Estilosantes Campo Grande: An Economical and Environmental Success Forage Legume for the Tropics

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Introduction Estilosantes Campo Grande (ECG) is a tropical forage legume cultivar released by Embrapa Beef Cattle in 2000 . It is a seed mixture (by weight) of breed lines of *Stylosanthes capitata* (80%) and *S . macrocephala* (20%) . It has become a successful case of tropical legume forage , being spread nowadays in 450 thousand hectares of sown pastures in Brazil alone , in mixture with grasses such as *Brachiaria* spp . , *Panicum maximum* and *Andropogon gayanus* . This area is expected to increase 50% in 2008 . It has good adaptation to low fertility sandy soils and it is persistent under grazing (FERNANDES et al . , 2005) .

Main advantages of Estilosantes Campo Grande
1) Biological Nitrogen Fixation , nutritive value and animal performance : ECG may obtain over 170kg of N/ha/year through biological N fixation . In mixed pastures it contributes to increases on forage availability (up to 50%) and improvements of its quality (Figure 1) . Its good palatability and nutritive value has lead to animal performances in mixed pastures 9% to 34% higher than in single grass pastures .

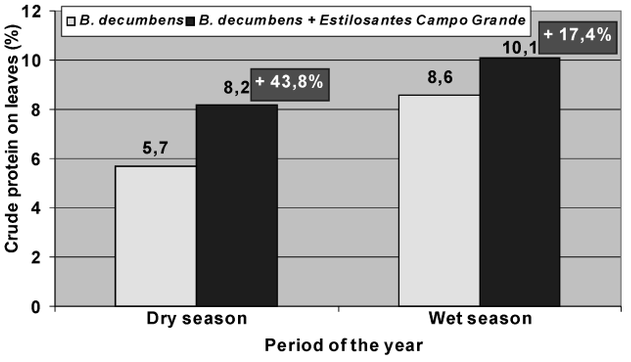

Figure 1 *Crude protein contents of* Brachiaria decumbens *leaves grown alone or mixed with Estilosantes Campo Grande .*

2) Production system sustainability : ECG is a useful soil conditioner , having a deep root system and providing high quality mulch , helping to ameliorate soil chemical (N addition and recycling of nutrients) , physical (soil aggregation , water use , erosion control) and general biological properties . Dedecek et al . (2006) , for example , reported around 90% reduction of soil losses in mixed *B . brizantha*-ECG pastures compared to single pastures . Overall , such contribution turns production systems more sustainable over time .

Conclusion Estilosantes Campo Grande is a forage legume that is adding efficiency and sustainability to tropical husbandry .

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