

One of the more intriguing experiments in this study is the examination of root development among the selected cultivars. These cultivars were grown in 6' x 4" diameter PVC tubes in a greenhouse. Calcined clay was used as a rooting media to facilitate the separation of roots from the media. The plants have been growing in the greenhouse for 3 months and are now being harvested for root measurements. An objective of this study is to determine whether dwarf-type tall fescues have root systems to larger, standard type tall fescue cultivars. If a deep, extensive rooting mass is developed in dwarf-type cultivars similar to their standard counter parts, their use in droughty or low moisture areas will expand.

The results from experiments in this study will help to provide a greater understanding of the performance of tall fescue in Illinois. Several more years will be required to determine a true picture of their performance.

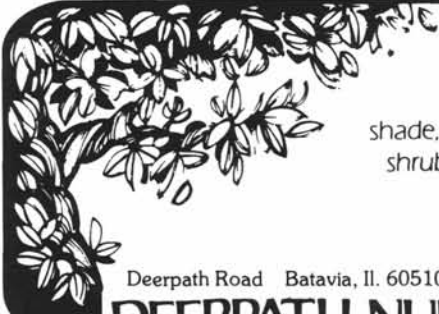
Meanwhile, much information exists on the relative performance of older cultivars of tall fescue that have shown good adaptation to many areas of Illinois. Table 5 is one small piece of information from the "Cool-Season Turfgrass Cultivar Recommendations" Horticulture facts sheet TG 12-91 that is available at county Cooperative Extension Offices. It indicates suggested cultivars of several species for general performance, shade tolerance, and resistance to common diseases. This information will help you begin to use currently available tall fescue cultivars for medium to low maintenance turf areas. As more information is gathered you can replace the initial cultivars with newer material through overseeding programs. Using tall fescue allows you to rapidly change genetic material, with

minimal disruption, in the turf through renovation programs using Roundup and slit seeding. Don't hesitate to experiment with tall fescue for areas that might have presented problems for other cool season species. You will be surprised at the relative quality a tall fescue turf can provide.

Table 5. Recommended Tall Fescue Varieties for Illinois*

Adventure	Chieftan	Legend	Rebel
Apache	Falcon	Marathon	Rebel II
Arid	Finelawn	Mesa	Sundance
Aztec	Galway	Monarch	Thoroughbred
Bonanza	Hounddog	Mustang	Trailblazer
Brookston	Jaguar	Olympic	Trident
Carefree	Jaguar II	Pacer	Wrangler

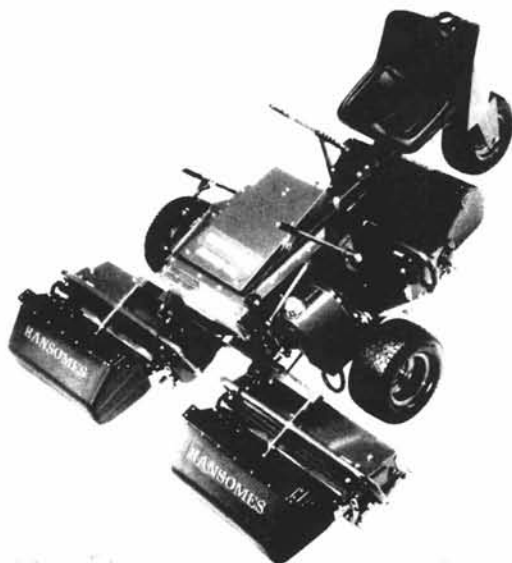
*From "Cool-Season Turfgrass Cultivar Recommendations" Horticulture facts TG 12-91.



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Dollarspot Problems at Ridgemoor C.C.

by Peter J. Hahn, Supt.

I have always been interested in turfgrass diseases. Since my days at Rolling Green with Dennis Straus, turf diseases have been very interesting and devastating. Hopefully, I don't step on too many toes here, but I believe in calling a spade a spade.

When Bayleton became available in 1981 it worked extremely well. We used Bayleton in tank mixes with contact fungicides until 1987 when Rubigan became available. We began using Banner in 1988. From 1981 to 1987 no problems with dollarspot on our fairways. In 1988 our troubles began when we used Rubigan and Banner. We used label rates and the length of control was very minimal. Instead of the 21 to 30 day control as was the case from 1987 to 1987, we are now forced to spray 10 to 14 days getting little or no control of dollarspot.

I can give examples of chemicals that don't work. On August 30th, 1991 we sprayed Rubigan at 1.22 oz./1,000 and Thiram at 3 oz./1,000 and Iron at .5 oz./1,000. The next few days were like we fertilized for dollarspot. Dollarspot was very active, mycelium all over our fairways. On July 1st, 1988 we sprayed Banner at 1.57 oz./1,000 and Thiram at 3.9 oz./1,000 and .15 lbs.N/1,000 and .5 oz.Fe/1,000 and 8 oz. sticker. As noted by my assistant, Henry Michna, the application was "ineffective ... had dollarspot within one week."

Ciba-Geigy has had test plots here at Ridgemoor for 2 years now. The plots showed that dollarspot cannot be controlled with

certain chemicals. I say chemicals because the Sterol Inhibitors are not true fungicides, rather they are fungistatic. The fungistatics alter the infection process of the fungus.

The following is part of a report done by Charles Pearson, Ph.D. from CIBY-GEIGY on the testing he did here at the club.

"Preliminary data on insolate sensitivity have been collected for this site. Fungal strains were evaluated on agar amended with SI fungicides at several concentrations. This technique is a "quick and dirty" way to evaluate isolate sensitivity. As you know, caution must be taken when using this technique with SI fungicides because this class of chemistry is usually fungistatic rather than fungitoxic. SI fungicides may alter the infection process-something we would not detect using the agar assay. A more reliable method requires *in vivo* analysis of putatively tolerant *Sclerotinia*. CIBA-GEIGY is currently developing the methodology for such as assay for dollarspot. Unfortunately, data using this technique are not yet available.

The enclosed data were generated from a single experiment. The trial was initiated as a preventative program. Experimental units were 1 meter sq. and each treatment was replicated 3 times in a randomized complete block design. The spray interval was 17 days.

Figure 1 shows the results of adding nitrogen to Banner. The addition of 0.25N/1,000 ft. as urea or Coron (a slow release nitrogen formulation) delayed disease development more than 1 oz./1,000 ft. of Banner alone. (cont'd. page 20)

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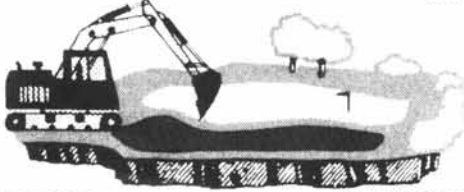
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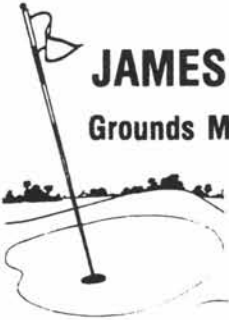
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January 13, 1992 — Arrowhead Golf Club

January 13-17 — OSU Short Course

January 16-18 — Mid-Am Trade Show/Hyatt Regency Chicago

January 20-22 — MRTF Conference & Show, Indianapolis Convention Center

January 20-22 — 62nd Annual Michigan Turfgrass Conference. Contact Mike Saffel, 517/353-9022.

February 10-17 — GCSAA Conference in New Orleans

March 19 — CDGA Green Seminar at Drury Lane, Oak Brook

April — Village Links of Glen Ellyn

May 4 — Combined Golf Day at Rock Island Arsenal G.C. and Short Hills C.C. in the Quad City area.

June — Flossmoor C.C.

July 13 — Briar Ridge Golf Club

August — Mt. Prospect Golf Club

September 21 — Big Foot Golf Club

October — Settlers Hill Golf Club

Jim Evans at Turnberry C.C. is looking for an assistant. Call Jim at (815) 459-8570.

Randy Wahler at Knollwood C.C. is looking for an assistant. Call Randy at (708) 234-4160.

Andy Dauksas at Glen Oak C.C. is also looking for an assistant. Call Andy at (708) 469-6220.

New faces and new places: John Sutton, assistant to Jim Evans, takes over at Biltmore C.C., Kerry Blatteau moves from Woodmar to Oak Brook Hills and Larry Flament, assistant to Randy Wahler, replaces Al Bevers at Hilldale G.C.

Congratulations to Sheryl and Kevin DeRoo on the birth of their third child, Kyle David; weighed in at 8 pounds, 9 ounces on December 1, 1991.

Dale Morrison is looking for an assistant's position in the Chicagoland area. He has 15 years experience as an assistant and superintendent. Write to: 355 W. South Street, Bradley, IL 60415.

For Sale: Ryan Sod Cutter; Toro Sand Pro; Dedoes style pull behind aerifier; Peerles Reel Grinder — Model 600; 9-4.00 x 20, semi-pneumatic Jac Blitzer Tires; 160 assorted bunker rakes; Moody Rainmaster Irrigation Control Station; FMC 100 gallon Bean Spray Tank. Tis the season to make an offer. Call Brian or Martin at Bryn Mawr C.C., (708) 677-4112.

David E. Kasprzak is looking for an assistant's position. He has an extensive resume. Call him at 716/773-8923.

For Sale: 1976 Jac Greensking Triplex: 1986 68" National Triplex; 1986 Dedoes Aerifier, hydraulic trailer type; 1974 Toro Sand Pro; 1984 & 1985 Jac 22" Putting Green Mower; 1988 Locke 75" Triplex Mower. Call John Gurke at Aurora C.C., (708) 892-3600.



Carl Hopphan receiving the Distinguished Service Award from John Turner at the recent North Central Turfgrass Exposition held at Pheasant Run Resort on December 3, 1991.

Anyone not already registered or receiving the Michigan State Turfgrass Alumni newsletter, please contact Tom Mason. His phone numbers are: Office (313) 644-6320 or Home (313) 362-3201.

The Bull Sheet is still looking for someone to volunteer to take pictures at our meetings and other events. Give Fred Opperman or Ray Schmitz a call if interested or to see what is involved.

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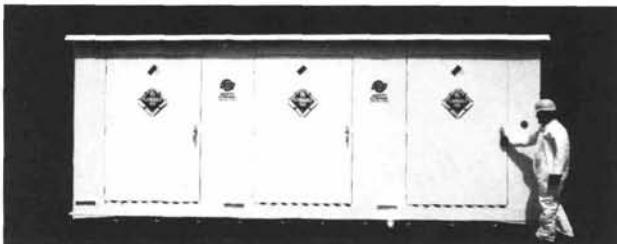
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Using Prairie Plants in Golf Course Planting Beds

by Tom Voigt

Department of Horticulture, Univ. of Illinois

At many Chicago-area golf courses, increasing emphasis is being placed on the aesthetics of course and clubhouse grounds. Many different ornamental plants, including trees, shrubs, and flowering herbaceous plants, are employed to dress-up the grounds. Superintendents have found flowering perennials to be especially useful because of their wide ranges of color, size, and shape, and also because they can be long-lived and tolerant of local conditions. A great many of the commonly used flowering perennials originate in other parts of the world, and while some of these introduced plants perform adequately, others require excessive management to maintain their health and appearance.

An alternative to the use of introduced perennials is to employ native prairie plants. This is not to recommend the recreation of a native prairie, but to encourage the use of prairie plants in traditional, horticultural island beds and borders. Native prairie plants are often overlooked and under-used, whether mixed with introduced types or used alone. Prairie natives come in a wide variety of shapes, sizes, flowering periods, and colors, and by selecting them appropriately, an interesting, attractive, and low-maintenance planting can be achieved.

Benefits of Using Prairie Plants

There are a number of obvious benefits that native plants can provide. For instance, native plants often have fewer insect or disease problems because the plants and pests have evolved together. This coevolution frequently provides plants with resistance or tolerance to attack. Another benefit is that most native plants easily tolerate the broad range of environments often seen in the Midwest. Introduced plants, unaccustomed to local weather vagaries, may not withstand the year in and year out broad temperature fluctuations that are often encountered. Also, Midwestern soils can range from heavy, fine-textured clays to coarse, well-drained sands. Regardless of the specific local environment, there are normally natives that are tolerant. Wildlife attraction is another benefit of these plants; many native plants encourage visits by songbirds and butterflies. Finally, using a combination of forbs (flowering, herbaceous, broad-leaved plants) and grasses can often provide both a unique aesthetic experience, as well as an opportunity to provide education about the botanical heritage of an area.

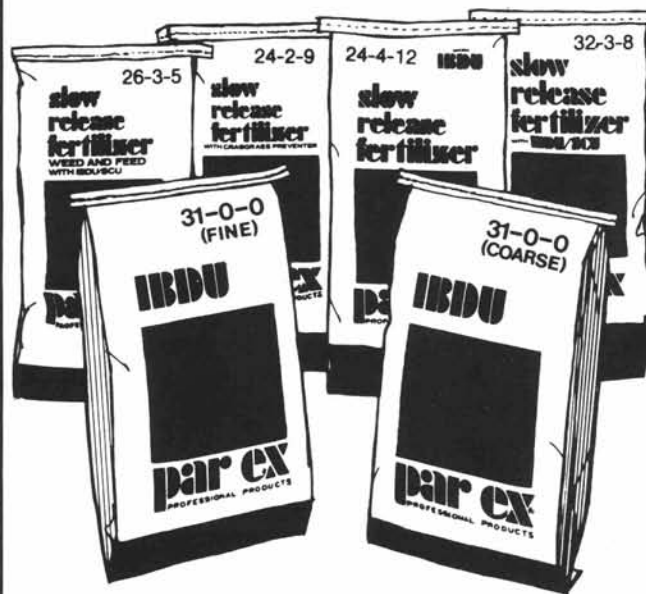
Getting Started-Become Familiar with the Plants

When planning any landscape area, proper plant selection is important to the success of the planting. Because they may be unfamiliar, the first step in planning a prairie border or island bed is to become familiar with a number of native plants. Begin by selecting plants that are easy to grow and tolerate horticultural settings. Avoid plants that only do well in native prairie situations; these plants may not tolerate being moved into a bed. Tables 1 and 2 list prairie plants that have worked well together and are not difficult to obtain or manage. Many natives are also useful, but it may be wise to begin with a limited palette of

(cont'd. page 18)

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(Prairie Plants continued)

Table 1. Prairie Plants for Landscaping

Scientific Name	Common Name	Flower Color	Spacing	Competitive w/ Invasives	Habitat	Propagation	Comments
<i>Aster multiflorus</i>	Lead Plant	purple	2 to 3'	no	dry	cuttings	Nitrogen-fixing woody shrub. Slow growing. Shiny in flower. Gray, pubescent foliage.
<i>Andropogon gerardii</i>	Big Bluestem, Turkeyfoot	reddish	2 to 3'	yes	mesic-dry	seed, division	Forms soil. Attractive in autumn when in flower. Can be planted as temporary screen. Warm-season grass.
<i>Aster longifolius</i>	New England Aster	purple	1 to 2'	yes	wet-mesic	seed	Very showy. Many selections made of this species.
<i>Bouteloua curtipendula</i>	Side-oats grama	purplish	15 to 24"	moderately aggressive	dry-mesic	seed, division	Warm-season grass. Mass for best effect.
<i>Ceanothus americanus</i>	New Jersey Tea	white	2 to 3'	no	dry-mesic	seed	Nitrogen-fixing shrub. Handmade white flowers.
<i>Cirsium palustre</i>	Stiff Tickseed	yellow	18 to 20"	yes	mesic	seed, division	Self-seeder. Performs well on poor soils.
<i>Delaenanthus nuttallii</i>	Shooting Star	white to pale pink	10 to 15"	no	wet-dry	division, seed	May be damaged by spring fires. May perform best with some shade.
<i>Echinacea purpurea</i>	Purple Coneflower	purple	1 to 2'	yes	dry-mesic	seed	Can be aggressive.
<i>Oenanthe lachnoloba</i>	Prairie Smoke	pink-red	8 to 15"	no	dry-mesic	seed, division	Sensitive to spring fires and competition from grasses. Mass as a face plant. Can form dense mats.
<i>Helianthus scaberrimus</i>	False Sunflower, Ox-eye	yellow	1 to 2'	yes	mesic	seed, division	Can form colonies.
<i>Eriogonum fasciculatum</i>	Junegrass	silvery to golden	12 to 18"	no	dry	seed, division	Cool-season grass, not competitive.
<i>Liatris pycnostachya</i>	Prairie Blazing Star	purple	6 to 12"	no	wet-dry	seed	Very showy.
<i>Panicum polyanthemum</i>	Switchgrass, Prairiegrass	pale yellow	18 to 24"	yes	wet-dry	seed, division	Aggressive. Several attractive cultivars available.
<i>Phlox pilularis</i>	Prairie Phlox, Downy Phlox	purple-rose	8 to 12"	no	wet-dry	stem cuttings, seed	May self seed.
<i>Rudbeckia hirta</i>	Yellow Prairie Coneflower, Gray-headed Coneflower	yellow	15 to 24"	yes	mesic	seed	Aggressive, needs competition. Tall and showy.
<i>Rudbeckia hirta</i>	Black-eyed Susan	yellow	1 to 2'	yes	wet-mesic	seed	Biennial or short-lived perennial. May self seed.
<i>Rhus aromatica</i>	Prairie Petunia, Wild Petunia	lavender to purple	1 to 2'	no	dry-mesic	seed	Low-growing face plant. Attractive pale summer flowers.
<i>Schizanthus luteus</i>	Little Bluestem	bluish-red	12 to 20"	no	dry-mesic	seed, division	Warm-season grass. Attractive fall through winter.
<i>Silphium laciniatum</i>	Prairie Dock	yellow	3 to 4'	no	dry-mesic	seed	Tall and coarse.
<i>Solidago rigida</i>	Stiff Goldenrod	yellow	2 to 3'	yes	dry-mesic	seed, division	Attractive. Can be aggressive and may require competition. Seeds heavily.
<i>Sorghastrum nutans</i>	Indiangrass	brucea	2 to 3'	yes	mesic-dry	seed, division	Aggressive, needs competition.
<i>Sporobolus vaginatus</i>	Prairie Dropseed	pale pink	15 to 24"	no	dry-mesic	seed, division	Attractive and delicate. Fine-textured. Fragrant.

Table 2. Prairie Plant Flowering Period and Heights

Plant	April	May	June	July	Aug.	Sept.	Oct.	Height
Prairie Smoke	XXXX	XXXX						6 to 16"
Shooting Star	XXXX	XXXX	XXXX					1 to 2'
Prairie Phlox, Downy Phlox	XXXX	XXXX	XXXX	XXXX				1 to 2'
Junegrass			XXXX	XXXX				1 to 2'
Lead Plant		XXXX	XXXX	XXXX	XXXX			1 to 3'
New Jersey Tea			XXXX	XXXX				1 to 3'
Prairie Petunia			XXXX	XXXX	XXXX			1 to 2'
Stiff Tickseed			XXXX	XXXX	XXXX			1 to 3'
Purple Coneflower			XXXX	XXXX	XXXX	XXXX		2 to 4'
False Sunflower, Ox-eye			XXXX	XXXX	XXXX	XXXX		2 to 6'
Yellow Prairie Coneflower,				XXXX	XXXX			2 to 5'
Black-eyed Susan				XXXX	XXXX			1 to 3'
Prairie Blazing Star				XXXX	XXXX			2 to 4'
Side-oats grama				XXXX	XXXX	XXXX		1 to 3'
Switchgrass				XXXX	XXXX	XXXX		3 to 5'
Prairie Dock				XXXX	XXXX	XXXX		3 to 8'
Big Bluestem				XXXX	XXXX	XXXX		3 to 8'
Little Bluestem				XXXX	XXXX			1 to 3'
Indiangrass				XXXX	XXXX	XXXX		2 to 6'
Prairie Dropseed				XXXX	XXXX			1 to 3'
New England Aster				XXXX	XXXX	XXXX		1 to 6'
Stiff Goldenrod				XXXX	XXXX	XXXX		2 to 4'

plants. A bibliography at the conclusion of this article provides several plant references that can be both interesting and helpful.

When learning about these plants, it is important to consider flower color, flowering period, spacing, height, and aggressive tendencies. Refer to Tables 1 and 2 to obtain basic plant information. Consult more complete references for plant drawings, photographs, and other information.

Habitat preference is also important. Most prairie plants perform best in full sun. Soil moisture preference vary from hydric (wet) to xeric (dry). Mesic soils are intermediate and plants listed as preferring moderate moisture may work best in most normal planting beds.

Some prairie plants can be aggressive and may invade adjacent areas through seed spread or by rhizomes or stolons. Use these plants carefully, and maintain them to limit their invasive characteristics. Reduce aggressive tendencies by planting vegetative invaders in restricted areas or by dead-heading seed spreaders before seed dispersal.

Designing the Planting Bed

After selecting a palette of plants to work with, create a plan for their use. Decide if the bed is to be a free-standing island bed seen from all sides or a border that will only be seen from one side. Do not try to recreate native prairies in which grasses normally make up more than 70 or 80 percent of the total plants.

Make the majority of plants in the design forbs to provide color and general structure to the bed, and accent the planting with grasses for a unique appearance.

General design recommendations that apply to other plantings also apply to this type of installation. Consider where the plants should be located — in the front, center, or rear of the bed. Plan so there are plants in bloom throughout the growing season and color combinations are pleasing. Do not ignore the late-autumn, winter and early-spring periods; some plants, especially grasses such as little bluestem or Indiangrass, can provide much interest when forbs and other ornamentals are typically not showy. Provide adequate space for plants to fully develop so that less-vigorous individuals are not crowded out.

Planting the Bed

When planting a prairie garden, prepare soils as you would any annual or perennial bed. Incorporate organic matter to improve heavy-clay or light-sandy soils. Use prairie plants adapted to mesic areas in this type of planting bed.

It is recommended that the area be planted using nursery-produced container stock. Do not dig native plants for transplanting. Several local nurseries (see source list at end of this article) produce small, inexpensive plugs or potted plants that transplant well and often flower earlier than producing your own plants from seed. These plants can be installed from spring through early fall, provided water is available. Do not plant in late fall; ground movement due to freezing and thawing can heave small plants out of the ground due to a lack of root development. Commercially available seed mixes are also available, but may be less desirable. Seed mixes often contain introduced types, do not allow for selection flexibility, and often suffer from weed invasion.

Follow the planting design, and be sure appropriate space is available for plant development. After planting, spread a thin layer of an organic mulch to restrict weed invasion, buffer soil temperatures, and reduce water loss. Water as needed until plants are established.

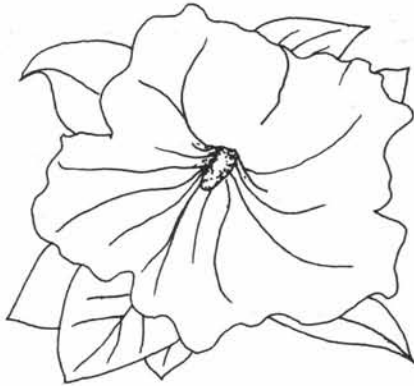
Maintaining the Bed

After the beds are established, maintenance activities are limited. Water only as needed to prevent wilting; during normal growing conditions, most of these plants will tolerate some drought. Fertilizer applications are rarely required if soils are of adequate natural fertility. Weeds should be hand-pulled or hoed until the prairie plants have completely covered the bed's surface. Dead head forbs after flowering to improve bed appearance and decrease seed movement into undesirable areas.

Questions regarding the need for burning prairie plants often arises. In areas where burning is both legally and safely possible, burn plants in early spring. Obviously, take care to ensure no damage occurs to adjacent areas. Where burning is not possible, cut plants to just above ground in early spring and remove the stubble for disposal.

We are fortunate to have a broad palette of ornamental plants for improving Midwestern enhancing the golfing experience. Grounds appearance can be made even more interesting by appropriately incorporating beds composed of native prairie plants into the golf course. Many prairie forbs such as black-eyed Susan, purple coneflower, coreopsis, and goldenrod can be easily combined with little bluestem, Indiangrass, prairie dropseed and other attractive grasses to produce beds that are singularly unique and spectacularly beautiful. (cont'd. page 19)

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(608) 538-3180 | Prairie Ridge Nursery
9738 Overland Road, R. R. 2
Mt. Horeb, WI 53572
(608) 437-5245 |
| Midwest Wildflowers
P. O. Box 64
Rockton, IL 61072 | Wildlife Nursery
P. O. Box 2724
Oshkosh, WI 54903
(414) 231-3780 |
| The Natural Garden
38 W, 443 Highway 64
St. Charles, IL 60174
(708) 564-0150 | Windrift Prairie Shop
Rt. 2
Oregon, IL 61061
(815) 732-6890 |
| Possibility Place Nursery
R R 1, Box 235B
Monee, IL 60449
(708) 534-3988 | Woodland Acres Nursery
Rt. 2
Crivitz, WI 54114 |
| Prairie Moon Nursery
Rt. 3, Box 163
Winnona, MN 55987
(507) 452-5231 | |

NATIVE PLANT REFERENCES

- Art, H.W. 1991. *The Wildflowers Gardener's Guide-Midwest, Great Plains, and Canadian Prairie Editions*. Storey Communications, Inc. Pownal, VT.
- Austin, R.L. 1984. *Designing the Natural Landscape*. Van Nostrand Reinhold Co. New York, NY.
- Diekelmann, J. and R. Schuster. 1982. *Natural Landscaping*. McGraw-Hill Book Company. New York, NY.
- Nichols, S. and L. Entine. 1978. *Prairie Primer*. University of Wisconsin Cooperative Extension Service Publication G2736. Madison, WI.
- Philips, H.R. 1985. *Growing and Propagating Wildflowers*. U. North Carolina Press. Chapel Hill, NC.
- Rock, H. 1981. *Prairie Propagation Handbook*. Wehr Nature Center. Milwaukee County Department of Parks and Recreation. Milwaukee, WI.
- Runkel, S.T. and D.M. Roosa. 1989. *Wildflowers of the Tallgrass Prairie: The Upper Midwest*. Iowa State University Press. Ames, IA.
- Smith, J.R. and B.S. Smith. 1980. *The Prairie Garden*. University of Wisconsin Press. Madison, WI.
- Smyser, C.A. 1982. *Nature's Design, A Practical Guide to Natural Landscaping*. Rodale Press. Emmaus, PA.
- Voigt, J. and R. Mohlenbrock. *Prairie Plants of Illinois*. Illinois Department of Conservation. Springfield, IL.
- Wilson, W.H. 1984. *Landscaping With Wildflowers and Native Plants*. Ortho Books, Chevron Chemical Company. San Francisco, CA.

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(Dollar Spot continued)

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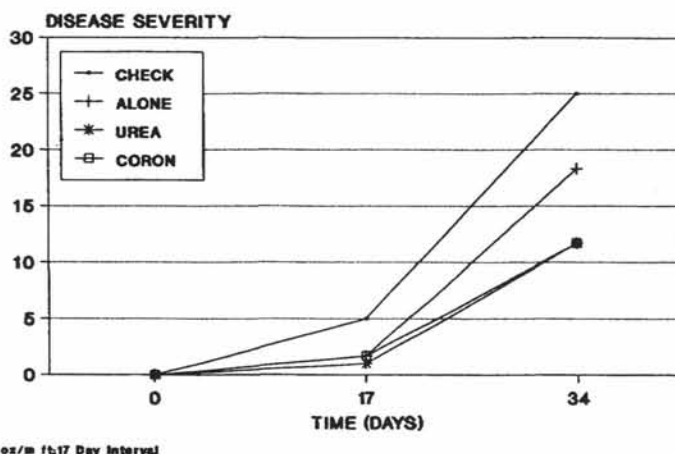


Figure 2 shows disease control with Banner + Dyrene, and an experimental (CGA), relative to Banner alone or no treatment. At this potentially tolerant site, a tank mix with Dyrene provided better control than Banner alone. The experimental, with a different mode of action, also worked well.

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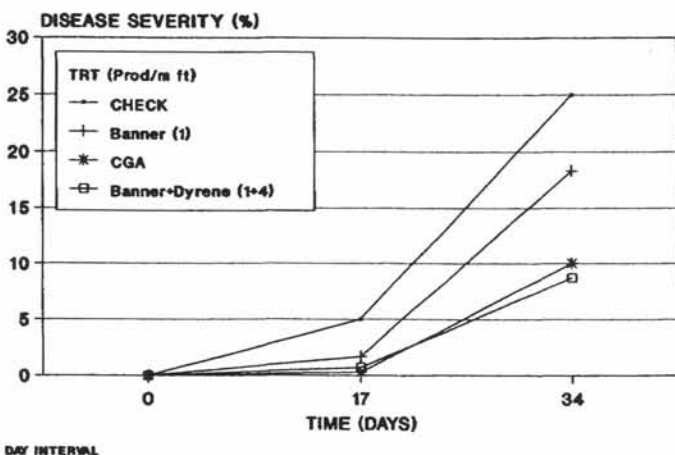


Figure 3 shows dollarspot control with various SIs when tank mixed with Dyrene. The highest level of control was observed with Banner + Dyrene followed by Bayleton + Dyrene and then Rubigan + Dyrene. (shown top of page 23)

In summary, control of dollarspot at the Ridgemoor Country Club has been a challenge. Although sterol inhibiting fungicides once provided a high level of disease control for an extended period of time, the length of control with these materials has eroded. Preliminary laboratory results with *Sclerotinia* isolated from this site, and our field observations, suggest the fungal population may have shifted towards tolerance. Additional laboratory (*in planta*) data are required to confirm this.

It should be stressed that the number of sites with putative tolerance is limited and that the use of Banner tank mixtures can provide dollarspot control. (cont'd. page 23)