



Use of Plant Materials for Revegetation and Restoration after Wildfire

What to use?

Forest Service national and regional policy in the Pacific Northwest is to use genetically local, weed-free native plant materials for revegetation and site stabilization if possible. We want to use **genetically local** seed collected from the ecological region where we are going to plant it because that is where it will survive, thrive and achieve short- and long-term restoration objectives. For example, if we move seed from the Willamette Valley into the Cascades, it is unlikely to tolerate the snowpack and will begin germinating too early relative to seed collected from the Cascades. We need to use **weed-free** seed-free of all states noxious weeds, a test done on all seed bags, to avoid introducing noxious weeds with our seed and making the problem even bigger.

The species we use for soil stabilization on the Willamette are native **grasses that are economical, fast growing, and easily applied**. We use mostly blue wildrye with a little California brome and Idaho fescue, depending on the site. We apply 15-20#/acre seeding rate. In wildfire areas where we do not have enough native grass seed available, we use **non-persistent cereal grains** like sterile wheat (sterile triticale). The cereal grains will germinate and hold the soil on the site for the first year, allowing seeding of natives from surrounding vegetation and re-sprouting of plants on the site. Exotic species that will persist and impede natural recovery are strictly prohibited. These include species such as oats, tall fescue, orchardgrass and perennial and annual ryegrass. If you are seeding a mix of species, we recommend you consult with a grass seed or restoration specialist to develop a plan for the number of pounds of each species in your mix. The number of pounds of seed applied per acre will depend on the number of seeds per pound of each species used, as the weights vary greatly.

Where to use plant materials and erosion control materials?

We **prioritize use** of native plant materials to areas where they are needed most. For example, we usually seed areas such as:

1. High intensity burned sites
2. Riparian areas where probability of sedimentation is high (high severity, steep slopes)
3. Very steep slopes

Where slopes are steep or where risk of sedimentation is high, you may want to consider placing **weed-free straw** on the site after you apply your grass seed. This will help keep the seed on the slope, helps catch soil particles and keeps the seed moist if there are dry periods. Wood chips can also be used but these are much more expensive.

When to apply plant materials?

We suggest **applying plant materials in the fall** after there has been some rain but before the rainy season starts. It is ideal to have plants germinate and get a root system started before the winter. This will let them really hold the slope.

What to expect?

Native perennial grasses put down extensive roots that help stabilize soils very efficiently. This stabilizing root system develops first, and the top growth (the green blades) is slower to show, much slower than that of annual grasses. Even without the green blades immediately showing, the roots are helping to stabilize the soils. Because they are native and locally sourced, the survivorship of these plants is very high and because they are perennial, you usually only need to apply the seed once.

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