

FarmLens Ltd

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



Crop details

Fonio

Digitaria exilis

Family: Poaceae

Categories

Cereals & Pseudocereals

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Quick stats

Family	Poaceae
Typical harvest	1.2 t/ha
Varieties	1
Pests and diseases	2
Seasons	1

Weather, soil and spacing

Best temperature	18 - 30 °C
Rainfall	400 - 800 mm/yr
Altitude	300 - 1800 m
Best pH	6 - 7
Soil type	Well-drained loam to clay loam with moderate fertility.
Row spacing	20 cm
Plant spacing	5 cm
Planting depth	4 cm
Seed rate	20 kg/ha

Crop profile

Growth habit	annual
Days to harvest	90
Main uses	Fast-maturing grain for porridge, couscous-like foods, and resilience cropping.
Pollination	wind
Origin and where it grows	West African staple with growing interest across dryland African systems.

Simple notes for farmers

About the crop: This crop is annual; it grows and is harvested in one season. Harvest typically starts about 90 days after planting.

Main use: Farmers mostly grow this crop for fast-maturing grain for porridge, couscous-like foods, and resilience cropping..

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

Where it grows: West African staple with growing interest across dryland African systems.. Grouped under: Cereals & Pseudocereals.

Best climate: 18 - 30 °C; 400 - 800 mm/yr; up to about 1800 m a.s.l.

Soil: Best at pH 6 - 7; well-drained loam to clay loam with moderate fertility..

Farmer guide (Mwongozo wa Mkulima)

<u>Planting</u>	Direct-seed Fonio into a fine firm seedbed at onset of reliable rains.
<u>Transplanting</u>	Not transplanted.
<u>Irrigation</u>	Maintain moisture during establishment and grain filling where irrigation is used.
<u>Fertigation</u>	Split nitrogen between planting and early vegetative growth where moisture allows.
<u>Pest scouting</u>	Scout Fonio for aphids, armyworms, foliar diseases, and lodging risk.
<u>Pruning and training</u>	No pruning needed; keep weeds low during early establishment.
<u>Harvest</u>	Harvest Fonio when grains harden and heads dry down evenly.
<u>Postharvest</u>	Dry grain well before threshing and storage.

Nutrient schedule (Mbolea kwa Hatua)

#	Stage	DAP	Product	Rate	Targets (kg/ha)	Notes
1	Basal	0	DAP	100 kg/ha	N: 18, P ₂ O ₅ : 46, K ₂ O: N/A	Starter fertilizer for Fonio establishment.
2	Topdress	28	CAN	100 kg/ha	N: 26, P ₂ O ₅ : N/A, K ₂ O: N/A	Topdress Fonio before rain or irrigation.

Nutrient requirements

Nutrient	Stage	Amount	Unit
N	Basal	25	kg/ha
P ₂ O ₅	Basal	25	kg/ha
K ₂ O	Basal	20	kg/ha
N	Topdress	30	kg/ha

Field images



Varieties

Name	Country	Maturity (days)	Traits
Dryland Fonio	UG	90	Short-season dryland grain type.

Fertilizer recommendations

<u>Stage</u>	<u>Product</u>	<u>Rate</u>	<u>Notes</u>
Planting	DAP	100	Basal phosphorus for Fonio establishment.
Topdress	CAN	100	Nitrogen support for Fonio vegetative growth.

Pests and diseases

<u>Name</u>	<u>Type</u>	<u>Symptoms</u>	<u>Management</u>
Aphids	pest	Sap sucking on leaves and grain heads.	Scout early, preserve beneficial insects, and control when thresholds are exceeded.
Leaf rust	disease	Rust pustules on leaves reducing grain fill.	Use tolerant varieties, rotation, and timely disease control.

Yields

<u>System</u>	<u>Typical</u>	<u>Min</u>	<u>Max</u>	<u>Notes</u>
Rainfed smallholder production	1.2	0.7	2	Typical grain yield under practical Fonio management.

Season calendars

<u>Country</u>	<u>Region</u>	<u>Planting</u>	<u>Harvest</u>
UG	Dryland Trial Areas	Mar-Apr	Jun-Jul

Region suitability

<u>Country</u>	<u>Region</u>	<u>Suitability</u>
UG	Dryland Trial Areas	Medium

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