FarmLens Ltd

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Crop details

Rhodes grass

Chloris gayana

Family: Poaceae

Categories

Forages & Fodder

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Quick stats

Family	Poaceae
Typical harvest	9.0 t/ha
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Crop profile

Growth habit	perennial
Days to harvest	365
Main uses	Grazed pasture, cut-and-carry forage, hay production and soil cover in pasture systems.
Pollination	wind
Origin and where it grows	Warm-season tropical and subtropical grass widely grown in semi-arid to sub-humid regions as a key pasture species.

Weather, soil and spacing

Best temperature	20 - 32 °C
Rainfall	600 - 900 mm/yr
Altitude	0 - 2000 m
Best pH	5.5 - 7.5
Soil type	Light to medium-textured, well-drained sandy loams or loams; tolerates some salinity better than many forages.
Row spacing	30 cm
Plant spacing	10 cm
Planting depth	1 cm
Seed rate	6 kg/ha

Simple notes for farmers

About the crop: This crop is perennial; once planted it can keep producing for many years. Harvest typically starts about 365 days after planting.

Main use: Farmers mostly grow this crop for grazed pasture, cut-and-carry forage, hay production and soil cover in pasture systems..

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

Where it grows: Warm-season tropical and subtropical grass widely grown in semi-arid to sub-humid regions as a key pasture species.. Grouped under: Forages & Fodder.

Best climate: 20 - 32 °C; 600 - 900 mm/yr; up to about 2000 m a.s.l.

Soil: Best at pH 5.5 - 7.5; light to medium-textured, well-drained sandy loams or loams; tolerates some salinity better than many forages..

Farmer guide (Mwongozo wa Mkulima)

Planting	Sow into a fine but firm seedbed with good soil moisture. Rhodes seed is small, so plant shallow (about 1 cm) using a drill or broadcasting then lightly harrow/roll.
Transplanting	Usually direct sown, not transplanted. Avoid deep burial which greatly reduces emergence.
Irrigation	Under rainfed conditions, establish at onset of rains. Under irrigation, keep moist during establishment; after establishment, water between cuts or as pasture demand requires.
Fertigation	Under sprinkler or drip, split N and K into small doses after cuts or grazing to encourage leafy regrowth.
Pest scouting	Scout for armyworms, leaf spots, rust and termite damage at the base of plants, especially in dry spells.
Pruning and training	Manage by grazing or cutting. Avoid grazing too close (below 5–7 cm stubble) to protect crowns and promote persistence.
Harvest	For hay, cut at early flowering when there is a good balance of yield, leaf content and quality. For grazing, rotate when plants are 25–40 cm tall and remove stock at 10–15 cm.
Postharvest	Dry hay on clean ground or raised racks; turn gently to avoid leaf loss. Bale at safe moisture and store under cover to prevent moulding.

Nutrient schedule (Mbolea kwa Hatua)

#	Stage	DAP	Product	Rate	Targets (kg/ha)	Notes
1	Basal at planting	0	NPK 17-17-17	100 kg/ha	N: 17, P?O?: 17, K?O: 17	Apply and incorporate into topsoil before sowing; adjust rate according to soil test and manure use.
2	First topdress (post-establishment)	35	CAN 26% N	80 kg/ha	N: 21, P?O?: 0, K?O: 0	Apply once seedlings are well established and before first cut/grazing.
3	After heavy cut/grazing	80	NPK 20-10-10 or urea + K source	70 kg/ha	N: 14, P?O?: 7, K?O: 7	Apply after a major cut or grazing rotation to stimulate regrowth where moisture is adequate.

Nutrient requirements

Nutrient	Stage	Amount	Unit
N	Basal	30	kg/ha
P?O?	Basal	25	kg/ha
K?O	Basal	25	kg/ha
N	Mid_season	50	kg/ha

Nutrient	Stage	Amount	Unit
P?O?	Mid_season	0	kg/ha
K?O	Mid_season	40	kg/ha
N	Late_season	20	kg/ha
P?O?	Late_season	0	kg/ha
K?O	Late_season	20	kg/ha

Field images



Varieties

Name	Country	Maturity (days)	Traits
Common Rhodes (diploid) selection	KE	365	Persistent perennial pasture with good hay quality under Kenyan highland and mid-altitude conditions.
Fine-stem Rhodes grass	TZ	365	Finer stems and good leafiness, suitable for hay production in drier mid-altitude zones.
Local Rhodes-type pasture mix	UG	365	Mixed ecotypes used in smallholder dairies as cut-and-carry and grazed pasture.

Fertilizer recommendations

Stage	Product	Rate	Notes
Basal	NPK 17-17-17	100	Apply at establishment and incorporate before sowing on low to medium fertility soils.
Post-establishment	CAN 26% N	80	Apply once stand is established and actively growing, before first main cut/grazing.
After heavy cut/grazing	NPK 20-10-10 or N + K blend	70	Use after major cuts in high-producing systems to sustain yields and stand vigour.

Pests and diseases

Name	Type	Symptoms	Management

Armyworms / caterpillar defoliators	pest	Rapid defoliation of leaves, “stripped” paddocks after large outbreaks.	Regular scouting during outbreak seasons, early intervention, and grazing/cutting before severe damage where possible.
Termites	pest	Tunnelling at crowns and lower stems, dead or lodging tussocks, especially in dry conditions.	Manage termitaries around fields, avoid heavy trash piles around plant bases and maintain good stand vigour.
Leaf spot / rust diseases	disease	Brown or rust-coloured spots on leaves, premature leaf shedding and reduced quality.	Maintain open swards, avoid overcrowding, cut/graze to remove heavily infected foliage and avoid excessive late nitrogen.
Root and crown rots	disease	Thinning patches, weak plants with rotted crowns/roots in poorly drained areas.	Improve drainage, avoid over-irrigation on heavy soils and rotate out of badly affected paddocks.
Weed competition	disorder	Patchy stands, invaded by broadleaf weeds and annual grasses reducing forage quality.	Ensure good establishment with correct seeding rate, early weeding and timely grazing/cutting to favour Rhodes over weeds.

Yields

System	Typical	Min	Max	Notes
Low-input rainfed (hay, DM)	5	3	7	1–3 cuts per year depending on rainfall; minimal fertilizer on smallholder farms.
Managed pasture/hay (DM)	8	6	12	Fertilized stands under good rainfall or supplementary irrigation with rotational grazing or cutting.
Intensive irrigated (DM)	14	10	18	High fertility and frequent cutting for dairy-quality hay/green chop.

Season calendars

Country	Region	Planting	Harvest
KE	Semi-arid and sub-humid mid-altitude and lowland dairy/beef zones	At onset of long or short rains into moist, well-prepared seedbeds.	First light cut/grazing from 8–10 we
TZ	Central corridor, coastal hinterlands and northern/southern highland fringes	Early in the rainy season when reliable moisture is available for establishment.	Cut or graze repeatedly during rainy
UG	Drier cattle corridors and well-drained mid-altitude dairy zones	At onset of main rains on light, well-drained soils.	Continuous grazing or cutting once

Region suitability

Country	Region	Suitability

KE	Eastern, coastal, Rift and some western cattle belts with warm climates and seasonal rainfall	High
TZ	Central corridor, coastal hinterland and suitable highland fringes with good drainage	High
UG	Cattle corridor and mid-altitude dairy/beef areas on light to medium soils	High

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