Genetic diversity and relationships in cultivars of *Lolium multiflorum* Lam. using sequence-related amplified polymorphism markers

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**ABSTRACT.** Sequence-related amplified polymorphism (SRAP) markers were used to analyze and estimate the genetic variability, level of diversity, and relationships among 20 cultivars and strains of annual ryegrass (*Lolium multiflorum* Lam.). Eighteen SRAP primer combinations generated 334 amplification bands, of which 298 were polymorphic. The polymorphism information content ranged from 0.4715 (me10 + em1) to 0.5000 (me5 + em7), with an average of 0.4921. The genetic similarity coefficient ranged from 0.4304 to 0.8529, and coefficients between 0.65 and 0.90 accounted for 90.00%. The cluster
analysis separated the accessions into five groups partly according to their germplasm resource origins.

**Key words:** Genetic diversity; *Lolium multiflorum* Lam.; Sequence-related amplified polymorphism