



HANSON'S GARDEN VILLAGE

PLANTING RECOMMENDATIONS FOR

ENVIROLOK PROJECTS

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Generally, we plant two native plants per bag, in the seam between the bag courses – as we build the structure. We can sell you (or you can make) bag-lifter levers to plant later, but we do not generally do that. Agrecol usually recommends seeding native plant mixes; however, in our Northwoods region we have had better success with relying heavily on plant plugs and bare root (or small pot) woody shrubs. Our standard ratio is 2/3 herbaceous/graminoid “plugs” (usually 2.5” pots), and 1/3 native woody plants (usually bare root, sometimes small pots). This approach has worked well – especially with deer protection (if accessible to deer).

The bare root shrubs are available from us on a season long basis, either as spring dormant material, or we have a summer gravel culture bare root program. Our gravel culture product has been tested for three years by Wisconsin DNR Science Service researchers and has provided favorable results. The roots need to be “fanned out” in a manner appropriate to the species – never “balled up” and forced between the bags. We always recommend putting a small amount of compost material along the roots of both bare root and the plant plugs. Some recommendations suggest planting directly into the bags, but we try to avoid making any openings in the integrity of the bag fabric.

If seeding alone (or with some plant plugs or bare root shrubs), avoid shallow rooted turf grasses and concentrate on native species appropriate for this northern area and for the light levels available on the site. Seed at heavy rates. Seed germination can be difficult to achieve on exposed, steeper Envirolok structure faces. Hydro-seeding or “painting on” a seed/tackifier/wood mulch mix is the best. Covering the whole face with “Net-Free” excelsior blankets has helped to nurture seeding success. A deep initial watering and subsequent frequent light waterings are key. In truth, it basically requires a well-designed irrigation system.

If using nurse crop seed with any of the above vegetation approaches, avoid turf grasses and annual rye. The following nurse crop seedlings are beneficial with the plug/bare root approach and almost essential with the seeding approach:

- Spring or fall: winter wheat (or ReGreen™)
- Summer or early fall: oats
- Or use native Canada Wild Rye

After choosing appropriate plant material, the other most important considerations for vegetating Envirolok are deer/critter repelling or exclusion, and proper watering – which probably means installing an irrigation system. We suggest running an irrigation system for two seasons minimum, and an animal control plan should be in effect for two years (three is better). Some Envirolok projects are installed on such steep slopes that they are somewhat protected just by the conditions. But temporary fencing (first choice), or repellents (second choice) are better options than risking loss of the plants before they have a chance to get well established. Well established native plants are better able to withstand browsing pressure, and we feel are less attractive to deer.

Rabbits are much more difficult to deal with than are deer. Both fencing and using repellents tend to be less successful. If your project is near homes or farmland (for cottontails) or near “rabbit swamps” for snowshoe hares, you will need to plan for winter damage. Usually the woody plants will be attacked more severely by rabbits in the. Rely on grasses and sedges (from seed or plugs), some wildflowers, and only plant woody shrubs that will generate back from the root system if the plant is girdled and only plant as many woody shrubs as you are willing to erect winter screening over/around. Still, it is great to get some woody plants into the Envirolok for long-term success.

So, remember that this is a bioengineering practice, and that successfully vegetating the site is the ultimate goal. The bags are initially stable as soon as they are installed, but in the end the bag fabric will begin to fail in the sunlight (we guess after ten years), if it is not shaded by a plant canopy and held together by strong root systems. If properly vegetated, Envirolok is considered a “permanent” solution when retaining soil.

Rule of thumb for figuring plant densities:

- Each bag takes up approximately 1 square foot of wall or slope face.
- Figure two plants per bag as plant plugs or bare root shrubs.
- Therefore, you need two plants per 1 square foot of wall face.
- Figure total number of plants needed, then estimate 1/3 to be shrubs and 2/3 to be groundcover plant plugs.