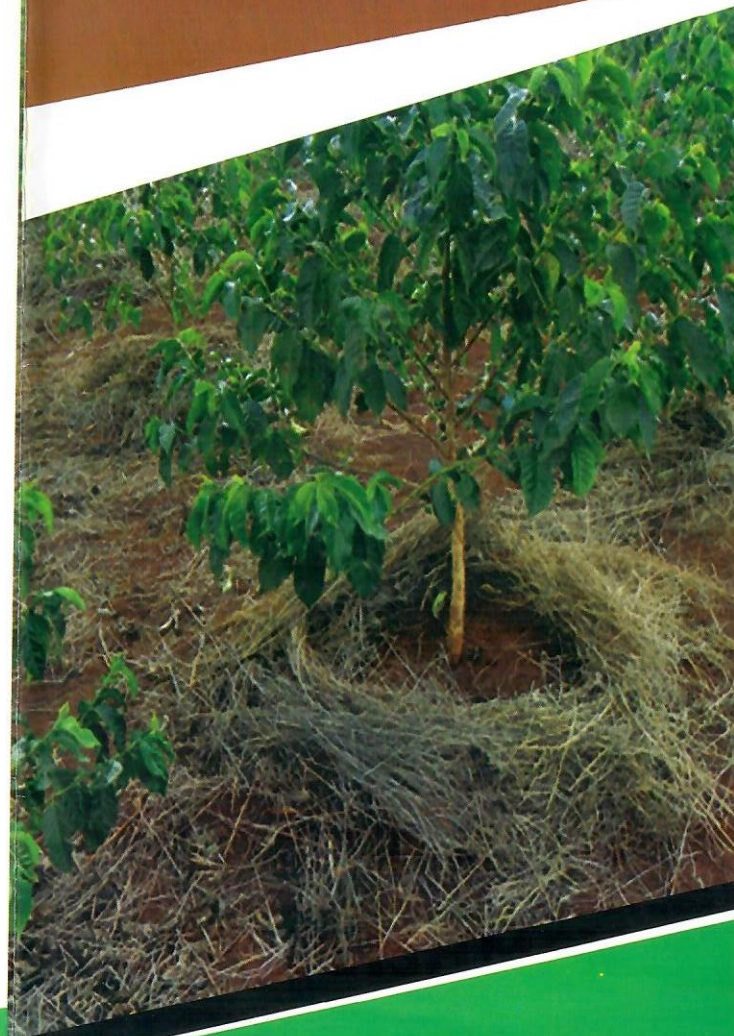
Editorial and Publication Coordinated by:

Knowledge, Information and Outreach Unit

KALRO Information Brochure Series No. 2017/010

Kshs. 30

COFFEE FIELD ESTABLISHMENT



1.0 Climatic requirements

- Altitude 1400- 2000 m above sea level East of the Rift valley and 1500- 1900 m above sea level West of Rift valley
- Temperature range 15°C -30°C. The diurnal range of temperature should not exceed 19°C
- Average annual rainfall 1000 mm and 1145 mm East and West of Rift, respectively.

2.0 Soils

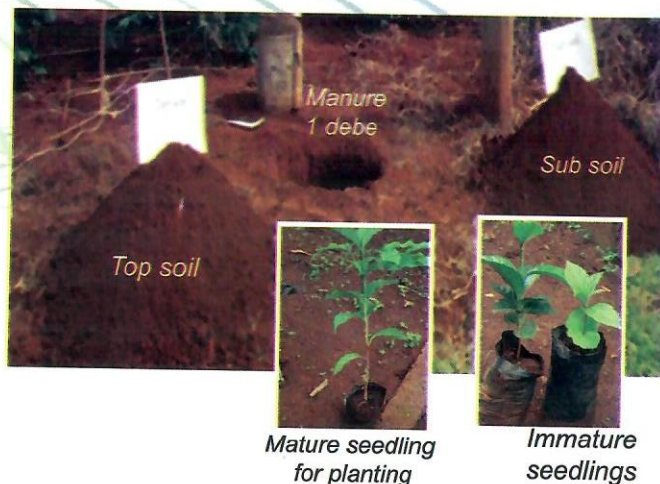
- Free draining up to 1.5 m.
- Fertile with a pH range 4.4- 5.4
- High water holding capacity

3.0 Commercial varieties

VARIETY	ALTITUDE	SPACING DENSITY	ATTRIBUTES
Batian	All coffee growing areas	2.1 x 2.5 m (7 x 8ft) 1900 trees/ha	- Resistant to CBD / Coffee Leaf Rust (CLR) - Early maturing (24 months) - Cost effective (reduces costs by 30%)
Ruiru 11	All coffee growing areas	2 x 2 m (6.6 x 6.6ft) 2500 trees/ha	- High yielding, high quality - Ruiru II has compact growth; Batian is tall in stature - Ruiru II is a hybrid; Batian a true breed
SL 34	High altitude with good rainfall	2.74 x 2.74m (9 x 9ft) 1330 trees/ha	-High yielding -High quality
SL 28	Medium to high altitude coffee zones without serious leaf rust	2.74x 2.74m (9 x 9ft) 1330 trees/ha	-High yielding -High quality
K7	Low altitude	2.74x 2.74m (9 x 9ft) 1330 trees/ha	-Tolerant to CLR -Tolerant to drought -High yielding and high quality

4.0 Site selection

- Level or gently sloping
- On steeply sloping land, appropriate soil conservation measures such as benches, contours. should be undertaken



5.0 Land preparation and planting

The following procedure is recommended in order to establish coffee tree for a long productive life span and high quality yields.

- Prepare the land by digging out tree stumps and perennial weeds
- Dig the holes at least 3 months before planting (during the dry season) to allow them to weather
- Keep the top soil (first 6 inches) separately from the sub-soil (Plate 1)
- Hole size should be at least 60 x 60 x 60 cm (2 x 2 x 2 ft)
- The planting hole mixture should include top soil, 1 debe (20 lt tin) of well decomposed manure and 100 gm TSP
- In case nematodes are suspected (e.g. in a banana farm or a case of uprooting neglected coffee to replant), add an appropriate nematicide such as 10 g of Temik 15 G.
- Fill the holes with the above mixture one month before planting and mound them slightly with subsoil to allow for settling

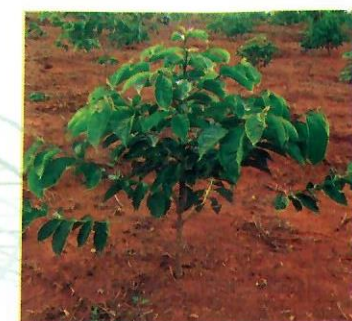


Planting hole

- Place pegs at the centre of holes and align them properly
- Plant at the start of the main rain season after the soil in the holes is wet up to a depth of at least 60 cm (2 ft)
- Remove the pegs and scoop only adequate amount of soil to accommodate the roots
- Remove the poly bag before planting and loosen the soil without disturbing the roots
- Spread the roots in their natural plane
- Firm the soil with hands as you fill (without compacting) and avoid stepping on it
- Maintain the rooting zone of the seedling (bury only up to poly bag soil level) to avoid either deep or shallow planting



Poor planting
(Planted in Depression)



Proper planting