

Use wetting agents, cultural procedures to reduce dry spots

Localized dry spots appear in hot, dry weather as varied patterns of brownish or tan turf. As the condition worsens, the turf begins to wilt or take on a bluish color. Water runs off the turf, and the underlying soil is dry.

Localized dry spots are often caused by fungi which coat the soil and repel water, or hydrophobic/hydrophilic thatch or soil.

In research conducted at Ohio State University from 1989 to 1991, Drs. Robert Hudson and Karl Danneberger noticed that soils with localized dry spots had greater amounts of organic matter fractions than wettable soils. The only structural difference observed was from dry spots that occurred on three-year-old greens, and this was only detected following an initial extraction with methanol.

According to Hudson and Danneberger, there is a "unique structure, or interaction between several structures," occurring in the dry soils, and this serves as a priming agent. The syndrome is worsened by continued drying cycles. The researchers report that the origin of the organic compounds could not be determined, but say it is probably derived from bentgrass roots, soil microflora, or both.

Proper treatment ideally starts with prevention, which is difficult since dry spots are difficult to predict.

Hudson and Danneberger suggest the following treatment:

- Topdress with sand containing a minimal amount of fine particles. Small particles may tend to aggravate the problem over time.

- Core aerate in spring and fall.

- Use wetting agents to reduce the surface tension of water. These are best used in a preventive program.

- Eliminate thatch buildup as a preventive measure.

(Syringing greens serves only to lower the canopy temperature, and rarely solves the problem.)



Danneberger: Use wetting agents as a preventive measure.

...for nutrient uptake, thatch penetration

Wetting agents are often effective in increasing foliar uptake of nutrients like iron and nitrogen. By spreading water over the leaf tissues and wetting the waxy cuticle, greater stomatal and cuticular absorption can occur. In some instances, herbicide and fungicide activities may also be enhanced by wetting agents.

On sloped areas where thatch contributes to water run-off, a wetting agent can allow rapid wetting of the thatch and better water infiltration. Thatch tends to become hydrophobic (water repellent), and wetting agents are effective in correcting these conditions for one to two weeks after

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WETTING AGENTS FOR IRRIGATION MANAGEMENT

COMPANY	PRODUCT NAME	NOTES	CIRCLE NO.
Aquatrols Cherry Hill, N.J.	Aqua-Gro	Increases efficiency of pesticides and PGRs; aids herbicide penetration.	300
W.A. Cleary Somerset, N.J.	Super-Wet/ Super Wet 15-G	Non-ionic; 15-G is a granular, formulated for golf course use.	301
Grace-Sierra Milpitas, Calif.	Hydraflo	Blended non-ionic; less required; reduces leaf wetness and dew-related problems; also in granular.	302
Kalo, Inc. Overland Park, Kansas	Hydro-Wet	Can be metered into injection systems; available in ready-to-apply and granular forms.	303
Lesco, Inc. Rocky River, Ohio	Accu-Wet	Non-ionic; can help reduce irrigation needs by half.	304
Loveland Ind., Inc. Greeley, Colo.	LI700	Non-ionic/biodegradable; extends activity of insecticides and fungicides.	305
Parkway Research, Inc.	Wet Foot	Can be used on all types of turf, trees, shrubs, potted plants, soil mixes; rates as low as 16 oz./acre.	306
PBI/Gordon Kansas City, Mo.	Aqua-Zorb	Non-ionic/biodegradable; can be used in nurseries, on mulch, peat moss, balled trees.	307
Precision Labs, Inc. Northbrook, ILL.	Paragon	For dew removal, phytotoxicity reduction, soil moisture retention, evapotranspiration reduction.	308
Roots, Inc. New Haven, Conn.	Noburn	Tank mix compatible with liquid fertilizers/pesticides; does not need watering in.	309

Source: LM phone/mail survey, Sept. 1992

NUTRIENT from page 31 application.

For one to two weeks after applying a wetting agent, less dew is evident, as it spreads over the leaves and thatch instead of forming droplets.

On golf course greens or high maintenance turfgrasses, wetting agents can inhibit diseases. However, on home lawns this side benefit is not solely important enough to warrant applying a wetting agent.

On hydrophilic (wettable soils), which are the vast majority of turfgrass soils, wetting agents have sometimes been applied to improve drainage, structure, rooting and/or aeration. These benefits of wetting agents on hydrophilic soils have not been consistently documented in research studies, nor is there reason to believe any significant benefits would occur.

—Dr. Robert Carrow, University of Georgia, writing in the "Georgia Turfgrass Association News."

Types of adjuvants

■ An adjuvant is a material which, when added to another material, aids or modifies the action of the principal ingredient.

Adjuvants fall into several categories:

1. Surfactants, including wetters, wetting agents, spreaders. These products lower the surface tension of the spray solution. As a result, spray droplets will "flatten" and cover a larger area. They are used for general improvement in spray material coverage. Pesticides with contact modes of action are most appropriate for use with this kind of adjuvant.

2. Penetrants are adjuvants that enhance the uptake of the pesticide into the target. Thus, the pesticide is made more immediately available to do the job for which it was intended.

3. Anti-foamer/de-foamer products are used for preventing or eliminating foam from the spray mixture.

4. Compatibility agents make it possible for combinations of pesticides or pesticide/fertilizers to be mixed and applied concurrently. They also may allow you to salvage materials that have become incompatible.

5. Suspension agents are products which enhance suspendability and re-suspendability of pesticidal materials.

6. Crop oil concentrates were originally developed for use with post-emergence herbicides. They enhance coverage and improve penetration or uptake.

7. Stickers, with true adhesive properties, are used to enhance retention of the spray deposit on the target. They also increase the initial deposition of the pesticide. The idea is to retain the chemical material long enough to do its job.

8. Drift reduction agents reduce the number of very small droplets produced by a spray nozzle. Larger droplets are thus heavier so they tend to fall more directly to the target.

9. Tank and equipment decontaminants remove residues from equipment following use. Product that remains in the spray equipment may interfere with material used later. Many pesticide manufacturers specify methods of removing residues from equipment following use.

—Bob Reeves, technical services mgr, Loveland Industries, Inc., Greeley, Colo.

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BUDGETING: How much to ask for in 1993?

If increased expenditures are proposed, revenues must increase proportionally to ensure financial balance, says this park manager.

by Greg Petry
Waukegan Park District

■ It's time again to prepare and present your budget proposal for the 1993 fiscal year. Whether you work for a government agency or a privately-owned enterprise, budget battles are never fun.

First and foremost, look at the "big picture." Keep in mind our national economic climate. Analyze your local economy and your own facilities' status in comparison to the nation's, and keep this in mind when preparing your budget.

Even solid enterprises, operating profitably, seem cautious and apprehensive about the future. Less stable facilities are scrambling to stay afloat. Everyone is scrutinizing operations to eliminate waste and increase efficiency.

Next, you must pro-

vide sound justification. Show clearly why you are going to do what you propose. Verify what you are doing, who you are serving and why you are serving them.

Be prepared to justify maintaining your existing level of financing. Also, justify the need for any planned expansion projects. Why are they necessary? What do they accomplish? If approved, what impact will they have on the level of service and financial status of your facility?

Research the short- and long-term ramifications of any new projects for 1993. Justify each part of the proposed project in terms of what it will do for those you serve and how it will affect the financial picture. (This may not be the time to take on risky projects. It must be the time to sit tight and hold the fort.)

Honesty is a key. By showing what has

been a cost drain, as well as what has been worthwhile, and explaining the reasons behind each outcome, you're establishing a visible record of your overall operation.

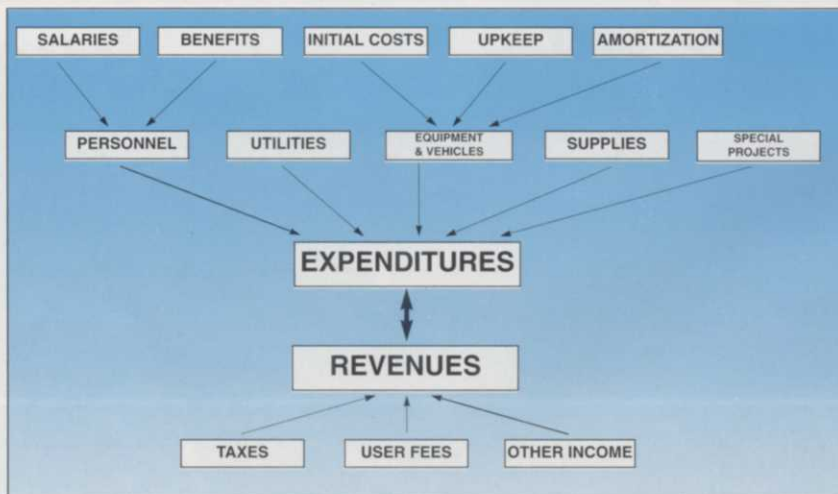
Document all costs—Keep track of labor, equipment and material/supply costs. Compile similar information on all of your equipment and vehicles, and on any outside rental equipment brought in for specific procedures or to supplement out-of-service units.

Know the complete cost figure for each one of your full- and part-time personnel—not only salary, but the costs of their tax and benefits package as well. Know the costs of contract labor and outside service firms you might use. Have these figures available as a yearly total, yearly total per individual, and also broken down by work hour per person.

Assemble data on each procedure your staff performs. Be able to supply the information on each procedure as a separate cost center.

There are two major parts of the budget: revenues and expenditures. If increased expenditures are proposed, revenues must increase proportionally to ensure financial balance.

One way to increase revenues in the next fiscal year is to increase fees and charges and field rental rates. (With the low inflation rate and short dollar supply, consider holding the



Budgeting tips

1) Establish a photographic record. Show the equipment and procedures that save money, both those that reduce the actual output of funds and those that result in a cutback of personnel hours. Show what wastes valuable resources.

2) Solicit support or testimony from user groups such as the youth baseball or soccer association. After all, budgeting is a political process as well as a mathematical process. Letters from these special interest groups can help justify that the services you provide are those that people want and need. Ask these groups to send representatives to public hearings and board meetings, where appropriate.

3) Check with vendors for the availability of donations of materials and/or supplies. Try setting up demonstration areas as a "show place" for products or programs.

4) Ask soccer or baseball organizations if they can fund specific capital improvements or subsidize a specific procedure. Most of these groups understand the budget crunch and are willing to provide support.

5) Pay bills early to take advantage of regular term discounts and anticipation discounts. Ask your suppliers if greater discounts are available, perhaps for volume purchases or for working from a yearly master order.

6) Look closely at utility costs. Lighting and irrigation are major budget items. Reduce consumption where you can. Investigate utility savings from every angle, including special pricing from volume and non-peak period use.

—G.P.

line on user fees. If rates must increase, keep them very minimal.)

Consider soliciting donations or tap the user groups for more financial support.

The labor factor—Personnel costs, which make up a large portion of the annual budget, are sure to be closely examined. In this economic climate, management raises will probably be rejected. Today, no one is irreplaceable. Try, however, to get a raise for the people below you, if the added costs can be justified.

Cost-of-living adjustments are being reduced or eliminated. Merit increases, based on performance, are shrinking. People are being asked to work harder at the same pay rate. Right now, the reward is having a job.



Greg Petry: back to the basics

General benefits are being cut back also. The out-of-pocket funds employees are asked to pay for health benefits is increasing. And, health care costs for the employer have skyrocketed.

Where possible, cut material, supply and equipment costs.

Be realistic throughout the budgeting process. Undoubtedly, you will be called on to tighten your belt. Support the mission of your organization or company. Be part of the solution, not part of the problem. Avoid pie-in-the-sky ideas and projects. Instead, go back to the basics with proven, documented results.

Your budget may take a beating in the next fiscal year. As bad as it may be, it can get worse. But it can get better. Those who manage their operation well, budget wisely, and produce results will be rewarded. Those who live day-to-day with no vision of long-term results and production will find themselves facing deep cutbacks.

—Greg Petry is superintendent of parks for the Waukegan (Ill.) Park District and president-elect of the national Sports Turf Managers Association.

The effects of price-cutting

■ Seldom do business-owners think through what real effect a price cut will mean to the company's profitability and ultimate market survival. This chart will give you some indication of what price-cutting means to you:

Price off	Selling price	Dollar profit	% increase in \$ vol for same \$ profit	\$ sales needed for same \$30 profit
0%	\$100	\$30	—	—
-1%	\$99	\$29	3.45%	\$102.42
-2%	\$98	\$28	7.14%	\$105.00
-3%	\$97	\$27	11.11%	\$107.78
-4%	\$96	\$26	15.38%	\$110.76
-5%	\$95	\$25	20.00%	\$114.00
-10%	\$90	\$20	50.00%	\$135.00
-15%	\$85	\$15	100.00%	\$170.00
-20%	\$80	\$10	200.00%	\$240.00
-25%	\$75	\$5	500.00%	\$450.00

Source: American Sod Producer's Association

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When Atlanta based landscape contractor, Scapes Landscape Management, wanted to improve efficiency in mowing

the award winning Northpark Town Center Rooftop Park, they found Walker fit the job. Steven Coffey, owner of Scapes, told us:

We were surprised to find the Walker gave a better quality cutting job on the Zoysia turf grass than the walk behind reel mower we had been using. In fact, the building management asked us to continue using the "new" mower on their project after the first week we used Walker. Best of all, while improving quality, we cut our job time with the efficiency of the Walker rider. And Walker fits the job because it was compact enough to fit in the service elevator to ride to the third floor park.

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CUSTOMER SERVICE:

Words with meaning at Hermes Landscaping

■ Hermes Landscaping in Lenexa, Kansas, has built a reputation on customer service. But it's not resting on its laurels.

So that salespeople can more fully concentrate on attracting new clients to the Hermes fold, a customer service manager will be soon added to the landscape management division.

"Our service needs to be better...quicker," says division supervisor Randy James. "Our sales should be at \$2 million. We've been at \$1.2 million too long."

James admits that his salespeople, in this recessionary economy, are so focussed on servicing accounts in the true Hermes tradition that they don't have adequate follow-up time to sell additional accounts.

"We feel we have to go this route," James says. "That way, we can justify salespeople making more sales."

According to James, the customer service manager—who will take over an account after about 30 days—will be available at a customer's beck-and-call. "The customers are always amazed that the salesperson comes out for service calls anyway," James observes.



Randy James (above) says his division would like to grow from \$1.2 million to \$2 million soon. Founder John T. Hermes, James and president Dalton Hermes (right inset) helped the company win Lenexa's '1990 Small Business of the Year' award.



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Job One—With some auto manufacturers, “quality is job one;” but at Hermes, “service is job one.”

All 60 trucks are equipped with radios. Managers and salespeople are also equipped with car phones.

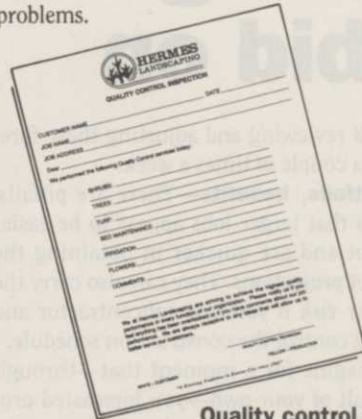
“We can do anything,” says James. “Our niche, though, is taking on the jobs that need immediacy. Some people want it, some don’t, but there are enough customers who are willing to pay 10 to 15 percent more for it.”

An example of Hermes’ responsiveness came just this past July. The company won the contract to landscape the Buffalo Soldier’s Memorial at Fort Leavenworth. Time was so compressed that workers were scrubbing boulders the night before Gen. Colin Powell, Chairman of the Joint Chiefs of Staff, appeared at the dedication.

Said Powell: “This magnificent monument is a dream come true. Artists such as...the designers at Hermes Landscaping devoted thousands of hours to the difficult task of creation.”

Corrective action is so prompt that problems are never documented on paper—they’re simply not around long enough to be written up. “I’m most proud of our responsiveness,” says Dalton Hermes, who began

with the company as a youth pulling weeds. “I’ve got a good intuitive sense about where problems are and aren’t, and I act quickly. I try to identify problems before they become problems.



Quality control forms help Hermes Landscaping service its customers more effectively.

“Complaints sometimes float up, too, and I’ve taken those calls. Not only are our managers always available, but I am, too.”

Two other ways the company makes sure customers are properly serviced:

- Management holds regular meetings to discuss cancellations and to make sure accounts aren’t being lost because of lack of service.

• The company distributes customer satisfaction questionnaires to its client list and pays close attention to the responses.

Fighting through—Excellent customer service notwithstanding, the recessionary economy has been felt.

“We want to hang in there and fight through this economy,” notes Hermes. “The decline in commercial landscaping & sprinkler sales is not unexpected but unappreciated. There hasn’t been an office building start here for a couple of years.”

Yet, expansion in the other three divisions—landscape management, residential landscaping & sprinkler, and at the nursery—has held steady. “The three divisions (not including commercial) will continue to do well, so we’ll try to put our eggs in those baskets,” Hermes continues.

The company’s growth spurt lasted from 1986-91. A seasonal color department was begun in 1989. Hermes has also added residential low-voltage lighting and paving installation services, and greatly enhanced its native and perennial lines, and its sprinkler services.

Concludes James: “We have a bunch of good guys who are young and energetic. That’s what makes the company work.”

—Jerry Roche

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Choosing the right projects to bid on

A computer program called 'Work in Progress' helps keep this company's focus.

by Kent Miller

■ Sales for sales' sake are not necessarily good for anyone. How does one decide what to bid, when to bid, and at what gross profit it should be bid at? There are no simple answers to these questions.

What you decide to bid is influenced by many factors, among them:

- your expertise;
- current resources;
- current work under contract;
- other bidders; and
- market conditions.

A simple management tool for plotting when production will occur has been very useful to our organization. Based on budget and current backlog of contracts, it's easy to see if a project that is out to bid fits into your current construction schedule.

We have created a simple computer program on Lotus called "Work in Progress." The program lists every job under contract, the job names, estimated total labor hours, and contract amounts (see chart). The program then calculates the average sales revenue per labor hour. From there, we plot the estimated hours we expect to expend each month. The plotted hours help us calculate the monthly revenue, average labor force required, and current backlog of work.

At the bottom of each month, the monthly production amount I've targeted in my annual construction budget is listed, to remind me of the company's goals.

Like all management tools, this is not failsafe. But it has allowed us to seek work that best fits our construction schedule.

As a subcontractor, you have very little control over the actual construction schedule. As a prime contractor, you maintain a little more control over your destiny. If the basis of your work is as a prime contractor, these forecasts will probably be a little more stable than a sub-contractor's. We're about half-and-half.

As a construction manager, I find

myself reviewing and adjusting these forecasts a couple of times a week.

Pitfalls, benefits—There are pitfalls: one is that larger jobs appear to be easier to plot and are quicker in obtaining the budget projections. They can also carry the greater risk if you're a subcontractor and do not control the construction schedule.

Imagine for a moment that—through no fault of your own—you forecasted production in the month of December at \$200,000 on a state highway job. On November 30th, the inspector rejected the installation of the primary water source that was a key to starting your work. Your work is delayed 30 days while the water source work is being corrected. As a specialty subcontractor with only one large contract on the books, you have no other choice than to send your workers home until January.

Had this same thing occurred to you when your sales consisted of four \$50,000 contracts, however, you would have forced some production in the other three contracts to get you through the month.

A benefit of this program is projecting the future assignments of foremen. We also provide our foremen with a copy of the "Work in Progress" forecast on a monthly basis, to assist them in reviewing what is expected of them. That way, they're better prepared to look ahead to upcoming projects, gauge manpower requirements, and interact with the demands on resources from the other foremen.

A management tool—I began this article by stating that "sales for sales sake are not necessarily good." Review this forecast each time you're considering submitting a bid. Take the upcoming project you're bidding and plot it on your current

"Work in Progress" forecast. It's a quick test to see if you really want the work, and how it will fit in among your current budget projections. After that comparison, then place a value on the gross profit the work deserves, based on your needs.

This management tool will allow you to monitor and react to the day-to-day changes of field work. In most cases, it'll put you on notice to take action.

If it's 60 days from when you run out of work and you need to win a contract on a job that's going during that time frame, you submit your lowest bid.

If you're bidding the same job and you've got your budget covered, you should increase your direct costs, gross

'Work in progress'

REVISED		DATE: AUGUST 1, 1992		EXPENDED	
"TUCSON" JOBS		FOREMAN'S INITIAL		HOURS	
	EST HRS	CONT. AMT	\$/HOUR		AUG 92
COUNTY ANNUAL CONTRACT	J	600	\$25,000	\$42	0
RODEO GROUNDS MAINT.	J	1200	\$35,000	\$29	50
CITY IRRIGATION REPAIRS	J	1500	\$60,000	\$40	100
100 STREET LANDSCAPE	J	8528	\$295,371	\$35	0
SOFT BALL FIELD/COLLEGE C	T	1	\$0	\$0	1200
UNIVERSITY BUFFER	T	2200	\$150,000	\$68	0
WALNUT SHOPPING CENTER	T	500	\$15,000	\$30	0
CARSON MIDDLE SCHOOL	T	2942	\$90,000	\$31	500
DUFFY ELEMENTARY SCHOOL	T	1700	\$54,765	\$32	0
MODULAR SCHOOL	T	1300	\$43,600	\$34	500
HOSPITAL ADDITION	T	1000	\$30,000	\$30	800
PENDING CONTRACTS	T	550	\$22,871	\$42	40
FOUNTAINS @ SA CHOLLA	T	1	\$0	\$0	0
PLEASANT RIDGE RETIREMENT	T	1	\$0	\$0	700
TOTAL HOURS/BACKLOG		800	\$0	\$0	0
MONTHLY REVENUES		1325	\$35,000	\$44	0
AVE. WORKFORCE			\$55,000	\$42	0
CONSTRUCTION BUDGET		24150	\$911,607	37.74	0
				3330	3890
				\$110,965	\$142,415
				18.1	23.2
					\$125,000

With a computer print-out like the kind Kent Miller uses, you can keep much closer track of what projects you should and should not bid on.

profit and net profit accordingly.

We have found that a company is increasingly inefficient with additional sales above and beyond its optimum capabilities.

But this simple method of plotting contracted work helps identify the work we want to bid, when to bid, and at what gross profit it should be bid at. It also helps keep managers and foremen focusing on day-to-day objectives, when they should be more attentive to the long-term objective—which is meeting our budget projections.

—Kent Miller is owner of The Groundskeeper in Tucson, Ariz. and president of the Arizona Landscape Contractors Association.