The Identification of Duplicate Accessions Within a Grass Germplasm Collection Using RAPD Analysis. (C08-bradley131923-Poster)

Authors:

- V.L.Bradley* - *UDSA, ARS Western Regional PI Station*
- T.J.Kisha - *USDA, ARS Western Regional PI Station*
- R.C.Johnson - *USDA, ARS Western Regional PI Station*

Abstract:

There are almost 18,000 accessions in the Western Regional Plant Introduction Station (WRPIS) temperate grass collection. Germplasm managers at the station have suspected for many years that some grass accessions are duplicates of others. Although the original source of these suspected duplicates may have been the same, it is possible that subsequent cultural practices have altered the genetic make-up of the seed maintained at the WRPIS, thus making these accessions unique from one another. Growing plants to maturity and comparing morphological characters, which often takes two years, is not a practical or accurate method of identifying duplicate grass accessions. Therefore, the WRPIS grass germplasm managers are developing a procedure that is relatively quick as well as accurate. Twenty-four plants of each of three seed lots of Elymus trachycaulus 'Primar', a self-pollinated perennial grass, were grown in styrofoam flats in the greenhouse. When plants were at the three to four leaf stage the top two centimeters of leaves were removed and DNA was extracted from these samples. RAPD analysis was used to assess whether the seed lots were duplicates of one another.

Corresponding Author Information:

Vicki Bradley
USDA, ARS Western Regional PI Staion
PO Box 646402, 59 Johnson Hall, WSU
Pullman, WA 99164-6402

phone: 509-335-3616
e-mail: bradley@wsu.edu

Presentation Information:

Presentation Date: Wednesday, November 13, 2002
Presentation Time: 4:15-6:00 pm
Poster Board Number: 934

Keywords:
duplicate accession, RAPD, temperate grass