

Morphogenic analysis of three geographical populations of *eragrostis plana* ness in south of brazil

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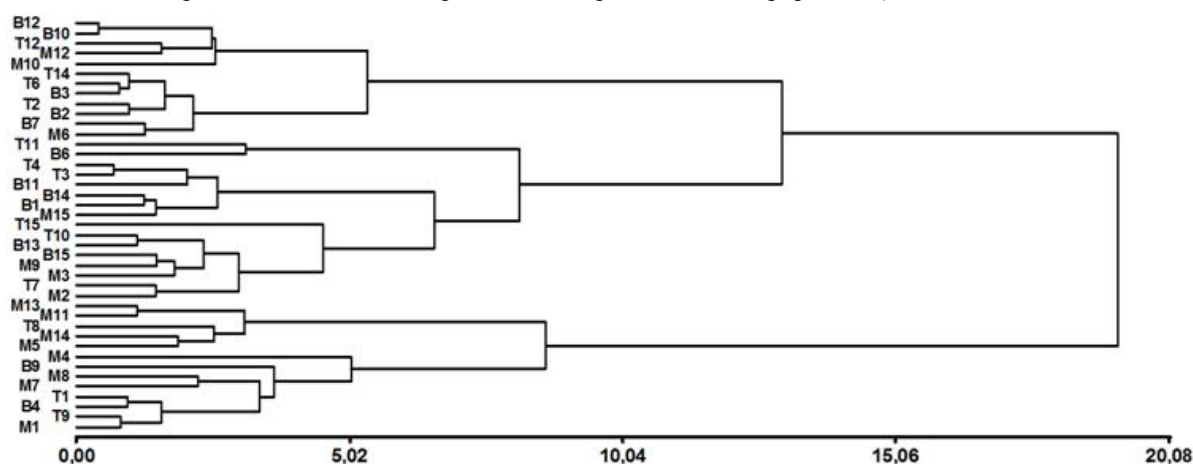
Introduction: *Eragrostis plana* Ness is the most important weed of rangeland in the Southern of Brazil and represents a real risk to other south american countries. This perennial grass of South Africa, has low nutritional value and high seed production. It was introduced in this region, about 50 years ago and, until now, its variability is unknown. In order to test the morphogenics variation in the material present in this region, seeds of *E. Plana Ness* were sampled at different locations to studied the tissues flow, and tested the similarity of the geographical populations.

Material & methods: The populations were collected in different geographical regions of Rio Grande do Sul state, Brazil, in Bagé, Tupanciretã and Mostardas.. On December 8, 2008, seeds were sown in pots in the greenhouse. The randomized experimental design has fifteen repetitions. The morphogenic variables of elongation rate , degree-days, tillering rate, number of living leaves per plant, number of tillers alive and average length of the leaf of each populations were subjected to cluster analysis, using the software INFOSTAT (Balzarini, 2008).

Results and discussion: The Dendrogram (Figure 1) did not evidenced homogeneous groups within variables. Each plant presents a distinct morphogenic pattern even in the same geographical population, that did not distinguishing as contrasting populations. The growing season lasted for 61.90 ± 9.56 days, the elongation rate was 0.33 ± 0.08 cm / degree-days, the tillering rate was 0.17 ± 0.05 cm / degree-days, number of living leaves per plant was 7.85 ± 0.67 , number of tillers alive was 31.71 ± 14.15 and the average length of the leaf was 34.85 ± 5.21 cm; these values are higher than the growth rates of native species.

Conclusion: The populations of Bagé, Tupanciretã and Mostardas did not form distinct groups. The high vegetative vigor and precocity in *E. Plana Ness* plants represents an important information to understanding the dynamics of vegetation in order to make the stock control and eradication practices.

Figure 01 - Dendrogram of three populations of *E. Plana Ness*, in function of variables morphogenics (B – Bagé, M - Mostardas, T - Tupanciretã, the number represents the repetition of each population).



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