

Planting Bulbs for Early Spring Color

By Dr. Helen C. Harrison

Bulbs bring the first hint of color to Wisconsin landscapes in early spring. Actually the term "bulb" is generic for underground buds with food storage capacities including true bulbs, corms, tubers, and rhizomes. For our purposes they will all be referred to as bulbs.

If you want to enjoy these perennials next spring, you must plan and plant now. Selecting a site or sites is one of the most important tasks facing you. Here the most important thing to remember is that bulbs don't like wet feet. A well-drained soil is a must; the ideal soil does not show any excess moisture five minutes after drenching.

Next, you need to select what varieties to plant. Here you have several factors to consider — hardiness, time of bloom, height, and color. Hardy bulbs are suggested for Wisconsin although we can grow tender ones if they are stored inside each winter. Common choices for hardy bulbs include the early flowering ones such as snowdrops, eranthis, miniature daffodils, crocus, Kaufmanniana and species tulips, and jonquils; the mid spring flowering ones like trumpet daffodils, muscari (grape-hyacinth), hyacinths, and Darwin hybrid tulips; and the late spring ones including wood hyacinths, lily-flowered tulips, and Dutch iris.

Bloom time can begin in Wisconsin as early as March and continue through May. However, many times this does not occur although you may have carefully selected for continuous bloom. Why? What happens when all your bulbs flower at the same time or within a couple of weeks of each other? Wisconsin springs are notorious for being "short-lived" or virtually non-existent — some years we literally go from winter to summer. When this occurs, most of your spring-flowering bulbs bloom all at once. So, the moral of the story is to be aware of making overly fine time distinctions when selecting your bulb varieties.

Height of the above mentioned

bulbs can range from 4 inches to 3 feet. As a rule, the bigger the bulb, the taller the plant and the larger the bloom.

Color selection is fairly expansive. Numerous colors exist in many different shades depending on species selection. However, tulip is the most versatile in this respect. Depend on hyacinths and muscari for blue and narcissus for yellow.

The next step is to purchase the bulbs. Select bulbs that are firm to the touch and are not scarred or deeply bruised. Avoid bulbs that have an unpleasant odor or blue mold. However, do not be concerned if the papery skin is peeled off or if the white flesh has a slight brownish cast.

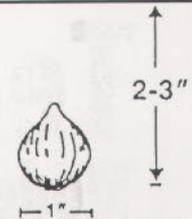
The price you pay for your bulbs depends primarily on bulb type and size. For example, usually hyacinth bulbs are more expensive than tulips and daffodils are more expensive than crocus. Of course, varieties within each genus also determine price. Bulb size also deserves some explanation. Generally the larger the bulb, the more expensive and desirable it is. However, for golf courses and other mass outdoor plantings, you do not need the absolute largest bulb available — these produce large flowers which are usually too fragile to withstand strong winds or heavy rains. The following table taken from **How to Grow a Miracle** by Gustave Springer gives you some idea of the number of bulbs to buy based on bed and bulb size.

Bulbs	# Bulbs Needed/	
	6 Sq. Ft. Bed	Sq. Ft.
Tulip 12 cm*	30	5
11 cm	36	6
Hyacinth 16 cm	24	4
15 cm	30	5
Crocus 8 cm	54	9
Muscari 9 cm	54	9
Narcissus	18	3
Dutch Iris	36	6

*2.5 cm. = 1 inch, bulb diameter

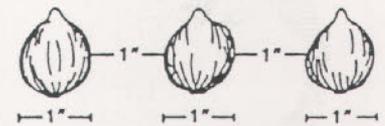
Spring flowering bulbs can be planted in Wisconsin from mid-September through early November (in the southern part of the state). Plant as early as possible to allow the bulbs more time to develop a good root system before winter arrives; don't plant after heavy frosts have occurred. A healthy root system means a larger, healthier bulb and flower show next spring.

Prepare the top 8 to 10 inches of soil at your planting site. Mix the topsoil with an organic material such as peat moss, aged manure, or compost to condition the soil. Add a fertilizer high in phosphorus such as bone meal to promote root and bulb development. About ¼ lb. or ½ cup is sufficient for a small area of about 12 or 13 sq. feet. When spring arrives and the bulbs germinate, another dose of fertilizer such as 10-10-10 should be added.



Bulb planting depth

Bulb size determines both bulb spacing and planting depth. A general rule of thumb is to plant bulbs at a depth two to three times the diameter of the bulb. For example, if a bulb is 1" in diameter, it should be planted 2" to 3" deep.



Bulb spacing

Space the bulbs at least one bulb diameter apart. For example, 1" diameter bulbs should be spaced a minimum of 1" apart. If you plant the bulbs too close together, they'll crowd each other out. However, if you plant them too far apart, the flower display will be sparse and ineffective.

After the ground freezes, apply a 2" to 4" layer of mulch to help prevent heaving injury caused by alternate freezing and thawing throughout the winter months. Straw, marsh hay, or evergreen branches are all good choices for a winter mulch. Remove the mulch as soon as green leaves come through in the spring.

Bulbs can provide a welcome splash of color to your golf course in early spring. Be sure to select types that will be in bloom when your course is open (some of the early ones may bloom too early for your needs) and plant in mass for the most dramatic effect. This planting should preferably be a minimum of 15 to 20 bulbs, all the same color.

LAKE ARROWHEAD HOLDS ITS FIRST WGCSA MEETING

Jeff Parks, Golf Course Superintendent, and Dave Helke, Assistant Superintendent, had 90 players respond for golf and well over 100 for dinner at the WGCSA meeting on August 12th. Heavy morning rains only delayed the start of the golf event a half hour and many of Jeff's colleagues were truly amazed at how well the golf course drained. Those members from very eastern parts of Wisconsin who work with heavy pink and red clay soil were particularly impressed (and envious!) at the capacity of the sand and sandy loam soil of Lake Arrowhead to move water away quickly. Jeff reports that the maximum amount of time the course has ever been closed is four hours. The turbulent weather sent everyone to the lower level of the clubhouse briefly after dinner until a tornado warning passed.

Construction of the golf course started in 1980 and Parks arrived at a point where only land clearing and a small amount of rough grading had been done. The front 9 was opened for play in May of 1982 and the back 9 was opened in April of this year. The course, which was designed by Killian and Nugent, has a mixture of Penncross and Seaside bentgrass on tees and fairways. The greens were seeded to Penneagle creeping bentgrass.

Mr. Warren Bidwell was the guest speaker for the evening, presenting a talk on "Turf Around The World." Bidwell, who currently resides in the Chicago area and is affiliated with the Tee-2-Green Corporation (Penncross), had a very successful career as a Golf Course Superintendent. He served the Olympia Fields C.C. from 1959 to 1965 and again from 1978 to 1983. During the years of 1972 to 1978 he managed the golf course at the Congressional C.C. in Washington, D.C. His talk was accompanied by an outstanding set of slides taken during his extensive travel around the world and he gave WGCSA members a rare treat when he shared his experiences.

Scott McIntyre and Bob Manley, representing Century Raid-Aid, made a generous gift of \$300 to the WGCSA raffle program. Winners of the raffle were Carl Dowse, Monroe Miller and Ray Christopherson.

The winners of the golf event were as follows:

Place	Winner(s)	Score
1st	Dick Evenson	67
2nd	Gary Monfre	68
3rd (tie)	Wayne Otto	69
	Randy Smith	69
5th (tie)	Tom Kenfield	70
	Dale Monloch	70
7th (tie)	Steve Blendell	71
	John Gallus	71
	Ed Devinger	71
	Bill Rodgers	71
11th	Dan Milles	72
12th (tie)	Roger Bell	73
	Joe Kessenich	73
14th	Gary Huenerberg	75
	Jim Belfield	75
16th (tie)	Joe Kuta	76
	Dale Marach	76
	Pat Norton	76



Lake Arrowhead Golf Course Superintendent Jeff Parks, PGA pro Greg Johnson and WGCSA arrangements committee member Bruce Schweiger.



The Lake Arrowhead property provides a beautiful setting for one of Wisconsin's finest golf courses.

Top Dressing	8000
Top Dressing with soil	9000
Bunker Sand	3050

Tested by the USGA Agronomy Laboratory

*Bunker Particle Shape
Proper Ph
Infiltration Rate*

*Sieve Analysis
Permiability
Compactibility*



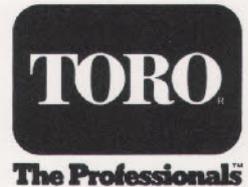
Call Our Sandologists
Judy Faulks Connie Halverson

Waupaca Industrial Sand Co.

Rt. 3, Box 20-B
Waupaca, WI 54981

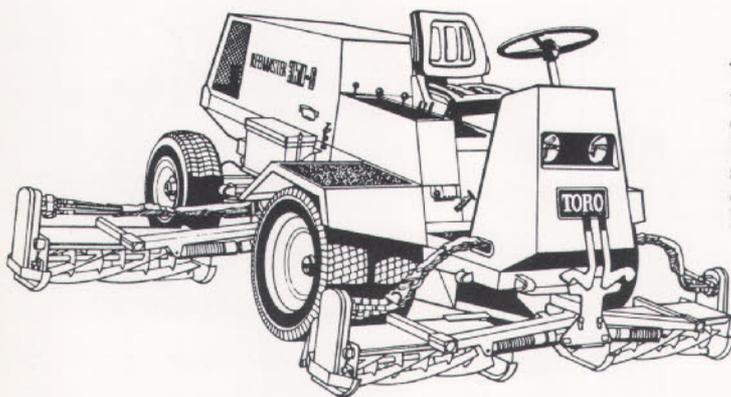
(715) 258-8566

Reinders

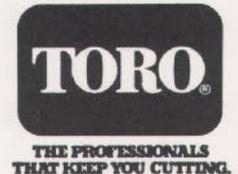


TURF EQUIPMENT
IRRIGATION SUPPLIES

Keep on Cutting with the Reelmaster® 350-D.



You need a stable machine when you're tackling tough terrain. On bumpy ground. On steep hillsides. Around obstacles. Through dense, wet grass. You need the 5 or 7 bladed Reelmaster® 350-D. Its mid-mounted engine and wide stance create a low center of gravity. And its even weight distribution and six oversized 4-ply tires keep you cutting even on hillsides.



THE PROBLEM SOLVERS



- FULL LINE STOCKING DISTRIBUTOR
- REPAIR & SERVICE CONSULTATION
- DESIGN & SPECIFICATION
- PUMPS & CONTROLS
- PLASTIC PIPE



Reinders TURF EQUIPMENT IRRIGATION SUPPLY

13400 WATERTOWN PLANK RD., ELM GROVE, WIS 53122

PHONES: LOCAL 414 786-3301 WIS 1 800 782-3300



The famous sixteenth hole at Oakland Hills Country Club, Birmingham, Michigan. Home of the 1985 U.S. Open.

Grounds for Ransomes.

Because it grows on you.



Hanley

(608) 837-5111

RANSOMES

The grass machine.



From the Director's Desk

1985 — THE YEAR FOR THE GOLFER

By James M. Latham
Director, Great Lakes Region,
USGA Green Section

From mid-April to this writing — golfers in the Great Lakes Region have no cause to complain about the number of playing days this year. Club members' cost per round of golf could be at its lowest in years. Revenue on daily fee courses, on the other hand should be at its highest in years. Let's also include greatly increased revenue at all courses from golf car rentals, dining room and bar. In fact, everyone associated with golf around here should mark the 1985 season (so far) as a Vintage Year.

This might also be remembered as a great year to evaluate the effectiveness of irrigation systems. It is rather easy to spot the scallops along the edges of fairways and perhaps the doughnuts from inadequate or uneven water distribution. This season has also provided a great opportunity to locate areas of overapplication of water due to either misscheduling, poor system design or distribution pattern.

The season has also pointed out some strange seepage locations not detectable in 'normal years.' Some have been weak springs on hilltops. In other cases, areas which should have been drained a long time ago were easily located so that drainage installation can be made in the off season. Low water levels in streams and ponds have caused a few headaches from muddying up the equipment.

Perhaps the most frustrating experience of the irrigation year is a design which took into account the direction of the prevailing wind in the pipe layout. But the wind didn't blow during the irrigation cycles. **Great** roughs! It is also difficult for most of us to understand the elation of a superintendent to find an extra **one-fourth inch** of water in the irrigation ponds after a rain. (No well).

This has been a great year to maintain "a little" moisture stress on *Poa annua*, in the hope that bentgrass might compete.

Perhaps the most nagging prob-

lem in the Region has been localized dry spots. These things started with the warm winds of April and remain bothersome in some areas. Some of the backbenchers lay the total responsibility to sand topdressing and the waxy coating caused by "something." If that be true, how come the old soil below the sand still won't take water after aeration, wetting agents and flooding? I'm afraid the problem goes much deeper. Certainly the dryness does. You might also take a look at the shape of the dry spots in the early morning dew or at sundown. The C shapes indicate the presence of microorganisms not unlike fairy ring fungi. Could we have done something to screw up the population balance of soil organisms? How? Inadequate or imbalanced fertility? Unknown activity by organic fungicides? Whatever the cause, the nature of the dry spots remind us **again** that the turf surfaces we see are only the result of soil processes and a quick fix out of a bottle doesn't really cope with an underlying problem in the root zone.

The most talked about non-turf problem this year is the quality and care of sand bunkers. Earnest and vigorous comments and complaints are common throughout the region. The sand is either too fluffy, too heavy, too coarse, too fine, too something. It seems that the golf course superintendent will take all the gaff until someone or some committee commits themselves to a stated style of playability, deep and loose or shallow and hard.

Under most situations, the sand itself is of secondary importance. The overall maintenance operation determines the play of the bunker. This involves the depth of penetration made by the equipment, wet or dry raking, and other operational factors. Several of these are determined by the architectural features of the bunker and their location on the course. The basic problem is the lack of agreement by the golfers on just how they want the bunkers to play and, as usual, the superintendent is caught in the middle. But isn't it nice that golfers have sand quality and not turf quality to complain about?

Toronto bent is still a problem to some

folks and comes in all sizes. And yet many golf courses still have magnificent Toronto greens for their play and management style. The decline problem is well known, but just try to spend big bucks to replace a fine putting surface! A bad surface is something else and contingency plans are prepared for when, not if, needed. The funding is another thing.

The other exotic diseases with the strange sounding names have been around, but not in epidemic proportions. Preventive fungicide programs have apparently worked as well as the curative programs. Panic purchases of fungicides have been rare, not necessarily as a result of good planning, just low disease pressure so far.

Bug chasers have been rather busy this year — from the grasshoppers in Montana to the cutworms in this area. After all, these things aren't dumb. Why lay eggs in a dried up corn patch when a lush, tasty, well irrigated golf course is in the neighborhood?

The old-timers have a phrase for 1985: A Great Clover Year. Maybe part of this is due to the inability or justifiable reluctance to spray herbicides last spring. Some credit should be given to clover's deep root system, giving it the ability to grow well under the moisture stress early in the season.

And finally, a word to the wise. If your lightweight mowing of fairways is producing great spread of bentgrass into *Poa annua* colonies, watch out. The floating mowers are riding up and over the growth, helping to produce some of the fluffiest turf you ever saw. Now is the time to begin a strong thatch **prevention** program. With the acreage involved this is surely a good example of an ounce of prevention being worth a pound of cure.

ROY G. ZEHREN

PH: (414) 242-5740

NATURAL ATHLETIC TURF INC.

Specializing in

GOLF COURSE • RENOVATION • NEW CONST.

TEES • GREENS • FAIRWAY TURFING • DRAINAGE
SAND BUNKERS • RETAINING WALLS • NURSERY

ALSO

"PURR-WICK" & SAND SYSTEMS
ASTROTURF CH-4 "DRAG MATS"

BY CONTRACT OR "T & M" BASIS

11040 N. Buntrock Ave. Mequon, WI 53092

MILORGANITE

A WISCONSIN ORIGINAL

Slowly released natural organic source of
nitrogen—phosphorus—iron
Granular—Easily Spread—Non-burning
Just right for Dormant Fertilization
Trouble-free Spreader Calibration
Ready Availability—Low Cost
Bulk or Bag Delivery

Ask us about sprayable fine grade for greens and tees.

Wisconsin Turf Equipment Corp.

P.O. Box 708
1917 West Court Street
Janesville, WI 53545
(608) 752-8766

Milwaukee Metropolitan

Sewerage District
735 North Water Street
Milwaukee, WI 53202
(414) 278-2034

Horst Distributing, Inc.

444 North Madison Street
Chilton, WI 53014
(414) 849-2341

Northrup King Appoints New Director of Turf Research

From Curt Larson's desk comes news that Northrup King Co. of Minneapolis has appointed Dr. David Casnoff as Director of Turf Research. He will oversee the company's nationwide program of new variety development and testing from the company's research station in Mount Joy, Pennsylvania. Casnoff replaces Howard Kaerwer, who is retiring after guiding the company turf research program since 1953. Kaerwer, a speaker at the 1982 WGCSA Wisconsin Golf Turf Symposium, has been a leading figure in the turfgrass industry through the development of new varieties and turf management practices.

Dr. Casnoff brings a broad base of expertise to Northrup King. At Penn State he earned a B.S. degree in Turf Management and a M.S. degree in Soil Physics. He earned a Ph.D. in Plant Breeding from the University of Nebraska and did additional post-graduate work at Texas A&M under the direction of Dr. James Beard.

Staff Additions To Dick Nugent Associates

WGCSA member Dick Nugent, Golf Course Architect from Long Grove, Illinois, has announced several additions to his professional staff. Robert Thompson earned both his B.S. and M.S. degrees from the University of Wisconsin — Madison and has nearly 20 years of experience in the profession. Stanford Eby is an Iowa State graduate in L.A. and gives Nugent Associates good experience in design, construction, administration and field supervision. James Engh, a May 1985 graduate of Colorado State University, has good first-hand experience on golf courses and is an avid golfer.

NorAm Chemical Company Establishes New Responsibilities

Since the purchase of TUCO's plant health division of Upjohn, both John Turner and Don Moske have been busy learning new markets and responsibilities. NorAm will be placing emphasis in three market areas. They are: Turf and Ornaments, consisting of Actidione, Bonol, Proxol, Turcom, Progress and Nitroform fertilizer. Pest control operations with Ficom, Ficom Plus, and Deltic. They will manufacture Nitroform Blue Chip

for formulators to custom blend. John will continue to serve the "Badger" state as well as Illinois, Indiana, and St. Louis. Don has accepted District Manager responsibilities and will provide assistance to five NorAm salesmen in the Midwest. Bob Steib, who assisted distributors, dealers and lawn care operations in Wisconsin, will now provide his expertise in the states of Minnesota, Iowa, Nebraska, Kansas and Colorado. NorAm will continue to market and distribute their specialty products in accordance with sales and marketing policies.

John has announced a November wedding with his fiancée, Pam, a native "Badger" from Chippewa Falls, Wisconsin.

Cornish Instructs Harvard University Grad School Seminar

Geoffrey Cornish, Golf Course Architect from Amherst, Mass. and a speaker at the 1984 WGCSA Wisconsin Golf Turf Symposium, recently conducted a continuing educational seminar at the Harvard University Graduate School. The two-day seminar, **Golf Course Design**, was modeled after the seminar Cornish gave at the GCSAA Convention in Washington this past February. That seminar was attended by some of WGCSA's members.

Cornish stated that a key point he was able to get across was that the great works of developers, planners and constructors are in vain without the dedicated and enduring efforts of the Golf Course Superintendents. The same course will be presented again at the GCSAA Mid-Year Turfgrass Conference and Show in Indianapolis on September 19th and 20th.

Miller Named To Forestry/Rights-Of-Way/ Turf Coalition Board

Monroe S. Miller, WGCSA President, has accepted an invitation to serve on the Board of Directors of the Wisconsin Forest/Rights-of-Way/Turf Coalition. The group is a division of the Wisconsin Agribusiness Council, Inc., and Russel Weisensel is the Executive Director. The Coalition was formed to deal with the campaigns against the safe use of pesticides. It is open to anyone with a professional interest in vegetation management and is funded from user groups. Tom Harrison, Wisconsin Turfgrass Association president, is also a member of the Coalition Board.



One, Cushman mounted, PTO driven, Cyclone Spreader. 15 inches X 24 inches X 32 inches. Galvanized hopper. Excellent condition. Asking \$175.00.

Contact: Mike Semler
South Hills Club
1-414-922-8455

- 1) One, 68" National triplex mower, good for parts. Asking \$50. Assortment of ballwashers, Standard and ParAide. Asking \$20 each. Irrigation pumps and motors. Asking \$200.
- 2) Fairbanks Morse & GE. 500 gpm at 103 psi, 440 volts, 50 h.p. 3 phase with 4" outlets and 5" inlet.
- 3) Worthington pump and motor. 20 h.p., 1760 rpm. 220 or 440 volts, 3 phase. 3" inlet and 2" outlet.

Contact:
Dale Marach
Clintonville Riverside
Golf Club
Work: 1-715-823-6645
Home: 1-715-823-6848

