

Price of charcoal

Charcoal will be bought from farmers at market price.

Support for farmers

- Farmers are expected to meet all the costs of establishing their woodlots - TE only guarantees market for the charcoal.
- Organized groups of farmers can contribute and raise their own seedlings but register with TE for market guarantee.
- Groups can look for assistance from anywhere they wish, but have to plant the appropriate tree species for them to register with TE.
- Tree nursery managers can recruit farmers to grow trees. They then raise the desired seedlings for the farmers to buy.
- Farmers can raise their own tree seedlings individually.
- Organized groups of farmers can be given an interest-free group loan of up to Ksh. 20,000 for every 100,000 seedlings raised. This will ensure enough seedlings for all the participating farmers. The groups of farmers are expected to repay the loan within six months. It translates to about Ksh. 200 per 1000 seedlings. This can be paid back by individual farmers contributing or the group can raise additional seedlings like *Grevillea robusta* which are in high demand and sell to non-members to raise revenue for repaying back the loan.

For more information contact:

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THE CHARCOAL PROJECT

Contract Tree Growing for Charcoal

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Thuiya Enterprises Limited (TE)

Thuiya is a private limited company specializing in tree farming and marketing of wood and agricultural products

Goal

To improve farmers livelihoods by facilitating contract growing of wood for charcoal on farmers' land that would otherwise remain uncropped and idle.

Specific objectives for the charcoal project

- Promote tree growing for charcoal by guaranteeing market.
- Facilitate seedlings production for selected tree species.
- Facilitate the efficient processing of charcoal from on-farm woodlots.
- Organize farmers into charcoal marketing groups
- Organize farmers into marketing groups for the short season crops that will be intercropped with the trees.

Species promoted

Grade 1 Charcoal

- Acacia mearnsi* – Moderate rainfall areas (1000-1200 mm)
- Casuarina equisetifolia* – Low/high rainfall areas (200-3500 mm)
- Acacia melanoxylon* – Moderate/high rainfall (750-2300 mm)

Grade 2 Charcoal

- Eucalyptus grandis* – Low/high rainfall area (100-1800 mm)
- Eucalyptus saligna* – Moderate/high rainfall (800-1800 mm)
- Eucalyptus camaldulensis* – Low/high rainfall (250-2500 mm)
- Acacia xanthophloea* – Low/high rainfall areas
- Cordia africana* – Moderate/High rainfall (700-2000 mm)

Production cycles

Trees will be harvested within 4 - 7 years depending on the desired quality and market demand.

Planting pattern

Planting trees in woodlots is the preferred design. Woodlots should be intercropped with short season crops to increase land productivity and also to act as a nurse crop for the trees. The recommended crops include, beans, Irish potatoes, groundnuts and vegetables.

Planting population

Recommended spacing for charcoal is 2.0 metres between rows and 1.5 metres within rows for woodlot designs. Trees planted on farm boundaries or strips should be spaced 1.5 metres apart. About 1000 seedlings per acre

Establishment

- Acacia mearnsi* – direct seeding
- Acacia melanoxylon* – from seedlings
- Acacia Xanthophloea* – from seedlings
- Casuarina equisetifolia* – from seedlings
- Cordia africana* – from seedlings
- Eucalyptus grandis* – from seedlings
- Eucalyptus camaldulensis* – from seedlings
- Eucalyptus saligna* – from seedlings

Sources of seeds

Seeds can be obtained from KEFRI seed centre, the Forest Department of the Ministry of Environment and Natural resources, and Ministry of Energy at a cost. Individuals/groups can also collect their own seeds.

Management after harvesting

- Acacia mearnsi* – natural regeneration
- Acacia melanoxylon* – from seedlings
- Acacia Xanthophloea* – coppicing
- Casuarina equisetifolia* – replanting
- Cordia africana* – coppicing
- Eucalyptus grandis* – coppicing
- Eucalyptus camaldulensis* – coppicing
- Eucalyptus saligna* – coppicing

Expected yields of charcoal

Expected yields are about 160-300 (30kg) bags of charcoal per acre depending on species, spacing, age, and management.