



University of Kentucky  
UKnowledge

---

International Grassland Congress Proceedings

21st International Grassland Congress / 8th  
International Rangeland Congress

---

## Study on the Adaptability of *Brachiaria spp.* in Subtropical Region of Fujian

X. H. Luo  
*Fujian Academy of Agricultural Science, China*

Y. S. Lin  
*Fujian Academy of Agricultural Science, China*

Z. Y. Ying  
*Fujian Academy of Agricultural Science, China*

Follow this and additional works at: <https://uknowledge.uky.edu/igc>



Part of the [Plant Sciences Commons](#), and the [Soil Science Commons](#)

This document is available at <https://uknowledge.uky.edu/igc/21/13-2/16>

The 21st International Grassland Congress / 8th International Rangeland Congress took place in Hohhot, China from June 29 through July 5, 2008.

Proceedings edited by Organizing Committee of 2008 IGC/IRC Conference

Published by Guangdong People's Publishing House

---

This Event is brought to you for free and open access by the Plant and Soil Sciences at UKnowledge. It has been accepted for inclusion in International Grassland Congress Proceedings by an authorized administrator of UKnowledge. For more information, please contact [UKnowledge@lsv.uky.edu](mailto:UKnowledge@lsv.uky.edu).

## Study on the adaptability of *Brachiaria spp.* in subtropical region of Fujian

X . H . Luo , Y . S . Lin , Z . Y . Ying

Institute of Agricultural Ecology , Fujian Academy of Agricultural Science , Fujian Engineering and Technology Research Center for Hilly Prataculture , Fuzhou 350013 , Fujian , China .

**Key words** : adaptability ,*Brachiaria spp.* , subtropical region

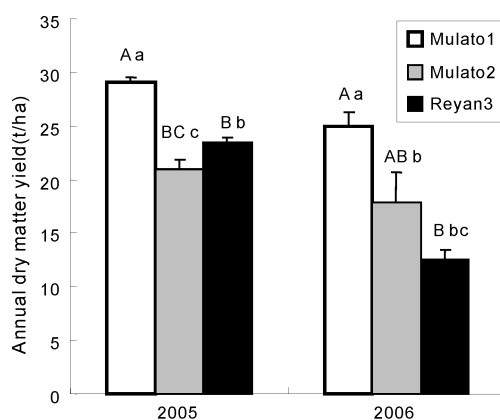
**Introduction** *Brachiaria spp.* is an important perennial tropical forage in hilly pasture and is widely used in preventing water and soil erosion (Bai et al . , 2001) . Field experiments were conducted in Fuzhou to compare the adaptability of two hybrid varieties , Multao1 (*Brichiaria ruziziensis* × *B. brizantha* CIAT 36061) and Multao 2 (*Brichiaria ruziziensis* × *B. decumbens* CIAT 36087) , with Reyan 3 (*B. decumbens*) as the control .

**Materials and methods** Three varieties of *Brachiaria spp.* were sown in experiment fields in Fuzhou with 4 replicates . Growing dates were observed in the first replicate . The second , third and fourth replicates cutted with the stubble height of 5cm when their canopy heights were above 40cm~50cm .

**Results** The flowering time of Mulato1and Mulato2 was about 90 days later than Reyan3 , but the turning-green time was about 25 days earlier than Reyan3 (Table 1) . Hybrid varieties (Mulato1and Mulato2) produced dry matter yield of 12.5~29.1 t/ha per year . Mulato1 had the highest DM yield of 29.1 t/ha and 24.9 t/ha in 2005 and 2006 respectively , and significantly higher than Reyan3 . The yield of Mulato2 was higher than Reyan3 in 2006 , although was less than Reyan3 in 2005 (Figure 1) .

**Table 1** Growing dates of tested hybrid varieties of *Brachiaria spp.*

Variety	Wither stage	Turning-stage	Tiller stage	Jointing stage	Heading stage	Flowering stage	Ripening stage
Mulato1	Dec 22 2005	Feb 13 2006	Mar 27 2006	May 20 2006	Jul 7 2006	Aug 31 2006	Oct 2 2006
Mulato2	Dec 22 2005	Feb 13 2006	Mar 27 2006	Jun 15 2006	Jul 17 2006	Aug 31 2006	Oct 8 2006
Reyan3	Dec 22 2005	Mar 10 2006	Apr 25 2006	May 10 2006	May 25 2006	May 30 2006	Jul 20 2006



**Figure 1** Dry matter yields of hybrid Signal grass varieties .

**Conclusions** It is concluded that two varieties of *Brachiaria spp.* can grow normally in Fujian subtropical area . Mulato1 as a promising variety has a good performance with high growth height and yield , strong tiller ability , early turning-green and later flowering .

### Reference

Bai CJ , Liu GD ( 2001) The Dynamic Study on Nutrition and Feeding Value of *Brachiaria spp.* [J] . *ACTA AGRESTIA SINICA* , 9(2) : 100-116 .