

Nursery and Landscape Research
Projects and Education Programs

December 2001

MICHIGAN STATE

UNIVERSITY



Note from the editor

It's hard for me to believe that this year has passed so quickly. I seemed to have barely finished editing the first summary publication, and it's already time for the second one.

Last year was the first time Michigan State University teamed up with the Michigan Nursery and Landscape Association and Metropolitan Detroit Landscape Association to bring you summaries of research projects and educational programs that benefit the nursery and landscape industry. This year, we are taking it one step further. In addition to the stand-alone publication of projects that will be mailed to you in January and the web edition on the integrator's website (<http://www.cips.msu.edu/landscape>) we will be printing some of the projects in *The Michigan Landscape* and *the Landsculptor*. By doing so, we have the opportunity to reach more of you than we could by mailing out one publication to each company. But we won't be able to share all of the reports with you at once. We hope that you will be able to get a better understanding of what

research is being done at MSU that benefits you and your business. We also hope that you are able to take advantage of some of the educational programs offered every year, developed to provide training and practical knowledge for you and your employees.

We'd like to get your feed back about how you like having the reports printed in *The Michigan Landscape* and *The Landsculptor*, and whether or not we need to continue doing a stand-alone publication. Is it valuable to have all the information together in one place as a printed piece, or does it work just as well to have it available on the web, where you can read it all, and download what ever parts interest you? Would you rather have the reports one or two at a time in the MNLA and MDLA magazines?

The other issue is financing the cost of the stand-alone publication. It costs nearly \$5000 to print 2000 copies. If we continue to print it, we will either need to get grant money, or financial support from those of you in industry who are interested enough in seeing it published to make a contribution.

Either way, we will still get the information out to you, whether it is on the web and in the MNLA and MDLA magazines, or in a separate published report. Either way, we'd like to hear from you, to know how this information can be made available in the forms that are most useful to you.

Sincerely,

Diane Brown-Rytlewski

Nursery and Landscape Integrator

Credits:

We thank all of those who contributed information about their projects and programs to this publication; their names are listed within the reports. Thanks to Rebecca Thompson and Joy Landis for help with publication formatting and production. Thanks to Ken Fettig for assistance with publication. We also wish to thank our organizational partners in this endeavor: Michigan State University Extension; the Ornamentals and Nursery and Landscape AOE teams, MSU Ag Experiment Stations; Center for Integrated Plant Systems, Project GREEN, Michigan Nursery and Landscape Association and Metropolitan Detroit Landscape Association.

Photo credits:

Cover- Green Roof plants - B. Rowe, Project GREEN sign - B. Cregg, All other photos - D. Brown-Rytlewski.

Color plates:

Page A1

Roof top simulations: Brad Rowe

Tree height measurements: Bert Cregg, Wulpak: Brad Rowe

Crown width, suction lysimeter: Bert Cregg

Page A3

Dogwood anthracnose symptoms: Gerry Adams (except twig on left in b: Diane Brown- Rytlewski)

Lupine anthracnose symptoms: Willie Kirk

Coin canker: Gerry Adams

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Weather station: Diane Brown-Rytlewski

TreeGator:; Bert Cregg, Turf plots: Tom Reed Sr.

Landscape design simulation: Bridget Behe

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Gregarina and white grubs: Dave Cappaert

Jan Byrne and Ron Calhoun: Rebecca Finneran

Shrub pruning: Rebecca Barney

Dave Roberts and Greg Patchan: Diane Brown-Rytlewski

The Center for Integrated Plant Systems (CIPS) mission is to develop, evaluate, integrate and extend knowledge about ecologically based integrated pest management (IPM) policies, strategies, tactics and tools. IPM systems will be designed to enhance the economics, environmental quality and overall quality of life of Michigan's citizens and of our global community. CIPS is the home base of the MSU IPM Program. Core programs and services within CIPS include: Agricultural Weather, Diagnostics Services, Integrated Pest Management, IPM Integrators, Pesticide Analytical Lab and Pesticide Education.

The CIPS goal is to insure that Michigan agriculture remains economically competitive on a regional, national and international scale. This requires that Michigan agriculture be poised to meet the worker protection and food safety standards of the new millennium through the implementation of ecologically based integrated crop management systems. One of the driving forces is the Federal Food Quality and Protection Act (FQPA) mandating the re- evaluation of heavily used classes of pesticides associated with toxic and cancer-causing properties. Many pesticides are expected to be lost to future use or to have their use restricted. CIPS programs are providing the framework of information on which integrated and interdisciplinary research and educational programs are developed by faculty across departments to address the FQPA. Pest pressures (especially insects and diseases) on crop production are expected to increase in the next decade due to predicted favorable changes in weather patterns. Michigan State University and the Michigan Nursery and Landscape Association are working together to identify critical areas of research that will help the industry meet these future challenges.

Sincerely,

L. Patrick Hart
Acting Director
Center For Integrated Plant Systems

Introduction

On behalf of the many members that make up the “Green Industry Team,” the Michigan Nursery and Landscape Association (MNLA) is pleased to bring you the second edition of this publication.

Another tool for the trade, this publication features research projects that have an impact on the different segments of our industry. These projects are derived from the talented researchers and extension personnel in the College of Agriculture and Natural Resources at Michigan State University.

On behalf of the MNLA, I thank Ms. Brown-Rytlewski for her efforts and all that cooperated on this publication, and you, for your support of the “Green Industry Team” throughout this past year.

Amy Frankmann
Executive Director
Michigan Nursery and Landscape Association

On behalf of the Metropolitan Detroit Landscape Association we would like to thank Diane Brown-Rytlewski for coordinating the second edition of the Nursery and Landscape Research Products publication for the green industry.

Inside you will find reports on research and extension programs being conducted at Michigan State University that benefit the green industry. Put together by a joint effort between campus specialists, extension agents, and the support of many organizations and individuals you will find research reports covering topics relevant to the landscape and nursery industry. MSU and the Green Industry - working together.

Sincerely,
Diane Andrews
Executive Director
Metropolitan Detroit Landscape Association

Dear Industry Partners,

The cooperation between the Nursery and Landscape Industry and Michigan State University continues to grow and become stronger. Results of this partnership can be found in this publication. Much of the research in this publication is the result of industry support for initiatives that provided funding for the projects and direct support from industry sponsors.

The Nursery and Landscape Industry is a dynamic, healthy and expanding industry. One of the goals of Michigan State University research and extension programs is to partner with the industry to help assure continued growth and success. Research to avoid or solve problems, extension to disseminate critical information, feedback and support from the industry are the links in the partnership that are critical to our continuing success.

It is a pleasure to share with you summaries of the current research and extension projects that are being conducted at Michigan State University and around the state. Several projects, including this report, have been conducted with funding and other direct support from industry partners and we appreciate all that they have done to make the projects successful.

The projects reported in this document reflect the strong commitment MSU has made to the industry. We look forward to continue working closely with our industry partners and to expanding our relationships with others.

Sincerely,

Tom Fernandez
Chair, Extension Ornamental Area of Expertise Team
Assistant Professor

Dear Industry Partners,

On behalf of the Nursery and Landscape Area of Expertise Sub-group, I am pleased to share with you our latest summary of Nursery and Landscape Research Projects and Education Programs.

One of the greatest strengths of Nursery and Landscape Programs at MSU is our strong and continuing partnership with the Green Industry. These partnerships are vital because they ensure our research and education programs are on target with industry needs and provide opportunities for rapid implementation of emerging technologies. Moreover, these partnerships are critical in leveraging our resources and providing more “bang” for our research and extension “buck.” Industry partners have contributed, either directly or indirectly, to every project in this document. This is a tribute the Michigan Green Industry and the value you place on developing and disseminating the most current and scientifically sound information.

The importance of our partnerships will grow in the coming years as the looming economic slowdown may threaten segments of our industry and institutional support of our programs. These times will call for greater innovation and creativity from you and from us. Working together, we can find solutions and continue to make the Michigan Green Industry a national leader.

Best regards,

Bert Cregg
Chair, Nursery and Landscape Subgroup of the Extension Ornamental Area of Expertise Team
Assistant Professor

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