

FarmLens Ltd

Website: farmlens.africa | App: app.farmlens.africa | Headquarters: Nairobi, Kenya



Crop details

Safflower

Carthamus tinctorius

Family: Asteraceae

Categories

Oil & Industrial

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Quick stats

Family	Asteraceae
Typical harvest	1.5 t/ha
Varieties	2
Pests and diseases	2
Seasons	2

Crop profile

Growth habit	annual
Days to harvest	100-140
Main uses	Oilseed; dye
Pollination	insect
Origin and where it grows	SW Asia; semi-arid

Weather, soil and spacing

Best temperature	15 - 28 °C
Rainfall	300 - 500 mm/yr
Altitude	0 - 2200 m
Best pH	6.5 - 7.5
Soil type	Well-drained; tolerates salinity
Row spacing	50 cm
Plant spacing	20 cm
Planting depth	3 cm
Seed rate	15 kg/ha

Simple notes for farmers

About the crop: This crop is annual; it grows and is harvested in one season. Harvest typically starts about 100-140 days after planting.

Main use: Farmers mostly grow this crop for oilseed; dye.

Pollination: Mainly insect; healthy flowers and pollinators improve fruit set.

Where it grows: SW Asia; semi-arid. Grouped under: Oil & Industrial.

Best climate: 15 - 28 °C; 300 - 500 mm/yr; up to about 2200 m a.s.l.

Soil: Best at pH 6.5 - 7.5; well-drained; tolerates salinity.

Farmer guide (Mwongozo wa Mkulima)

<u>Planting</u>	Direct-seed Safflower into a fine firm seedbed at onset of reliable rains.
<u>Transplanting</u>	Not transplanted.
<u>Irrigation</u>	Maintain moisture during establishment and grain filling where irrigation is used.
<u>Fertigation</u>	Split nitrogen between planting and early vegetative growth where moisture allows.
<u>Pest scouting</u>	Scout Safflower for aphids, armyworms, foliar diseases, and lodging risk.
<u>Pruning and training</u>	No pruning needed; keep weeds low during early establishment.
<u>Harvest</u>	Harvest Safflower when grains harden and heads dry down evenly.
<u>Postharvest</u>	Dry grain well before threshing and storage.

Nutrient schedule (Mbolea kwa Hatua)

#	Stage	DAP	Product	Rate	Targets (kg/ha)	Notes
1	Basal	0	DAP 18-46-0	70 kg/ha	N: 18, P?O?: 46, K?O: N/A	Starter fertilizer for Safflower establishment.
2	Topdress	30	CAN 26% N	80 kg/ha	N: 26, P?O?: N/A, K?O: N/A	Topdress Safflower before rain or irrigation.

Nutrient requirements

Nutrient	Stage	Amount	Unit
N	Basal	30	kg/ha
P?O?	Basal	20	kg/ha
K?O	Basal	20	kg/ha
N	Topdress	20	kg/ha

Field images



Varieties

Name	Country	Maturity (days)	Traits
Local Safflower	KE	120	Drought tolerant
Dryland Safflower	ET	140	Spiny oilseed line tolerant to drought.

Fertilizer recommendations

<u>Stage</u>	<u>Product</u>	<u>Rate</u>	<u>Notes</u>
Planting	DAP	100	Basal phosphorus for Safflower establishment.
Topdress	CAN	100	Nitrogen support for Safflower vegetative growth.

Pests and diseases

<u>Name</u>	<u>Type</u>	<u>Symptoms</u>	<u>Management</u>
Aphids	pest	Honeydew; stunting	Natural enemies; spot sprays
Leaf rust	disease	Rust pustules on leaves reducing grain fill.	Use tolerant varieties, rotation, and timely disease control.

Yields

<u>System</u>	<u>Typical</u>	<u>Min</u>	<u>Max</u>	<u>Notes</u>
rainfed	1.2	0.5	2	
Rainfed smallholder production	1.7	1	2.9	Typical grain yield under practical Safflower management.

Season calendars

<u>Country</u>	<u>Region</u>	<u>Planting</u>	<u>Harvest</u>
KE	Semi-arid	Mar–Apr	Jul–Sep
KE	Highland Grain Zones	Mar-Apr	Jul-Aug

Region suitability

<u>Country</u>	<u>Region</u>	<u>Suitability</u>
KE	Highland Grain Zones	Medium
KE	Semi-arid	High

Source: **FarmLens Ltd** - farmlens.africa and app.farmlens.africa. Headquarters: Nairobi, Kenya. This guide was generated from the FarmLens database.