

# HYDRO-MULCHING AS AN ALTERNATIVE

by Jim Lincoln

Hydro-mulching may be one of the fastest growing segments of the landscape industry. Landscape contractors are finding that the problems of grass establishment on projects of almost any size can be turned into significant profit centers by using hydro-mulching as an alternative to seeding or sodding.

For the landscape contractor, the establishment of turf cost money and takes time. Laying solid sod usually costs the most and provides excellent survival and coverage the moment it is laid, assuming it is watered properly. The broadcasting of seed on unprepared surfaces usually costs the least but the amount of turf ultimately established is highly uncertain and the time required for coverage may be unacceptable. The budget for turf establishment and the time required for coverage usually determines the method used. Hydro-mulching is emerging as a desirable alternative providing low costs and good results.

Hydro-mulching is a process of rapid grass planting whereby a mixture of wood cellulose fiber, seed or

sprigs, water and fertilizer are prepared in a Hydro-Mulch machine.

## The process

This mixture is sprayed onto the ground through a high pressure pump to form a mat of material similar in appearance to green paper maché. The material resists erosion, retains moisture, and enhances initial growth. The fiber decomposes over a period of time, organically enriching the soil.

In comparing typical seeding to hydro-mulching, if soil and moisture conditions are similar, hydro-mulching yields a substantially better stand of grass than seeding. Where spot sodding is frequently used in a particular locale, hydro-mulching, if watered heavily, provides full coverage of grass in a fraction of the time required for spot sodding and provides much better erosion and weed control. Spot sodding requires less watering care to survive but requires substantially more time and labor for installation. Also, spot sodding is limited

to spreading grasses.

Actual direct costs for installation are somewhat similar. Hydro-mulching, when compared to total sodding, is done on an equivalent area in a fraction of the costs, time, labor and materials. Even considering the probability of additional irrigation costs with hydro-mulching, sodding is considerably more expensive. Also, hydro-mulching is virtually weed free and yields a smoother turf, all other factors being equal.

A two man crew can apply the mulch mixture effectively with only a few hours training. Time required to do a job depends on the size of the job, the type of grass used, the source and location of water required for filling the machine, and the size of the machine used. An efficient two man crew with an 800 gallon Bowie Hydro-Mulcher, in an easy eight hour day can do about five normal size home lawns, or one 40,000-60,000 square foot apartment complex, or up to 100,000 square feet of football field or similar open area. These production times are based on averages





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questionnaire and finds the best place to start the coverage is on lawn. Hydro-mulching is extremely effective with very little seed loss. The hydro-mulching mixture doesn't wash away. The hydro-mulching mixture is a water-soluble mixture which makes the process very effective. The hydro-mulching mixture is a water-soluble mixture which makes the process very effective. The hydro-mulching mixture is a water-soluble mixture which makes the process very effective.

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of actual experiences and reflect the use of heavy applications of materials.

### Variables influencing success

Results depend on temperature, moisture, and soil. Temperature and moisture are the factors which promote quickest seed germination. Seed-bed conditions determine growth rates after germination. During the ideal months for planting, with proper watering, hydro-mulched turf will require mowing and have excellent coverage in about three weeks. A football field can be made ready for play in 60 days with durable turf. During less desirable planting times, a good stand of grass will take more time to become established.

Without adequate irrigation, the establishment time and coverage varies substantially. Hydro-mulching provides a micro-environment which enhances quick seed

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## First Year Income Statement

With surveys, questionnaires, and financial analysis of the hydro-mulching contractors, the following income statement represents dollars and percentages which might be experienced the first year by an efficient operator and good businessman.

<b>100%</b>	Sales		<b>\$50,000</b>
<b>60%</b>	36% All Labor & Salaries	18,000	<b>30,000</b>
	24% All Materials	12,000	
<b>30%</b>	Rent, Depreciation, Gas & Oil		<b>15,000</b>
	Insurance, Repairs & Maintenance		
	Legal & Professional, Advertising		
	Tools & Supplies, Phone, Office Exp.		
	Bad Debts, Other		
<b>90%</b>	Total Expenses		<b>45,000</b>
<b>10%</b>	Net Profit Before Tax		<b>5,000</b>

The investment in a Hydro-Mulch machine, truck, miscellaneous items and start-up cost will not exceed \$15,000.

<b>33%</b>	Return on Investment (before income tax)	
	\$ 5,000 Profit	= 33% Return on Investment
	15,000 Investment	

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germination and holds the seed in place so that the coverage is uniform. Uniformity is extremely important with many of the cool season grasses.

The hydro-mulching process doesn't work automatically. Any planting requires water, either irrigation or rainfall. The hydro-mulch material is a water retaining agent which makes this process far more effective than ordinary seeding. Even so, poor growth due to lack of water, especially in the extreme heat of the summer, is by far the greatest and most difficult problem encountered in hydro-mulching. A hydro-mulching contractor must base his guarantee of results on anticipated irrigation or rainfall.

The hydro-mulch material is an erosion preventative but erosion caused by heavy rains can occur, especially if water run-off from a higher point flows over the hydro-mulched area. Sometimes, a hydro-mulching contractor will use a small amount of staked down sod in a small heavy run-off area to insure 100 percent coverage of grass. When complete coverage is required, a contractor must anticipate potential touch up work and figure that into costs.

Costs of hydro-mulching will vary significantly. Labor cost of a particular job will depend on the size of the job, the location of the job, the nearby availability of water, and the type of job. Open areas, such as parks, can be sprayed more quickly since over-spraying is not really a concern. Home lawns and apartments must be more delicately sprayed to avoid getting material where it is not wanted.

Since grass seed is planted at different rates and the price of seed varies significantly, this portion of the materials costs generally ranges from \$1.00 to \$5.00 per 1000 square feet. Mulch costs will range from \$5.00 to \$9.00 per 1000 square feet depending on the quantity purchased, the type of mulch used, and the transportation cost related to the

mulch. One of the more expensive mulches, Conwed "2000," is becoming quite popular because of its erosion resistant quality. The flow ability of "2000" also permits more mulch to be used per tankload. More mulch per tankload can lower labor costs somewhat offsetting the higher cost of the mulch. Also, less erosion can save touch-up costs.

Fertilizer costs usually range from \$1.50 to \$2.50 per 1000 square feet, but also can be affected by the related transportation.

As more landscape architects specify hydro-mulching for larger projects, marketing the process is becoming unnecessary. In parts of the country where the process is unknown, selling the first job can be a

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problem. After a few jobs have been successfully completed, then the contractor with a Hydro-Mulcher can anticipate many calls. Selling the process of hydro-mulching to the next customer is then quite easy.

Selling problems can arise when a job failure occurs. Job failures are almost always related to lack of watering. To get proper watering, the contractor must supervise the first or second watering and then follow up to make sure his instructions are being carried out. Very specific written watering instructions are a helpful aid in communicating the importance of proper watering to the customer. If this most significant watering routine is followed out with the customer, the public relations aspect of dealing with people is well taken care of.

## Marketing: A cost-benefits model

Internal problems occur within a hydro-mulching operation when

personnel time is not well budgeted. Selling takes time. Watering instructions and follow-up takes time. Answering the customers phone-in questions takes time. The customer now knows an "expert" he can call if he has grass problems in the future. He calls the person who put it in. The total of these time requirements can ultimately be as much as ten (10) man hours per job.

The direct cost pointed out earlier must be combined with the "advisory time" cost to determine costs of each job. If a very small job is done at a price of \$150.00, labor and materials (including touch-up) might cost \$60.00. If the typical customer contact is involved, the contractor has lost money. A job of 3000 sq. ft. (333 sq. yds.) priced at \$180.00 (6¢ per sq. ft.) is questionable in terms of profitability. A job of 5000 sq. ft. (555 sq. yds.) priced at \$300.00 (6¢ per sq. ft.) yields a handsome profit.

## Growth seems certain

Typically, new construction areas have the greatest need for new grasses and provide the largest single market for hydro-mulching. With a slight upsurge in housing starts projected for this year, and a favorable prognosis for the construction trades by most indicators, hydro-mulch contractors ought to be picking up substantial amounts of business. As industrial parks outside of central cities continue to crop up and many industries continue to relocate from central cities, further markets will be generated for hydro-mulching in the landscape industry.

If contractors can study the trends in building and anticipate new construction and the need for grasses on these sites, marketing hydro-mulch technology and securing contracts can be made simpler.

Thus, with sound planning and financial realism, careful assessment of field conditions, tenacious marketing strategies and creative, positive thinking, rapid growth in the hydro-mulching industry can be assured. □

*Jim Lincoln is the founder of Southwest Hydro-Mulchers Distributing Co., Dallas, Texas.*