Know the four revenue sources

Perhaps the most important part of your budget is the process you develop to establish revenue.

With reasonable record keeping, doing a revenue projection is a simple process. You need the following:

- a list of current contracts;
- sales goals for the next year;
- sales achieved for the past three years;
- about two, uninterrupted hours.

Here's the process:

1. **Establish your backlog.** This is contracted work that extends into the coming year for a specific time period.

2. **Calculate your renewals.** Renewals are contracted work that expires during the upcoming year, work you want to renew.

3. **Project your new sales.** This represents new jobs you anticipate starting that will generate income during the new year.

4. **Anticipate your one-time extras.**

These are add-on sales to existing clients or small jobs that will occur only once.

Set up a spreadsheet that runs from January through December across the top and list backlog renewals, new sales and one time extras down the side (Table 1). Now fill in the blanks.

Your **backlog** will be a decreasing number as you total by month your existing contracts out to their expiration dates. Fill in those monthly totals across the spread sheet next to the backlog heading. These numbers are hard numbers.

**Renewals** are an extension of your backlog. You must assign a percentage to your chance of renewing the business when the contract expires. Be honest; it is not 100 percent for each job, and some may be zero percent.

Multiply the percentage you assign by the original contracted value to get your renewal dollars. Do this for each job from the point the existing contract expires through the rest of the year. Total these dollars by months and fill in across the spreadsheet next to renewals. This should be an increasing number across the sheet and—if you are true about your chance of renewal—a pretty accurate number.

**New sales** is difficult if you have not kept records of new jobs sold during a particular year. If you have, take a snapshot of your last three years. Look for trends, business attitudes, economics, or marketing goals. A pattern should show that says "we have been consistently selling X dollars in new business every year. If the number is real, then trust your historical data. If you plan an aggressive sales year, be prepared to review your budget quarterly to make adjustments.

It's a challenge to try to anticipate when new sales will begin. Use your historical data and a trend should show when you "hit" most frequently. Remember, you will only receive a portion of contracts revenue. They won't all start January 1st and end December 31st. Set up another spread sheet that runs January through December on both the top and side. Go back to your new sales goal and spread it out by month down the left side so that the total at the bottom equals your sales goal. Now, go back and divide each month's goal by twelve and, working both across and down, insert that number across the spread sheet (Table 2).

You now have your new sales goal plotted and more importantly, your revenue received for the budget year. Total each month down and fill in the numbers across the spread sheet next to new sales.

**One time extras** are fairly simple. These are the extras your client base requests or the upgrades you recommend to them. If you do not track these jobs, a look into accounts receivable would give you the information. Quantify an annual number, divide it by twelve and fill it in across the spread sheet next to one time extras.

With all the numbers plugged in, you have monthly and yearly budgets and goals, or a revenue projection (Table 3).

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**Mike Guthrie,** vice president, Maintenance Division, Ground Control Landscaping, Orlando, Fla.

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**TABLE 1**

<table>
<thead>
<tr>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
<th>May</th>
<th>Etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Backlog</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Renewals</td>
<td></td>
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<tr>
<td>New sales</td>
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<td></td>
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<tr>
<td>1-time extras</td>
<td></td>
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</tr>
</tbody>
</table>

**TABLE 2**

<table>
<thead>
<tr>
<th>January</th>
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<th>March</th>
<th>April</th>
<th>May</th>
<th>Etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>50,000 Jan.</td>
<td>4167</td>
<td>4167</td>
<td>4167</td>
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<tr>
<td>30,000 Feb.</td>
<td>2500</td>
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<td>2500</td>
<td>2500</td>
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</tr>
<tr>
<td>80,000 Mar.</td>
<td>6667</td>
<td>6667</td>
<td>6667</td>
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</tr>
<tr>
<td>50,000 Apr.</td>
<td>4167</td>
<td>4167</td>
<td></td>
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<tr>
<td>20,000 May</td>
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<td></td>
<td>1667</td>
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<tr>
<td>Etc.</td>
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</tbody>
</table>

**TABLE 3**

<table>
<thead>
<tr>
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<th>April</th>
<th>May</th>
<th>Etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Backlog</td>
<td>100,000</td>
<td>90,000</td>
<td>80,000</td>
<td>70,000</td>
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<tr>
<td>Renewals</td>
<td>1,000</td>
<td>5,000</td>
<td>10,000</td>
<td>15,000</td>
<td>20,000</td>
</tr>
<tr>
<td>New sales</td>
<td>4,167</td>
<td>6,667</td>
<td>13,334</td>
<td>17,501</td>
<td>19,168</td>
</tr>
<tr>
<td>1-time extras</td>
<td>500</td>
<td>500</td>
<td>500</td>
<td>500</td>
<td>500</td>
</tr>
</tbody>
</table>
Supers: computerize & categorize!

1) Get a computer! You'll save the cost of it in one year by tracking your own expenses and comparing them to the Profit/Loss sheet put out monthly by your controller. You will be surprised how many items can be coded into your department that don't belong there!

2) Break down your accounts much farther than what the board of directors or owner receives. For example: most clubs have an account number for "Chemicals." Break the "Chemicals" category down into divisions: fungicides; herbicides; insecticides; pond/lake care; rodenticides; soil penetrants; permits.

Be sure you break down your "Manager's Expense" line item into many categories. Smaller dollar amounts in each category will look better to a budget committee and enable you to get more for education, dues, licenses and travel.

Break down your line items to make it easy to answer surveys, and questions from members or supervisors.

3) When you budget "Capital Equipment" expenditures, always budget at "List Price." This will give you room for price increases, and maybe for an unexpected item that may be needed. When it comes time to buy, you can then negotiate prices with your vendors.

I note in my proposal that these prices are list, and should come in 10 to 15 percent lower.

Don't be afraid to ask for all the equipment you might need. If you don't ask for it, you won't get it! Having these items on "Proposed Budgets" leaves a good paper trail when the time comes that you are asked, a fairway mower broke down during the week of the year's biggest tournament.

4) "Proposed Capital Expenses to the Golf Course," or projects to be done in-house should be priced out at 20 to 30 percent higher than expected costs, similar to the profit a contractor would add. This allows for extra expenses that come up in most projects. A contingency of 10 percent should be added to all projects that are to be bid by contractors for the above same reasons.

Corey Eastwood, CGCS, Stockdale C.C., Bakersfield, Calif.
Weather smarts
for turf/landscape pros

If you're still relying on your local "weatherman" for advice on planning your day's turf or landscape chores, it's time you read this.

by Ron Hall / SENIOR EDITOR

Paul Zwaska looked out his small office window onto the playing field of Orioles Park at Camden Yard and concluded that he had to delay the start of the day's game with the visiting Milwaukee Brewers. The Baltimore grounds manager didn't base his decision on the clouds he saw building over the stands. He based it on the moving satellite images he was receiving over the PC in his office. The PC's monitor showed an irregularly shaped patch of green indicating a weather front, containing smaller patches of yellow and orange, rain, approaching the ball park from the northwest.

Behind the front Zwaska saw no activity on the monitor, meaning clear skies. And behind that, some more green blotches approached. He concluded (accurately, it turned out) that the Orioles and Brewers, after the initial 20 minute drizzle delay, would have about three hours to play that afternoon's game before the next rain arrived.

When the mid-day drizzle stopped, the O's grounds crew whisked the tarps from the manicured infield and the game unfolded. At its conclusion, the rains returned, just as Zwaska predicted.

Zwaska received this accurate weather information from a software package, Weather for Windows, available only from Weather Services International (WSI), Billerica, MA. It requires a 386SX or greater personal computer with Microsoft Windows 3.1 or higher, and a modem.

Not all turf/landscape managers need such an exact picture of the weather. But, since it's easy and affordable to get, why not? Up-to-hour radar images and, depending on the service, 15-minute updates are literally available to anyone thanks to today's radar and satellite technology. Weather information can be accessed through desktop monitors, either a personal computer or one supplied by a contracted forecasting service.

Turf/landscape business owners and managers can use this knowledge to schedule work crews (construction, mowing, snow plowing) and chemical applications. It helps them irrigate efficiently too. In fact, it's difficult to think of any turf or landscape task that's not dependent upon the weather.

"In our business, weather is a huge factor. It can make you or break you," acknowledges Robin Milliken, H&R Landscape & Lawn Care, Overland Park, KS. "You can't change it, so you have to work with it."

Late in 1995 Milliken's company contracted with Omaha, Neb.-based Data Transmission Network Corporation for a DTN Turf Manager weather system. "We can pull up current conditions; city-by-city temperatures, overnight lows, predicted highs, surface winds, the possibility of precipitation. The information is updated every 15 minutes," says Milliken.
Instant uplinks

Here’s how the DTN service works: The company’s weather center receives weather information from numerous sources, including the National Weather Service. The data is instantly uplinked to a satellite for reception to a subscriber’s satellite antenna and into his/her color monitor.

Robin Milliken, "You can’t change the weather, so you have to work with it."

Nineteen regional radar maps indicate county-level precipitation. Image maps are updated every 15 minutes. Users lease the antenna and monitor from DTN which describes the monitor as an “easy-to-read electronic magazine.” It’s not a PC, like Zwaska uses in at Baltimore’s Camden Yard.

Gary Wilder, Director of Golf Maintenance at Calloway Gardens Resort in Pine Mountain, GA, has been using the DTN system for several years and describes it as one of the most valuable tools he uses.

“The first thing I do when I arrive here in the morning is look at it, and it’s the last thing I look at when I leave,” says Wilder. “I have six superintendents who work with me here, and in an eight-hour-day, we probably use it all eight hours.”

Wilder says the weather forecasts provided by the system allow his managers to more efficiently schedule their labor needs along with more obvious benefits such as the application of chemicals, fertilizer and irrigation.

“We’ve had cases where we would come in expecting to spray fungicides on the greens, and with over 300,000 square feet of greens that quite an expense. The local weather forecaster here might say there’s only a 20 percent change of rain, but when we look on the radar and see the rain is almost here, we hold up and don’t spray,” says Wilder. “We’ve literally saved thousands of dollars.”

Significant savings also come from more precise scheduling of work on the resort’s 63-hole complex. If Wilder can look at the DTN images and determine that rain, say, will last all afternoon, he can let the workers go home. “It can save us as $250 an hour on a normal hourly rate,” he says.

David Mellor, assistant director of grounds at Milwaukee County Stadium, has been using the system since last April. “When we got it I wasn’t sure how helpful it would be and I was worried that it would be so technical that you would almost have to be a meteorologist to use it. But you don’t,” he says.

Grounds Manager Gary Vanderberg will often ask umpires to view the images during game rain delays. “To be able to see the weather like that really lets you know what’s going on,” says Mellor.

For more information about Weather Services International’s Weather for Windows software package contact John Bosse, WSI, 508/670-5000. For information about DTN Turf Manager contact Jay Ferguson, 800/610-0777.
Controlled-release nitrogen

by BILL KNOOP, Ph.D. / Technical editor

We all know that plants cannot survive without nitrogen, however, the amount of nitrogen required varies from one species to another.

Woody plants, such as trees and shrubs, usually don’t need any more than the environment can supply naturally. All flowering or fruiting plants, including most of the herbaceous annuals and perennials can’t tolerate much nitrogen. If they receive too much nitrogen, most of their growth goes into stem and leaf growth rather than into the production of flowers and fruits.

Turfgrass is the exception to the “go slow” rule, for several reasons.

Needed for turf density

With all other factors being equal, the thicker or more dense a turf, the more nitrogen the turf needs to maintain that thickness. Turf density is directly related to the supply of nitrogen. In the average situation, if a turf does not receive any nitrogen from an outside source such as an organic or inorganic fertilizer, the chances are the turf will be thin and not have a good color. Nitrogen is needed for chlorophyll and the more chlorophyll in the plant, the greener it becomes.

When a turf receives the correct amount of nitrogen, it becomes denser, and is more able to:
- fight off weed invasions;
- tolerate foot traffic;
- endure athletic activity; and
- resist attacks from insects and diseases.

Excess N causes thin cell walls

Problems can result from over-application of nitrogen, most notably disease. When the plant takes up too much nitrogen, its cell walls become thin, which makes it easier for a fungi to invade. These plants also have a higher than normal water need.

Some soluble forms of nitrogen fertilizers have a higher salt index. If a turf receives too much of a nitrogen material that has a high salt index, “fertilizer burn” may occur.

How to choose

Nitrogen is available in two basic forms: inorganic and organic. Which do you choose? Look at it this way:

1. Perform a thorough soil test, with samples taken from around the entire property.
2. Know how much slowly-soluble nitrogen the fertilizer contains. The more the better.
3. The slowly-soluble products cost more, but they last longer, and do not tend to produce negative effects that may be attributed to soluble materials.
nitrate—form of nitrogen.

2. There are two primary organic forms of nitrogen. One is a man-made organic called urea, the other or others are all the naturally-occurring organic materials such as sewage sludge.

3. The organic forms are converted by bacterial action in the soil to the plant preferred nitrate form.

4. The soluble nitrate form is quickly available to the plant. This usually causes a rapid increase in the plant's growth rate. Again, the plant may develop very thin cell walls. The water requirement goes up but the overall effect is rather short lived. Nitrate nitrogen just doesn't last long in the environment. It's very leachable and may even be lost as a gas.

Nitrogen may either be a solid, a liquid or a gas. The goal of a fertilizer program, in addition to providing all the needed nutri-

---

**Nitrogen sources vary**

**Coated nitrogen sources**

1. Sulfur coated urea (SCU): release occurs as water moves through tiny cracks and pinholes in the sulfur coating.

2. Polymer coated urea (PCU): Urea granules with a polymer coating. Water diffuses through the coating to dissolve urea. Release affected by temperature; is more rapid in summer.

3. Sulfur and polymer coated urea: Polymer coating is added to the SCU as protection, and to slow the movement of water into the core. Combines cost advantage of SCU and improved release of PCU.

**Synthetic nitrogen sources**

1. Isobutylidenediurea (IBDU): release is controlled by water. Not affected by temperature as much as PCU; effective in cool seasons.

2. Urea-formaldehydes (UF): Organic molecules of varying size and solubility. Release of nitrogen is controlled by microbial breakdown; more rapid in warm months.

3. Natural organic: Many sources are available in this form, including sewage sludge and animal manures. Nitrogen is released by soil microorganisms. Temperature, soil pH, moisture influence the rate of nitrogen release from non-synthetic organic sources.

**SOURCE:** THE POTASH & PHOSPHATE INSTITUTE, NORCROSS, GA.
ents, should be to supply them at the same rate as the plant can use them. In order to get as much to the plant as possible, a nutrient that is completely soluble must be applied frequently in very small amounts. If the nutrients are being applied through an irrigation system, then using soluble material is easy.

Since most managers are only set up to use dry materials, the use of solubles may not be very practical.

Of all the mechanically-applied turfgrass nutrients, nitrogen is the most used. It’s the key growth and color producer. In the past, high growth rates were ideal, but we have learned that plants, especially turfgrass, can be produced in higher quality with a slowly soluble or “controlled release” material.

**Slow and steady wins the race**

In most landscape situations, managers have found that it is desirable to use the slowly soluble nitrogen materials as a matter of routine. Most agree that plants are much better off if they grow at a slow, steady growth rate rather than at the accelerated rate produced by soluble nitrogen materials.

There are several turf areas—golf course putting greens and athletic fields—that need fairly high growth rates. Those rates might justify using a combination of quick and slow release nitrogen sources.

The source of nitrogen—soluble or slowly soluble—and the rate at which it is applied can be used by the landscape manager to control growth rates and other growth characteristics, such as turf density.

Nitrogen is nitrogen. The plant primarily uses the inorganic nitrate form no matter which form you buy. Conversion of nitrogen from its other forms to nitrate is a natural process that does not require any help from us. The bacteria are capable of “doing their thing.” We do not need to add anything to the system to make this work.

**The goal of a fertilizer program: provide essential nutrients at the same rate as the plant can use them.**

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An Employee-Owned Company
Zoysia’s new stars

by RON HALL/Managing Editor

The breeding program at Texas A&M University releases four new zoysiagrasses to fill a range of market niches

Dr. Milt Engelke has been working with zoysiagrass since 1982. He’s part of a team carrying on and enlarging some of the work begun by the late Jack Murray at Beltsville, MD. Last year Engelke started to see some of these efforts pay off when Texas A&M University released four new cultivars. They were developed in cooperation with the USGA.

“We can’t turn out a variety overnight,” says Engelke in somewhat of an understatement. "It’s taken 16 years to get to this point, and I’m just pleased to to be where we are."

Now that the new zoysiagrasses are released, and will soon be going to production fields, he’s confident that they—and other zoysia releases to fol-

low—will revitalize interest in the species. That’s because zoysiagrass, generally speaking, is noted for its salt tolerance, tolerance to temperature extremes, low fertility needs and low moisture requirements.

While most turf experts feel that zoysiagrass, at its best, gives about 90 percent of the performance of bermudagrass at its best, zoysia generally does so with considerably less fertilizer, water and chemical controls. It’s also more shade tolerant.

“We’ve had enough death losses (winterkill) in bermudagrass in the last few years that the industry is thinking more about zoysiagrass again. We’re starting to get a zoysia mentality buildup,” says Engelke.

Late last summer, LANDSCAPE MANAGEMENT walked the breeder plots at the The Texas A&M University Research and Extension Center just north of Dallas and saw first hand the four new cultivars that were being released. Going into production are:

Palisades Zoysiagrass, a vegetatively propagated clone of Zoysia japonica, medium textured, shade tolerant, cold hardy, low water use and rapid recuperative ability. It is intermediate in salt tolerance. Palisades will be suitable for use as a warm-season turfgrass for golf course fairways and roughs, and under shaded areas throughout the transition zone, home lawns, sports fields, industrial parks and highway medians. Optimum mowing height will range from 1/2 inch to 2 inches. On tees and fairways, mowing heights of 1/2 inch to 3/4 inch are possible with acceptable results.

Cavalier Zoysiagrass, a Zoysia matrella, vegetatively propagated, fine texture, long, narrow leaf, with low rhizome but high density stolon production, good to excellent salt tolerance and good shade tolerance. It is resistant to the fall armyworm and the tropical sod webworm. It is intermediate in its growth and recovery rate. Cavalier has good winter hardiness and will persist in regions north to Kansas, Missouri and southern Illinois. It will find its primary utility in home lawns, golf course fairways and tee boxes, and in parks, sports field and other recre-
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Crowne Zoysiagrass, a Zoysia japonica, vegetatively propagated, with a medium-coarse texture, good winter hardiness, good to excellent shade tolerance, reasonably good salt tolerance, and low water use requirement. It is characterized by aggressive regrowth by rhizomes and stolons. The harvest cycle of Crowne can approach 8-12 months, in contrast to the industry standard “Meyer” which averages 15-24 months. Its area of adaptation extends northward to north-central Kansas. It tends to scalp under close or infrequent mowing. Generally, it lacks turf performance under close-moweded conditions and is suited for industrial parks and roadsides with excellent competition against weeds.

Adds Engelke, “The most important thing, from my perspective, is that we release these grasses into the marketplace, and that we work with the people and help them find their market niche, and what their locality requires.” LM

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