FarmLens Ltd

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Crop details

Broad bean (fava)

Vicia faba

Family: Fabaceae

Categories

Legumes & Pulses

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Quick stats

Family	Fabaceae
Typical harvest	2.4 t/ha
Varieties	3
Pests and diseases	6
Seasons	0

Crop profile

Growth habit	annual
Days to harvest	120
Main uses	Fresh green beans, dry beans for stews and soups, fodder and green manure.
Pollination	self
Origin and where it grows	Broad bean (fava) is grown mainly in cooler highland and upper mid-altitude areas, often as a cool-season pulse in rotation with cereals.

Weather, soil and spacing

Best temperature	12 - 22 °C
Rainfall	500 - 800 mm/yr
Altitude	1000 - 2600 m
Best pH	6.5 - 7.5
Soil type	Deep, medium to heavy loam with good structure. Broad bean (fava) prefers cool, fertile, well-drained soils.
Row spacing	60 cm
Plant spacing	10 cm
Planting depth	5 cm
Seed rate	150 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 120 days after planting.

Main use: Farmers mostly grow this crop for fresh green beans, dry beans for stews and soups, fodder and green manure..

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

Where it grows: Broad bean (fava) is grown mainly in cooler highland and upper mid-altitude areas, often as a cool-season pulse in rotation with cereals.. Grouped under: Legumes & Pulses.

Best climate: 12 - 22 °C; 500 - 800 mm/yr; up to about 2600 m a.s.l.

Soil: Best at pH 6.5 - 7.5; deep, medium to heavy loam with good structure. broad bean (fava) prefers cool, fertile, well-drained soils..

Farmer guide (Mwongozo wa Mkulima)

Planting	Plant Broad bean (fava) at the start of the cool, rainy season. Place 1–2 large seeds per hole, a full finger deep, and cover well.
Transplanting	Direct seeded; normally not transplanted because of its large, delicate root.
Irrigation	Keep soil moist during germination, branching and flowering. Avoid long dry spells at flowering and pod filling.
Fertigation	As a legume, Broad bean (fava) fixes nitrogen. Give a good seedbed and a small starter dose of phosphorus and potassium.
Pest scouting	Check fields weekly for aphids, leaf spots, chocolate spot and rust. Look carefully at young shoot tips, stems and pods.
Pruning and training	No pruning needed; in windy areas light staking or planting in double rows can reduce lodging.
Harvest	For fresh green beans, pick when seeds are well filled but still soft. For dry grain, harvest when pods are dry and seeds are hard, before pods shatter.
Postharvest	Dry plants or pods on clean sheets, thresh gently, then dry grain again until hard. Store in dry, airtight or treated bags to prevent beetle damage.

Nutrient schedule (Mbolea kwa Hatua)

#	Stage	DAP	Product	Rate	Targets (kg/ha)	Notes
1	Basal at planting	0	NPK with P (e.g., 10-24-20) or TSP + K source	80 kg/ha	N: 8, P?O?: 30, K?O: 30	Place fertilizer in bands beside the row, not touching the seed.
2	Optional K topdress (early flowering)	40	Muriate of potash (MOP) or K-rich NPK	40 kg/ha	N: 0, P?O?: 0, K?O: 20	Apply when Broad bean (fava) is starting to flower, especially on K-deficient soils.

Nutrient requirements

Nutrient	Stage	Amount	Unit
N	Basal	15	kg/ha
P?O?	Basal	30	kg/ha
K?O	Basal	30	kg/ha
N	Topdress_early	0	kg/ha
P?O?	Topdress_early	0	kg/ha
K?O	Topdress_early	20	kg/ha

Field images






Varieties

Name	Country	Maturity (days)	Traits
Early broad bean	KE	100	Early maturing, suitable for highland vegetable and grain use.
Medium fava type	TZ	120	Good grain size, suited to cool upper mid-altitude areas.
Local broad bean landrace	KE	130	Traditional taste and adaptation; moderate yield.

Fertilizer recommendations

Stage	Product	Rate	Notes
Basal	NPK with P (e.g., 10-24-20) or TSP + K source	80	Provides phosphorus and potassium to support rooting and early growth in Broad bean (fava).
Topdress (optional K)	Muriate of potash (MOP) or K-rich NPK	40	Used where soils are low in potassium or residues are removed frequently.

Pests and diseases

Name	Type	Symptoms	Management
Black bean aphid	pest		Pinch heavily infested tips, encourage natural enemies and spray only when infestations are severe.
Pod borers	pest		Scout at flowering and early podding and treat early when fresh damage is seen.
Chocolate spot (Botrytis)	disease		Avoid very dense stands, improve air flow and use fungicides when disease pressure is high.
Rust	disease		Use tolerant varieties, avoid overhead irrigation and remove heavily infected residues.
Root rots in poorly drained soils	disease		Improve drainage, avoid over-irrigation and rotate with non-legume crops.
Storage beetles and weevils	pest		Dry grain well and store in airtight or treated bags; keep stores clean.

Yields

System	Typical	Min	Max	Notes

Smallholder rainfed (low input)	1.2	0.8	1.8	Local seed, little fertilizer, basic weed control.
Smallholder rainfed (improved management)	2.5	1.8	3	Improved varieties, starter fertilizer, timely weeding and disease control.
High input / irrigated	3.5	2.8	4	Fertile soils, reliable moisture and well-managed pests and diseases.

Region suitability

Country	Region	Suitability
KE	Cool highlands and upper mid-altitude zones	N/A
KE	Hot, lowland semi-arid areas	N/A
TZ	Southern and northern highland belts	N/A
UG	Highland and cool mid-altitude areas	N/A