

## Injury management requires company-wide commitment

Insurance industry figures show that construction workers experience occupational injury and illness at twice the rate of those employed in general industry.

The Occupational Injury Management (OIM) program developed by CNA Insurance, Chicago, is a system of proce-

dures used by employers and medical professionals to help injured employees return to work quickly and healthfully.

According to CNA, successful implementation rests on an active commitment from all levels of the company. All levels of management need to be held accountable

for results. From initial medical treatment and diagnosis to development of a treatment plan, and eventually the employee's return to full-time work, the focus needs to be on the philosophy of occupational injury management.

Of special importance in the CNA program is the function of the "team coordinator." This is the management level person responsible for maintaining contact with the injured worker.

Duties include:

- contacting employees in person or by phone within 24 hours of the injury;
- verifying their understanding of their injury, treatment or follow-up plans; and
- making certain employees understand available benefits—especially disability benefits—for work-related injuries.

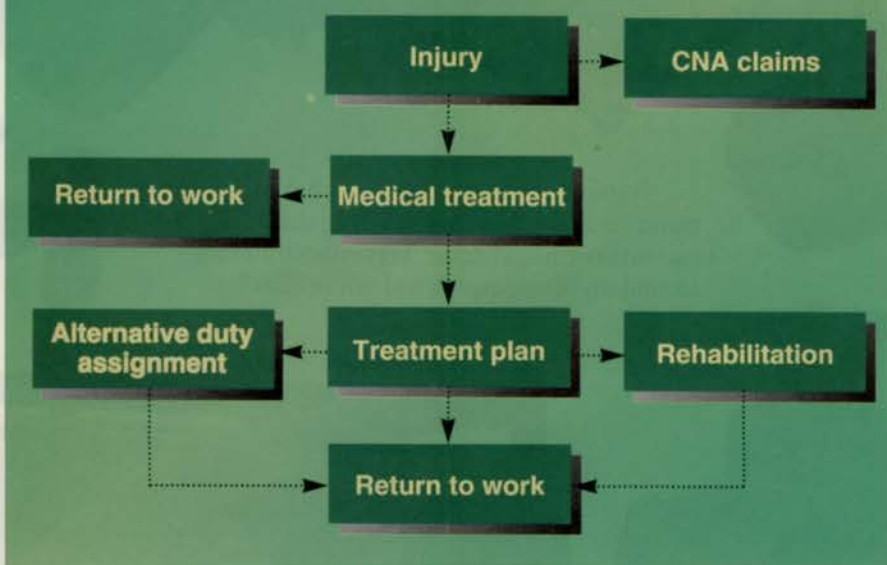
The Occupational Injury Management program also provides instruction on how to select primary care providers, job function evaluations and timely claims reporting.

Management must choose medical care providers so that workers are treated by professionals experienced in occupational injuries.

If your state does not permit employers to direct injured employees to selected primary care providers, you can still contain costs and help ensure quality care by developing a list of preferred providers.

—For more information, contact CNA at (800) 262-6241.

### Medical Case Management



## Lawn care clean-up insurance made affordable

A commercial pollution clean-up insurance program for the lawn care industry is now available, providing coverage for spills caused by a vehicle accident.

"We've worked out the details of the insurance coverage and negotiated a premium format which will allow even the smallest of operators to purchase the coverage at a reasonable price," says Richard Bersnak, president of Columbus, Ohio-based M.F.P. Insurance Agency, Inc., and himself the owner of a Barefoot Grass franchise.

This coverage is significant because in 1986, the property and casualty insurance industry revised the standard commercial

automobile policy used by most U.S. insurers, to exclude damages to the air, land or water caused by an automobile accident.

Bersnak says clean-up costs for even the smallest lawn care chemical spills can range from \$7500 to \$10,000.

"The largest spill we are aware of by a lawn care operator carried a \$75,000 clean-up fee," says Bersnak. "The average lawn care firm will struggle paying these costs, much less any fines and any other statutory charges by state and local governments."

Before this coverage was available, says Bersnak, policies would probably start in the \$7500 to \$10,000 premium range,




**Bersnak: insurance program relies on average-size companies.**

depending on the size of the operator. An individual contract will have a higher limit of liability and will require an expensive site or operation's study performed by an


*continued on page 77*

# This Time, We Did Competition, We Out

To make a dramatic turnaround in your productivity, put yourself behind the wheel of the machine that outmaneuvered them all: The new Groundsmaster® 220-D or the new gas-powered 224 from Toro. No other out-front rotary mowers are as maneuverable, as effortless to operate or provide as much trim productivity.



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When it comes to engine size, Toro gives you the power of choice. The new Groundsmaster 220-D features a 20 hp liquid-cooled, 3-cylinder Mitsubishi diesel engine. The new Groundsmaster 224 gives you the same engine in a gas model, providing you with the durability diesels are known for, but with more power. Both give you all the speed and power needed for the most demanding jobs.

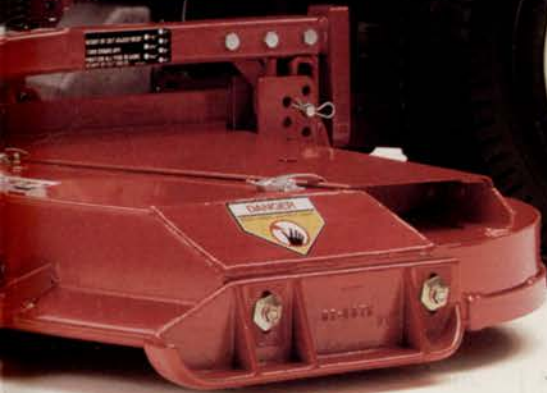
The Groundsmaster 220 also is available with a 20 hp air-cooled gas engine.



# n't Overpower The maneuvered Them.



A small, compact wheelbase provides a small uncut trim circle and tight turn-around enabling you to trim close around any obstacle. Just what you need to get into or out of tight areas.



A patented, heavy-duty carrier frame with floating cutting decks allow the cutting units to follow ground contours for a superb quality of cut. For added cutting control, there are three decks to choose from: 72", 62" or 52". And the 52" is available with an optional grass collection system.

The Toro Company, Commercial Marketing Services, 8111 Lyndale Ave. So., Minneapolis, MN 55420.



With all these performance features, it's obvious why the new Groundsmaster 220-D and 224 are so popular. And why Toro is the leader in out-front riding rotary mowers. To request a demonstration, call your local Toro distributor or contact Toro at the address below.

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# Starting the bid: project take-offs

## Part II of III: Professional estimators don't confuse quantity take-off with a separate assignment, pricing.

by Sylvia Hollman Fee

■ From practice to trial, knowing materials, methods and variable conditions will sharpen your estimating skills.

Experience can expand your profit margin in a given market. Your estimate and bid price are based on two factors: (1) your company's history and (2) the facts of the potential new job.

Some of the factors you consider each time are routine: travel costs, costs of bonds, specific site conditions, and specialties such as irrigation or required heavy equipment. Other factors may be special and unique to the job, such as the relationships between those parties involved.

Whatever the specifics, it is vital to map out the scope of work involved in the job and the key players to manage the project. If you discover inconsistencies in the work outline, you can take into consideration the costs that deviate from your own firm's standards. This holds true whether the specifications are given by architects and owners or proposed by the landscaper making the bid.

The Landscape Project Analysis form (Fig. A) provides a format for recording and evaluating vital aspects of the project estimate. When you have recorded all the elements of the project and decided that the job is appropriate for your firm, your systematic estimate is under way.

**Setting up**—To perform a unit price estimate, some unit of measurement must be assigned to every cost associated with a job. For example, portable toilets are required on a highway job, so the unit of measurement will be each portable toilet.

Some required items are mentioned briefly in requests for bids. You must be sure to obtain all the site drawings, specifications and information collected on-site.

A quantity take-off lists the materials, number of man-hours, equipment and any other items required to complete the job. Take your time. Keep in mind that this information-gathering is the basis for your pricing and bid. Accuracy is vital for your bottom-line profit.

The quantity take-off is a separate assignment from pricing; professional estimators do not confuse these tasks. You can guard against error by using a pre-printed form such as that shown in Fig. B.

**'Taking off'**—To do a take-off from a plan drawing, read and make notations in a planned sequence. This is done by making lists of all work and materials of the same type, such as all grass sod areas and all paved walkway areas of similar materials. Shade and color measured areas on plans as you go.

Areas may be measured in square feet, yards, linear feet, volume and so on, as long as

you record the unit of measure on the take-off form. Measure and record items for surface cover, or volume of materials, length of border, amount of time, etc. Remember the methods and amount of work to do a job all have an associated cost that must be recovered.

A systematic method is useful for future reference and/or communication with others. This listing includes all items such as work days for specific earth-moving equipment, man-hours for clean-up and other requirements.

| DESCRIPTION         | DIMENSIONS |     |   | Area          | Risers | Length | Volume |
|---------------------|------------|-----|---|---------------|--------|--------|--------|
|                     | L          | W   | D |               |        |        |        |
| Bluestone Flaggings | 20         | 8.5 |   | 170 SF        |        |        |        |
| 5% Waste            |            |     |   | 170 SF        |        |        |        |
| <b>Total</b>        |            |     |   | <b>170 SF</b> |        |        |        |
| Concrete Slab       | 5          | 5   |   | 25 SF         |        |        |        |
| Gravel Base         | 4          | 4   |   | 16 SF         |        |        |        |
| Steps               | 14         | 4   |   | 56 SF         |        |        |        |
| Retaining Wall      | 24         | 1   |   | 24 SF         |        |        |        |
| Fieldstone Edging   | 15         | 1   |   | 15 SF         |        |        |        |
| Crushed Bluestone   | 22         | 5   | 3 | 110 SF        |        |        |        |

Fig. B

Notice in Fig. B that the surface material measured by noted dimensions with irregular areas is accompanied by a waste allowance. The required depth of the concrete slab is listed, so volume of material may be priced later. The area of crushed stone is listed and then converted to a volume of material so that item may be priced correctly when costs are added.

—Sylvia Hollman Fee is owner of Sylvia Fee & Associates, Inc., Needham, MA 02192.

Figures reproduced from Means Landscape Estimating, by Sylvia Fee, R.S. Means Co., Inc. (800) 334-3509.

**LANDSCAPE PROJECT ANALYSIS FORM**

Date: \_\_\_\_\_ To: \_\_\_\_\_

Travel Time From: \_\_\_\_\_ To: \_\_\_\_\_

Travel Minutes: \_\_\_\_\_ Travel Miles: \_\_\_\_\_

Project: \_\_\_\_\_ Location: \_\_\_\_\_

Project Manager: \_\_\_\_\_

Owner: \_\_\_\_\_

Landscape Architect: \_\_\_\_\_

Contractor: General \_\_\_\_\_

Building Type: \_\_\_\_\_

Quality: Economy \_\_\_\_\_ Average \_\_\_\_\_ Custom \_\_\_\_\_ Luxury \_\_\_\_\_

Describe: \_\_\_\_\_ S.F.

Size: \_\_\_\_\_ S.F.

Ground floor area of building: \_\_\_\_\_ S.F.

Outdoor surface parking: \_\_\_\_\_ S.F.

Number of parking spaces required: \_\_\_\_\_ S.F.

Lawn area: \_\_\_\_\_ S.F.

Landscape planting area: \_\_\_\_\_ S.F.

Other area: \_\_\_\_\_ S.F.

\*Zoning: Residential \_\_\_\_\_ Commercial \_\_\_\_\_ Industrial \_\_\_\_\_ None \_\_\_\_\_ Other \_\_\_\_\_

Zoning Requirements: \_\_\_\_\_

**ESTIMATE DATA**

Budget due: \_\_\_\_\_ 19 \_\_\_\_\_

Schematic estimate due: \_\_\_\_\_ 19 \_\_\_\_\_ a.m./p.m.

Preliminary estimate due: \_\_\_\_\_ 19 \_\_\_\_\_

Bid/Final estimate due: \_\_\_\_\_ 19 \_\_\_\_\_

Working drawings: \_\_\_\_\_

**LABOR MARKET**

Describe: \_\_\_\_\_

TAXES Tax Exempt: No \_\_\_\_\_ Yes \_\_\_\_\_ % State \_\_\_\_\_ % County \_\_\_\_\_ % City \_\_\_\_\_ % Other \_\_\_\_\_

BOND Not required \_\_\_\_\_ Required \_\_\_\_\_ Type \_\_\_\_\_ Amount \_\_\_\_\_

**BIDDING DATE**

Open competitive \_\_\_\_\_ Start date \_\_\_\_\_ Construction duration \_\_\_\_\_ Filed bids \_\_\_\_\_

Selected committee \_\_\_\_\_ Negotiated \_\_\_\_\_

**CONTRACT**

Single \_\_\_\_\_ Multiple Describe \_\_\_\_\_ Yes \_\_\_\_\_

Multiple type assigned to general contractor: No \_\_\_\_\_

Fig. A

**NEXT MONTH:**  
Pricing the take-off

# LANDSCAPER'S CHOICE

## The Bobcat 2410 MTC Is The Ultimate Multi-Purpose Machine

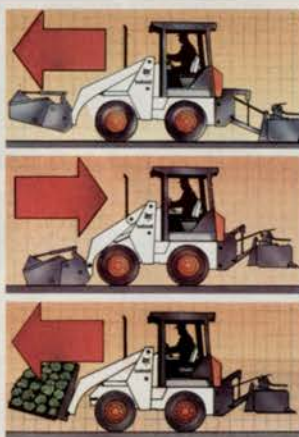
### Custom-tailor a Bobcat 2410 to fit your job.

You can custom-tailor your MTC (Multiple Tool Carrier) to fit your job, whether it requires excavating, landscaping, demolition, back-filling, loading, fertilizer handling, scrap handling, construction, or more.

**More Agile:** Full-time four-wheel hydrostatic drive provides the traction and flotation you need to work in rough terrain and muddy job sites. And the MTC's articulated design provides a tighter turning radius to help you work in those hard-to-get-at places.



**More Mobile:** The MTC is ready to move when you are. Its ease of transport will save you money by cutting transportation costs and expensive downtime of larger machines, which often wait for ground transport.



Save time on the job. Here's an example of how a landscaper can use the MTC with a box scraper going forward and with a landscape rake going backwards, without changing equipment... and in a matter of minutes, you can switch to a front-mounted pallet fork and unload sod.



**More Available:** The Bobcat dealer network is worldwide and there's a dealer near you. So why not stop in and see for yourself how **much more** you can do with a new multi-purpose Bobcat MTC.



**More Versatile:** The 2410 MTC features the exclusive Bob-Tach\* system (available front) and a rear quick attachment system for fast, secure attachment changes. Your MTC can quickly change function from a loader to a landscape rake, or from a demolition hammer to a backhoe to a 3-point loader, plus many more, for even more versatility.

More than a loader.  
More than a backhoe.

\*Bob-Tach is the registered name for the patented front Bobcat attachment system.



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Insecticide/Miticide

Circle No. 133 on Reader Inquiry Card

# Mulch: perfect for beauty in landscapes



If properly used, mulch products can improve the health of surrounding trees and shrubs, plus they are visually pleasing to the eye.

## Beware how mulch you use! Experts says it's not hard to actually over-mulch around trees and shrubs.

■ Mulch is an integral part of most award-winning landscapes—not merely for its practicality, but also for its appearance. In combination with the trees and shrubs around which it's used, mulch provides another way for designers to break up large areas in the landscape.

"Mulching started out as being purely practical," notes Al Rickert, owner of Wholesale Landscape Supply in Bradenton, Fla. "It's now become a part of the aesthetics."

The term "mulch" is defined by Dr. Donald Rakow of Cornell University as "any ground treatment that differs from the substrate (soil beneath), either physically or biologically." Many different types are available (see Table 1).

Rakow says wood chips are the most-often-used mulch. "They can serve a valuable role in the landscape if used properly," he notes.

The phrase "if used properly" is key.

"Piling too much organic mulch can rot the base of the tree and kill it," says Bonnie Lee Appleton of the Virginia Tech Cooperative Extension Service. "Back off! In most cases, we see no reason to exceed

two to three inches. If you need more, put a well around the tree base, keeping the mulch away from the tree.

"The finer the particles of organic material you use, the less you should use," she continues. "Weeds have a field day if you're using mulch over fabrics or polypropylene because it acts as a substrate."

Rickert says the types of mulch available to landscapers and golf course superintendents vary according to region.

"Cypress mulch is very popular from Kansas east because of favorable shipping rates. It dominates the market in the Midwest," he notes. "Pine bark is the old standby in the South, Southeast and Central Atlantic. Pine straw is more regionalized in the Southeast, but that's changing."

Though mulches have numerous benefits (see Table 2), there are disadvantages.

"Most mulches also make a wonderful winter home for mice," says Dr. Bill Fountain of the University of Kentucky. "And when warm spring weather arrives, they awaken with the hunger of a 16-year-old male. The closest food source is often the trunks of young trees."

Fountain says that raking the mulch away from the trunk for six to eight inches will discourage feeding by mice without reducing the mulch's benefits. "Hardware cloth around the trunk is also a very effective barrier to mice and rabbits," he notes.

—Jerry Roche

TABLE 1.  
Selected types of mulch:

- blackplastic/geotextiles/fabric
- cocoa mulch
- cypress mulch
- grass clippings
- gravel
- hardwood bark
- limestone
- marble chips
- natural recycle
- pine bark
- pine straw
- volcanic material

TABLE 2.

### Benefits of mulch:

- ✓ decrease phosphorus levels in plants
- ✓ improve manganese content in trees
- ✓ increase penetration of water into the soil
- ✓ insulate soil from extreme cold in winter
- ✓ keep soil more viable (looser)
- ✓ lower pH
- ✓ reduce chances of chlorosis
- ✓ reduce erosion
- ✓ reduce surface evaporation
- ✓ retard weed growth
- ✓ warm soil and accelerate growth in summer

TABLE 3.  
Mulch rankings:

#### WETTEST:

- 1) herbicide-treated shredded pine bark
- 2) shredded pine bark

#### DRIEST:

- 1) marble
- 2) red "Flower Rock"

#### COOLEST:

- 1) chunk pine bark
- 2) red "Flower Rock" (large)

#### WARMEST:

- 1) red "Mite-T-Lite" (small)
- 2) marble

#### BEST WEED CONTROL:

- 1) marble
- 2) red "Flower Rock"

Source: Bonnie Lee Appleton  
VPI-SU



# Pick the right chain saw for specific applications

by Mark Michaels,  
Husqvarna Forest & Garden Co.

■ All chain saws are not created equal.

There are many types and sizes of chain saws, ranging from lightweight bucket saws to heavy-duty stump saws.

Choose the correct saw for your work. A small bucket saw doesn't belong in the ground work role. Conversely, a stump saw is too heavy for tree pruning.

Select a chain saw for your business based on these factors:

- What do you intend to cut?
- What type of wood (hard or soft) and in what environment?
- How often—and under what conditions—will the saw be used?

Buy from a reputable dealer who both sells and services chain saws. Request a "test drive." Many dealers will have test areas behind their stores.

When comparing different models, look for qualities that will make the saw comfortable, quiet and reliable. Features such as anti-vibration and noise dampening systems, good balance and well-designed handles will make your saw easier and safer to use.

Don't be misled by bar length. That can make very different saws seem the same. Instead, look at engine size, weight and engine speed at maximum power.

By the way, don't be alarmed if your new saw looks like it has already done some cutting; it's just a sign that the dealer

has taken the time to check the saw and make adjustments.

Here are some of the features you might want in your new saw:

- ✓ solid-state ignition—eliminates the need for ignition tune-ups;
- ✓ anti-vibration system—reduces operator fatigue;
- ✓ manual and inertia-activated chain brake—better protection from chain saw kickback, regardless of the cutting position of the saw;
- ✓ steel ball-bearing supported crankshaft—contributes to a smoother running, more powerful engine with higher cutting speeds; and
- ✓ gear-driven automatic oiler—assures bar and chain are well lubricated during extended operation;



**Look for safety features that reduce kickback: low-kickback chains, a chain brake and a guidebar with a small radius tip.**

—The author is product and forestry manager for Husqvarna Forest & Garden Co., Charlotte, N.C.



# CHAIN SAWS FOR THE GREEN INDUSTRY

| <i>Manufacturer</i>                            | <i>Models</i>                               | <i>Displacement</i> | <i>Fuel cap.</i> | <i>Weight</i> | <i>Bar length</i> |
|--|---|---------------------|------------------|---------------|-------------------|
| <b>Ariens</b><br>Circle No. 300                | CS320<br>CS400                              | 32-40 cc            | 8.5-15.2 oz.     | 8.2-11.7 lbs. | 12-16 in.         |
| <b>Dolmar USA</b><br>Circle No. 301            | 11 models<br>100-143                        | 33-95cc             | 13.3-34 oz.      | 8.1-13 lbs.   | 14/16-20/36 in.   |
| <b>Echo</b><br>Circle No. 302                  | 10 models<br>CS280E-<br>CS8000              | 27.9-80.7 cc        | 6.8-27.7 oz.     | 8.6-16.3 lbs. | 12/14-20/30 in.   |
| <b>Homelite</b><br>Circle No. 303              | 12 models<br>XL-Super 1050                  | 30-100 cc           | 8.5-49.3 oz.     | 8.5-22.4 lbs. | 10/16-23/60 in.   |
| <b>Husqvarna</b><br>Circle No. 304             | 21 models<br>35-3120XP                      | 34-119 cc           | 9.6-42.4 oz.     | 9-22.9 lbs.   | 10/18-20/60 in.   |
| <b>McCullough</b><br>Circle No. 305            | 22 models<br>Mac 110-<br>Double<br>Eagle 80 | 32-82 cc            | 10.8-25.6 oz.    | 8.9-17.2 lbs. | 10-20/60 in.      |
| <b>Poulan/Weed<br/>Eater</b><br>Circle No. 306 | 27 models<br>1800-PP655                     | 30-98 cc            | 11.5-31.8 oz.    | 7.8-19 lbs.   | 10/16-16/36 in.   |
| <b>Redmax/<br/>Komatsu</b><br>Circle No. 307   | 5 models<br>G300 TS-<br>G621AVS             | 28.5-62 cc          | 7.5-22 oz.       | 8.5-14.9 lbs. | 14-20/36 in.      |
| <b>Shindaiwa</b><br>Circle No. 308             | 5 models<br>300S-695                        | 28.5-57.3 cc        | 11.8-23.7 oz.    | 8.6-13 lbs.   | 10/14-16/24 in.   |
| <b>Solo</b><br>Circle No. 309                  | 11 models<br>634-603                        | 34-103 cc           | 16-29.3 oz.      | 9.2-17.4 lbs. | 14/16-16/42 in.   |
| <b>Stihl</b><br>Circle No. 310                 | 26 models<br>009EQ-<br>084AVREQ             | 40.8-121.6 cc       | 9.8-42.2 oz.     | 9-20.1 lbs.   | 12/14-25/50 in.   |
| <b>Tanaka</b><br>Circle No. 311                | 5 models<br>ECS-320<br>ECS-655              | 32-63 cc            | 8.5-20.4 oz.     | 8.2-15.1 lbs. | 12/14-16/24 in.   |

NOTE: Models and specifications listed low-end first, high-end second; intermediate models not listed on this chart because of space considerations.

Source: LM mail/phone survey, Feb. 1992



After selecting a chain saw, make sure you are properly dressed. Protective clothing can reduce injuries if an accident does occur. That includes work gloves, a protective hard hat equipped with vision and earmuffs, protective pants or chaps, a well-ventilated shirt or jacket and steel-toed boots. Chain sharpening guides are available from your local servicing dealer, and brief instructions on field filing make sharp saws a relatively easy task for landscapers. Though daily filing may not always be necessary, such maintenance helps keep the saw performing at maximum capability.

Photo courtesy Husqvarna Forest & Garden Co.