FarmLens Ltd

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Crop details

Chili (pilipili)

Capsicum frutescens

Family: Solanaceae

Categories

Vegetables

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Quick stats

Family	Solanaceae
Typical harvest	15.3 t/ha
Varieties	3
Pests and diseases	8
Seasons	3

Crop profile

Growth habit	annual
Days to harvest	140
Main uses	Fresh green and dry red Chili (pilipili) used for cooking, sauces, spice, pickles and chilli powder.
Pollination	self
Origin and where it grows	Chili (pilipili) is widely grown in warm and moderately dry areas of East Africa, both under rainfed and irrigated conditions.

Weather, soil and spacing

Best temperature	20 - 30 °C
Rainfall	700 - 1000 mm/yr
Altitude	0 - 1800 m
Best pH	6 - 6.8
Soil type	Well-drained loam or sandy loam with good organic matter. Chili (pilipili) does not like heavy, waterlogged soils.
Row spacing	60 cm
Plant spacing	40 cm
Planting depth	1.5 cm
Seed rate	0.3 kg/ha
Nursery days	30

Simple notes for farmers

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

Main use: Farmers mostly grow this crop for fresh green and dry red chili (pilipili) used for cooking, sauces, spice, pickles and chilli powder..

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

Where it grows: Chili (pilipili) is widely grown in warm and moderately dry areas of East Africa, both under rainfed and irrigated conditions.. Grouped under: Vegetables.

Best climate: 20 - 30 °C; 700 - 1000 mm/yr; up to about 1800 m a.s.l.

Soil: Best at pH 6 - 6.8; well-drained loam or sandy loam with good organic matter. chili (pilipili) does not like heavy, waterlogged soils..

Farmer guide (Mwongozo wa Mkulima)

Planting	Raise Chili (pilipili) seedlings in a nursery bed or trays with fine soil and compost. Keep moist and protect from heavy rain and strong sun. Transplant healthy seedlings with 4–6 true leaves into well-prepared beds.
Transplanting	Transplant Chili (pilipili) in the evening or on cloudy days. Lift seedlings with a small soil ball, plant at the same depth as in the nursery and firm the soil gently around the roots.
Irrigation	Keep the soil evenly moist, especially during flowering and fruit filling. Avoid long dry spells followed by heavy irrigation, which can cause flower and fruit drop in Chili (pilipili).
Fertigation	With drip, feed small regular doses of NPK. Increase potassium and calcium from flowering onwards to support continuous fruiting and reduce blossom-end rot.
Pest scouting	Inspect Chili (pilipili) fields weekly for aphids, thrips, whiteflies, mites, fruit borers and diseases. Check young leaves, flowers and fruits for insects, spots and rots.
Pruning and training	Stake Chili (pilipili) where possible to reduce lodging and keep fruits off the soil. Remove dead, diseased and very low branches to improve airflow.
Harvest	For fresh green Chili (pilipili), harvest when fruits are fully grown, firm and green. For dry red chili, allow fruits to turn red on the plant and begin to dry, then harvest before they drop.
Postharvest	Handle fruits of Chili (pilipili) gently and keep in the shade. For dry chilli, finish drying on clean mats or raised racks until brittle, then store in clean, dry, airtight bags or containers.

Nutrient schedule (Mbolea kwa Hatua)

#	Stage	DAP	Product	Rate	Targets (kg/ha)	Notes
1	Basal at transplanting	0	NPK 17-17-17 or 15-15-15	250 kg/ha	N: 42, P?O?: 42, K?O: 42	Band fertilizer 5–8 cm away from Chili (pilipili) seedlings and cover lightly with soil.
2	Early topdress	21	CAN 26% N	100 kg/ha	N: 26, P?O?: 0, K?O: 0	Apply between rows of Chili (pilipili) on moist soil, then irrigate or lightly incorporate.
3	Fruiting topdress (N + K)	40	NPK 12-6-24 or urea + SOP/MOP	150 kg/ha	N: 18, P?O?: 9, K?O: 36	Supports flowering and fruit filling in Chili (pilipili); avoid very late heavy nitrogen.

Nutrient requirements

Nutrient	Stage	Amount	Unit
N	Basal	50	kg/ha
P?O?	Basal	60	kg/ha
K?O	Basal	60	kg/ha
N	Topdress_early	40	kg/ha
P?O?	Topdress_early	0	kg/ha

Nutrient	Stage	Amount	Unit
K?O	Topdress_early	30	kg/ha
N	Topdress_fruiting	30	kg/ha
P?O?	Topdress_fruiting	0	kg/ha
K?O	Topdress_fruiting	60	kg/ha

Varieties

Name	Country	Maturity (days)	Traits
Hot bird’s eye Chili (pilipili kali)	KE	130	Very hot small fruits, suitable for fresh and dry spice markets.
Medium-hot long Chili (pilipili hoho)	KE	120	Long fruits, good for fresh use and drying.
Hybrid export-type Chili (pilipili)	TZ	130	High yield, uniform fruits suitable for fresh export and drying.

Fertilizer recommendations

Stage	Product	Rate	Notes
Basal	NPK 17-17-17 or 15-15-15	250	Provides balanced nutrients for early Chili (pilipili) growth.
Topdress (N source)	CAN 26% N or urea	100	Apply once or twice during vegetative growth.
Topdress (K source)	Sulfate of potash (SOP) or high-K NPK	100	Improves fruit size, colour and shelf life of Chili (pilipili).
Organic	Well-rotted farmyard manure or compost	8000	Apply before transplanting to improve soil structure and water holding.

Pests and diseases

Name	Type	Symptoms	Management
Aphids	pest	Clusters of small insects on Chili (pilipili) shoots and leaf undersides, curled leaves, sticky honeydew and sooty mould.	Encourage natural enemies, control ants, and use selective insecticides or biopesticides when numbers increase.
Thrips	pest	Silvery streaks and small brown spots on Chili (pilipili) leaves and fruits, distorted tips and scabby fruits.	Reduce weeds, use blue or yellow sticky traps and apply targeted insecticides/biopesticides based on scouting.
Whiteflies	pest	Small white insects that fly when Chili (pilipili) plants are touched, honeydew, leaf yellowing and virus transmission.	Use yellow sticky traps, remove heavily infected plants and apply selective products when needed.
Fruit borers / bollworms	pest	Holes in Chili (pilipili) fruits, internal feeding by caterpillars, rotting fruits and fruit drop.	Collect and destroy infested fruits, use pheromone traps where available and apply recommended insecticides early.

Name	Type	Symptoms	Management
Red spider mites	pest	Fine webbing on Chili (pilipili) leaves, yellowing, speckling and leaf drop in hot, dry conditions.	Avoid dusty conditions, conserve natural enemies and use acaricides/biopesticides when mite numbers build up.
Anthracnose	disease	Sunken dark spots on Chili (pilipili) fruits, often with pinkish spore masses, leading to rots on plant and in storage.	Use clean seed, avoid overhead irrigation late in the day, harvest carefully and use fungicides when pressure is high.
Bacterial leaf spot and wilts	disease	Spots on leaves and fruits, wilting and drying of branches in Chili (pilipili).	Rotate crops, avoid working in fields when wet and remove severely affected plants early.
Viral diseases (mosaics, leaf curl)	disease	Mottled, curled and twisted leaves, stunting and poor fruit set in Chili (pilipili).	Use healthy seedlings, control aphids and whiteflies and rogue infected plants as soon as they appear.

Yields

System	Typical	Min	Max	Notes
Open-field Chili (pilipili), low input	4	2	6	Local varieties, little fertilizer and basic pest control. Green + dry fruit combined (fresh weight).
Open-field Chili (pilipili), improved management	12	8	18	Improved/hybrid varieties, recommended fertilizer, regular picking and pest management.
Irrigated net-house / intensive Chili (pilipili)	30	20	40	Protected or intensively managed crop with drip, fertigation and strong pest control.

Season calendars

Country	Region	Planting	Harvest
KE	Warm low to mid-altitude Chili (pilipili) zones (rainfed, long rains)	Mar–Apr	Jun–Sep (multiple pickings)
KE	Short-rains Chili (pilipili) season	Oct–Nov	Jan–Mar
TZ	Irrigated and peri-urban Chili (pilipili) belts	Most months with reliable irrigation	Continuous pickings over several months

Region suitability

Country	Region	Suitability
KE	Peri-urban irrigated Chili (pilipili) areas	High
KE	Very cool highlands prone to frost	Low
KE	Warm low to mid-altitude vegetable belts	High
TZ	Central and coastal Chili (pilipili) producing zones	High
UG	Mid-altitude vegetable-growing regions	High

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