

## NATURAL RESOURCES CONSERVATION SERVICE

### IDAHO SPECIFICATION

#### CONSERVATION COVER

(Acre)

#### CODE 327

#### PLANS AND SPECIFICATIONS

Plans and specifications are to be prepared for each treatment area and include planting area preparation, methods and rates of planting, species (mixture) to be planted, seed depth, time of planting, fertilizer requirements, irrigation requirements, establishment requirements and long-term management requirements.

Form ID-CPA-025; Seeding/Planting Plan Specification will assist practice planning and documenting application for seedings.

Methods of planting, planting date(s) and management of stand shall be consistent with guidance in Plant Materials Technical Notes 10, and 11.

#### Seed

Use of certified seed is encouraged. All seed and planting materials shall be labeled and meet state seed quality law standards.

Based on seed tags, adjust seeding rates at field site to ensure the required amount of pure live seed (PLS) is applied to site. See Plant Materials Technical Note 4.

Most legume seed is pre-inoculated when purchased. If seed inoculation is needed, guidance on inoculation and the proper species of viable Rhizobia for each legume is listed in Plant Materials Technical Note 26.

Grasses, forbs and/or legumes that attract and provide food and cover habitat for pollinators, beneficial insects and other wildlife species should be considered.

#### Seedbed Preparation

Provide a firm weed-free seedbed (mechanically or chemically) that ensures seed contact with

mineral soil and ample soil moisture to uniformly facilitate seedling emergence.

*Seedbed Firmness Rule-of-thumb: a person's footprint will be no deeper than 1/2 inch.*

A weed-free seedbed will generally not exceed one (1) seedling per square foot of an unwanted plant at time of planting.

Use of chemicals as an alternative to mechanical seedbed preparation should be considered when appropriate.

#### Fertilizer

Fertilization will be in accordance with a soil test or common soil knowledge and will meet requirements of Nutrient Management (590).

Research on low rainfall areas indicates that fertilization is not economical on sites with less than 16 inches of mean annual precipitation.

A long-term supply of phosphorus, potassium and sulfur may be needed to enhance root growth. If needed, this fertilizer should be applied prior to land preparation at rates based on University fertilization guides.

Nitrogen fertilizer should not be applied before the stand is seeded or during the first growing season. During stand establishment, nitrogen fertilizer generally benefits annual grasses and weeds at the expense of the more slowly establishing perennial species.

#### Seeding

Seeding with a drill is recommended. The drill used should provide depth control with bands or other suitable method such that seed placement depth does not exceed recommended depths expressed in Plant Materials Technical Note 24 for that species or seed mixture.

Inspect, clean, repair and calibrate equipment prior to seeding to ensure proper rate, distribution and depth of seeding.

Drill seeding rates shall be consistent with guidance in Plant Materials Technical Note 24.

Broadcast seeding will only be used on designated seedings or special situations. Broadcast seeding rates will be 150 to 200 percent of the normal drill seeding rates. When seed is broadcast planted, where possible, seed should be covered by a roll-type packer or trampling with grazing animals on mineral soil seedbeds. High residue seedbeds should be lightly dragged or raked

Seeding rates on irrigated land may be increased to 150 to 200 percent of rates specified in Plant Materials Technical Note 24.

Actual seeding rates of applied seeding mixture will be within approximately 80 to 125 percent of rate specified during the planning process in the ID-CPA-025 Seeding/Planting Plan Specification.

### Seeding Dates

Generally accepted planting dates are:

MLRA	Spring* (before)	Fall** (before)	Dormant*** (after)
8	4/1	10/1	11/15
9	4/15	9/20	11/1
10	5/15	9/10	10/20
11	4/15	9/20	11/1
12	5/15	9/20	11/1
13	5/15	9/10	10/20
25	5/15	9/10	10/20
28A	5/1	9/20	11/1
43A	5/15	9/1	10/20
43B	5/15	9/1	10/20
43C	5/15	9/1	10/20
44	5/15	9/1	11/1
47	5/15	9/10	10/20

Seeding dates may vary from these guidelines based on local experience and conditions.

\* Complete spring plantings as early as possible.

\*\* Fall seedings on irrigated land only.

\*\*\* Earlier dormant planting dates are ok if the measured soil temperature is below 45<sup>o</sup> F.

On heavy to medium textured soils that tend to form soils crusts over winter, early spring planting should be considered.

On irrigated land, seed anytime during the growing season when temperatures are favorable for seed germination and seedling growth. Sufficient irrigation water must be available, and applied often enough to allow the soil surface to remain moist and favorable for seed germination and seedling emergence. Avoid seeding during very hot periods such as mid to late June through mid-August.

Fall seedings will be expected to attain the 3-5 leaf stage prior to cessation of growth in the fall. This requires at least 30-45 days of growth from date of planting.

Legume seedings will only be made after the average date of last spring frost or 30 days prior to average date of first fall frost.

Fall, dormant and very early spring seedings may expose legumes and forbs to potential killing frosts during seedling stage.

For tree and shrub plantings, refer to Idaho Plant Materials Technical Notes 24, 32, 41 and 43.

### Cover and Nurse Crops

On sloping land where relatively weed-free crop residues are present or will result from the existing or planned crop, consider minimizing seedbed operations to maintain adequate residues on the surface to protect the new planting.

Use nurse crops only under irrigated or high annual rainfall conditions (16 inches or greater). Seeding rates for nurse crops should be no more than 20 percent of the normal seeding rate used for that crop. Consider harvesting nurse crop as hay. Manage according to moisture conservation practices and light requirements of the desired seedlings.

### Seeding/Planting Protection

This practice will be undertaken only where domestic grazing animals can be excluded to permit stand establishment. Temporary fencing may be required.

When plantings are irrigated for establishment, maintain adequate moisture at least in the upper six (6) inches of soil during the first four (4) weeks and then in the upper 12 inches until the end of the growing season.

Noxious and competitive invasive weeds should be controlled by mowing, clipping or herbicides. Grass seedlings should be allowed to attain at least 4-5 leaf stage before herbicides are applied.

### **Planting Evaluations**

Seeded species may be considered established when they are well-rooted (not easily pulled out of ground by hand) and/or are producing reproductive stems. A minimum of one full growing season is recommended prior to grazing.

If a vegetative cover other than that planted establishes and meets the intended purpose and objectives, the cover should be considered adequate.

Refer to Plant Materials Technical Note 12 for additional guidance with seeding establishment.

### **OPERATION AND MAINTENANCE**

Maintenance needed for this practice include:

1. Periodic inspection and evaluation of vegetation to determine establishment and maintenance needs.
2. Management of vegetation growth, as applicable, by mowing, approved chemicals or other means to establish the desired cover.
3. Replanting due to drought, insects or other event which prevented adequate stand establishment should be addressed within 1-3 years of planting. Recommendations may vary from complete re-establishment to overseeding or spot replanting. Thin stands may only need additional grazing deferment during the growing season.
4. Repair of appurtenances and fences.
5. Pest (weeds, grasshoppers, rabbits, rodents, etc.) control will be undertaken when pests are determined to be detrimental to establishing new seedlings. Any control specified shall be in accordance with Pest Management (595).
6. Stands not disturbed over long periods may become decadent, low in vigor and accumulate excess plant residues (litter) resulting in poor stand health. Periodic treatment (every 5 to 7 years) including light

tillage, mowing, prescribed burning or grazing is recommended.

### **REFERENCES**

#### **FORMS**

ID-CPA-025 Seeding/Planting Plan – Specification

NRCS – Idaho Biology Technical Note

No. 1 - Pollinators

NRCS – Idaho Plant Materials Technical Notes

No. 2 – Plants for Pollinators

No. 3 – Estimating Initial Stocking Rates

No. 4 – Reading Seed Packaging Labels and Calculating Seed Mixtures

No. 7 – Mixing Seed with Rice Hulls

No. 9A – Plants for Saline to Sodic Conditions

No. 10 – Pasture and Range Seedings

No. 11 – Pasture Species Selection and Grazing Management Guidelines

No. 12 – Guidelines for Determining Stand Establishment

No. 19 – Calibrating a Seed Drill

No. 24 – Grass, Grass-Like, Forb, Legume and Woody Species for the Intermountain West

No. 26 – Legume Inoculation

No. 32 – Native Shrubs and Trees for Riparian Areas.

No. 41 – Restoration and Diversification of Plant Communities with Woody Plants

No. 43 – Tree Planting, Care and Management

NRCS – Idaho Range Technical Notes

No. 3 – Estimating Initial Stocking Rates

Land Resource Regions and Major Land Resource Areas of the United States, Issued 2006.

**ASSOCIATED PRACTICES**

Fence (382)

Forage Harvest Management (511)

Irrigation Water Management (449)

Nutrient Management (590)

Pest Management (595)

Prescribed Grazing (528)

Tree and Shrub Establishment (612)

Watering Facility (614)

Windbreak / Shelterbelt Establishment (380)