Hydraulic seeding: from highways to home lawns

Benefits of this fast. efficient seeding method can be helpful in golf course renovations, too.

by Ron Hall Senior Editor

Hydraulic seeding is the process of mixing seed, fertilizer and fiber mulch with water in correct proportions inside a tank and then spraying the slurry onto a prepared soil surface.

Many landscape contractors refer to the process as "hydroseeding." But like Kleenex and Xerox, two other brand names that came to represent categories of products, the name Hydro Seeder is registered to a specific company, the Finn Corp., which made its first Hydro Seeder in 1953.

Whatever you call it-hydraulic seeding, mulching or grassing-it offers

advantages over mechanical seeding in many turf and landscape projects. Hydraulic seeding, say its proponents:

is faster and usually requires less labor because seed, fertilizer and mulch are applied at the same time. (Other amendments such as lime or biostimulants can be added too.)

provides a more uniform distribution of seed, fertilizer and mulch.

usually results in faster seed germination.

offers a higher grass survival rate.

reduces soil erosion.

puts seed in difficult areas like slopes, berms, and ditches.

Hydraulic seeding reportedly gained its

Hydraulic mulchers available to the green industry

COMPANY

Badger Associates 1108 Third Ave. New Brighton, PA 15066 (800) 822-3437

Bowie Industries, Inc. P.O. Box 931 Bowle, TX 76230 (800) 433-0934

Easy Lawn Inc. 543 Shipley St. Seaford, DE 19973 (800) 638-1769

Finn Corporation 9281 LeSaint Drive Fairfield, OH 45014 (513) 874-2818

Reinco Inc. P.O. Box 512 Plainfield, NJ 07061 (800) 526-7687

TGMI, Inc. 11074 Ashburn Ave. Cincinnati, OH 45240 (800) 241-8464

The Broyhill Co. Box 475 Dakota City, NE 68731 (402) 987-3412

MODELS

Turbo Turf: 8 different size units ranging from the HS-50, 50-gal. skid-type unit, to the HS-1600-ZX, 1600-gal. unit.

7 different model sizes ranging in working capacities from 250 gals. (the "Baby Bowie") up to 3,000 gals. (the "Bowie Imperial 3000")

2 models: HD6001-60 with 600-gal., polyethylene tank and the HD3002-30 with a 300-gal, polyethylene tank.

7 models with working capacities from 250 gals. to 3,000 gals; most popular models the T90 (800 gals.) and T120 (1,000 gals.)

Full complement of Hydrograssers ranging in size from HG-5H with a 500-gal. working capacity to the HG-30GX with a 3000-gal. working capacity.

Aqua Mulcher 400, 400-gal., portable unit will hydromulch 4500 sq. ft.; (also a distributor for Bowie units).

The Turfseeder with a 150-gal. poly tank and the Turfmaker with a 200-gal. steel

FEATURES

The HS-1000-XPW 1000-gal. poly tank, skid-type system; 16 hp B&S Vanguard or Kohler Magnum engine with electric start; 4" x 4" high-volume centrifugal pump; 100 ft. of 11/1" ID hose, hose holder and five nozzles.

Victor 1100 Hydro-Mulcher with 1125-gal, tank (steel plate with epoxy resin coating on inside); Wisconsin W4-1770 air-cooled engine; 2300 STD Bowie pump; enclosed shredder bar; 2 agitators to keep slurry homogenous.

Spray range of 100 ft.; the HD3002-30 gives about 4,000 sq. ft. coverage; the HD6001-60 about 8,000 sq. ft. coverage; multi-tube jet agitation; 100 ft. of clear braid hose; manual hose reel with greaseable ball bearing swivel.

T120 Series II Hydroseeders feature new in-line clutch/pump assembly ("Clump") that boosts hp and rpms, increasing application distance 20% while also allowing use of bulkier materials; powered by diesel Kubota 1703; discharge distance for both is 180 ft.

Model HG-10GXA with 1000-gal. working volume; 130 feet spray range; air gap fill; double-valved fill pipe for hands-free filing; exclusive Tilt-Load fiber feeder and mulch grinder: 35-hp air-cooled gas engine: dual agitation system with "Hydro-Jets" and paddle mixers; stainless steel nozzles.

All steel construction; paddle agitation; hydrostatic agitator drive; centrifugal pump; clutched pump drive; steel tank with epoxy interior coating; spray distance 90 ft. from end of hose (190 ft. total).

The Turfmaker: mechanical agitation; Bowie positive displacement pump with Honda engine; clear-water hose flush system; bale loader, hose reel for transportation and hose storage; two nozzles.

first commercial use when the Connecticut Highway Department outfitted a tank with a recirculation-type agitation system and applied a slurry of grass seed and peat moss to slopes in the 1930s, says Walter Reinecker, Reinco Inc. A landscape architect in West Virginia saw obvious advantages to use the concept in his hilly state too, explains Reinecker.

But hydraulic seeding didn't really gain widespread use until America's highwaybuilding frenzy began just after WWII.

Large hydraulic seeders were used to seed mile after mile of highway roadsides, including areas that would have been impractical, or even dangerous, to seed mechanically. They saved untold expense and labor because they could spray thousands of square feet in minutes.

America's highway-building era is basically over, but uses for hydraulic seeding-if not the size of the projects themselves-continue to grow, particularly for landscape contractors and for golf course seeding and renovation. While soil reclamation and erosion control remain the two biggest markets for hydraulic seeding. landscape contractors now regularly use it, often for areas as small as individual home lawns. Golf courses and sports turf, particularly football and soccer fields, can benefit from hydraulic seeding too.

Smaller is better-Recognizing this trend, several manufacturers entered the market with smaller, less expensive units about a decade ago or less.

Ray Badger, Badger and Associates, New Brighton, Penn., says landscape contractors even using smaller hydraulic mulching units can cut their labor costs compared to mechanical seeding, "And a lot of times they can charge a premium for hydraulic seeding," he points out.

Established companies like Finn, Reinco and Bowie expanded their lines, offering products that are more suited and affordable to the landscape market, too.

Cost is obviously a consideration, but a landscape contractor should focus primarily on productivity, says Walter Butman, the Finn Corp. Does the hydraulic seeding unit possess sufficient capacity and power to most efficiently perform the tasks that the contractor is planning for it?

Bob Person, president of TMGI, Inc., Cincinnati, advises contractors to compare the construction (stainless or plastic tanks) of comparably sized units and operating features. He says units with identically sized tanks may have different capa-

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bilities. This may be most obvious when it comes to the amount of mulch they can hold and dispense. This often determines the success or failure of a seeding project. particularly if environmental conditions turn against the contractor.

Person likens it to buying a pickup truck. Although the bed size of, for instance, a Ford pickup is the same for half-ton, three-quarter-ton and one-ton models, the work capacity of the one-ton model is obviously much greater than the other models.

That's why each contractor must review the type and size of the projects that they plan to use their units for, and then carefully check their requirements against each unit's suitability. All manufacturers provide literature that outlines the capabilities of their hydraulic seeders, but prospective buyers shouldn't be afraid to ask questions. Nor should they hestitate to gather information about the costs of hydraulic seeding. Again, manufacturers can help.

Reinco, for instance, offers a free publication titled "Hydrograssing and Power Mulching Cost Analysis," It details the current methods available for hydrograssing, explains the positives and negatives of each, calculates the cost per square foot and suggests the best available process for a variety of applications. Charts and tables are included, along with an overview of machine selection.

Equipment options that make the seeding process easier include electric hose reels, extension hoses, mulch shredder bars and accessory nozzles.

Established manufacturers in the hydraulic seeding market also offer mulch spreaders, crimpers/discs, tack applicators (Reinco), and an AEM Spreader to transport and place large quantities of bark mulch, compost or similar product (Finn).

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