Alfalfa population improvement using a novel germplasm source. (C07-maureira172644-Oral)

Authors:

- I.J.Maureira - *University of Wisconsin*
- T.C.Osborn - *University of Wisconsin*

Abstract:

Forage yield is one of the most important attributes of alfalfa (Medicago sativa), and yet very little progress has been made after a century of breeding. The objectives of this research are to evaluate the potential of a novel hybrid population to increase forage yield and initiate a long-term population improvement program utilizing this material. Two genetically different germaplasm sources identified (M. sativa ssp. sativa Peruvian and M. sativa spp. falcata) by molecular markers were mated to generate a hybrid population. This material was later crossed to three different cultivars and forage yields were measured for two years at two locations to test its breeding potential when compared with cultivars and cultivars x cultivars performances. The results of this experiment suggested that the Peruvian-falcata population performed at least as good as the cultivar populations. The initial hybrid population was later inter-mated for three generations to create a F4 population (C0). F4 plants were crossed to two different testers and evaluated for two years. Preliminary results of C0 will be presented and future work will be discussed.

Corresponding Author Information:

Ivan Maureira
University of Wisconsin-Madison
1575 Linden Dr. Dep. of Agronomy. UW
Madison, WI 53706

phone: (608)262-9570
fax: (608)262-5217
e-mail: ijmaureira@students.wisc.edu

Presentation Information:

Presentation Date: Tuesday, November 12, 2002
Presentation Time: 8:00 am

Keywords:

Alfalfa, Genetic diversity, Molecular markers, Medicago