

Abstract published in the proceedings and paper presented at the Society of Range Management annual meeting in Omaha, NE, February 21-26, 1999.

Seed Cleaning Techniques for Native Plants. Susan R. Winslow, Plant Materials Center, Route 2, Box 1189, Bridger, MT 59014

The Bridger Plant Materials Center (PMC) has been involved in the processing and cleaning of native plant species for more than 30 years. Wildland collections and cultivated seed harvested from native grasses, forbs, shrubs, and trees are cleaned, inventoried, and stored at the PMC. Upon harvesting or receipt of collected material, a variety of equipment is utilized to attain a final clean product. Native grass cultivars produced and maintained as foundation seed stock are usually harvested with a swather, combined, and cleaned on a large, stationary air-screen cleaning mill. Large seed lots are easiest to clean, relative to the number of pieces of equipment used and the number of times that the seed is handled. Small seed lots require more time per unit product and multiple steps to clean. They are first processed in a head-thresher or hammer-mill to separate seeds from stems, leaves and floral parts. Very small seed lots may need to be hand-threshed and/or pre-screened. A tabletop or free standing air-screen cleaner that uses a combination of air speed and screen sizes then separates desirable seeds from undesirable material. It may be necessary to repeat these operations several times to get to an acceptable level of purity. Prior to commercial distribution and delivery, purity and germination tests are mandatory. Seed certification standards are controlled by federal and state law to assure high seed quality and genetic integrity. Wildland collectors, commercial certified seed growers, and in some cases, scientific researchers are required to know and understand the regulations.