Brachiaria Hybrids: Their Origin and Potential Forage Use

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Brachiaria hybrids : their origin and potential forage use

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Introduction Until 2000 , cultivars of *Brachiaria* spp . were derived without genetic modification directly from natural germplasm collected in Africa (Miles et al . , 2004) . A breeding program was initiated in 1988 to combine desirable attributes found in accessions of *B . brizantha* (resistance to spittlebugs [Hemiptera : Cercopidae]) and *B . decumbens* (edaphic adaptation) .

Materials and methods A sexually reproducing , tetraploid breeding population was synthesized by recombining sexual , first-cycle hybrids obtained by crossing an artificially tetraploidized *B . ruziziensis* with natural apomictic tetraploid accessions of *B . decumbens* and *B . brizantha* (Miles , 2007) . Selected sexual clones were crossed with apomicts . Two apomictic hybrids were released (cvs . Mulato and Mulato II) .

Results Since the release of Mulato and Mulato II , a series of agronomic trials were conducted . Although Mulato showed agronomic potential with its high yield of high quality forage , seed yields were extremely low (Hare et al . , 2007) . Mulato also is susceptible to spittlebugs . Trials in Central America demonstrated the superiority of Mulato II , a vigorous , semi-erect grass with very deep , branched roots giving it excellent drought resistance (confirmed by results in the Brazilian Cerrado , Central America , and Mexico as well as in the Argentine Chaco) . Mulato II has excellent nutritional value with CP ranging from 14 to 22% and IVDMD from 55 to 64% . These values , similar to temperate grasses , are unusual in warm-season grasses . Results at CIAT indicated that milk production of cows grazing Mulato II was 11% (dry season) or 23% (rainy season) greater than production from conventional cultivars .

Conclusion Mulato II is the best alternative to improve ruminant livestock productivity in the tropics .

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