Managers translate into your planning.

For instance, if you have three vehicles, you should have a plan which shows how much revenue you expect to achieve through use of these vehicles. That becomes the standard against which the manager is evaluated.

Some young companies fall into the trap of looking at assets on a time basis rather than a revenue basis. They look at how often something is used rather than how much revenue is generated. All the vehicles in the above example may be used 12 hours a day, but that doesn't matter much if you don't receive enough revenue from that operating time.

Make sure you know how much each of your assets can contribute to the company and then evaluate them on a revenue basis or cost control basis, rather than on simply a time usage basis.

You should also look at downtime of assets. The more breakdowns you have, the less revenue you will generate. This is a key part of asset management, preventive maintenance, and is one that should be evaluated from the standpoint of management effectiveness.

Asset custody and safety should also be evaluated. Assets should be accounted for and controlled to avoid misuse of vehicles or inventory in the company's operations.

Operations efficiency
Operations efficiency is closely linked to asset management but has the personnel variable in it. You can evaluate how well crews are routed or how well equipment is used.

Time spent in transit is not usually billable as revenue. By tightening up the routes, the manager can greatly improve efficiency, and in turn use the assets better.

You should also make sure that, in their evaluations, the rate of call-back and service calls goes down because of management attention.

Summary
Assessing managers is a different process than assessing personnel. The planning that is part of managers' positions gives a guideline to effective evaluation.

You must keep the fact that the manager is controlling more than just himself or herself in clear perspective. Their job is to work with others in order to achieve company objectives. The need to allow the managers control over the variables on which they are being evaluated is extremely important.

We have seen companies assign jobs to managers without giving them the necessary authority to finish the jobs. If you combine a good planning system, evaluate against the planning done, and give the managers the authority to do their jobs, you should have a successful system in place that will help you evaluate the true effectiveness of your managers.

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AUGUST 1987/LANDSCAPE MANAGEMENT 61
HYDRAULIC MULCHES:
PAPER VS. WOOD

Hydraulic mulching is a growing practice among landscapers, but it has yet to reach its full potential.

by Heide Aungst, managing editor

What used to be somewhat of a novelty in the landscape business has become a common occurrence. In fact, William Jacobsen, president of Conwed Fibers Inc., goes so far as to describe hydraulic mulching as “a renaissance.”

It used to be that hydraulic mulching was limited to land reclamation and vast highway projects. But the introduction of smaller hydraulic equipment has brought the technique to golf courses, residences and commercial properties.

Choosing the right equipment is an important step before breaking a company into hydraulic mulching, but choosing the right mulch is just as important.

Many companies manufacture and market hydraulic mulches, but three companies concentrate on the landscape industry. Conwed Fibers and Weyerhaeuser produce wood mulches, while Cellin manufacturers a paper mulch product.

Weyerhaeuser’s sales manager, Bill Grunow says that studies show that mulched plots have up to 80 percent more cover than seeded plots. Mulches protect seed against elements such as wind and rain, and insulate the seed by retaining soil moisture.

Buying considerations

When choosing a mulch, one of the first things to look for is the product’s content. Weyerhaeuser’s Silva-Fiber mulch is made out of 100 percent virgin wood. Grunow says the plant in Tacoma, Wash. manufactures mulch made from whole small Alder trees. The Minnesota plant produces mulch from Aspen wood.

“Wood species is an important characteristic because some woods don’t absorb water as readily,” says Jacobsen. He wouldn’t, however, reveal the type of wood used in Conwed’s mulch, although it is 100 percent virgin wood.

Cellin’s K hydraulic mulch is a wood cellulosic product made from recycled newspapers collected at paper drives or obtained through a broker. “We add three ingredients to make it a good product,” says Cellin’s Al Turner. Smith would not name the ingredients.

The biggest question concerning ingredients is whether wood or paper is right for the job. Some highway jobs specify the use of virgin wood fiber mulches. But for companies which have a choice, both products have advantages and disadvantages.

The biggest advantage of paper mulch is that it is less expensive than wood. “We don’t think there’s any advantage to raw wood,” says Cellin’s Al Turner. “The bottom line is that it (paper mulch) grows grass and is less expensive. We’re not cutting trees down. What we’re doing makes sense.”

“On the ground, the paper can form a mache which hardens and tends to curl and ball up,” Grunow says. “You tend not to get as even a coverage which results in uneven strands of grass.”

The next step in choosing a mulch is to look at fiber length. “The number-one key is fiber length,” Grunow says. “The fibers interlock with each other on the ground creating a microenvironment for the seed.”

Fiber length is measured by running the product through a screen called a Clark Fiber Classifier. Only certain length fibers will be retained on the screen. Weyerhaeuser specifies that a minimum of 30 percent of the fibers average .15 inches or longer with 50 percent or more retained on the screen. Conwed and Cellin both label their mulches “long fiber,” but don’t give a specific lengths.

The third point is whether or not the product contains a tackifier. Use of a hydraulic mulch with a tackifier depends on the size and slope of the area. All three companies manufacture products containing tackifier.

The products differ in slight ways, such as packaging, pricing (depending on regions of the country) and customer service.

“I don’t think hydraulic mulching has yet to reach its full potential,” Jacobsen says.
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AUGUST 1987/LANDSCAPE MANAGEMENT 63
Hemlock—a versatile conifer

by Douglas Chapman, Dow Gardens

Hemlock is one of the most versatile native narrow-leaf evergreens for the landscapers' palette.

Hemlock is unique among the conifers in that it will grow in shade or in partial sun. It must be grown on cool, moist sites. It can be found growing in glacial rocky soil, fertile clay loam, or moist sandy soils. The optimal pH is from 4.0 to 6.5. This plant grows best on moist, yet, well-drained soils.

Hemlock is one of the most cold-tolerant plants, reported hardy to -76 degrees F. Hemlock should be transplanted balled and burlaped spring or fall.

Canadian hemlock is very shallow-rooted, thus intolerant to changes, frequently dying if plants around it are removed or the grade is changed. If undisturbed, it is a long-lived tree. Canadian hemlock, a fine-textured conifer, is most widely available in the trade. The needles, which last three to four years, are dark green with a silver-green on the under surface. The leaves are very sensitive to salt spray, resulting in defoliation and, in severe cases, death. It has a pyramidal habit of growth, being 40 to 70 feet in height and 25 to 35 feet in width.

The branches are pendulous and very resistant to ice and/or snow damage. Hemlock can be used as a hedge or in natural plantings.

Canadian hemlock is not suited as a foundation plant. It is well suited for large area landscapes, golf courses, parks, or the home landscape. It is most effective in groups of three or more and not as a specimen.

Only a few clones are available in the trade, but one report notes a great deal of variation in Canadian hemlock which should lead to many new cultivar introductions.

The two cultivars available are Coles Prostrate and Sargentii. Coles Prostrate hemlock is more correctly a ground cover, being six inches in height and three to six feet in width. It should be used when a landscape architect is looking for a shade-tolerant evergreen ground cover.

Japanese hemlock is a small, compact tree, reaching only 20 to 25 feet in height. The short needles radiate out in all directions. They are light green underneath. This is a tree that is difficult to find in the nursery trade, but it could be a unique addition to small home or curtyard landscapes. The largest plant I have seen growing is in Cambridge, Mass. at Mt. Auburn Cemetery. Japanese hemlock has the most dense appearance, holding onto the needles for eight to 10 years.

Hemlock is a genera that deserves a prominent place in the landscape. It has few disease problems unless weakened or predisposed. The most significant pest is mites which are not much of a problem if planted on a wet, cool site. It tolerates pruning well, thus is a good hedge.

Hemlock should be grown in groups for natural plantings and not as a specimen except for weeping Canadian hemlock. It grows well in the shade or on protected sites. Hemlock ranks high as a low maintenance, high quality landscape tree. Charles Sprague Sargent and Donald Wyman both rank Canadian and Carolina hemlock as the best of the narrow-leaf evergreens.

Weeping hemlock (Sargentii) is extremely useful in the home landscape as a specimen in protected locations. It will reach six to eight feet in height and 12 to 25 feet in width. The largest I have seen is on Long Island at Planting Fields Arboretum.

Carolina hemlock is native to the southeastern United States, Virginia to Georgia. It is not readily available in the trade, but I have seen it being grown at Weston Nurseries in Hopkinton, Mass. It is more dense, due to the fact that it holds needles one year longer. The habit is very graceful. Carolina hemlock reaches 40 to 60 feet in height and 20 feet in width.

Carolina hemlock is more difficult to transplant than Canadian hemlock, but one report suggests it grows more rapidly once established. We have it growing in Dow Gardens in central Michigan.

It is reported to grow better in urban landscapes than Canadian hemlock. It can be planted in the same landscape situations as mentioned above, and is especially well suited as a hedge plant. We are anxious to see it fruit; the cones are larger than Canadian hemlock, thus more effective.

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Controlling angleworms

Problem: How do you get rid of angleworms (earthworms) in bentgrass? When lead arsenate was legal it worked fairly well and one other chemical I tried didn’t work at all. I hope you have a solution for killing angleworm without killing the bentgrass. (Wisconsin)

Solution: Angleworms (earthworms) are considered to be beneficial and generally no control is needed or recommended. If the population is very high, their castings, seen as mounds of soil on turf, may not be aesthetically pleasing. Earthworms can build up in large numbers in moist and soft soil rich in organic matter. Generally, their activity represents a good fertile soil and no chemical treatment is recommended.

Earthworms are hermaphroditic (all have both male and female reproductive organs), but not self-fertile. Because of these features, under moist and good soil conditions they can build up in large numbers. This may present a problem in many close-cut grasses like bentgrass in golf courses. Often raking will take care of the problem.

If the problem is very severe, application of diazinon twice at two-week intervals will provide some control. Check with your county cooperative extension agent about any state regulation concerning earthworm control. Read and follow label specifications for best results.

Composting clippings

Problem: During the growing season, our mowing service generates a lot of grass clippings. We are thinking of composting it. How long should we wait before using the composted clippings in the garden or around landscape plants? (Michigan)

Solution: Follow normal procedures for composting and wait for six months to a year before using the composted clippings in the garden or around landscape plants. As a precautionary step, you can do a radish seedling bio-assay. Plant a few radish seeds in the composted clippings in the ground or in a container. If the seedling grows without any growth distortion, the composted clippings can be used for any landscape or gardening work.

Managing moss

Problem: We are thinking of doing some no-till renovation using Roundup. The problem is that in a number of our clients’ lawns there is a heavy growth of moss. Will the Roundup take care of moss problems? If not, what can be done to manage this? (New York)

Solution: During no-till renovation procedure, Roundup can be effectively used to manage most of the undesirable vegetation. Moss plants are not included in the Roundup label and a Monsanto representative indicated that Roundup may not be able to take care of moss problems.

The first step in managing a moss problem is to identify the primary reasons why moss is growing in a particular location. Infestation of moss is associated with low fertility, poor drainage, too much shade, soil compaction, wet conditions, poor air circulation or a combination of these factors.

Some, but not all, cases of moss growth may be related to acid or alkaline soil conditions. To manage moss problems, identify the cause(s) and provide corrective measures. Ammonium sulfate (10 lbs./1000 sq.ft.) applied on actively growing moss plants has reportedly been effective. Reports indicate that ammonium sulfate can help the turf fill in as the moss thins.

Another material, copper sulfate (3 tbsp. in 5 gal. water/1000 sq.ft.) also can be used to manage moss problems. Make sure to wear protective clothing and gloves. Copper sulfate can stain and is difficult to remove from clothing.

Cooling fertilizer burn

Problem: We are a liquid lawn care company. We have used urea in our program in the past and have had some burn problems. We would like to use some low-burn fertilizers. What can we use? Please make your comments about these sources and their performance in relation to urea. (Pennsylvania)

Solution: To deal with fertilizer burn, you could use low-burn nitrogen sources, such as Fluf (18-0-0), a suspension nitrogen source manufactured by W.A. Cleary Chemical Corp; Formolene (30-0-1.6) a liquid nitrogen source from Hawkeye Chemical Co.; or Nitroform (38-0-0) a ureaform fertilizer manufactured by Nor-Am Chemical Co.

Reported research indicates that Kentucky bluegrass treated with spray-applied urea results in better color than bluegrass treated with either Nitroform or Fluf during the spring growing season. However, this trend is reversed by late summer. This means that urea can be used successfully during spring. Then as the temperature increases and soil moisture decreases, incorporate the low-burn potential products.

During the heat of the summer, reduce the amount of urea in the program and replace with low-burn nitrogen. If possible, use only the low-burn potential products. Later in the season, as the temperature begins to decline, the amount of urea can be increased and low-burn potential materials can be reduced or eliminated.
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Circle No. 102 on Reader Inquiry Card
The Promark root grinder saves crews time when removing trees.

Beautiful things, trees. But, they can sometimes create problems with city sidewalks.

"If trees aren’t watered properly, the roots sometimes start coming up," says Danny Mendez, public works and street supervisor for the city of Fontana, Calif. "Here in Fontana, we get lots of complaints."

Fifteen years ago, city crews planted ash saplings in parkways and dividing strips between sidewalks and roadways in new housing developments. Today, the backlog of root-cutting jobs is enough to keep the department busy for weeks on end.

Ash trees do not drive their roots very deeply into the soil. Instead, the roots push outward seeking water at the surface and two to three inches below the surface. The exposed roots can eventually become a nuisance, creating hazardous conditions and liability problems, destroying concrete sidewalks, curbs, driveways, sewer and drainage lines.

According to city workers Herm Zander and Leo Bishop, the job of cutting the roots on one side of one tree used to take two men three to four hours each with axes, shovels, crowbars and picks. Then, 1½ years ago, director of maintenance services Guy Patterson ordered a Model 16SP stump and root grinder from Promark Products West.

"It’s real handy," claims Mendez. "It saves our crew a tremendous amount of time. We try to save as many trees as possible, but when we have to remove one it takes less than an hour. Sidewalk repairs only take a few minutes. I wish we’d’ve gotten the grinder a long time ago."

Mendez says that the grinder is also very inexpensive to maintain. Blades which sell for approximately $35 a set are replaced once a year.

Zander and Bishop cite the cutter wheel’s location as a handy feature. It is out back where the operator can see it and visually guide its path without endangering himself, the tree or the machine.

"I don’t know how we got along without that grinder," says Patterson. LM

Danny Mendez (right) gets some tips about the Promark grinder from one of the workers who uses it in Fontana, Calif.
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AUGUST 1987
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