WHO ARE YOUR TURFGRASS PALS? Douglas E. Karcher Department of Crop and Soil Sciences Michigan State University East Lansing, MI

Introduction

When weather conditions turn nasty and diseases and insects rear their ugly heads, a turfgrass manager may feel that he, or she, is all alone in the fight to maintain quality turf. In actuality, Michigan turfgrass managers have a team of turf specialists and an immense supply of educational materials close by to help in the fight.

The purpose of this article is to review for Michigan turfgrass managers the available resources pertaining to turfgrass management and to supply them with the information needed to make use of these resources. Below is a table summarizing the contact and cost information for the resources covered in this article.

Contact	Cost
several— see list below	free
517-355-5221	cost of a phone call
several— see list below	≈ \$15 per month
517-355-0117	\$30 per year for mail service \$70 per year for FAX service
517-353-7209	\$100 per year
517-355-4536	\$15-\$30 per sample
517-353-9082	\$100 per sample (non MTF members) \$50 per sample (MTF members)
517-355-0218	\$7-\$20 per sample
414-797-8743	\$900-\$1,200 per half day visit
	several— see list below 517-355-5221 several— see list below 517-355-0117 517-355-0117 517-355-4536 517-355-4536 517-355-9082 517-355-0218

Michigan State University Extension

Since its beginning nearly 80 years ago, Extension in Michigan has focused on bringing knowledgebased educational programs to the people of the state. Today, field agents supported by on-campus faculty members are serving every county, providing base programs focusing on agriculture and natural resources, including turf and horticulture.

Several statewide Extension members specialize in turf and ornamentals. Questions and problems concerning turfgrass management should first be addressed to regional Extension agents. If an immediate answer cannot be derived, Extension agents consult with MSU faculty and specialists to find a thorough answer, free of charge. The agents listed below represent the turf and horticulture Extension specialists in the state of Michigan.

Gerald E. Draheim Kalamazoo County Voice: 616-383-8830 Fax: 616-384-8035 draheimg@msue.msu.edu Serves SW Michigan

Gary L. Heilig Ingham County Voice: 517-676-7207 Fax: 517-676-7230 heilig@msue.msu.edu Serves Ingham County

Gregory M. Patchan Oakland County Voice: 810-858-0887 Fax: 810-858-1477 patchan@msue.msu.edu Serves Oakland County

The Turfgrass Hotline

Erwin A. Elsner Grand Traverse County Voice: 616-922-4620 Fax: 616-922-4633 elsner@msue.msu.edu Serves Northern Michigan

Dr. Dean M. Krauskopf Wayne County Voice: 313-494-3005 Fax: 313-494-3031 krauskop@msue.msu.edu Serves SE Michigan

Mary Wilson Genesee County Voice: 810-732-1470 Fax: 810-732-1400 wilsonma@msue.msu.edu Serves Genesee County Rebecca E. Finneran Kent County Voice: 616-336-3265 Fax: 616-336-3836 finnerar@msue.msu.edu Serves Kent, Muskegon, Ottawa

L. Andrew Norman Benzie County Voice: 616-882-0025 Fax: 616-882-9605 norman@msue.msu.edu Serves Northern Michigan

The Turfgrass Hotline is a weekly update of turfgrass management problems currently occurring throughout the state of Michigan. The hotline covers current weed, disease, and insect problems, in addition to turfgrass stress caused by weather extremes. Management tips are offered, based on consultation with MSU turf specialists, to address current turfgrass concerns.

The Turfgrass Hotline message is updated every Friday at 6:00 p.m. from April to October. Messages are provided by Dr. Paul Rieke, turfgrass professor, and Thom Nikolai, research specialist. This information is available for the cost of a phone call.

To reach the Turfgrass Hotline, call 517-355-5221.

Landscape Alert

The Landscape Alert is a weekly bulletin produced by the Crop Advisory Team (CAT). The CAT consists of Michigan State University campus extension specialists and Michigan Department of Agriculture and Department of Natural Resources field staff specializing in turf and horticulture. The weekly bulletin addresses the majority of extension calls received in previous weeks.

Weekly subscriptions may be purchased for either mail service or fax service. Subscription fees cover one growing season. Subscriptions to Landscape Alert may be obtained by writing to:

> Crop Advisory Team Alert Room #11 Agriculture Hall Michigan State University East Lansing, Michigan 48824-1039

For additional information, call 517-355-0117.

The Internet

The internet is a constantly evolving group of international computer networks connected by telephone lines. Since its introduction in 1960, it has grown exponentially and is now used by millions of people. Once connected to the internet, a wealth of information is available from a few clicks of the mouse.... including information regarding turfgrass. To browse the internet effectively one needs a computer (486 or higher) with a modem, a telephone line, a browser, and a service provider. Most new computers are equipped with a modem and a browser, and contain software for easily subscribing to an internet service provider (Compuserve, America On-line, etc...).

Listed below are a few key internet addresses that are turfgrass related. This is, by no means, an all encompassing list, but it contains some of the more popular sites. These sites contain information pertaining to almost every aspect of turfgrass management, or provide links to other sites where the desired information is located.

Turfgrass Links— Turfgrass Manager's Information Service— Turfgrass Information Center— Golf Course Superintendent's Association— Professional Lawn Care Association— United States Golf Association— The Outdoor Power Equipment Institute Web Weather— Golf Web— Professional Golfer's Associationhttp//www.uoguelph.ca/GTI/related.htm http//www.realtime.net/turfgrass http//www.lib.msu.edu/tgif http//www.gcsaa.org http//www.plcaa.org http//www.usga.org http//www.usga.org http//www.mow.org:80 http//www.webwx.com http//www.golfweb.com http//www.golfweb.com

The Turfgrass Information Center

The Turfgrass Information Center (TIC), located in the Michigan State University Library, contains the most comprehensive collection of publicly available turfgrass educational materials in the world. Over 38,500 records of turfgrass literature are in the TIC's primary database (TGIF- the Turfgrass Information File). The three major functions of the TIC are 1) to collect materials on turfgrass research, turfgrass culture, and management of turfgrass facilities, 2) continually develop and refine on-line access to collected materials, and 3) assist TIC users by helping them acquire desired materials.

A subscription to the Turfgrass Information Center provides discounts on search fees, document duplication fees and provides the subscriber with on-line access to the database. The TIC will be accessible on the world wide web in the very near future. In the meantime, subscribers can access TGIF using a telnet option.

For more information about the Turfgrass Information Center, or for a subscription, contact Peter Cookingham at 517-353-7209, or by e-mail at Cooking1@pilot.msu.edu.

Plant & Pest Diagnostic Clinic

The Plant and Pest Diagnostic Clinic, under the direction of Dr. David Roberts and located on the MSU campus, is a nonprofit service supported by Michigan State University Extension. The clinic specializes in the diagnosis of plant diseases, cultural, and environmental plant problems for Michigan citizens. Plant samples can either be brought in or mailed directly to MSU Plant & Pest Diagnostic Clinic. Samples may also be taken to your local County Extension office where they can assist in submitting a sample for diagnosis.

Specimens must be fresh, representative, and received rapidly for accurate diagnosis. Diagnostic Submittal Forms are available at the County Extension Office and the clinic. It is vital that the plant history, chemical history, cultural practices, nature of injury, and any other relevant information is provided. Turf specimens should be one square foot section of grass dug as deeply as roots hold soil. This section of turf should show gradation from healthy to severely diseased turf. Turf should be collected and sent quickly. If mailed, pack turf tightly with newspaper in a crush-proof box or plastic bag. Do not add moisture to the

sample. Whole plants should be submitted, if feasible, for the diagnosis of non-turf plant specimens. If not, collect leaves, branches, stems, and roots from plants showing symptoms. Be sure to enclose 1/2 - 1 cup of soil from the roots. A general diagnosis includes: visual diagnosis, culturing for disease, microscopic analysis, disease identification, soil pH and soluble salts, plant/disease control recommendations, identification of cultural/environmental problems, plant/weed identification, and mushroom identification.

For more information, a clinic representative may be contacted at 517-355-4536 or FAX at 517-353-1781.

Turfgrass Pathology Laboratory

The turfgrass pathology laboratory, under the direction of Dr. Joseph Vargas and located on the MSU campus, specializes in the identification of turfgrass diseases. The turfgrass pathology laboratory employs some of the most experienced turf pathologists in the world. Plant samples should be about the size of a cup cutter plug and should be taken from the edge of the diseased area. Samples should contain one to two inches of soil. The samples should be wrapped in newspaper and sealed with tape. For best results, samples should be sent by overnight delivery to the laboratory. Turnaround time varies from one day to several weeks depending on the disease(s) present, but is typically around three days.

For more information, contact Ron Detweiler at 517-353-9082.

Soil and Plant Nutrient Laboratory

The Soil and Plant Nutrient Laboratory, located on the MSU campus, is a service of MSU Extension. Services available through the laboratory include regular field soil test, micronutrient tests, supplemental soil tests, particle size analysis, USGA sand classification, peat analysis, compost analysis, water quality analysis, and plant tissue analysis.

Information pertaining to sampling procedures and soil sampling kits may be obtained through County Extension offices. Regular soil tests have about a one week turnaround time. Turnaround time for other analyses depends on the test being performed. Rush results are available for a fee. Facsimile reporting is available upon request.

For additional information, contact a laboratory representative at 517-355-0218 or FAX at 517-355-1732.

USGA Agronomist

The focal point of the USGA agronomist are on-site course visits. Each agronomist on staff visits more than 130 golf courses annually. The goal of the USGA agronomist is to help the golf course superintendent and green committee by providing the most practical turfgrass and golf course management information at the level of expenditure available at the facility. A written report will be submitted at the duration of the visit. These reports provide a permanent record of observations made during the on-site visit and the recommendations for continued course development, both short and long term.

Year round consultation is available from the USGA agronomist. If questions or problems arise, calls are welcome at any time. Particularly vexing problems are discussed with other staff agronomists who face similar situations in their region.

For additional information, or to schedule a visit, Bob Vavrek, regional agronomist, may be contacted at 414-797-8743 or FAX at 414-797-8838.