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The 2243 is built about four simple design criteria-precision cut, easy operation, simple service and long life.

A fuel-efficient 18-hp Kawasaki engine powers the 2243. A high-torque power source with durability features like liquid cooling, overhead valves, pressurized lubrication and an oil filter.

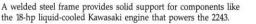
Cutting unit strength and precision are built into every 2243 with features

like reel-to-bedknife adjustment, steerable cutting units and hardened 9-bladed reels.

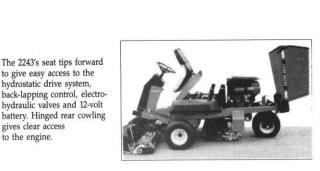
Take time now to read more about the 2243. Then, try one on your own course soon. Because when it comes to triplex greens mowing-this is as good as it gets.

John Deere built cutting units provide strength and precision. Nine-bladed reels and 3 mm bedknife allow you to mow at heights from 3/32- to 3/4-inch. Optional Greens Tender™ conditioner gives you the ability to lightly verticut every time you mow.

Exclusive offset design of the 2243 cuts perimeter tracking in half. Over 5 inches of offset allow your tires to travel over completely different ground by simply changing the direction of your cleanup cut every other day.



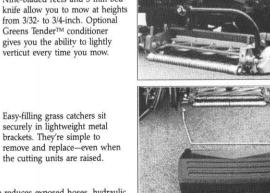
Exclusive hydrostatic transaxle reduces exposed hoses, hydraulic lines and fittings while delivering quick machine response.



Electro-hydraulic foot switches raise and lower the 2243's cutting units in sequence. Simply tap one pedal to automatically lower the units-the other to raise them



gives clear access to the engine.



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4 Specialized Directories Offer Profiles of Companies Involved In Golf Course Developments

Four specialized directories that offer profiles of firms involved in golf course development are now available from the National Golf Foundation.

These new directories, which average 70 pages in length, were developed in response to the thousands of requests the Foundation receives each year from its members and others for referrals to businesses involved in this segment of the industry. They feature detailed profiles of 300 firms offering services and products in four distinct areas of golf course development; golf course architects, clubhouse architects, golf course contractors and builders, and turf product manufacturers and distributors.

The listings provide up-to-date information on each firm, including address, phone and fax numbers, key personnel, representative projects or products, other membership affiliations and business philosophy. All information will be updated on a quarterly basis.

"We handle hundreds of calls each month requesting information on the specialized services offered by our member companies," said South Smith, vice president of membership services. "This is a product we've created to better serve not only our members, but the interested public as well."

In addition to being widely distributed among NGF's 6,000 members, the directories also will be available at trade shows, industry meetings and development seminars.

Additional directories are currently being developed which will profile other segments of the industry.

The current four can be purchased individually or as a set.

For more information, call NGF's Membership Services Department at 800/733-6006.

1991-92 Dues Notices Have Been Mailed * * * If You Haven't Received Yours, Call The MGCSA Office

612/473-0557



THE EXTENSION LINE

Proper Planting and Post-Planting Care Are Keys To Establishing Trees and Shrubs Successfully



By Bob Mugaas, Minnesota Extension Service

PART I PREPARATION AND PLANTING

Successful planting starts with proper site preparation. Digging the hole for a new plant is the first step. The hole should be at least 1-2 feet wider than the size of the root system (except for direct tree spade planted trees). A larger hole will allow better root growth, especially in poor soil. Rough up the sides of the hole as wide or wider at the bottom than at the top.

Planting depth is critical. For heavy soils, trees and shrubs should be planted at, or slightly higher than, the depth that they grew in the nursery. In poorly drained soils, plants should be planted slightly higher, with soil mounded up to cover the roots. Allow for settling, especially if the hole has been dug deep and backfilled. Air pockets should be eliminated by watering during and after backfilling. Poor soils can be amended with organic material or loamy top soil depending on the improvement needed. Peat is not recommended for poorly drained, clayey soils, as it can act as a sump and draw too much water into the planting hole. Never completely backfill with a soil amendment; only create a transition zone to the existing soil where the roots must eventually grow. Too much soil amendment can create moisture gradients and cause roots to be confined to the planting hole. Remove rocks and debris from the hole and never put rocks or gravel in the bottom of the hole to improve drainage unless it is connected to a drain tile.

Proper fertilization provides plants with the elements they require for survival and growth. A balanced or complete fertilizer is usually recommended for tree fertilization. Trees and shrubs should be fertilized at the time of planting with a slow-release, complete fertilizer, preferably one high in phosphorus. Fertilizer should not be placed directly on the roots, but should be mixed with the backfill. It is best to use a slow-release fertilizer or fertilizer briquettes, at the time of planting. These will not burn the roots and will have longer-lasting effects. Follow label directions.

PLANTING THE PLANT

Bare Root and Packaged Stock: Examine the stock and prune away any diseased or damaged roots or branches. Dig the planting hole and backfill with enough soil to hold the plant slightly higher than the depth it was growing in the nursery. Tamp the soil and center trees with the largest branches facing southwest. Straighten the roots and spread them evenly. Cover the roots with soil, avoiding any clods, rocks, etc. Gently raise and lower the plant while adding soil to eliminate air pockets. When the hole is three-quarters full, tamp the soil and fill the hole with water. This should take care of any remaining air pockets. Finish filling the hole with soil, and then water thoroughly.

Balled and Burlapped (B & B): Carefully set the plant in the hole at or slightly higher than it was at the nursery. The root flare and the top of the ball will indicate original planting depth. Take extra care not to loosen or break the soil ball. Fill the hole three-quarters full, tamping to remove air pockets. Cut and remove all twine from around the trunk. Pull burlap away from the trunk and top of ball. Water slowly to saturate the soil ball and to remove air pockets in the backfill. Finish filling the hole with soil. No burlap should remain above the soil surface as it may act as a wick and dry the root ball. Evergreens should not be planted later than October so the roots will have a chance to become established.

Container Grown and Containerized Stock: Carefully remove the container at the planting site. Cutting the container may be necessary. Remove all containers, including biodegradable papier-mache' pots. Newly containerized stock may be only slightly rooted; the container must be removed with great care so as not to disturb the root ball. In contrast, container grown stock may be rootbound. If roots are growing in a spiral around the soil ball, the plant is rootbound. These roots need to be separated or they will eventually girdle the plant. Make vertical cuts on the sides of the ball just deep enough to cut the net of roots (Figure 1). Also make a crisscross cut across the bottom of the ball.

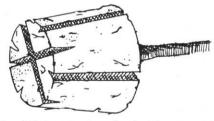


Figure 1. Cutting pattern for rootbound container grown stock. Plant the plant the same as a B & B plant. Don't plant evergreens later than October so the roots will have a chance to become established.

Tree Spade: The use of mechanical tree spades has become a common method of tree planting. Trees should be watered thoroughly before moving to hydrate the plant and to avoid soild sifting out during transport. The sides of the planting holes should be roughed up with a shovel, rake, etc., to break up compaction caused by the spade. Trees should be placed at or slightly higher than the original grade to allow for settling. After planting, work loose soil into the area betwen the hole and the tree plug, and water thoroughly.

*Adapted from Minnesota Extension Service publication (AG-FO-3825) "Planting and Transplanting Trees and Shrubs" by Bert T. Swanson, James B. Calkins, Peter-Jon Rudquist and Steven Schimek.

Seminar, Pesticide Session Draw Well

For four days in March, the Northland Inn in Brooklyn Park had quite a gathering of golf course superintendents.

On March 18-19 the Golf Course Superintendents Association of America conducted an informative two-day program. On March 20, the Minnesota association followed up with its mini-seminar. then played host at a Pesticide Applicator Training Session on March 21.

One hundred eighty-two superintendents attended the MGCSA seminar; 274 were on hand for the pesticide session.



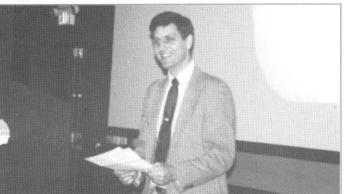
ALWAYS SMILING is Mary Burg, Brighton Woods GC, New Brighton.





ANOKA COUNTY AGRICULTURALIST Harvey Buchite, right, with George Gibbons, Jackson, GC.

left, Grand View Lodge, Nisswa, and Brad Klein, Detroit CC, Detroit Lakes.



CRAIG SALLSTROM, executive director of the Minnesota Plant Foods & Chemicals Association, discusses employee rights.



ADDRESSING the seminar about the future of Waseca Technical College is Irwin (Boots) Fuller, Mankato GC.



AT THE REGISTRATION TABLE are Kevin Clunis, left, Stillwater CC, and Scott Turtinen, the MGCSA's assistant executive director.

MGCSA Mini-Seminar



KEYNOTE SPEAKER Clinton Hodges, right, with Shane Andrews, Hudson CC.



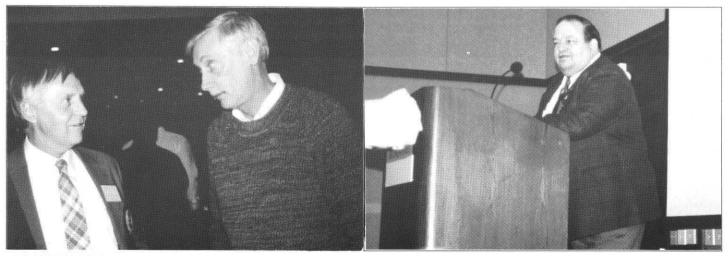
CHATTING about wetland plants, from left, are Shawn Erickson, Supt. Greg Hubbard and Mike Ligdas, all of Manitou Ridge GC, and Robert Warwick.



ASKING a question about pesticide licensing is Steve Hamelau, Alexandria GC.



PAUSING during the seminar are, from left, Tom Herzog, Minneapolis Golf Club; Kerry Glader, St. Cloud CC, and John Harris, Lafayette.



EARLY SPRING was the topic for Bill Johnson, Edina CC, and Larry Mueller, Minnesota Valley CC.

WAYNE DALLY, Minnesota Department of Agriculture.

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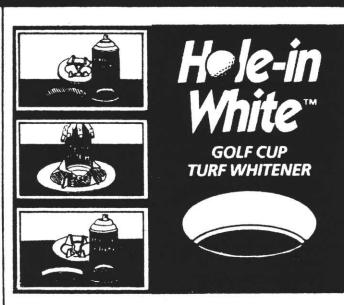


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GCSAA to Host U.S. Open Reception On June 14 in Bloomington

GCSAA members attending this year's U.S. Open are cordially invited to a GCSAA hospitality reception, according to Scott Smith, GCSAA public relations manager.

The reception will be held Friday, June 14, from 7 p.m. to 10 p.m. at the Radission Hotel South in Bloomington, Minn.

"This is an excellent opportunity for our members to visit with fellow superintendents and other industry representatives from across the country who come to the Open," said John Schilling, GCSAA executive director. "Last year's reception in Chicago was a big success. We're looking forward to the same results this year."

VIPS from the USGA and PGA, plus other golf and turf industry officials also will be attending the reception.

The 1991 U.S. Open will be played June 13-16 at Hazeltine National GC in Chaska, Minn., where Chris Hague, CGCS, is superintendent. Hague and his staff will be honored at the reception.

In addition to GCSAA's reception, the Minnesota GCSAA chapter will host a hospitality tent on the Hazeltine course grounds during the tournament. All GCSAA members attending the Open are invited to stop by to enjoy the shade and some cool refreshments.

Smith reminds GCSAA members who hold gold membership cards that the USGA will provide them with complimentary daily admission to the U.S. Open. Spouses who accompany those members will receive the same admission privileges. To receive complimentary daily admission, superintendents should present their gold membership cards at the "Will Call" window *each* day that they wish to attend. Smith recommends that members who plan to attend the Open should call ahead to the USGA or Hazeltine to arrange for their complimentary tickets.

Wetlands Conviction Stands

Does the punishment fit the crime? The U.S. Supreme Court refused to review a case in which a developer was sentenced to a three-year prison term and fined \$200,000 for illegally dumping landfill in a wetlands area.

The defendant's law firm claimed that the punishment was not proportionate to his act. However, the sentence was clearly meant to send a message, especially to those who recklessly disregard the law.

To help control the loss of wetlands, superintendents should recognize the presence of any wetlands on the course, obtain the necessary permits and carefully maintain them. For more information on wetlands, contact the U.S. Fish and Wildlife Service, Department of Interior, 1849 C Street N.W., Washington, DC 20240.



How to Handle an Employee's Impaired Capability to Perform

One of the toughest people-related safety problems the firstline supervisor is faced with is that of the employee with a mental or physical deficiency. Some of these deficiencies could be the result of partially incapacitating injuries, illness, extreme fatigue, drug and alcohol abuse and emotional disturbances. Such conditions can affect strength, stamina, dexterity, coordination, concentration, judgement, memory, mental alertness, reasoning and so on. Substantial evidence has indicated that an alarmingly high percentage of accidents are caused primarily by impaired physical or mental conditions.

The first step in taking care of this problem is to detect and identify the problem. The only way this can be done is to be conscious of each individual worker.

Generally, the first-line supervisor gets to know his people well enough to detect any abnormality in their behavior. There are some specific symptoms that could alert the supervisor to a problem. The supervisor should be aware of unreported injuries that may have been suffered on or off the job. Telltale signs could be limping and other movements that suggest an injury is being favored, homemade bandages and complaints about injuries sustained on or off the job.

An employee who is inattentive or physically spent, or one who shows signs of sleepiness, irritability or poorly coordinated movements could be displaying signs of fatigue or a hangover. Being hungover could be almost as bad, in some jobs, as being intoxicated.

Dizzy spells, vomiting, unsteadiness and an uncharacteristically pale or flushed complexion could well be signs of an illness that may render an employee unable to work safely.

Excitable talking and gesticulation, startled reactions to sound, trembling and talking to one's self could be signs of emotional agitation.

Surely, however, the symptoms of any type of physical or mental deficiency could not be exactly described in an article, so the best indicator is behavior abnormal to the employee's general personality.

Just as symptoms cannot be described in a hard and fast rule, the details of how to handle any given case cannot be described either. Such details depend upon the nature of the disability or impairment, your knowledge of the person, the nature of the work situation and established organizational practices.

However, some general steps for dealing with such cases can be recommended. First, check with the employee to verify the initial impression. The general tone of such a check should be one of sympathetic inquiry. Second, unless your check with the employee completely eliminates your initial impression of a problem, discuss the case with your immediate supervisor to decide how to handle it.

When solving these problems, remember these general do's and don'ts:

In the case of suspected intoxication, do not take a chance on an alcoholic condition. Handle the employee with tact. Don't accuse the employee of being drunk. Your objective

should be to get the employee out of the work environment with the least amount of disturbance.

In the case of emotional disturbance, do not try to play the role of psychiatrist, psychologist or family counselor. Avoid advising the employee on how to handle the problem. Do listen if the employee wants to talk about the problem. Many emotionally disturbed persons calm down once they have talked about their problems to a willing listener. Limit your advice to persuading such persons to consult their physician. The latter knows where to take it from there.

In the case of acute illness, don't take a chance on the following symptoms: abdominal and chest pains, unaccountable vomiting, violent trembling, disabling weakness, acute head pains, extreme nervous agitation, visual disturbances, unconscious states, breathing difficulty, loss of muscular control, repetitive attacks of dizziness or signs of internal bleeding. Such symptoms call for professional medical attention.

By handling these sorts of cases effectively and tactfully, you can, in addition to preventing potential accidents, develop a sincere feeling of respect and willingness to cooperate among your employees.

-Bill England Divots, Miami Valley Golf Course Supts. Assn.

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Applications Now Being Taken for 1991 Harold Stodola Memorial Scholarships

Applications are now being taken for the 1991 MGCSA Harold Stodola Memorial Scholarships sponsored by the Minnesota Golf Course Superintendents' Association.

Originated in 1987 in honor of the late Harold Stodola, a prominent golf course superintendent, the MGCSA scholarship is an annual grant awarded to candidates who are interested in golf course management as a career, have high scholastic capabilities and have superior performance as an employee of a golf course.

Students meeting the following criteria are urged to apply:

1) The candidate must be a resident of Minnesota or employed by a Minnesota Golf Course Superintendents' Association member superintendent;

2) The candidate must have completed the first year of a twoyear turfgrass technical program or completed the second year of a four-year or baccalaureate program with major emphasis in turf management.

3) The candidate must fill out the application form (available from the MGCSA office) completely.

Application forms must be returned to the MGCSA office by July 1. Similarly, the student's advisor and golf course superintendent must have their reports postmarked no later than July 1. The 1991 MGCSA Scholarship Committee members are:

Joe Moris Tartan Park Golf Course Phone - 612/733-3472

Boots Fuller Mankato Golf Club Phone - 507/388-2546

Dennis Hendrickson Wedgewood Valley Golf Club Phone - 612/459-0288 Steve Garske Par Aide Products Co. Phone - 612/779-9851

Jeff Churchill North Star Turf Phone - 612/484-8411

Mike Leitner Leitner Co. Phone - 612/291-2655

Local Regulations Under Court Scrutiny

Another court has ruled local regulation of pesticide is preempted by federal law.

The U.S. Court of Appeals for the Sixth Circuit stopped the city of Milford, Mich., from enforcing a local rule that required notice prior to spraying and the registration of persons applying pesticides for hire. The court concluded that the ordinance was an attempt by local government to regulate pesticides and their use.

