FarmLens Ltd

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Crop details

Tangerine

Citrus reticulata

Family: Rutaceae

Categories

Fruits & Nuts

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Quick stats

Family	Rutaceae
Typical harvest	17.3 t/ha
Varieties	3
Pests and diseases	8
Seasons	3

Crop profile

Growth habit	perennial
Days to harvest	365+
Main uses	Citrus fruit
Pollination	insect
Origin and where it grows	SE Asia; tropics/subtropics

Weather, soil and spacing

Best temperature	18 - 28 °C
Rainfall	800 - 1200 mm/yr
Altitude	0 - 2000 m
Best pH	6 - 7
Soil type	Well-drained loam
Row spacing	600 cm
Plant spacing	600 cm
Planting depth	60 cm
Seed rate	kg/ha (check local recommendation)
Nursery days	270

Simple notes for farmers

About the crop: This crop is perennial; once planted it can keep producing for many years. Harvest typically starts about 365+ days after planting.

Main use: Farmers mostly grow this crop for citrus fruit.

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

Where it grows: SE Asia; tropics/subtropics. Grouped under: Fruits & Nuts.

Best climate: 18 - 28 °C; 800 - 1200 mm/yr; up to about 2000 m a.s.l.

Soil: Best at pH 6 - 7; well-drained loam.

Farmer guide (Mwongozo wa Mkulima)

Planting	Plant at onset of rains or irrigate; incorporate compost and starter P; stake and mulch young trees.
Transplanting	Protect from wind and sunscald; maintain weed-free basins.
Irrigation	Even moisture, especially bloom to fruit fill; avoid prolonged drought/ponding.
Fertigation	Split N into multiple light feeds; ensure K and Ca/Mg; adjust via leaf tests.
Pest scouting	Scout for citrus fruit flies, aphids, scales/mealybugs, psyllids (HLB risk), canker and Phytophthora.
Pruning and training	Form strong framework; remove suckers and crossing wood; open canopy for light and airflow.
Harvest	Harvest at full color and maturity index (°Brix/acid); clip to avoid rind tearing.
Postharvest	Shade-cool; handle gently; store 5–10 °C at high RH; avoid condensation and decay.

Nutrient schedule (Mbolea kwa Hatua)

#	Stage	DAP	Product	Rate	Targets (kg/ha)	Notes
1	Basal	0	NPK 15-15-15	180 kg/ha	N: N/A, P?O?: 10, K?O: N/A	Mix in backfill; keep fertilizer off stem
2	Vegetative split N	90	CAN 26% N	150 g/tree	N: 10, P?O?: N/A, K?O: N/A	Ring-apply under canopy; water in
3	Pre-bloom balanced	250	NPK 17-17-17	200 g/tree	N: 10, P?O?: 10, K?O: 10	Light dose before bloom
4	Fruit fill K boost	320	Sulfate of potash (SOP)	250 g/tree	N: N/A, P?O?: N/A, K?O: 20	Prefer SOP for fruit quality
5	Micronutrient foliar	300	Zn/Mn/B foliar (as label)	0 —	N: N/A, P?O?: N/A, K?O: N/A	Apply during cool hours

Nutrient requirements

Nutrient	Stage	Amount	Unit
N	Basal	60	kg/ha
P?O?	Basal	40	kg/ha
K?O	Basal	80	kg/ha
N	Establishment	20	kg/ha
P?O?	Establishment	20	kg/ha
K?O	Establishment	20	kg/ha
N	Vegetative	50	kg/ha
K?O	Vegetative	40	kg/ha
N	Flower_set	20	kg/ha

Nutrient	Stage	Amount	Unit
P?O?	Flower_set	20	kg/ha
K?O	Flower_set	40	kg/ha
N	Fruit_fill	10	kg/ha
K?O	Fruit_fill	60	kg/ha
N	Maintenance	40	kg/ha
P?O?	Maintenance	10	kg/ha
K?O	Maintenance	40	kg/ha

Field images



Varieties

Name	Country	Maturity (days)	Traits
Local Tangerine	KE	720	Sweet; easy peel
Local mandarin selection	KE	900	Good peelability; fresh market
Clementine-type selection	TZ	900	High juice; sweet; small–medium fruit

Fertilizer recommendations

Stage	Product	Rate	Notes
Basal	Compost (well-decomposed)	4000	Mulch rings
Vegetative	CAN 26% N	80	Split 2–3× on young trees
Fruit fill	Sulfate of potash (SOP)	60	Quality improvement

Pests and diseases

Name	Type	Symptoms	Management
Citrus psyllid	pest	Leaf curling; honeydew	Monitoring; IPM; prune
Fruit flies (Tephritidae)	pest	Stings; larval tunnels; fruit drop	Protein baiting; sanitation; fruit bagging; timely harvest

Name	Type	Symptoms	Management
Citrus aphids	pest	Leaf curl; honeydew/sooty mold; virus risk	Control ants; conserve predators; selective sprays if needed
Scales & mealybugs	pest	Sticky honeydew; sooty mold; twig decline	Prune for airflow; oils/soft insecticides; biological control
Citrus psyllid (HLB vector)	pest	Shoot distortion; HLB risk	Vector monitoring; rogue infected plants; IPM program
Citrus canker	disease	Corky lesions on leaves/fruit	Sanitation; windbreaks; copper protectants
Phytophthora gummosis/root rot	disease	Gum exudation; collar rot; decline	Good drainage; avoid trunk wetting; phosphonates if needed
Greasy spot/sooty blotch	disease	Leaf spots; premature drop	Canopy opening; protectants in wet weather

Yields

System	Typical	Min	Max	Notes
orchard	15	8	25	
smallholder rainfed	12	8	18	25–50 kg/tree common at maturity
irrigated/intensive	25	15	35	Good cultivars, pruning, nutrition

Season calendars

Country	Region	Planting	Harvest
KE	Coastal & mid-altitudes (long rains)	Mar–Apr	Jul–Nov
KE	Coastal & mid-altitudes (short rains)	Oct–Nov	Feb–Jun
TZ	Coastal belt	Mar–Apr	Aug–Dec

Region suitability

Country	Region	Suitability
KE	Coastal & mid-altitudes	High
KE	Cool highlands (>1800 m)	Low
KE	Low to mid-altitudes	High
TZ	Coastal belt & isles	High
UG	Warm lowlands (lake shore)	Medium