

# SubmerSeed®

## Composite Seeding Technology (SCST)

### WHAT . . . species are available through SCST?

While seeds incorporated, to date, have primarily represented those species that occur in freshwater emergent habitats, SubmerSeed® can be tailored to fit site-specific needs (to target native species, and – where possible – local genotype). Representative species compatible with the technology include (but are not limited to):

- American Mannagrass (*Glyceria grandis*)
- Hard-stemmed Bulrush (*Scirpus acutus*)
- Soft-stemmed Bulrush (*Scirpus validus*)
- Common Arrowhead (*Sagittaria latifolia*)
- Fox Sedge (*Carex vulpinoidea*)
- Many-leaved Bulrush (*Scirpus polyphyllus*)
- Water Plantain (*Alisma subcordatum*)
- Cardinal Flower (*Lobelia cardinalis*)

### WHERE . . . can the product be applied?

**Potential Applications** – Possible uses of the SubmerSeed® technology are numerous. They include, but are not limited to:

- Wetland Construction, Restoration, Mitigation & Enhancement Projects
- Farm Ponds and Borrow Area Shorelines & Littoral Shelves
- Stream Bank Stabilization Projects
- Habitat Reclamation & Invasive Species Eradication Areas
- Waste Water Facilities & Confined Sediment Facilities (CDFs)
- Storm Water Retention Ponds
- Aquaculture
- Golf Course Waterways
- Native Nurseries
- Hunting and Fishing Clubs
- Water Gardening and Landscaping



**Site Conditions** – In contrast to traditional seeding methods and seedling installation, SubmerSeed® is applicable and appropriate even when a water column exists in the target area to be seeded.

This versatility makes many different environmental conditions potentially applicable. Characteristics for a candidate site include:

- Expansive area with gradually sloping bottom substrate
- Soft sediment below a water column with relatively low turbidity
- Depths ranging from 0 to 12 inches (during much of the growing season)
- Minimal or no existing wetland/aquatic vegetation present
- An area where the existing seed bank is thought to be minimal or absent

### WHEN . . . should the product be applied?

The timing of application varies depending on how the seed was treated (stratified) prior to incorporation into the product and where (geographically) the site is located. Spring and fall are peak times for installation, but depending on site conditions and project goals, applications can take place nearly year-round (barring severe weather restrictions, like ice and snow).

### HOW . . . can the product be applied?

SubmerSeed® can be applied using commonly available equipment including:

- Hand Broadcast Spreaders
- ATV or Boat-Mounted Spreaders
- Radial Conveyors or Slings

Especially in smaller-scale installations (e.g. <0.25 acre), **product can simply be dispersed by hand** out of a 5-gallon bucket (see photo). And even when access is limited or large areas are the target, seeding can be feasible from the air.

### HOW MUCH . . . of the product should be applied and at WHAT COST?

For most applications, it can be assumed that four to five pounds of product can adequately cover 100 square feet. At this rate, approximately 1,750 – 2,200 lbs. would be applied per acre. Material costs vary depending primarily on species composition and seed pre-treatment needs, but typically range from \$3,000 to \$10,000 per acre. While these costs often fall somewhere between the cost of traditional seeding and plug planting, the longer term savings of SCST can be realized when considering that there is considerably less seed loss – and subsequent need to re-seed, and considerably less labor investment – when compared to plug planting. Application costs using SubmerSeed® depend largely on site accessibility, but usually represent a minor fraction of the overall per acre cost.



For more information or to submit a species list for consideration, please call AquaBlok, Ltd. at (800) 688-2649 or fax us at (419) 385-2990

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