

# FarmLens Ltd

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



Crop details

## African nightshade

*Solanum scabrum* (*S. nigrum* complex)

Family: Solanaceae

Categories

Vegetables

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### Quick stats

<b>Family</b>	Solanaceae
<b>Typical harvest</b>	9.9 t/ha
<b>Varieties</b>	19
<b>Pests and diseases</b>	73
<b>Seasons</b>	21

### Crop profile

<b>Growth habit</b>	annual
<b>Days to harvest</b>	60–120
<b>Main uses</b>	Leafy vegetable; medicinal; cooked greens
<b>Pollination</b>	self
<b>Origin and where it grows</b>	Sub-Saharan Africa; cultivated across East Africa

### Weather, soil and spacing

<b>Best temperature</b>	18 - 28 °C
<b>Rainfall</b>	600 - 1200 mm/yr
<b>Altitude</b>	0 - 2400 m
<b>Best pH</b>	5.5 - 6.8
<b>Soil type</b>	Well-drained loam with high organic matter
<b>Row spacing</b>	30 cm
<b>Plant spacing</b>	20 cm
<b>Planting depth</b>	0.5 cm
<b>Seed rate</b>	2 kg/ha
<b>Nursery days</b>	25

## Simple notes for farmers

**About the crop:** This crop is annual; it grows and is harvested in one season. Harvest typically starts about 60–120 days after planting.

**Main use:** Farmers mostly grow this crop for leafy vegetable; medicinal; cooked greens.

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

**Where it grows:** Sub-Saharan Africa; cultivated across East Africa. Grouped under: Vegetables.

**Best climate:** 18 - 28 °C; 600 - 1200 mm/yr; up to about 2400 m a.s.l.

**Soil:** Best at pH 5.5 - 6.8; well-drained loam with high organic matter.

## Farmer guide (Mwongozo wa Mkulima)





#	Stage	DAP	Product	Rate	Targets (kg/ha)	Notes
3	Topdress 2	28	CAN 26% N + MOP	60 kg/ha + kg/ha	N: N/A, P <sub>2</sub> O <sub>5</sub> : N/A, K <sub>2</sub> O: N/A	Support regrowth prior to first heavy pickings
4	Maintenance (harvest phase)	42	Urea via fertigation (optional)	10 kg N/ha/week	N: N/A, P <sub>2</sub> O <sub>5</sub> : N/A, K <sub>2</sub> O: N/A	Weekly for 3–4 weeks depending on vigor
5	Micronutrient foliar	21	Trace mix (Fe, Zn, B)	0 —	N: N/A, P <sub>2</sub> O <sub>5</sub> : N/A, K <sub>2</sub> O: N/A	Apply early morning/late afternoon

### Nutrient requirements

<u>Nutrient</u>	<u>Stage</u>	<u>Amount</u>	<u>Unit</u>
N	Basal	30	kg/ha
P <sub>2</sub> O <sub>5</sub>	Basal	30	kg/ha
K <sub>2</sub> O	Basal	30	kg/ha
N	Topdress	70	kg/ha
N	Basal	50	kg/ha
P <sub>2</sub> O <sub>5</sub>	Basal	25	kg/ha
K <sub>2</sub> O	Basal	40	kg/ha
N	Topdress	30	kg/ha
N	Basal	50	kg/ha
P <sub>2</sub> O <sub>5</sub>	Basal	25	kg/ha
K <sub>2</sub> O	Basal	40	kg/ha
N	Topdress	30	kg/ha
N	Basal	50	kg/ha
P <sub>2</sub> O <sub>5</sub>	Basal	25	kg/ha
K <sub>2</sub> O	Basal	40	kg/ha
N	Topdress	30	kg/ha
N	Basal	50	kg/ha
P <sub>2</sub> O <sub>5</sub>	Basal	25	kg/ha
K <sub>2</sub> O	Basal	40	kg/ha
N	Topdress	30	kg/ha
N	Basal	50	kg/ha
P <sub>2</sub> O <sub>5</sub>	Basal	25	kg/ha
K <sub>2</sub> O	Basal	40	kg/ha

<u>Nutrient</u>	<u>Stage</u>	<u>Amount</u>	<u>Unit</u>
N	Topdress	30	kg/ha
N	Basal	50	kg/ha
P?O?	Basal	25	kg/ha
K?O	Basal	40	kg/ha
N	Topdress	30	kg/ha
N	Basal	50	kg/ha
P?O?	Basal	25	kg/ha
K?O	Basal	40	kg/ha
N	Topdress	30	kg/ha
N	Basal	50	kg/ha
P?O?	Basal	25	kg/ha
K?O	Basal	40	kg/ha
N	Topdress	30	kg/ha
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K?O	Basal	40	kg/ha
N	Topdress	30	kg/ha
N	Basal	50	kg/ha

<u>Nutrient</u>	<u>Stage</u>	<u>Amount</u>	<u>Unit</u>
P?O?	Basal	25	kg/ha
K?O	Basal	40	kg/ha
N	Topdress	30	kg/ha
N	Basal	50	kg/ha
P?O?	Basal	25	kg/ha
K?O	Basal	40	kg/ha
N	Topdress	30	kg/ha
N	Basal	50	kg/ha
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K?O	Basal	40	kg/ha
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N	Basal	50	kg/ha
P?O?	Basal	25	kg/ha
K?O	Basal	40	kg/ha
N	Topdress	30	kg/ha

### Field images



### Varieties

<u>Name</u>	<u>Country</u>	<u>Maturity (days)</u>	<u>Traits</u>
Broadleaf type	KE	45–60	Vigorous; higher leaf yield
Narrowleaf type	UG	50–65	Tolerates heat; mild flavor
Local landrace	TZ	55–70	Good regrowth after harvest
Local Nightshade	KE	70	Broadleaf; tender
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### **Fertilizer recommendations**

<u>Stage</u>	<u>Product</u>	<u>Rate</u>	<u>Notes</u>
Basal	Compost (well-decomposed)	5000	Incorporate before transplant
Basal	NPK 17-17-17	150	Band lightly beside seedlings
Topdress	CAN 26% N	120	Split into two 60 kg/ha doses
Topdress	MOP (KCl)	30	If tissue tests show low K
Foliar	Micronutrient mix	0	Apply as per label

### **Pests and diseases**

<u>Name</u>	<u>Type</u>	<u>Symptoms</u>	<u>Management</u>
Aphids	pest	Curling shoots; sticky honeydew	Scout weekly; remove infested tips; soft soaps/labelled selective insecticides; conserve natural enemies
Spider mites	pest		Maintain humidity; miticides if severe
Leaf spots	disease		Sanitation; avoid overhead irrigation; fungicides if needed
Leaf miners	pest	Serpentine mines in leaves	Remove mined leaves; use traps; rotate actives if spraying
Red spider mites	pest	Stippling; webbing under hot/dry conditions	Maintain humidity; spot-spray oils/acaricides if needed
Flea beetles	pest	Shot holes on young leaves	Mulch; row covers; spot treatments if severe

<u>Name</u>	<u>Type</u>	<u>Symptoms</u>	<u>Management</u>
Bacterial wilt	disease	Sudden wilting; bacterial ooze	Rotate 2–3 years out of solanaceae; rogue infected plants; sanitize tools
Early blight	disease	Target-like leaf spots	Improve airflow; avoid overhead irrigation; fungicide if needed
Powdery mildew	disease	White powdery growth	Scout; sulfur/labelled fungicides; remove heavily infected leaves
Aphids	pest	Leaf curling, honeydew	Soap sprays or registered insecticides; remove weeds hosts
Spider mites	pest	Stippling, webbing	Maintain humidity; miticides if severe
Leaf spots	disease	Brown lesions on leaves	Sanitation; avoid overhead irrigation; fungicides if needed
Leaf miners	pest	Serpentine mines	Remove infested leaves; rotation
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## Yields

<u>System</u>	<u>Typical</u>	<u>Min</u>	<u>Max</u>	<u>Notes</u>
rainfed smallholder	10	5	15	Cumulative across repeated pickings (fresh leaves)
irrigated	10	6	15	
open-field	12	8	18	Leafy biomass (fresh)
irrigated / intensive	18	10	25	Good fertility and frequent harvests
rainfed smallholder	7	4	10	Fresh leaves
irrigated	10	6	15	
open-field	12	8	18	Leafy biomass (fresh)
rainfed smallholder	7	4	10	Fresh leaves
irrigated	10	6	15	
open-field	12	8	18	Leafy biomass (fresh)
rainfed smallholder	7	4	10	Fresh leaves
irrigated	10	6	15	
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rainfed smallholder	7	4	10	Fresh leaves
irrigated	10	6	15	
open-field	12	8	18	Leafy biomass (fresh)
rainfed smallholder	7	4	10	Fresh leaves
irrigated	10	6	15	
open-field	12	8	18	Leafy biomass (fresh)
rainfed smallholder	7	4	10	Fresh leaves

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irrigated	10	6	15	
open-field	12	8	18	Leafy biomass (fresh)
rainfed smallholder	7	4	10	Fresh leaves
irrigated	10	6	15	
open-field	12	8	18	Leafy biomass (fresh)
rainfed smallholder	7	4	10	Fresh leaves
irrigated	10	6	15	
open-field	12	8	18	Leafy biomass (fresh)
rainfed smallholder	7	4	10	Fresh leaves
irrigated	10	6	15	
open-field	12	8	18	Leafy biomass (fresh)
rainfed smallholder	7	4	10	Fresh leaves
irrigated	10	6	15	
open-field	12	8	18	Leafy biomass (fresh)
rainfed smallholder	7	4	10	Fresh leaves
irrigated	10	6	15	
open-field	12	8	18	Leafy biomass (fresh)
rainfed smallholder	7	4	10	Fresh leaves
irrigated	10	6	15	
open-field	12	8	18	Leafy biomass (fresh)
rainfed smallholder	7	4	10	Fresh leaves
irrigated	10	6	15	
open-field	12	8	18	Leafy biomass (fresh)
rainfed smallholder	7	4	10	Fresh leaves
irrigated	10	6	15	
open-field	12	8	18	Leafy biomass (fresh)
rainfed smallholder	7	4	10	Fresh leaves
irrigated	10	6	15	
open-field	12	8	18	Leafy biomass (fresh)
rainfed smallholder	7	4	10	Fresh leaves



<u>Country</u>	<u>Region</u>	<u>Suitability</u>
KE	Coastal humid	Medium
KE	Highlands & mid-altitudes	High
KE	Highlands/Western	High
KE	Western	N/A
RW	Highland zones	High
TZ	Northern highlands	High
UG	Central & Western	High

Source: **FarmLens Ltd** - [farmlens.africa](http://farmlens.africa) and [app.farmlens.africa](http://app.farmlens.africa). Headquarters: Nairobi, Kenya. This guide was generated from the FarmLens database.