

FarmLens Ltd

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



Crop details

Quinoa

Chenopodium quinoa

Family: Amaranthaceae

Categories

Cereals & Pseudocereals

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Quick stats

Family	Amaranthaceae
Typical harvest	2.4 t/ha
Varieties	2
Pests and diseases	2
Seasons	2

Crop profile

Growth habit	annual
Days to harvest	120
Main uses	Grain for porridge, flour and blended nutritious foods; leaves may also be used as greens.
Pollination	wind
Origin and where it grows	A climate-smart niche crop under evaluation and production in some African highlands and dryland systems.

Weather, soil and spacing

Best temperature	12 - 24 °C
Rainfall	350 - 600 mm/yr
Altitude	800 - 3200 m
Best pH	6 - 7.8
Soil type	Well-drained light to medium soils with moderate fertility; tolerates marginal conditions better than many grains.
Row spacing	40 cm
Plant spacing	10 cm
Planting depth	2 cm
Seed rate	8 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 grain for porridge, flour and blended nutritious foods; leaves may also be used as greens..

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

Where it grows: A climate-smart niche crop under evaluation and production in some African highlands and dryland systems..
Grouped under: Cereals & Pseudocereals.

Best climate: 12 - 24 °C; 350 - 600 mm/yr; up to about 3200 m a.s.l.

Soil: Best at pH 6 - 7.8; well-drained light to medium soils with moderate fertility; tolerates marginal conditions better than many grains..

Farmer guide (Mwongozo wa Mkulima)

<u>Planting</u>	Direct-seed shallow into a fine moist seedbed when heavy rains are not expected immediately after sowing.
<u>Transplanting</u>	Normally direct-seeded.
<u>Irrigation</u>	Keep establishment moisture steady, then irrigate sparingly because excess water increases disease and lodging risk.
<u>Fertigation</u>	Use moderate nitrogen and adequate phosphorus; avoid very lush vegetative growth.
<u>Pest scouting</u>	Scout for damping-off, downy mildew, aphids and bird damage from flowering onward.
<u>Pruning and training</u>	No pruning required; rogue out off-types if seed purity matters.
<u>Harvest</u>	Harvest when leaves drop, seed heads dry and grains harden enough to resist thumbnail pressure.
<u>Postharvest</u>	Dry thoroughly, thresh gently and clean seed well before storage or processing.

Nutrient schedule (Mbolea kwa Hatua)

#	Stage	DAP	Product	Rate	Targets (kg/ha)	Notes
1	Basal	0	DAP	75 kg/ha	N: 13.5, P?O?: 34.5, K?O: N/A	Apply at seeding.
2	Branching	28	CAN	75 kg/ha	N: 19.5, P?O?: N/A, K?O: N/A	Topdress only where moisture supports uptake.

Nutrient requirements

<u>Nutrient</u>	<u>Stage</u>	<u>Amount</u>	<u>Unit</u>
N	Basal	25	kg/ha
P?O?	Basal	30	kg/ha
K?O	Basal	20	kg/ha
N	Branching	20	kg/ha

Field images



Varieties

<u>Name</u>	<u>Country</u>	<u>Maturity (days)</u>	<u>Traits</u>
Titicaca	KE	110	Early quinoa line used in African trials.
Puno	UG	120	Adaptable line for cool highland conditions.

Fertilizer recommendations

<u>Stage</u>	<u>Product</u>	<u>Rate</u>	<u>Notes</u>
Planting	DAP	75	Starter phosphorus for root development.
Early vegetative	CAN	75	Use only if stand is pale or soils are poor.

Pests and diseases

<u>Name</u>	<u>Type</u>	<u>Symptoms</u>	<u>Management</u>
Downy mildew	disease	Yellowing, leaf distortion and grey growth on leaf undersides.	Use tolerant lines, wider spacing and avoid prolonged leaf wetness.
Bird damage	pest	Loss of grain from maturing seed heads.	Synchronize harvest and use bird deterrents during grain fill.

Yields

<u>System</u>	<u>Typical</u>	<u>Min</u>	<u>Max</u>	<u>Notes</u>
Rainfed highland smallholder production	1.8	1	3	Yield depends on variety adaptation and disease management.
Improved irrigated production	3	2	4.5	Better uniformity with careful irrigation and clean seed.

Season calendars

<u>Country</u>	<u>Region</u>	<u>Planting</u>	<u>Harvest</u>
KE	Central Highlands	Mar-Apr or Oct-Nov	Jul-Aug or Jan-Feb
ET	Highland Zones	Jun-Jul	Oct-Nov

Region suitability

<u>Country</u>	<u>Region</u>	<u>Suitability</u>
KE	Central Highlands	Medium

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