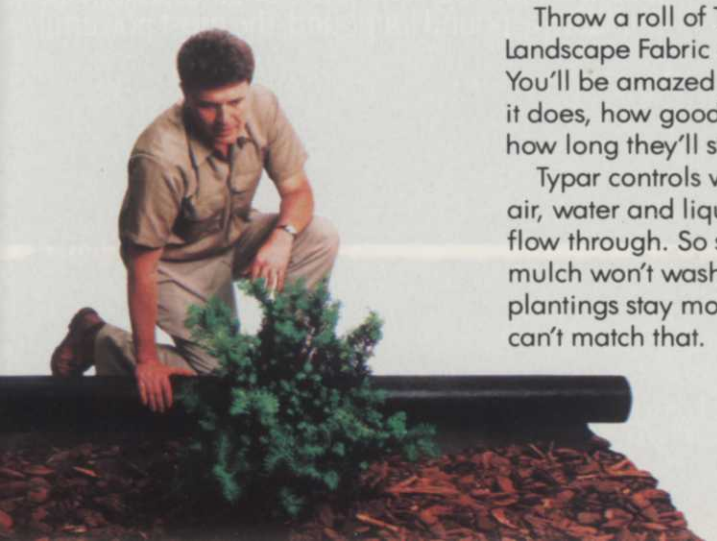







And you thought Typar Landscape Fabric was just for weed control.



Throw a roll of Typar "Pro" Landscape Fabric on your truck. You'll be amazed how many jobs it does, how good they'll look and how long they'll stay good-looking.

Typar controls weeds and lets air, water and liquid nutrients flow through. So stones and mulch won't wash away, and plantings stay moist. Black plastic can't match that.

Typar Landscape Fabric also helps keep traffic and freeze/thaw cycles from heaving walks and patios. It fights erosion around streams, ponds, and retaining walls. All of which helps your jobs keep that just-installed look for years.

Typar is more than you thought and just what you need. For a free brochure, call 1-800-321-6271.

REEMAY

a member of The InterTech Group

Circle No. 163 on Reader Inquiry Card

diately written off. Those write-offs, however, are subject to a phase-out on a dollar-for-dollar basis where the landscaper's total investment in qualified property exceeds $200,000 for the year.

Although asset expenditure or acquisition may have already been made, it still must be decided whether the expense is currently deductible or can only be deducted ratably over the depreciation period. Unlike the costs of running a landscaping business which are currently deductible, expenditures for items of a more permanent nature (i.e., lasting more than a year) generally must be capitalized.

Profit or loss?

Whether the landscaping operation actually made a profit or lost money is something else that can't be determined with any degree of accuracy until after the close of the tax year. At either end of the spectrum, tax decisions must be made before filing the annual income tax return.

First, those losses: a so-called "net operating loss" (NOL) arises when the expenses of a business exceed the income earned. An NOL is first carried back three years and, if not absorbed, carried forward for up to 15 years. Or the landscape contractor can choose to give up the carryback altogether.

Giving up the carryback might be appropriate when a landscaper, whose prior three years' income was taxed at low rates, expects to be in higher brackets in the future. Or when a landscape contractor used the preferential long-term capital gain rates in prior years.

It may be difficult to conceive, but under our tax law, there is such a thing as too much profit.

In other words, if a loss resulted and sufficient income has been reported during the previous three years, then compare the tax benefits of a future-year deduction with an immediate cash refund. If last year was bad—but not bad enough to produce a loss—were estimated taxes overpaid?

The incorporated landscape contractor can apply for a "quickie" refund of those overpaid taxes. This must be done after the year has ended and before the income tax return is filed and, in any event, no later than 2½ months after the end of the tax year.

It may be difficult to conceive, but under our tax law, there is such a thing as too much profit. Unless there is a proper business reason for a landscaping corporation to accumulate earnings in excess of $250,000 ($150,000 for certain personal service corporations), a penalty may be assessed of 27.5 percent on the first $100,000 of current year excess and 38.5 percent on the balance. For 1988, and thereafter, a flat rate of 28 percent is applied.

Profitable landscape contractors should carefully document the business reasons for accumulating earnings. These should be specific both as to the proposed use and the amounts needed. Plus, there is also the "2½-month" rule which can be used as another avenue of escape from this penalty. What could be easier than paying dividends within 2½ months after the year ends?

The "2½-month" rule allows shareholder income shifting, which

might also be valuable for other reasons. If the dividends are large enough, the penalty tax problem would disappear for the current tax year.

Splitting income

An often-overlooked method of splitting income among family members involves giving stock in an S corporation to the minor children of parents who are also stockholders. This usually involves transferring the stock to one of the parents as custodian under a gifts-to-minors act—a transfer that should have occurred prior to the end of the tax year.

Any income over $500 attributed to a minor from this transfer will be taxed at the highest marginal rate of the parents if:

- income is split among family members as a result of such a gift made in earlier years;
- the minor is under 14; *and*
- the parents are in a higher tax bracket than the minor.

Organizing records

Now is also an excellent time to put all of the contracting operation's records in order. They will not only be needed to properly prepare the income tax return but also to comply with the new tax law.

Nowhere is this more evident than under the rules governing meals and entertainment. All landscape contractors need to review their accounting system to assure that meal and entertainment expenses not be subject to the new 80 percent rule are separately identified. Plus, a review of the accounting records should be made to determine if they meet the new rules and substantiation requirements.

The Tax Reform Act of 1986 limited the deduction for meals (including meals incurred while away from home) and entertainment expenses to 80 percent of the amount that is otherwise tax deductible. Fortunately, this 80 percent limitation does not apply to the following items:

- items taxed as compensation or excluded under the *de minimis* fringe benefit rules;
- reimbursed expenses (the contractor making the reimbursement is the one subject to the 80 percent rule);
- traditional employer-paid recreational expenses for employees and their spouses (e.g., holiday parties and summer outings); and
- meals provided in 1987 or 1988 as an integral part of a banquet meeting where more than 50 percent of the participants are away from home, at least 40 people attend and the banquet includes a speaker.

Once the records are assembled, it is a simple matter to pick out expenses that may get lost in the tax filing shuffle. Medical expenses, for instance, may be relegated to the personal income tax return as they have been in the past—but perhaps they no longer should. Normally, medical expenses are only deductible as an itemized expense on landscapers' personal income tax returns. Self-employed contractors, however, may now claim a business expense deduction for 25 percent of their health insurance premiums for themselves, their spouse and their dependents.

It should be obvious by now that many things can still be done before the deadline for filing that income tax return that will substantially reduce the annual income tax bill.

Even with the assistance of a professional tax return preparer, the bottom line rests in the hands of the landscape contractor. **LM**

by Heide Aungst, managing editor

LIGHTS...LAN

The historic buildings at the General Electric Nela Park headquarters in Cleveland, Ohio are lit with 70-watt reflector Lucalox (high pressure sodium) lamps. The Deluxe Lucalox lamps provide high efficiency and low operating cost, while giving off a whiter light. The incandescent-like color works best in areas used by people, while it won't distort the appearance of foliage. A photoelectric sensor automatically turns the lights on at dusk. The two small bullet-shaped lampholders are mounted on the roof parapet and aimed to light the herringbone walkway and planting bed of colorful annuals. The walk connects G.E.'s Lighting Institute and Treasury Buildings, both dating to around 1925. The bentgrass turf is carefully manicured. The trees, including a large yellow birch and small amelanchiers enhance the historic buildings.

General Electric: Circle No. 302 on Reader Inquiry Card.

Toro lighting provides security for the residents of this neo-Victorian home in Edina, Minn. The low-voltage lighting from Toro's "Combination Kit" includes six accent lights, four flood lights, a power pack and 100 feet of cable. The accent lights run on along both sides of the front sidewalk. Flood lights at the base of the porch's latticework gives off dramatic shadows, while highlighting architectural details. The lighting also adds to the aesthetics of the landscape. Two flood lights at the base of the large red oak tree give it definition. Landscape architect Jim Brewer planted tauton yews in the beds in front of the porch. Fond du Lac limestone edging surrounds gold flame spiraea bushes. Dwarf Amur maples line in the front beds.

Toro Lighting: Circle No. 300 on Reader Inquiry Card.

Jim Brewer: Circle No. 301 on Reader Inquiry Card.

gn

DSCAPES...ACTION

Schlumberger Well Services of Austin, Texas looks at landscapes diffently than many other companies. They chose this site overlooking a bluff for their research group's offices made up of six buildings. Landscape architect J. Robert Anderson worked with the company to reconcile and preserve the natural surroundings along with the buildings. Anderson used Hubbell lighting to keep the landscaping theme viable for day and night. Anderson promoted tree-mounted downlighting and ground-mounted uplighting fixtures, rather than traditional poles or building fixtures. He mounted the mercury-vapor downlights in live oaks, red oaks and cedar elms throughout the site. Wide-angle mercury vapor flood fixtures uplight the trees' foliage and canopy. Anderson views each building's landscape as separate. "The lighting helps visitors experience this diversity of landscapes by careful selection and placement of each fixture," he says. Stone walkways which wander through woods and courtyards (pictured here) give harmony to nature and architecture. The directional lighting from the trees casts a moonlight effect on the paths, bringing out the irregular joints of stone. The project used more than 200 mecury vapor light fixtures; more than 150 100-watt mecury vapor downlights with custom-made directional shields; 50 175-watt uplights with custom glare shields; and 20 in-ground well lights, which gives nighttime appeal to newly planted trees.

Hubbell Lighting: Circle No. 303 on Reader Inquiry Card.

J. Robert Anderson: Circle No. 304 on Reader Inquiry Card.

What The Average Person Considers An Eyesore On The Golf Course.

Just the sight of Poa annua makes us cringe. And it seems to never go away.

So after putting our ears to the ground and our best minds in the lab we discovered a beautiful solution. Our remarkable new TGR™ Poa Annua Control.

Scotts patented TGR technology weakens Poa annua on fairways and bentgrass greens, while controlled-release fertilizer helps desirable turf thrive and overtake the Poa.

But most important, the transition to desirable grasses is gradual. So there's not a

What A Scotts Tech Rep Considers An Eyesore On The Golf Course.

sudden change in playing surface conditions.

Ask your Scotts Tech Rep to help you incorporate TGR Poa Annua Control in your turf management program.

At least you'll have one less ugly problem to worry about.

For more information contact your Scotts Tech Rep or simply call 1-800-543-0006. In Ohio call collect 513-644-2900.

Scotts. ProTurf.

Circle No. 167 on Reader Inquiry Card

THATCH

A deep build-up of thatch above the soil surface can mean trouble to turfgrass managers. One of the nation's foremost experts on thatch tells readers what it is and how to get rid of it.

by A. J. Turgeon, Penn State University

Soil organic matter may occur as largely indistinguishable additions to soil mineral matter, or as organic residues in or above the soil surface. The usually undecomposed, tightly intermingled layer of organic residue generated by the turfgrass community just above the soil surface is called thatch.

Causes of thatch

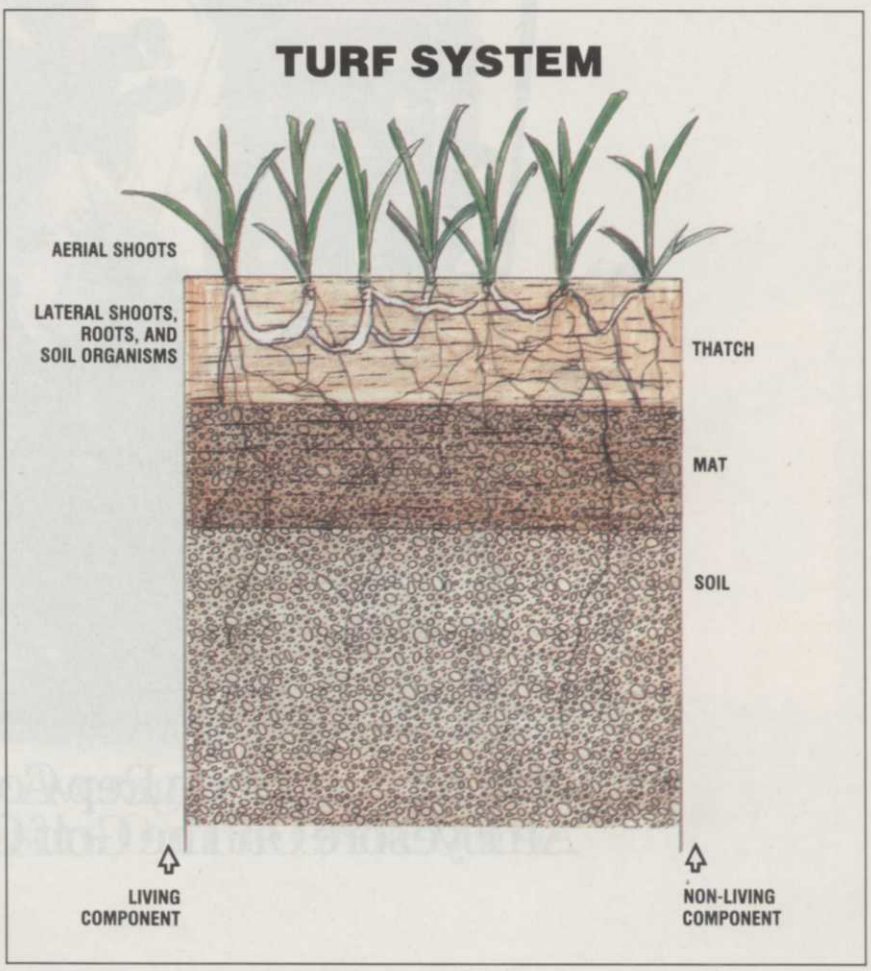
Clippings have been cited as a factor in thatch formation, so some people have advised removing clippings during mowing as a thatch-control measure. However, there is little evidence to support this observation. As a general rule, clippings decompose fairly rapidly, so they are not thought to contribute significantly to thatch formation.

If thatch is the result of an imbalance between the production and decomposition of turfgrass biomass, then any factor that either stimulates production without increasing decomposition, or suppresses decomposition without reducing production, would contribute to thatch formation. Using certain pesticides that inhibit earthworms and other decomposer organisms is a cause of thatch formation.

Thatch development has been observed in otherwise thatch-free turf following successive applications of chlordane, bandane and calcium arsenate. Earthworms were eliminated from these turfs, and various microbiological activities were suppressed.

Rapid thatch formation has also been observed on very sandy soils lacking earthworms and other macrofauna. Some extremely acid and/or highly compacted soils, also without earthworms, have been associated with substantial thatch accumulations. Thus, selecting a loamy soil with a slightly acid to neutral pH and teaming with earthworms and other beneficial organisms appears to be the best "preventive" control for thatch.

Where such soils are not available, various "curative" controls must be used. These will be discussed later.



Thatch formation

Thatch formation is not well understood. However, it probably begins with the net accumulation of turfgrass residues, originating as senescent leaves and/or stolons, at the soil surface. These residues are loosely arranged and thus do not, by definition, constitute thatch. However, they may be an important precursor to thatch (or they may simply be seasonal accumulations which will decompose or otherwise disappear).

The next probable step in thatch formation is the initial growth of turfgrass plant organs (roots, rhi-

A.J. Turgeon, Ph.D., is professor and head of the department of agronomy at Penn State University.

Denser, darker green Manhattan II takes the bruises *for* your athlete

What goes up must come down . . . and that goes double for athletes' knees and elbows.

Improved Manhattan II perennial ryegrass has a built-in cushion developed through genetic improvement. The greater tiller density of Manhattan II takes the punishment athletes dish out, then springs back to retain its great-looking appearance. All that toughness . . . with improved mowability to boot!

Manhattan II also provides a darker green color than the old standard Manhattan; improved disease resistance, drought and shade tolerance as well as fertilizer savings.

Manhattan II was developed to save on maintenance costs . . . but the *real* saving is on knees and elbows!

"Fall on the leader"

Manhattan II

TURF-TYPE PERENNIAL RYEGRASS

Qualified turf associations can earn cash for turf research by saving Manhattan II blue tags. Contact your dealer for details.

Distributed by

Turf Merchants, Inc.
P.O. Box 1467 • Albany, OR 97321
Outside Oregon 800-**421-1735**
503/**491-3622** TWX **910-997-0733**

Turf-Seed, Inc.
P.O. Box 250 • Hubbard, OR 97032
503/**981-9571** TWX **510-590-0957**

Circle No. 177 on Reader Inquiry Card

zomes and stolons) in the loosely arranged medium formed from the deposition of organic residues at the soil surface. What, specifically, triggers this type of growth is unknown. The author has observed adventitious roots arising from Kentucky bluegrass that appear much like the "prop" roots of corn plants. That is, they arise from aerial shoot nodes above the soil surface. The extent to which aboveground rooting may contribute to thatch formation, if any, is unknown.

Subsequent turfgrass growth results in the elevation of crowns above the soil surface to positions well within the thatch layer. This may be due to continued development of existing crowns associated with aerial shoots, or to the formation of new crowns from emerging rhizomes or other lateral shoots.

Crowns are compressed stems with little or no internode elongation. At the top of the crown is the growing point containing leaf primordia and, at the very top, an apical meristem. New leaves arise from the lowermost primordia; new primordia arise from cell division at the apical meristem. This also contributes to further development of the crown itself, as long as its associated shoot survives.

As organic debris is deposited, the crown may be allowed to continue developing to a position well above the soil surface. Then, roots emerging from the crown develop, at least initially, in the organic layer. Rhizome tips are pushed through the soil principally by internode elongation; once the tip encounters light, internode elongation ceases and a new crown begins to form. In a thatch-free turf, this occurs near the soil surface. In a thatchy turf, however, it occurs above the soil surface and in the thatch layer.

As in the previous example, roots and lateral shoots emerging from crowns may develop, at least initially, in the organic medium. This intimate association of living and dead plant material would, in all likelihood, contribute to the organic layer's stability. The layer would also come closer to fitting the definition of thatch given earlier: it would be "tightly intermingled" because of the binding effect of living roots and other plant organs residing therein. As older shoots and roots die, the crowns, roots, and lateral shoots may eventually grow mostly in the thatch, rather than in the soil. Thus, substantial thatch can be the primary growth medium for the turfgrass community while the underlying soil is of only secondary importance.

Characteristics of thatch

Thatch typically has a lower bulk density than soil. Since the soil underlying thatch may contain few roots or rhizomes, it tends to be more compacted than thatch-free soils in which these organs grow extensively. This illustrates the favorable effects of root and rhizome growth on soil physical conditions.

The thatch layer may contain some soil. Much of the soil may have been carried by earthworms to the turfgrass surface during the spring and fall. In intensively cultured turfs, soil can also accumulate in the thatch as a result of top-dressing, core cultivation and vertical mowing.

The effects of incorporating soil into thatch include: increased bulk density, increased nutrient and water retention, reduced pesticide leaching, and accelerated decomposition of the organic residues making up the thatch.

Since thatch is typically regarded as an organic medium essentially lacking soil, including soil into the thatch results in a thatch-like derivative (sometimes called mat) with entirely different physical and chemical properties. Physically, thatch is analogous to coarse sand in that it has large pores. This property means that thatch has better aeration than most soils, as well as better resistance to compaction under traffic. However, the large pores readily lose water to the underlying soil and evapotranspiration to the atmosphere.

An additional problem is that upward water movement stops at the thatch-soil interface where capillary pore continuity is disrupted.

Importance of thatch

Because of thatch's poor water-retention capacity, and also because of restricted rooting, thatchy turfs are especially prone to wilting during long droughts. When completely dry, thatch may become hydrophobic and thus repel water. Consequently, thatchy turfs generally need more irrigation than thatch-free turfs. The frequent waterings needed to sustain thatchy turfs during hot, dry weather tend to leach nutrients and pesticides through the thatch; thus, these materials have to be applied more often than would be necessary on a thatch-free turf. This condition is worsened by thatch's low nutrient-retention capacity.

When nutrient-retention capacity is expressed as the cation-exchange capacity (CEC) in meq per 100 grams of soil/thatch, the values for thatch may be relatively high compared to most soils. This is largely due to the low bulk density (BD) of thatch, typically 0.25 grams per cubic centimeter, compared to soil bulk densities that average in excess of 1.0 g/cc.

When CEC is expressed on an undisturbed volume basis (CEC*BD), these values provide a reasonable comparison of the relative nutrient-retention capacities of different media. The CEC*BD of thatch is typically much lower than that of a loamy soil. This, coupled with the large aeration capacity of thatch, accounts for soluble nutrients rapidly leaching through the thatch layer of many turfs. Selecting slowly soluble or slow-release nitrogen formulations reduces the nitrogen leaching potential and thus increases the efficiency with which turfgrass uses this nutrient.

Another problem associated with thatchy turf fertilization occurs because soil-testing laboratories routinely discard the thatch before testing samples (if, in fact, the thatch is received with the soil). If most of the turfgrass root system is confined to the thatch layer, the value of soil-test results in determining fertilizer requirements is questionable. A valid test should include the thatch as part of the sample, and separate analyses should be conducted for the thatch and soil layers.

Pesticides applied to thatchy turf initially contact the thatch, not the soil; thus, the mobility, metabolism and action of pesticides in thatch determine the efficacy, persistence and selectivity of these chemicals. Attempts to characterize pesticide activity based on studies conducted in soil media may lead to inaccurate conclusions when applied to turfgrass systems with thatch.

Field studies conducted at the University of Illinois showed that several pre-emergence herbicides were substantially more injurious to thatchy turf than to thatch-free turf. Corresponding laboratory studies showed that these herbicides were more

A valid soil test should include the thatch as part of the sample, and separate analyses should be conducted for the thatch and soil layers.