Axonopus scoparius

Scientific name

Axonopus scoparius (Flüggé) Kuhlm.

Synonyms

Paspalum inidifolium Poepp.; Paspalum scoparium Flüggé

Family/tribe


Morphological description

Perennial, 0.6–2 m in height, forming tufts with succulent stems (also reported to spread on slopes by long stolons). Leaves glabrous or hairy on the upper surface, 10–60 cm long and 5–35 mm wide. Inflorescence is a terminal and/or axillary panicle, 10–30 cm long, often purplish with (10–) 15–25 (–100) racemes, 10–15 cm long. Spikelets slightly hairy, 2.5–3 mm long.

Similar species

A. scoparius is rather similar to – and often confounded with – the closely related micay grass (Axonopus micay García-Barr.). The latter can be distinguished by its non-tufted, creeping, rhizomatous habit, shorter growth (thus more suitable for grazing), much shorter central rachis of the panicle and lower number of spikelets per raceme.

Common names

English: imperial grass

Latin America: capim de teso (Marajó), capim Colômbia, capim colombiano, capim imperial, capim Venezuela (Brazil); maicillo (Peru); cachi (Central America); pasto Imperial (Colombia); caricachi (Bolivia); gamalote (Ecuador); grama dulce (Argentina); paja mansa (Paraguay); pasto carpeta, pasto chato, guaratara, pasto micay, pié de paloma, saracachu

Distribution

Native:

Northern America: Mexico

Central America: Costa Rica, Panama

South America: Bolivia, Brazil, Colombia, Ecuador, Peru, Venezuela

Cultivated:

Also cultivated

Uses/applications

Forage

Used as cut forage (fresh and as silage); reported to be the main cut-and-carry grass in the coffee zone of Colombia, but increasingly being replaced by king grass (Cenchrus purpureus × C. americanus).

Environment
Erosion control when used as hedgerow.

Ecology

Soil requirements
Prefer well-drained, fertile soils with high organic matter content, but will also grow on acid, less fertile soils.

Moisture
Well adapted to the moist, sub-humid to humid tropics with rainfall 1,000 to >2,000 mm/yr; not very drought tolerant.

Temperature
Grows well in a fairly wide temperature range (14–26 °C); in Colombia, best growth from 1,200 to 2,000 m asl; at altitudes <600 m, night temperatures need to be low.

Light
No information available.

Reproductive development
No information available.

Defoliation
Mainly used as a cut-and-carry grass; cutting at soil surface recommended.

Fire
No information available.

Agronomy

Guidelines for establishment and management of sown forages.

Establishment
Commonly established by stem cuttings (400 to >600 kg/ha).

Fertilizer
Reported to be less responsive to mineral fertilizer (mainly P) than most other grasses; however, responds well to application of manure.

Compatibility (with other species)
No information available.

Companion species
No information available.

Pests and diseases
Bacterial gummosis (*Xanthomonas axonopodis*) is a major limiting factor.

Ability to spread
No significant spread.

Weed potential
Probably none.

Feeding value

Nutritive value
Considered to be of moderate quality: CP values according to growth stage: dropping from e.g. 11.8% (60-d regrowth) to 5.3% (after flowering); IVDMD 40–84%; P 0.05–0.13%, Ca 0.27–0.70%.

Palatability/acceptability
Reported to be high.

Toxicity
None reported.

Feedipedia link
Production potential
Dry matter
10–20 t DM/ha/year (Colombia).

Animal production
4.7 L of milk/cow/day (A. scoparius alone; Blanco-Orejinegro criollo breed, Colombia).

Genetics/breeding
2n = 20.

Seed production
Reported to produce seeds but of very low germination.

Herbicide effects
Pre-emergence herbicide application is suggested, post-emergence application discouraged.

Strengths
- High palatability at all growth stages.

Limitations
- Lower growth rate and production in comparison with king grass (Cenchrus hybrid).

Selected references


Cultivars
-'Imperial ICA Clone 60’ Released in Colombia Considered to be gummosis resistant.
-’Imperial ICA Clone 72’ Released in Colombia Considered to be gummosis resistant.
-’Verde’ Released in Santa Catarina Brazil.
-’Roxo’ Released in Santa Catarina, Brazil.

Promising accessions
None reported.

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