

Brachiaria hybrid cultivar (cv.) Mulato II (CIAT 36087)

A superior *Brachiaria* hybrid combining drought tolerance, resistance to spittlebugs and adaptation to acid, infertile soils was released by a commercial seed company in LAC countries, contributing to improved rural livelihoods through increased efficiency of livestock production and through sale of seed, vegetative planting material and fodder.

Brachiaria hybrid cultivar (cv.) Mulato II (CIAT 36087) is the product of three generations of crosses and screening carried out by the Tropical Forages Project of CIAT since 1989 between *Brachiaria ruziziensis* (sexual tetraploid), *B. decumbens* and *B. brizantha* (apomictic tetraploid).

Highly pubescent and strong stems and intense green lanceolate leaves



Hay

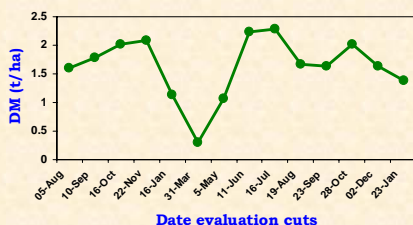


Drought tolerance



Adaptation trials showed that Mulato II grows well from sea level to 1800 m.a.s.l. in the humid tropics with high levels of precipitation and at sub-humid sites with a 5 to 6 month dry season and annual precipitation above 700 mm. Mulato II performs well in well-drained, acid infertile soils, although the grass also tolerates poorly drained soils with non-permanent water logging.

Forage yield (t DM/ha per cut) of cv. Mulato II during Wet season (May to November) and the dry season (December to April) on an Inceptisol of Atenas, Costa Rica



Forage quality and mineral composition of foliar tissue of Mulato II

Season	CP	IVDMD	Ca	P	S	K	Mg
			(%)				
Wet	11.4	66.3	0.54	0.24	0.14	1.56	0.44
Dry	8.4	61.0	0.52	0.25	0.13	1.62	0.43

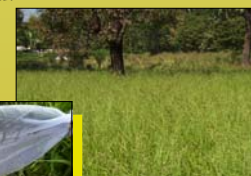
Mulato II has antibiotic resistance to several spittlebug species such as *Aeneolamia reducta*, *A. varia*, *Zulia carbonaria*, *Z. pubescens*, *Prosapia simulans*, *Mahanarva trifissa*, *Deois flavopicta*, *D. schach*, and *Notozulia entrerriana*. and has exhibited moderate susceptibility to fungal leaf diseases.



Panicle with 4 or 6 racemes that present cream-white stigmas at anthesis

Mulato II produces a large number of panicles with well synchronized flowering and good caryopsis formation, which leads to acceptable yields of good-quality seed that ranging from 150 to 420 kg/ha of pure seed, depending on production site, crop age, crop management, and harvest method.

Livestock producers who benefit from cv. Mulato II range from large livestock producers in LAC to smallholders in Asia who grow Mulato II to produce high quality forage to feed livestock. Additional economic benefits to smallholders are derived from artisanal seed production of cv. Mulato II as shown in Bolivia and Thailand.



Mulato II was released by the Papalotla Seed Company in 2005. Seed sales in 2005- 2006 totaled over 63.5 tons, which is sufficient to sow 13,000 ha (assuming a sowing rate of 5 kg/ha). Seed sales projected for 2007 total over 400 tons, i.e., sufficient to sow 80,000 ha.

Since 2000, CIAT granted the Mexican seed company Semillas Papalotla S. A. rights to the multiplication and commercialization of Mulato II, while maintaining intellectual property rights over the hybrid.

