AGRONOMIC PRODUCTION AND EVALUATION OF SEVERITY OF *Curvularia geniculata* ON *Medicago sativa* CV. CRIOULA IN SOUTHERN BRAZIL.

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Alfalfa (*Medicago sativa*) is a very important forage species, with worldwide distribution. However, this species has some problems for achieving high production and persistence, some of them related to damage caused by foliar diseases. Due to the importance of this forage and the limited knowledge available, after identify foliar diseases that occur in alfalfa in Rio Grande do Sul, the goal of this work was to verify the genetic variability for resistance to leaf disease (*Curvularia geniculata)* as well as to forage production in alfalfa cultivars. The experimental areas were located at the Agricultural Experimental Station of UFRGS (EEA), Eldorado do Sul, and Embrapa PecuáriaSul (CPPSul), Bagé. The experimental units consisted in rows with 1 meter of length and 5 genotypes were evaluated: Crioula (control), ABT805, E_1C_3 and CPPSul. The experimental design was a completely randomized block with three repetitions.. Ten cuts were made at EEA , every time the plants reached the average of 45 cm hight, leaving a residue of 10 cm (from November of 2013 to January of 2015). The samples were oven-dried (60°C,72 hours) for weighing and determination of total dry matter (TDM), expressed as grams/meter. Alfalfa cvs were inoculated with the fungus when having 25 cm of high in e October of 2014 with conidial suspension of 10^6 conidia ml^{-1}. To promote a moist environment for germination of the spores, a plastic cover was placed around and on top of the plants for 24 hours. The evaluation was performed 15 days after inoculation in the central plants of each row, and the percentage of leaf area damaged in the inoculated leaflets was visually estimated, varying from 0 to 100%. Statistical analysis was performed by analysis of variance (Tukey test at 5% significance) using the statistical package SAS software V. 9.1. The results demonstrated more severe damage at l CPPSul ($P<.0001$). The genotypes ABT 805 (26.25% CPPSul, 16.75% EEA) and CPPSul (11.7% CPPSul, 24.79%EEA) showed a high incidence of injuries in both local. The opposite was observed for Crioula and E_1C_4, which presented lower incidence of leaf lesions.. Genotypes CPPSul and Crioula differed with larger productions of TMT in all evaluations. Additional work, related to physiological and agronomic characters are in progress in Spain and in Brazil.

Keywords: alfalfa; leaf lesion; forage legume; forage production