

Final Report

Lawn Overseeding Brochure for The New York State Community IPM Grants Program

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Cooperators: Dr. Frank Rossi, Assistant Professor, Department of Horticulture, Cornell University, Ithaca, NY; and Rick Harper, CCE of Westchester County, Valhalla, NY.

Abstract: This project produced a brochure, a newspaper story and a webpage based on Cornell research in repetitive overseeding of lawns and other turfgrass areas. These products described the process and benefits of overseeding and how it can be part of a lawn IPM program. The brochure and newspaper story were shared with Extension educators across New York State who were encouraged to share this information with their audiences.

Background and Justification: According to the NYS DEC Bureau of Pesticides website, pre-emergent herbicides for lawns are among the most widely used pesticides in the state. The weeds targeted by these applications, especially annuals such as crabgrass (*Digitaria sp.*), compete with desirable lawn grasses from late spring to early fall, then leave bare areas for the remainder of the year as they die. Open lawn areas are subject to soil, fertilizer and pesticide runoff.

Concurrently, homeowners and commercial turf managers are looking for alternatives to chemical pesticides. Research conducted by Dr. Frank Rossi of Cornell University and David Chinery of CCE of Rensselaer County has shown that overseeding of turfgrass areas, including lawns and sports fields, can dramatically improve density as well as reduce weed populations. It has also been demonstrated, by Cornell's Dr. Marty Petrovic, that increased turfgrass density can lead to less fertilizer and pesticide runoff from a lawn. Overseeding is therefore an IPM alternative to the use of pre-emergent herbicides. This project produced a brochure, a newspaper story and a webpage detailing the overseeding process to alert homeowners and commercial turfgrass managers to this opportunity.

Objectives:

1. Write, design and produce a colorful, easy-to-read brochure which explains the process and benefits of lawn overseeding
2. Write a newspaper story (500 words) which details the overseeding process and directs readers to contact their local CCE office for more information
3. Explain and distribute the brochure and newspaper story to CCE offices with horticulture programs throughout the state
4. Design and release a webpage which provides information on overseeding as part of a lawn IPM program.

5. Evaluate the project

Results:

1. The Project Leader wrote the content of the brochure, the newspaper story and the webpage. The name of the brochure was changed from the proposed “Weeds: Crowd ‘Em Out” to “Lawn Weeds? Bare Spots? Repetitive Overseeding Can Help!” Staff of Cornell Cooperative Extension of Rensselaer County created the design and layout. The two cooperators named read the draft copy of the brochure and made suggestions for improvements.
2. Five thousand copies of the brochure were printed by a Troy, NY area professional printer.
3. Three thousand, four hundred forty copies of the brochure were distributed to Extension offices in New York counties. Counties with larger populations, such as Albany, Monroe and Westchester, received 100 copies, while smaller counties received 40 copies. A cover letter explaining the project was also sent, along with the newspaper-ready story. The remaining copies will be distributed to CCE offices and others upon request as well as through classes taught by the Project Leader. The text for the newspaper story is attached.
4. The brochure was placed on the CCE of Rensselaer County webpage in two versions: a readable version and a printer-friendly version. Both are in Adobe Acrobat in PDF format. They can be accessed at the website <http://www.ccerensselaer.org/Horticulture-Program/Lawn-Fact-Sheets.aspx>. Within the year February 2009 to February 2010 we recorded almost 300 hits.

Conclusions: Although no formal evaluation was conducted, the brochure has garnered positive comments from Extension educators and clients. Extension educators from Suffolk and Ulster counties emailed the Project Leader with positive comments about the brochure and said that they believed it would be very useful. It is unknown how many educators submitted the newspaper article to their local media, although it was printed in the Project Leader’s column in the The Record newspaper (circulation 16,000). Anecdotally, the Project Leader has noted that while attending turfgrass industry meetings and programs, repetitive overseeding is being mentioned more often, especially by speakers discussing sports turf and organic management.

Newspaper article:

Overjoyed By Overseeding

David Chinery

Extension Educator

Cornell Cooperative Extension of Rensselaer County

How can we have good lawns without using pesticides? It is truly an American dream, and the one who finds an easy answer and patents it will be richer than Bill Gates. In the meantime, the basic thinking behind the no pesticide lawn is this: by providing the best possible conditions for strong and vigorous growth, the grasses should be able to out-compete the weeds and tolerate at least some level of insects and diseases. Fertilizer, proper mowing, adequate water and maximum sunlight are some necessary requirements to this end, and I believe overseeding can often help, too. Unfortunately, most homeowners haven't heard of it.

Overseeding is simply the idea of spreading grass seed over an existing lawn to increase turfgrass density. Traditionally, overseeding is done after a practice called core cultivation, which itself involves using power equipment to remove plugs of soil from the lawn. The plugs are broken up using a drag mat and the soil left on the lawn surface. The seed from overseeding falls in the holes and lies on the disturbed soil, which provides good conditions for germination. Unfortunately, core cultivation followed by overseeding requires a great deal of time and energy, so it is rarely practiced on a home lawn.

For the past few seasons I've been experimenting with an easier method. Based on research from Cornell and Iowa State universities, the concept is called "repetitive overseeding." The idea is to apply seed several times, and to skip the core cultivation. The seed is simply spread and let to fall to the soil. By applying a great deal of seed, at least a good portion makes contact with the soil and can germinate.

I've tried these methods on high school sports fields, on home lawns, and on bare soil. Since perennial ryegrass (*Lolium perenne*) is the fastest germinating lawn grass, it is much easier to use than Kentucky bluegrass or fine fescue. This limits repetitive overseeding to sunny areas, since perennial ryegrass performs poorly in the shade. Water is also crucial. While you can try repetitive overseeding on a non-irrigated lawn, rainfall has to be plentiful to make the seed germinate. I've had great success in rainy weather and tremendous failures during drought. Repetitive overseeding can be used in very early spring to fill in bare spots with perennial ryegrass before annual weeds (such as crabgrass) germinate and dominate. It can also be done in late summer/early fall: as the ryegrass germinates, the annual weeds will be dying (an early frost really helps).

Since I can't patent the process and make my millions, I've written a brochure with the details, entitled "Lawn Weeds? Bare Spots? Repetitive Overseeding Can Help!" It has been printed courtesy of grant funding from the NYS IPM Program. Contact your local office of Cornell Cooperative Extension for a free copy.