

VIABILITY OF NATIVE WARM-SEASON GRASS SEEDS AFTER 30 YEARS OF STORAGE UNDER TWO DIFFERENT ENVIRONMENTS

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Abstract: The ability to store native grass seeds for long periods of time is important to plant breeders, the seed industry, and prairie restoration enthusiasts. Seeds stored in hot, humid climates are subject to wide fluctuations in temperature and humidity. Such conditions are known to reduce longevity of seeds in storage. Seeds of 9 warm-season grass species native to North America were stored under controlled and uncontrolled storage environments for 30 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 native warm-season grass seeds. Seeds under a controlled temperature and humidity and insect- and rodent-free environment remained viable, 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. Trends in longevity for the grass species under the two storage environments make it possible to make predictions about storage life of seed lots in hot, humid climates.