

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE INSTALLATION GUIDELINES**

RANGE PLANTING

(ac.)
CODE 550

Installation guidance for this practice is found in South Dakota Range Technical Note No. 4, "Perennial Vegetation Establishment" which is located in Section I of the South Dakota Technical Guide. It contains specific guidance on seeding dates, rates and depth, seedbed preparation, seeding equipment and calibration, seed requirements, species selection, use of cover and companion crops, management and protection during the establishment period, and stand evaluations.

Tables contained in the Technical note contain specific information to be used in the installation of this practice as follows:

Table 1 lists allowable varieties for use in South Dakota.

Table 2 provides seeding rate information.

Table 3 provides information on species characteristics and adaptability.

Table 5 lists allowable species by minimum and maximum percentage for each ecological site by Major Land Resource Area (MLRA).

SPECIES SELECTION

All seedings will contain a minimum of four species unless otherwise specified in Table 5 of Range Technical Note No. 4. When two or more ecological sites are planned to be seeded with the same mixture a single species can be counted toward the required minimum of species on each ecological site, provided they are eligible species for the included sites. In addition, all required species with a listed minimum percentage requirement for each site occurring in the area to be seeded must be included in the mixture. Limits are set within Table 5 for the minimum and maximum percentage for each species. This requirement may often mean that more than four species will be required, especially on seedings with a diversity of ecological sites, as four adapted species for each site (unless otherwise specified) must be included in the overall seeding mixture. All ecological sites that occupy more than five percent of the area to be seeded should be considered in the design of the seeding mix. Selected species should have a reasonable chance of surviving across all ecological sites. Species with a narrow range of environmental adaptability (i.e., species adapted to wet sites) will not be used on fields containing ecological sites with diverse site characteristics (i.e., wet to dry). The percentage that each species makes of the mixture when added together will equal 100 percent.

An alternative to designing a single seeding mixture for multiple sites is to design and apply a unique seeding mixture for each ecological site occurring in the area to be seeded. This method is recommended when existing sites have very diverse characteristics (i.e., wet vs. dry sites). The logistics of identifying the sites in the field, changing seed mixtures in the drill, and making certain all areas are seeded will be considered prior to selecting this method.

INTERSEEDING ON RANGELANDS

Due to the possibility of limited success when attempting to interseed native species into existing rangeland, interseeding will only be allowed if the following criteria are met. When interseeding into existing untreated rangeland, a specialized piece of equipment that prepares a seedbed and drills seed in one pass (interseeder) will be used. The interseeder shall make a furrow at least 8 inches wide, at least 3 inches deep, and not spaced more than 42 inches between furrow centers. It should be equipped to plant fluffy and free flowing grass seeds, have double disc openers, and

packer wheels. Seeding rates for interseedings will be one-half the rate shown on Table 2 of Range Technical Note No. 4.

FERTILIZATION

In most instances, fertilization has not proven beneficial, and, may in fact, be detrimental to seedling establishment due to increased weed growth caused by the addition of nutrients. Fertilization prior to seeding is generally not recommended. Fertilization of rangelands is generally cost prohibitive.