

ESTABLISHING PERMANENT COVER WALLA WALLA COUNTY, WA

GENERAL RECOMMENDATIONS FOR WALLA WALLA COUNTY

Prepare A Good Seedbed: This is very critical with perennial grasses and legumes. The seedbed should be firm and weed free. On ground that has been worked, cultipackers are commonly used to insure firmness for even drilling depth (seed depth control) and to retain good soil moisture in the germination zone for germinating seeds. ***Seed depth control is critical.*** Seed ¼ inch deep or less. A maximum depth of ½ inch is acceptable for larger seeded grasses. Harrowing following seeding will bury the seeds too deep.

Chemical fallowed stubble generally makes a very adequate seedbed. By holding weeds and volunteer grain with chemical and not working the soil at all, a seedbed with excellent firmness can be obtained. Stands may be slower to establish but there will be little or no erosion. Grassy weed control, especially of cheatgrass, is critical if the seeding is to be a success.

TIME OF SEEDING

Seed in the early spring anytime after frost leaves the ground but no later than March 15th (unless irrigated). A good “rule-of-thumb” is to seed after the soil temperatures reach 50° F at 1-inch deep and soils are dry enough to be friable. Early fall seedings may be made from August 20 to October 1 when moisture is adequate (which is rare). Best results are obtained by late fall (dormant) seedings from October 15th to November 30th for spring emergence. Fall seedings may be made into standing stubble for additional erosion control during establishment in many cases. Spring seedings are recommended only in areas which received 15-inches or more annual precipitation on the average or that are irrigated.

METHOD OF SEEDING

There are several acceptable methods of seeding permanent covers. Broadcasting seed onto a firm seedbed and then packing is one method. Some grass seeders broadcast and pack in one operation. Another method is to use a properly calibrated grain drill with all the tension off the openers so that they “float” the seed onto the seedbed and do not plant seeds too deeply. Some grain drills, however, will not meter the seed out correctly unless the grass seed is mixed (diluted) with clean sterile rice hulls or some other carrier. Grass seed drills are the best bet although regular grain drills with ½ inch depth bands are excellent. For hard or trashy conditions with a lot of plant residues, no-till or minimum till drills are recommended.

SEEDING RATES

Seeding rates vary depending on the seed mixture planted, the intended use of the planting (e.g. forage production, erosion control), and climatic factors. In general, the smaller seeded grasses like the bluegrasses and fescues have lower seeding rates than the wheatgrasses and bromes that have large seeds. Whatever the seed mix used, double the seeding rate if the seed is to be broadcast.

USE QUALITY SEED

The least expensive part of establishing a permanent cover is the cost of the seed. Use seed that is a pure variety, is free of weed seed (especially of noxious weeds), and has a high germination rate. Good germination often reflects strong seedling vigor. Use certified seed whenever possible. Your best investment is in good quality seed planted into a clean, weed-free, firm seedbed. Insist your seed dealer meet high standards. The seed tag will state purity, germination, percent inert materials, and the kind and amount of other seeds present.

Be aware that some seed may be treated with fungicides, insecticides, and/or other soil amendments. In general, chemical treatments have little if any effect on the weight of the seed. However, the chemical is sometimes put on with a limestone carrier at a 1:1 ratio that will double the weight of the seed. If the seed is treated, it must be noted on the seed tag and show the purity and germination after seed treatment.

GRASS MIXTURES

Mixtures of grasses is generally not recommended. This is especially true when the planned use of the cover is (or will be at some later date) for pastures. For pasture, one grass or a one grass-one legume mix is recommended. When possible, use alfalfa as the legume. Alternate row seeding of grass-legume mixes give good results and helps control the percentages of each. Seedings for erosion control and wildlife habitat, however, often contain several grass varieties. Make sure each variety in the mix is adapted to the site. Avoid buying "universal pasture mixes" promoted by some seed companies. This is just a gimmick to sell more seed.

INNOCULATING LEGUME

Inoculation of legumes is critical. Follow directions carefully and seed immediately after inoculation so that you prevent heat and light from destroying the inoculants (the inoculants can be killed just by sitting in a hot drill while you eat lunch). Many good operators re-inoculate pre-inoculated seed for insurance. Use the proper inoculants for the specific legume being seeded.

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STAND ESTABLISHMENT

Any perennial cover should be protected from grazing or other cropping methods one full year following planting to allow the seedlings time to become fully established. “Nurse crops” or “Companion crops” – an annual crop seeded along with the perennials to provide additional cover – is not normally recommended. Results are often disappointing since the competition for light and moisture is often too great for the young perennial seedlings. The stand is not only weakened the first year, but reduced yields prevail throughout the life of the perennial stand.

STAND MAINTENANCE

A long-lived stand depends on proper management. A vigorous well-established perennial cover seldom has serious weed problems. Cultivation injures the crowns of some plants (e.g. alfalfa), spreads disease and is generally not recommended. Hay stands should not be grazed too closely in the fall – considerable energy reserves needed for the next year’s growth are found in the crown and lower stem as well as the roots. Repeated close grazing will reduce vigor. Pastures should be allowed to get a minimum of 6-8 inches of height before early spring use and should never be grazed below 4 inches of height. Proper fertilization should be done to obtain maximum yields and a vigorous stand that will resist weeds and other pests.

For more specific recommendations on the establishment of permanent cover, contact the local USDA-Natural Resources Conservation Service (NRCS) office or Walla Walla County Conservation District (WWCCD) at 325 North 13th Avenue, Walla Walla, WA or phone 509-522-6340 Ext. 3.