

Reducing Pesticide Use On Turfgrass Through Integrated Pest Management Practices

Project leaders

Larry A. Sagers, Utah State University Horticulture Specialist
Jay Dee Gunnell, Utah State University Horticulturist, Davis County
Adrian Hinton, Utah State University Horticulturist, Utah County
Linden Greenhalgh, Utah State University Agent, Tooele County

Cooperators

Utah State Pest Control Association
Gretchen Campbell, Utah State University Advanced Master Gardener Coordinator
Utah County Master Gardener Organization
Thanksgiving Point Advanced Master Gardeners
Tooele County Master Gardener Organization
Davis County Master Gardeners

Situation Statement

Turfgrass is the single most extensive crop grown in Utah. Virtually every home in UT supports extensive turf areas and many of those areas have multiple pesticide applications every year.

Overuse of pesticides is not only expensive but it also causes other problems. An important aspect of maintaining good water quality is reducing pesticide and fertilizer use and improving runoff water quality.

More efficient sprinkler systems and pressurized irrigation have eliminated drainage ditches, but water still flows off and into storm drains and other drainages and eventually moves back into the aquatic systems.

Current turfgrass management programs include as many as six applications of fertilizer per season and with additions of insecticides, fungicides and herbicides. While these may enhance the growth of landscape plants, excessive applications of pesticides often move offsite and pose unnecessary risks to people, pets and desirable plants and streams, reservoirs and groundwater.

Previous research done by Utah State University shows that most professional lawn care services apply “cookbook” formulations to any and all residential lawns and landscapes without regard to plant needs for desired landscape results.

Typically pesticide applications are made on a calendar basis as opposed to a needs assessment and many applications are not needed for the landscape to perform successfully.

Developing a good IPM turfgrass management program, with specific emphasis on using the right amount of fertilizer to avoid reducing excessive insecticide, fungicide and herbicide applications, is essential.

Herbicides are often applied in excessive quantities and at greater frequency than needed. Helping professionals and homeowners understand the importance of good turfgrass practices on improving turf growth and appearance.

A well-designed turfgrass management program will emphasize the importance of protecting water quality. It will concentrate on non-chemical methods including selecting the right grass species for your location, mowing correctly, watering correctly, monitoring for pest problems and preventive practices as opposed to chemical treatments.

This program will focus on Davis, Tooele, and Utah Counties, but it will be applicable to the rest of Utah and other Intermountain areas.

The focus of the program is two-fold. It will develop a recommended program for training professionals to reduce pesticide usage on turfgrass and develop a similar program for homeowners to utilize in their own landscapes.

The project will develop a training curriculum for use by Master Gardeners in the above-mentioned counties and additional counties throughout the state. It will also include a curriculum they, in turn, can use to train others.

As a part of this program, Master Gardeners will evaluate 100 landscape plans for area homeowners and make recommendations for low-input turfgrass management.

Providing Master Gardeners with initial training in low-input turfgrass management and providing them with resource materials to educate others, will provide a critical nucleus of well-trained people to help answer questions from those who are hiring commercial turf managers or those who are doing their own turfgrass management.

Since turfgrass occupies more area of the landscape than any other plant and is arguably the most inappropriately managed plant, this grant will supply special training in this area.

Objectives

- Develop a comprehensive IPM turfgrass management training plan for professionals and homeowners on a statewide basis.
- Train Utah State University Advanced Master Gardeners in turfgrass management using good IPM practices.
- Train Professional Pest Control Operators in IPM for turfgrass practices.
- As they design their landscape plans, educate homeowners on the importance of designing sustainable landscapes and using good IPM practices in their landscapes.

Procedures

- Train 80 Utah State University Advanced Master Gardeners in advanced turfgrass diagnostic and Integrated Pest Management techniques. These county workshops will be held between May 15 and September 1, 2005. These are Train the Trainer workshops and these Advanced Master Gardeners will present workshops at Thanksgiving Point Gardens, the Utah Botanical Center and garden classes and expos at other locations.
- Train 40 Professional Lawn Care operators in IPM turfgrass practices. These workshops will focus on training them to identify problems and look for the best solution as opposed to making scheduled treatments that may or may not solve problems.

- Disseminate “Reducing Pesticide Use On Turfgrass Through Integrated Pest Management Practices” on three radio programs broadcast to the Intermountain area.
- Turfgrass Integrated Pest Management information will be published in a statewide newspaper and two regional newspapers. Similar information will also be provided through the USU information office to all media outlets in the state.

Techniques

- Train 80 Utah State University Advanced Master Gardeners in advanced diagnostic and IPM techniques in Tooele, Davis, and Utah Counties. The training will be conducted by USU Extension Horticulture Agents, USU Paraprofessionals and appropriate USU Specialists.
- Conduct weed identification and control training workshops for 200 Master Gardeners, Paraprofessionals and pest control operators to help them make appropriate decisions in controlling turfgrass weed problems.
- Train 40 Professional Lawn Care operators at a day-long workshop to be held in September of 2006. The Utah State Pest Control Association will identify and invite key individuals to participate in this training workshop. The key individuals will then train others in their companies. These workshops will focus on training them to identify problems and solve them with approved in IPM turfgrass practices.

Budget

Audiovisual equipment, supplies, and developing	\$	300.00
Travel	\$	765.00
Workshop supplies and preparation	\$	950.00
Preparation and reproduction workshop materials	\$	400.00
Total	\$	2,415.00

FUNDING SOURCES

IPM Mini Grant	\$	1,200.00
----------------	----	----------

Matching Funds from Other Sources

Utah State Pest Control Association	\$	400.00
Master Gardeners Associations in Tooele, Davis and Utah Counties	\$	600.00
Thanksgiving Point	\$	215.00

Total	\$	2415.00
--------------	-----------	----------------