## NATIVE GRASS SEEDS FOR USE IN LOGHILL VILLAGE.

As a botanist (amateur) interested in Colorado's native plants I believe that it is much better to use native species of grasses (and other plants) in our semi-natural setting than to put in non-natives (smooth brome, crested wheatgrass, orchard grass, cheatgrass! all horrible plants) that will then spread and force out the natives. To that end I have identified many of the grasses that grow naturally here in Loghill Village, some of which are commercially available.

So far as sources of native grass seeds go, the grass seeds available from local nurseries and ranching supply houses are composed mostly or entirely of non-native species. Two places that I happen to be aware of that sell native grass seed are:
**Western Native Seed** in Cañon City ( http://www.westernnativeseed.com/ )
and **Plants of the Southwest** in Santa Fe, NM ( www.plantsofthesouthwest.com ).
One advantage of using commercial sources of seeds is that it enables one to restore damaged areas quickly and this may reduce the number of invasive weeds that will otherwise take over the site. The best way to restore an area, of course, is to use locally collected seeds.

Below are some native grasses that grow here in Loghill Village, most of these are available from Western Native Seed and Plants of the Southwest:

**Blue Gramma, *Bouteloua gracilis* (*Chondrosum gracile*).** The state grass of Colorado; a short, drought tolerant bunch grass that likes full sun and will grow on rocky slopes and in poor soils. The seed heads resemble little toothbrushes or false eyelashes; once you learn to recognize them this is an easy grass to spot. Often found growing in amongst sagebrush in undisturbed meadows. This is the grass that the buffalo ate and it is very popular with rabbits (and elk, most likely) so it will be browsed in our area. No restoration in our area should be without it. Available from Western Native Seed and Plants of the Southwest.

**Western Wheatgrass, *Agropyron smithii* (*Pascopyron smithii*).** A medium height sod forming grass that spreads by rhizomes ("roots") and has broad, stiff blue blades. Often used for rangeland and wildfire restoration. Doesn't appear to be browsed as much as some other grasses. Available from Western Native Seed and Plants of the Southwest.

**Junegrass, *Koeleria macrantha*.** Junegrass is a handsome short bunchgrass with narrow blades and is one of the more obscure and overlooked native grasses. It is a necessary part of any grass restoration in our area, in my opinion. Available from Western Native Seed and Plants of the Southwest.

**Indian Ricegrass, *Oryzopsis hymenoides* (*Achnatherum hymenoides*).** A beautiful short to medium height bunchgrass that has very showy seed heads and narrow leaf blades. Often seen along roadsides and other disturbed ground. Very tough, it appears to like good drainage and sandy soils and grows on slopes, but can also be found on compacted roads. This in my favorite grass because it is so beautiful; almost everybody recognizes Indian Ricegrass even if they don't know its name. Available from Western Native Seed and Plants of the Southwest.

**Needle-and-Thread Grass, *Stipa comata* (*Hesperostipa comata*).** Pretty medium height bunchgrass with sharp seeds (needles) and six inch long awns (threads). A meadow with many Needle-and-Thread seed heads waving in the breeze is a handsome sight to behold (I have one on my lot that is a delight). Sharp seeds may be a problem with dogs but this is NOT a "sticker in the sock" grass (like the horrible weed, cheatgrass!) since it is so tall. Available from Western Native Seed and Plants of the Southwest.

**Galletagrass, *Hilaria jamesii*.** A short, drought tolerant, sod forming grass that spreads by rhizomes ("roots"). The curled leaves resemble a large Blue Gramma and the seed heads are quite attractive, with short "hairs" that stick out. After the seeds have dropped this grass can be recognized by the distinctive zig zag appearance of the end of the left-over stem (culm). Available from Western Native Seed.

**Muttongrass, *Poa fendleriana*.** This short bunchgrass looks similar to its relative Kentucky Bluegrass (*Poa praetensis*) but it does not spread by rhizomes ("roots"). It has narrow, blue-green leaves and is fairly tough and drought tolerant, but it does a bit better with good soils and some extra water. Seeds for Muttongrass are available from Western Native Seeds.

**Little Ricegrass, *Oryzopsis micrantha* (*Piptatherum micranthum*).** This shade-loving short bunchgrass is often seen growing under piñon pines and is found in good soils and moist areas. It has narrow, bright green leaves and appears delicate but it can wait out drought years to flourish in wetter years. Might be suitable for the north side of a house where it can get roof runoff. Not available commercially so far as I am aware; I mention it because people might want to transplant some from their forest.

**Mountain Muhly, *Muhlenbergia montana*.** A medium height bunchgrass with leaves from six inches to about a foot and delicate looking seedheads from one to two feet tall. Found in a wide variety of habitat from foothills to subalpine. In Loghill Village it tends to grow in areas with good soils and a bit more water than something very drought tolerant like blue gramma. Available from Western Native Seed and Plants of the Southwest.

My suggestion for a grass mix for a restoration would be 20% Blue Gramma, 15% Junegrass, 15% Needle and Thread, 15% Indian Ricegrass, 10% Muttongrass, 10% Galletagrass, 10% Mountain Muhly, and 5% Western Wheatgrass (Western Wheatgrass spreads more vigorously than the others; for rapid erosion control increase the proportion of this grass, but expect it to dominate the others). Not all of these grasses will grow in all locations but at least one of them will colonize almost any area and soil type. Most like full sun but Muttongrass and Mountain Muhly will take some shade.

I suggest planting grass seeds in the fall. Trying to grow them in late spring or summer is likely to prove difficult unless irrigation is provided. Most native plant seeds require a period of "cold stratification" to trigger the seeds to sprout. By planting grass seeds in the fall, the winter cold will cause them to sprout in the spring (cool season grasses) or summer (warm season grasses). Please note that a dry spring/summer may cause most of the seeds to fail to germinate, or the seedlings to die, unless irrigation is provided. So, plan to water your restoration area for the first growing season if you can. Once the grass seedlings get to the two or three leaf stage they tend to be pretty tough and drought resistant and can get by on rain and snow.

To plant the seeds, I suggest raking the soil, scattering the seeds, then raking the soil again to cover some of them. Covering the area with a thin layer of mulch or burlap netting may help hold the soil and reduce erosion but I have not experimented with how this affects germination. Please remember that you only need a few successful grass plants to colonize an area. Eventually they will spread. For instant gratification try transplanting some clumps of native grasses (be sure to water them well, drip buckets work best for this). I will be happy to help you identify which ones to use and teach you how to recognize the natives.

I'll add more native grasses to this list as I discover new ones that might be suitable for restorations (I have left out several that are rather weedy in appearance and growth habit).

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