FarmLens Ltd

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

Crop details

Black Nightshade

Solanum nigrum complex / Solanum villosum

Family: Solanaceae

Categories

Vegetables

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Quick stats

Family	Solanaceae
Typical harvest	13.0 t/ha
Varieties	48
Pests and diseases	96
Seasons	48

Crop profile

Growth habit	annual
Days to harvest	75
Main uses	Young leaves and tender shoot tips cooked as vegetables, often mixed with other African leafy vegetables and served with ugali or other staples.
Pollination	insect
Origin and where it grows	Black nightshade (managu/osuga) grows widely in East Africa in home gardens, small fields and around towns, both as a wild and domesticated vegetable.

Weather, soil and spacing

Best temperature	18 - 26 °C
Rainfall	600 - 900 mm/yr
Altitude	800 - 2500 m
Best pH	6 - 6.8
Soil type	Fertile, well-drained loam or sandy loam with good organic matter so Black nightshade (managu/osuga) can keep producing tender leaves.
Row spacing	40 cm
Plant spacing	20 cm
Planting depth	1 cm
Seed rate	3 kg/ha
Nursery days	25

Simple notes for farmers

About the crop: This crop is annual; it grows and is harvested in one season. Harvest typically starts about 75 days after planting.

Main use: Farmers mostly grow this crop for young leaves and tender shoot tips cooked as vegetables, often mixed with other african leafy vegetables and served with ugali or other staples..

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

Where it grows: Black nightshade (managu/osuga) grows widely in East Africa in home gardens, small fields and around towns, both as a wild and domesticated vegetable.. Grouped under: Vegetables.

Best climate: 18 - 26 °C; 600 - 900 mm/yr; up to about 2500 m a.s.l.

Soil: Best at pH 6 - 6.8; fertile, well-drained loam or sandy loam with good organic matter so black nightshade (managu/osuga) can keep producing tender leaves..

Farmer guide (Mwongozo wa Mkulima)

Planting	Sow Black nightshade (managu/osuga) in a small nursery bed or trays using fine soil mixed with compost. Keep moist and partly shaded during hot hours. Transplant healthy seedlings to the field once they are 10–15 cm tall.
Transplanting	Water the nursery before lifting. Transplant in the late afternoon or on a cloudy day, plant at the same depth, firm soil gently and water immediately.
Irrigation	Keep the soil moist but not waterlogged. Regular moisture after each picking helps plants to regrow quickly and keep leaves soft.
Fertigation	Where drip is available, give small, frequent doses of balanced fertilizer with a bit more nitrogen to support leafy growth, but avoid overdoing it near harvest.
Pest scouting	Inspect Black nightshade (managu/osuga) weekly for leaf-eating caterpillars, aphids, whiteflies and leaf spots. Look at the growing tips and lower leaves.
Pruning and training	Pinch or cut the top early to encourage branching, then harvest leaves and young shoots regularly instead of uprooting the whole plant.
Harvest	Begin harvesting 5–7 weeks after transplanting when plants have enough leaves. Cut tender shoots and leaves, leaving some foliage so plants can regrow.
Postharvest	Harvest in the cool morning or evening. Keep bunches in shade, avoid crushing and sprinkle lightly with clean water if they start to wilt. Deliver to market quickly.

Nutrient schedule (Mbolea kwa Hatua)

#	Stage	DAP	Product	Rate	Targets (kg/ha)	Notes
1	Basal at transplanting or sowing	0	NPK 17-17-17 or 15-15-15	120 kg/ha	N: 20, P?O?: 20, K?O: 20	Apply along rows or broadcast and incorporate lightly before planting Black nightshade (managu/osuga).
1	Basal at transplanting or sowing	0	NPK 17-17-17 or 15-15-15	120 kg/ha	N: 20, P?O?: 20, K?O: 20	Apply along rows or broadcast and incorporate lightly before planting Black nightshade (managu/osuga).
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2	Early topdress	14	CAN 26% N	60 kg/ha	N: 16, P?O?: 0, K?O: 0	Place fertilizer between rows and lightly mix with soil or water in.
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3	Topdress after first main harvest	35	Urea 46% N or CAN	40 kg/ha	N: 18, P?O?: 0, K?O: 0	Apply after cutting to support continued leafy production.
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Nutrient requirements

Nutrient	Stage	Amount	Unit
N	Basal	30	kg/ha
P?O?	Basal	40	kg/ha
K?O	Basal	40	kg/ha
N	Topdress_early	25	kg/ha
P?O?	Topdress_early	0	kg/ha
K?O	Topdress_early	20	kg/ha
N	Topdress_after_cut	20	kg/ha
P?O?	Topdress_after_cut	0	kg/ha
K?O	Topdress_after_cut	20	kg/ha
N	Basal	30	kg/ha

Nutrient	Stage	Amount	Unit
P?O?	Basal	40	kg/ha
K?O	Basal	40	kg/ha
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P?O?	Topdress_after_cut	0	kg/ha
K?O	Topdress_after_cut	20	kg/ha

Field images



Varieties

Name	Country	Maturity (days)	Traits
Local Black nightshade (managu)	KE	60	Traditional type, good taste and widely accepted in local markets.
Improved African nightshade selection	KE	65	More uniform plants, larger leaves and better yield.
Wild–cultivated mix (osuga types)	TZ	70	Mixture of local lines, tolerant and adaptable under low inputs.
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Fertilizer recommendations

Stage	Product	Rate	Notes
Basal	NPK 17-17-17 or 15-15-15	120	Provides a balanced start for Black nightshade (managu/osuga).
Topdress (N source)	CAN 26% N or urea	60	Apply once or twice depending on crop colour and vigour.
Organic	Well-rotted manure or compost	6000	Apply before planting to improve soil structure and moisture holding.
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Basal	NPK 17-17-17 or 15-15-15	120	Provides a balanced start for Black nightshade (managu/osuga).
Topdress (N source)	CAN 26% N or urea	60	Apply once or twice depending on crop colour and vigour.
Organic	Well-rotted manure or compost	6000	Apply before planting to improve soil structure and moisture holding.
Basal	NPK 17-17-17 or 15-15-15	120	Provides a balanced start for Black nightshade (managu/osuga).
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Pests and diseases

Name	Type	Symptoms	Management
Leaf-eating caterpillars	pest	Large and small holes in leaves and feeding damage on the growing tips of Black nightshade (managu/osuga).	Handpick on small plots, encourage natural enemies and use Bt or other recommended insecticides when damage is still low.
Aphids	pest	Clusters of small insects on tender shoots causing curling leaves, yellowing and sticky honeydew.	Avoid excess nitrogen, encourage natural enemies and apply selective insecticides/biopesticides when infestations are heavy.
Whiteflies	pest	Small white insects on underside of leaves of Black nightshade (managu/osuga), causing yellowing and sticky honeydew.	Monitor regularly, remove heavily infested lower leaves and use recommended insecticides where needed.
Spider mites	pest	Fine webbing and small yellow specks on leaves, especially in hot, dry conditions.	Maintain some humidity, avoid dusty conditions and use miticides or biopesticides if necessary.

Name	Type	Symptoms	Management
Leaf spots (fungal)	disease	Brown or dark spots on leaves that may enlarge and lead to leaf drop.	Avoid overhead irrigation late in the day, improve airflow, rotate crops and remove infected leaves.
Root and stem rots	disease	Wilting plants, darkened stems near soil level and rotted roots in wet areas.	Use raised beds or well-drained soils and avoid overwatering.
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Yields

System	Typical	Min	Max	Notes
Backyard / low-input Black nightshade (managu/osuga)	7	4	10	Some manure, little fertilizer, irregular picking and basic pest control.
Open-field Black nightshade, improved management	12	8	18	Good spacing, regular weeding, timely fertilizer and frequent harvests.
Irrigated or high-input Black nightshade (managu/osuga)	20	15	28	Irrigation or reliable water, fertigation and tight pest and disease management.

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Open-field Black nightshade, improved management	12	8	18	Good spacing, regular weeding, timely fertilizer and frequent harvests.
Irrigated or high-input Black nightshade (managu/osuga)	20	15	28	Irrigation or reliable water, fertigation and tight pest and disease management.

Season calendars

Country	Region	Planting	Harvest
KE	Highland and mid-altitude Black nightshade (managu/osuga) zones	During rains or with supplementary irrigation	Main harvests from 5–7 weeks after transplanting, then repeated pickin
KE	Peri-urban irrigated vegetable belts	Most of the year with reliable water	Continuous harvest over several weeks.
TZ	Urban and smallholder vegetable-growing areas	Rainy seasons and under irrigation	Multiple cuttings starting around 6–8 weeks after sowing.
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Region suitability

Country	Region	Suitability
KE	Highland and mid-altitude vegetable zones	High
KE	Peri-urban and rural homestead gardens	High
TZ	Urban and irrigated Black nightshade (managu/osuga) belts	High
UG	Smallholder vegetable zones around towns and trading centres	High

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