PLANT FACT SHEET

Carthamus tinctorius L.

GENUS *Carthamus* **FAMILY** Asteraceae

COMMON NAMES Safflower

EDIBLE PARTS AND USES

Edible parts: Seeds, Leaves, Seeds - oil, Flowers, Spice, Vegetable

The young shoots and leaves are eaten cooked or raw. They can be seasoned with soy sauce.
The seeds are hulled and roasted. They are eaten as snacks. They are also used in chutneys.
The seed oil is used in cooking and as a salad oil. (This can be done by boiling the seeds and floating off the oil.)
The dried edible petals are used to colour foods. They can give red or yellow dyes.
The slightly bitter petals can be cooked with rice.

DESCRIPTION

An erect annual herb. It grows to 60-150 cm high. It has any branches. It has spines but the number vary. The stems are white and stiff and round with fine grooves along their length. The kinds with more spiny leaves are better for oil production. The leaves are arranged in spirals around the stem. They do not have leaf stalks. The leaves are dark green and glossy. They are 10-15 cm long and 2-4 cm wide. The flower head is made up of many small flowers. They are 13 mm long and like tubes. They are yellow to orange in colour. The fruit is 4 angled and a hard hull and a single white or grey seed. The seed is oblong.

HABITAT

It grows in both tropical and temperate zones. It does better in drier regions. It cannot tolerate waterlogging. It does not suit the low wet tropics. It needs a good dry season for drying. It is resistant to drought. It can stand some wind and salinity. High temperatures can result in poor seed set. It does best where temperatures are 17-20°C on average. At the equator it can grow at 1600-2000 m altitude but most commonly in other regions it grows below 900 m altitude. It grows to 3,000 m altitude in Ethiopia. A pH of 5-8 is suitable. It can grow in arid places. It can grow in salty and alkaline soils. It suits hardiness zones 4-10. Tasmania Herbarium.

PRODUCTION

Cultivation

Plants are grown from seed. A fine seed bed is required and seed are broadcast or drilled. It is best sown about 2-3 cm. Seeds germinate in 4-7 days and are best at 15°C. Plants should be topped as soon as the first buds appear to increase the number of flower heads. A spacing of 15-30 cm between plants is suitable. Wider spacing gives more heads per plant and closer spacing gives higher yields per area. A seeding rate of 20-30 kg

per hectare is required. Crops respond to fertiliser if there is sufficient moisture. In very dry weather, harvesting in the more moist morning or evening avoids seed shattering. Plants are uprooted and heaped for a few days before threshing.

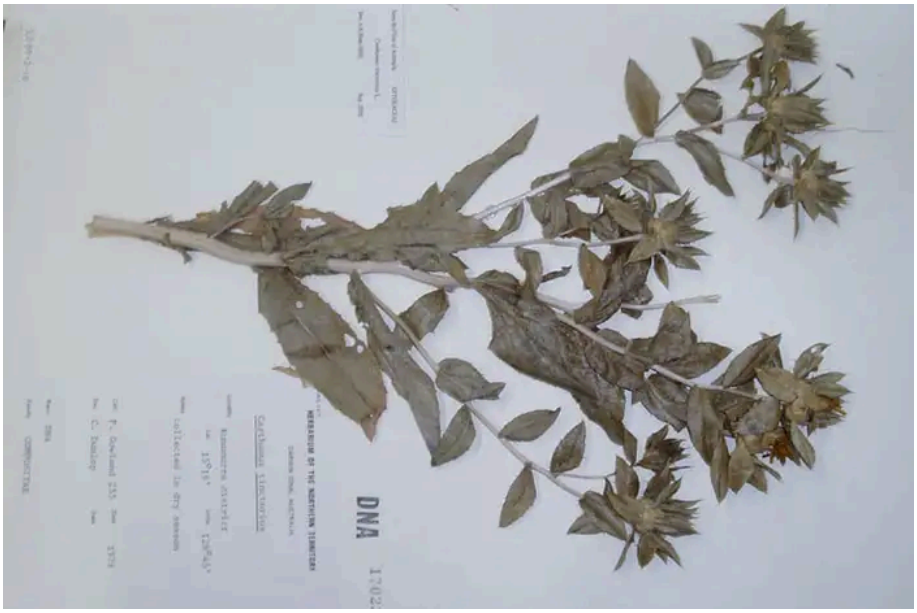
Harvesting and Seed Production

Plants take 120 days to maturity. Seeds are ripe about 35-40 days after maximum flowering. Plants are harvested when leaves turn brown.

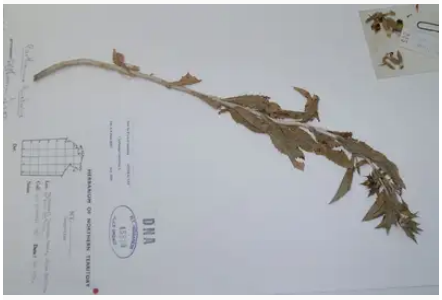
NOTES

There are 14 Carthamus species. They are thistle like plants. They are mostly Mediterranean.

PICTURES



Credit: Food Plants International (Bruce French)



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