Viability of Native Warm-Season Grass Seeds after 35 Years of Storage Under Two Different Environments©

John M. Row
USDA NRCS, Manhattan Plant Materials Center, Manhattan, Kansas 66502, USA

Richard L. Wynia
USDA NRCS, Manhattan Plant Materials Center, Manhattan, Kansas 66502, USA
Email: john.row@ks.usda.gov

The ability to store native grass seeds for long periods of time is important to plant breeders, habitat restorationists, botanists, and seed vendors. Seeds stored in hot, humid climates are subjected to wide fluctuations in temperature and humidity. Such conditions are known to reduce longevity of seeds in storage. Seeds of nine warm-season grass species native to North America were stored under controlled and uncontrolled storage environments for 35 years at the Manhattan Plant Materials Center, Manhattan, Kansas. The viability of the seeds was monitored to determine what effect the two storage environments had on longevity of various native warm-season grass species. Seeds under a controlled temperature and humidity environment remained viable for more than 35 years, except for seeds of prairie cordgrass (*Spartina pectinata* Bosc ex Link). The longevity of seeds stored under an uncontrolled storage environment remained viable up to 13 years. The viability of the grass seeds remaining in this study meet or exceed the minimum acceptable level established by Kansas seed certification standards. Trends in longevity for the grass species under the two storage environments makes it possible to predict storage life of seed lots.