FarmLens Ltd
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Crop details

Amaranth Leaves

Amaranthus spp.

Family: Amaranthaceae

Categories

Vegetables

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Quick stats

Family	Amaranthaceae
Typical harvest	16.0 t/ha
Varieties	48
Pests and diseases	96
Seasons	48

Crop profile

Growth habit	annual
Days to harvest	45
Main uses	Young tender leaves cooked as vegetables, mixed with other greens, stews and sauces; sometimes grown for both leaf and grain.
Pollination	wind
Origin and where it grows	Amaranth leaves (mchicha/terere) are common leafy vegetables around homesteads, markets and irrigation schemes across East Africa.

Weather, soil and spacing

Best temperature	20 - 30 °C
Rainfall	500 - 800 mm/yr
Altitude	0 - 2000 m
Best pH	6 - 7
Soil type	Well-drained loam or sandy loam with plenty of compost or manure so Amaranth leaves (mchicha/terere) can grow fast and tender.
Row spacing	30 cm
Plant spacing	10 cm
Planting depth	1 cm
Seed rate	5 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 45 days after planting.

Main use: Farmers mostly grow this crop for young tender leaves cooked as vegetables, mixed with other greens, stews and sauces; sometimes grown for both leaf and grain..

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

Where it grows: Amaranth leaves (mchicha/terere) are common leafy vegetables around homesteads, markets and irrigation schemes across East Africa.. Grouped under: Vegetables.

Best climate: 20 - 30 °C; 500 - 800 mm/yr; up to about 2000 m a.s.l.

Soil: Best at pH 6 - 7; well-drained loam or sandy loam with plenty of compost or manure so amaranth leaves (mchicha/terere) can grow fast and tender..

Farmer guide (Mwongozo wa Mkulima)

Planting	Prepare a fine, level seedbed. Sow Amaranth leaves (mchicha/terere) seed in shallow rows or lightly broadcast, cover very lightly with soil and keep moist until emergence. Thin crowded seedlings so each plant has space to form many leaves.
Transplanting	Where seedlings are raised in a small nursery, transplant when 8–10 cm tall. Handle gently and water immediately after transplanting.
Irrigation	Keep soil moist, especially in the first weeks and after each picking so new leaves grow quickly. Amaranth tolerates short dry periods but quality is best with steady moisture.
Fertigation	Under drip, apply small regular amounts of nitrogen-rich fertilizer together with some potassium. Too much nitrogen close to harvest can make leaves very soft and watery.
Pest scouting	Check Amaranth (mchicha/terere) weekly for leaf-eating caterpillars, aphids and leaf spots. Remove severely damaged leaves and act early when damage is still small.
Pruning and training	No pruning needed. Begin cutting or pinching the top to encourage side shoots, then keep harvesting leaves without removing the whole plant.
Harvest	Start harvesting tender leaves and soft shoot tips when plants are about 20–25 cm tall. Cut in the cool morning or late afternoon for best freshness.
Postharvest	Keep harvested Amaranth leaves (mchicha/terere) in shade, avoid crushing and sprinkle lightly with clean water if wilting. Transport quickly to market in ventilated crates or perforated bags.

Nutrient schedule (Mbolea kwa Hatua)

#	Stage	DAP	Product	Rate	Targets (kg/ha)	Notes
1	Basal before sowing	0	NPK 17-17-17 or 15-15-15	120 kg/ha	N: 20, P?O?: 20, K?O: 20	Broadcast lightly on the seedbed and mix with the topsoil before sowing Amaranth (mchicha/terere).
1	Basal before sowing	0	NPK 17-17-17 or 15-15-15	120 kg/ha	N: 20, P?O?: 20, K?O: 20	Broadcast lightly on the seedbed and mix with the topsoil before sowing Amaranth (mchicha/terere).
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2	Early topdress	14	CAN 26% N	60 kg/ha	N: 16, P?O?: 0, K?O: 0	Apply between rows on moist soil and water in.
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3	Topdress after first cut	30	Urea 46% N or CAN	40 kg/ha	N: 18, P?O?: 0, K?O: 0	Apply lightly after cutting to encourage fresh leaf flush.
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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
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
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N	Topdress_after_cut	20	kg/ha
P?O?	Topdress_after_cut	0	kg/ha
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N	Basal	30	kg/ha
P?O?	Basal	40	kg/ha
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N	Topdress_early	25	kg/ha
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Nutrient	Stage	Amount	Unit
N	Topdress_after_cut	20	kg/ha
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 green Amaranth (mchicha)	KE	30	Fast-growing, tender leaves and common in markets.
Red-stemmed Amaranth	KE	30	Red or purple veins and stems; attractive bunches.
Improved leaf Amaranth	TZ	35	Uniform plants, high yield and good regrowth after cutting.
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Fertilizer recommendations

Stage	Product	Rate	Notes
Basal	NPK 17-17-17 or 15-15-15	120	Balanced base for early leaf growth of Amaranth (mchicha/terere).
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 organic matter and moisture holding.
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Organic	Well-rotted manure or compost	6000	Apply before planting to improve soil organic matter and moisture holding.
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Pests and diseases

Name	Type	Symptoms	Management
Leaf-eating caterpillars	pest	Holes and large bites in Amaranth leaves (mchicha/terere), sometimes leaving only veins.	Handpick on small plots, encourage natural enemies and use Bt or other recommended insecticides based on scouting.
Aphids	pest	Clusters of small insects on young shoots of Amaranth leaves (mchicha/terere), curled leaves and sticky honeydew.	Encourage natural enemies, avoid excess nitrogen and use selective insecticides or biopesticides when infestations are heavy.
Leaf miners	pest	Winding tunnels inside the leaves, reducing market value.	Remove badly infested leaves and use recommended insecticides against adult flies if needed.
Flea beetles	pest	Many small round holes on young leaves, giving a shot-hole appearance.	Prepare land early, reduce weeds and, if necessary, use insecticides when seedlings are small and damage is severe.
Leaf spots and blights	disease	Small brown or dark spots on leaves that may merge and cause yellowing or drying.	Avoid overhead irrigation late in the day, improve airflow, rotate crops and remove heavily diseased leaves.
Root rots	disease	Wilting of plants, poor growth and rotted roots in poorly drained areas.	Plant on raised beds or well-drained soils and avoid over-irrigation.
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Yields

System	Typical	Min	Max	Notes
Backyard / low-input Amaranth leaves (mchicha/terere)	8	5	12	Some manure, little fertilizer and irregular picking.
Open-field Amaranth leaves, improved management	15	10	20	Good seed, proper spacing, recommended fertilizer and regular harvesting.
Irrigated or high-input Amaranth leaves	25	15	35	Frequent harvests under irrigation or wet conditions with fertigation and tight pest management.
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Season calendars

Country	Region	Planting	Harvest
KE	Peri-urban and rural Amaranth (mchicha/terere) belts	Most of the year where moisture is available	First harvest 3–5 weeks after emergence, then repeated cuts.

Country	Region	Planting	Harvest
TZ	Urban and irrigated vegetable zones	Any time with irrigation or reliable water	Regular pickings over several weeks.
UG	Low- and mid-altitude vegetable zones	Rainy seasons and under irrigation	Multiple harvests starting about 1 month after planting.
KE	Peri-urban and rural Amaranth (mchicha/terere) belts	Most of the year where moisture is available	First harvest 3–5 weeks after emergence, then repeated cuts.
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Region suitability

Country	Region	Suitability
KE	Peri-urban and rural vegetable-growing areas	High
KE	Semi-arid areas with kitchen gardens and some water	Medium
TZ	Urban and irrigated Amaranth (mchicha) belts	High
UG	Smallholder vegetable zones around towns	High

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