**PESTICIDAL PLANT LEAFLET**

*Dysphania ambrosioides* L.

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**Taxonomy and nomenclature**

Family: Chenopodiaceae  
Synonym: *Chenopodium ambrosioides* (L.) Mosyakin & Clemants  
Vernacular/ common names:  
(English): Wormseed, Mexican tea  
(Maa): Ngaingunudero  
(Kipsigis): Kibirosit  
(Kamba): Muanzo/ Mwianzo

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**Distribution and habitat**

It is found throughout the tropical and subtropical regions of the world, but mostly polymorphic in South America. It is found in a variety of disturbed habitats, gardens, cultivated fields, waste ground but most often on sand by rivers. Preferred altitude ranges between 550-1620 m. In Kenya, it is found in Tsavo East National Park, in Nyeri, Limuru, Thika, Machakos and Laikipia.

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**Uses**

*Pesticidal* - Leaf decoction is used as a fumigant against mosquitoes and flies and kills snails. Also used as a fungi toxicant in post harvest grain protection. Added to fertilizers to inhibit insect larvae. Oil used as post-harvest grain protection as a fungi toxicant. Powdered leaves can be added to stored grain at around 0.5% w/w to control Bruchids in bean or up to 5% w/w for the control of maize storage pests including *Sitophilus zeamais*. Consumption of the leaf powder should be avoided on account of the potential harmful effects of the active ingredient ascaridole although this compound is volatile and will naturally escape stored products. Regular agitation of stored bags may help to reinvigorate the effects of the plant material. Winnowing off plant material before use will reduce risk.

*Food* - Leaves used as condiments in soups or tea. Soaked and cooked seeds are consumed in moderation.

*Medicinal* - Tea drunk to expel parasitic worms from the body of humans and livestock. Used as remedy for stomach pains, used to clean haemorrhoids, detoxify snakebites and other poisons, clean wounds. Oil used to treat athletes foot and insect bites.

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Photograph B T Wursten
**Botanical description**

*D. ambrosioides* is a hermaphroditic herb, usually annual, up to 180 cm high, upright, much branched, green. Leaves are mostly lanceolate (up to 4 cm long and 1 cm wide) and toothed. Flowers are small, green, in an elongated, dense, terminal cluster, petals none.

Note: Always verify your plant specimen and deposit a voucher in a verified herbarium.

**Fruits and seed description**

The bracts of the fruits are green or brown, often enclosed in infolded perianth. The fruit odour is strong, the taste pungent and bitter. Seeds are horizontal or vertical (rarely oblique), lenticular to subglobose, seed coat black, brown or reddish brown, embryo annular or horseshoe-shaped, surrounding copious farinaceous perisperm.

**Flowering and fruiting habit**

In Kenya, it flowers in July-August and the fruits are ripe in September.

**Harvesting**

The plant can be harvested by cutting the centre stem first, to encourage bushing. The plant can be pruned frequently to prevent flowering and assure continuing supply of leaves. Plants are cut for oil or dried for liquid extracts and powder. Leaves are also picked and used as required fresh.

**Propagation and cultivation**

It grows easily in most soils but prefers sandy loam and sunny dry zones and soil pH 5.2-8.3. Seeds germinate easily when sown fresh. Germination rates are good and seedlings appear within a few days of sowing the seed.

**Safety measure**

Always use gloves, protective clothing and caution when handling and applying plant materials to field crops or stored commodities and minimise exposure of consumers. Avoid contact with the skin. In case of accidental contact, immediately wash the affected area with clean running water.

Caution: This plant can be invasive

**Selected readings**

USDA Plants database. ([http://plants.usda.gov](http://plants.usda.gov)).


Raintree’s Tropical Plant Database. ([rain-tree.com](http://rain-tree.com)).


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