Effect of Processing and Storage Treatments on Germination of Florida *Liatris* Seed

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The fruit (seed) of *Liatris* species consists of a narrow, elongated achene with a pappus that aids in dispersal. However, this pappus interferes with mechanical harvesting and seeding operations. In 2010, the USDA, NRCS Brooksville Plant Materials Center began work on a Florida Native Plant Society research grant to examine methods of removing the pappus from *Liatris* seed. Seed stalks of eight *Liatris* accessions, representing six species, were collected. The seed processing treatments consisted of: 1) seed hand stripped from the stalks; 2) seed stalks fed through a hammer mill using a large-hole screen and slow speed to simulate mechanical harvesting; 3) seed from Treatment 2 run through an air screen cleaner; and 4) seed from Treatment 3 hammer milled using a small-hole screen and a faster speed to remove the pappus (debearding). Seed were stored under three conditions (room temperature, seed cooler, and freezer). Germination tests were conducted at 0, 3, 6, 9, and 12 months. Germination remained fairly stable for the 12 month storage period under all storage conditions, except for Treatment 4 (debearded) seed. Damage from debearding appeared to be seed-size dependent. The freezer maintained viability of debearded seed better than the other storage conditions.

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