

Tropical Forages

Axonopus scoparius

Scientific name

Axonopus scoparius (Flüggé) Kuhlmann



Synonyms

Paspalum iridifolium Poepp.; *Paspalum scoparium* Flüggé

Family/tribe

Family: *Poaceae* (alt. *Gramineae*) subfamily: *Panicoideae* tribe: *Paspaleae* subtribe: *Paspalinae*.

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



Tussock growth habit, sometimes producing stolons



Hillside stand, Coffee Zone, Colombia



Panicle comprising numerous racemes,



Seeds



For cut-and-carry, humid tropics, Colombia



Herbarium specimen

Erosion control when used as hedgerow.

Ecology

Soil requirements

Prefers 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

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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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