

Leaflet No. 25

Tree Seed Information Leaflet



Pinus patula



Kenya Forestry Research Institute

June 2009

Species: *Pinus patula* Schlect. & Cham.

Family: Pinaceae

Common name: Mexican weeping pine

Local name: Mucinda-nugu (Kikuyu)
Omobunduki (Kisii)

Description: *Pinus patula* is an evergreen tree growing to a height of 35m with light green drooping foliage and long straight bole. The branches are almost horizontal turning up at the tips. The bark is grey to dark brown, fairly smooth and papery. The cones are green and turn to pale brown at maturity.

Distribution: The species is native to Mexico. It can tolerate most soils and is widely planted in highlands with altitude of 1700 to 3000m above sea level and rainfall of over 1000mm. It is a popular plantation species in the Rift Valley, Western and Central highlands.

Flowering and fruit development: The main flowering period in most places coincides with the onset of the rainy season. Pollination is by wind and cones take about 6 months to mature.

Seed collection method: The mature cones are collected from standing trees by experienced climbers or from felled trees when seed collection is synchronized with tree harvesting. Ripe cones are picked or cut using looping shears or hand secateurs.

Seed extraction and drying: Cones are dried in the sun until they open. Seeds are extracted by shaking the open cones in a cone tumbler or by shaking the cones in a basket. Seeds are cleaned by sieving and hand sorting to remove leaves, small twigs and other impurities. Seeds are then dewinged by rubbing between the hands. The de-winged seed is then cleaned using sieves, winnowing or a mechanical seed blower.

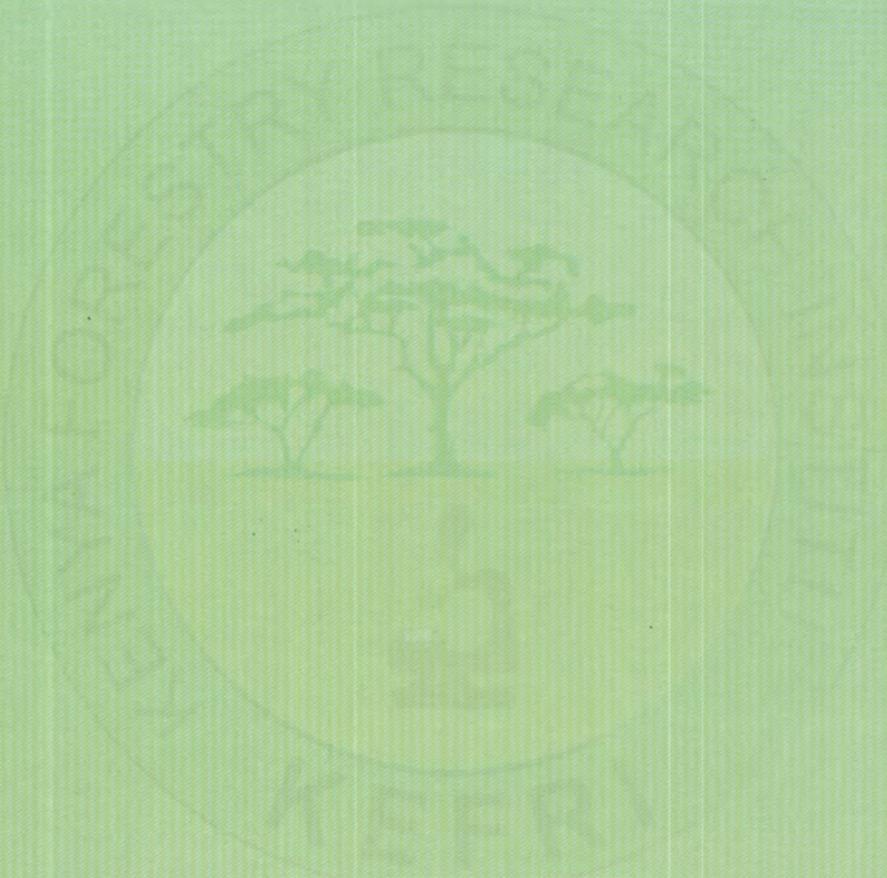
Number of seeds per kg: There are 140,000 to 160,000 seeds per kilogram depending on the provenance and weather conditions during the seeding season.

Seed storage: Seeds can be stored in airtight containers (glass or plastic jars, or aluminium packets) in a cool dry place for 1 to 2 years with no significant loss in viability.

Seed sowing and germination: Seeds germinate within 7 to 14 days after sowing. Pre-sowing treatment is not necessary. The average germination rate is 70%. The expected number of seedlings per kg of seed is about 60,000.

To sow, seeds are broadcasted thinly and evenly on a seedbed containing sand or a mixture of sand and soil and covered with a thin layer of sand/soil. Light mulch (dry grass) is spread over the seedbed to keep it moist. Watering is done regularly (morning and evening) checking daily for any emergent seedling. Mulch is removed immediately germination starts. The young seedlings are transplanted (pricked out) to soil that has to be collected from under pine plantation. This ensures that mycorrhiza (Soil micro-organisms) which are necessary for growth of pine are present. Seedlings are planted out after 4 to 6 months when they are about 30cm tall.

Uses: *Pinus patula* is used for timber, pulp, firewood, post, shade, ornamental and resin production.



For more information contact

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