

providing education and research support to the agricultural industry

May/June 2007

Articles

Dr. Carl Bradley joins Crop Sciences Staff

Illinois Manure Management Plan

Cicada's are here

Research

Producing Ethanol, Some Cornstalks should be Left in the Field

Resources

Distillers Dried Grains with solubles in diet Fed to Swine

Facts About Glyphosate-Resistant Weeds

Handbook of Gorge and Rangeland Insects

Educational Opportunities

—more—

View current and past issues on the web@

www.urbanext.uiuc.edu/agupdate

Dr. Carl Bradley, Plant Pathologist, Joins Crop Sciences Staff

We would like to welcome Dr. Carl Bradley to the University of Illinois Crop Sciences Department staff. A native of Illinois, Carl grew up in Gallatin County. In 1995, he received his B.S. from Southern Illinois University. His M.S. (1999) and Ph.D. (2001) are from University of Illinois, working with Dr. Wayne Pedersen. He worked for North Dakota State University, as an assistant professor of plant pathology from 2002 through 2006, before returning to U of I. He shares some of his research and extension goals on his website at <http://www.cropsci.uiuc.edu/faculty/carlbrad/>. “Some of my current research projects include:

- Evaluation of foliar fungicides for their control of diseases and effects on corn, soybean, and winter wheat.
- Development of baseline QoI fungicide sensitivity levels of corn and soybean foliar fungal pathogens and initiation of a fungicide resistance monitoring program.
- Evaluation of seed treatment fungicides for their control of soilborne diseases of corn, soybean, and wheat.

Some of my current extension programs include:

- Soybean rust sentinel plot coordinator for Illinois: I provide weekly commentary on current disease scouting and management recommendations for soybean rust and other soybean diseases as part of the Pest Information Platform for Extension and —Education (PIPE) located at: <http://www.sbrusa.net/>
- Fusarium head blight risk assessment program: I provide commentary on the risk and management of Fusarium head blight (scab) on Illinois winter wheat on the Wheat - Fusarium Head Blight Prediction Center website at: <http://www.wheatscab.psu.edu/>”.

Feel free to contact Carl. You can reach him at carlbrad@uiuc.edu or (217)244-7415.



Illinois Manure Management Plan

Leanne C. Lucas, University of Illinois, College of ACES, 62 Mumford Hall, MC 710, 1301 W. Gregory Drive, Urbana, IL 61801, (217) 244-9085, llucas@uiuc.edu

Developing a comprehensive manure management plan just got easier for livestock producers in Illinois. The *Illinois Manure Management Plan* is now available online at www.immp.uiuc.edu.

The online manure management resource was developed by the U of I Extension with financial support from various Illinois livestock groups including the Illinois Pork Producers Association & the Pork Checkoff, Illinois Beef Association, Illinois Milk Producers Association, IL Livestock Development Group, Illinois Farm Bureau, and the Illinois Environmental Protection Agency.

“Using swine manure as a natural fertilizer in crop production saves billions of cubic feet of natural gas which would otherwise be used to manufacture commercial fertilizers,” said Brian Sturtevant, a pork producer and current President of the IL Pork Producers Association. “This web-based tool will help producers better manage this valuable resource, while continuing to be a good steward of our environment.”

Extension specialists at the University of Illinois who developed the original workbook are certain the web version of the IMMP will allow producers of large and small facilities to spend more time managing their animals, and less time worrying about manure.

“This is a great application that takes you by the hand and leads you through the process, step by step,” said Ted Funk, an agricultural engineer at the U of I, and one of the Extension specialists who developed the plan. “It uses an interview-type format that prompts you for data, which you enter only once. That information is automatically pulled from the database whenever it’s needed in a form or report.”

“Most of the larger facilities are required by law to have a written plan, whether they are trying to comply with the Livestock Management Facility Act, or they have to have an NPDES permit,” said Randy Fonner, Extension specialist and co-author of the IMMP. “And producers who apply for EQIP funds have to have a Comprehensive Nutrient Management Plan to access those funds.” Fonner continued, “This program will help you develop one manure management plan that makes sure you’re in compliance with any or all of those regulations.”

Funk believes the convenience of developing a plan online will also appeal to many producers. “Some farmers use a consultant to help develop their plans, but there are a limited number of qualified consultants,” Funk said. “If a producer can do a lot of the work himself, the consultant can be 500 miles away, but he can log onto the website and check the information. Then he can make a phone call or send an

AG FACTS

- USDA's primary land retirement programs have retired over 35 million environmentally sensitive acres, most under 10- to 15-year contracts.
- Soil erosion declined by more than a billion tons per year between 1982 and 1997, a quarter of which can be attributed to conservation compliance requirements.

SOURCE: Conservation and Environmental Policies Affecting Agriculture: AREI, 2006 Edition



Rural Route 2
is Available at
1-800-468-1834

<http://www.extension.uiuc.edu/ruralroute/>

The Rural Route 2 service is designed to help farm families get through tough times. This **confidential service** provides referrals for farm business and family financial advice; helps manage economic as well as personal situations; helps locate local support; and identifies assistance through the Illinois Farm Development Authority.

email that says ‘This doesn’t look right, check your numbers,’ or whatever. The whole process will be much easier and more efficient.”

Some features of the web-based plan include:

- Calculation tools to match manure application rates with crop needs and soil tests
- Mapping tools to draw the farmstead with its features, including buildings and storages
- Help with annual plan updates
- Recordkeeping and report forms
- A user-defined calendar that will send automatic email reminders for inspections and records
- Individual plans are password-protected and reside on a U of I server for reliable storage and instant retrieval on any computer with web access.

In order to have a viable, environmentally friendly livestock industry in the state, Fonner said, “It’s becoming more and more important for producers, regardless of their size, to have a plan. The very basics that any of the state agencies want to know is, ‘How much manure are you producing and what are you going to do with it?’ We feel that the more the producer is involved in writing a plan that answers those questions, the more likely it is that he’ll use it. So is it a piece of cake?” Funk concluded, “Well, no. It takes some work. But this program pulls together all the resources you need, and in the end, it saves you money and reduces environmental risk.”

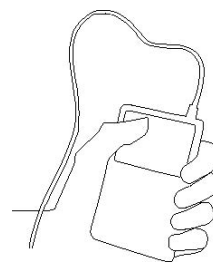


Cicada’s are here

By the time you get this newsletter, the 17-year cicada will have emerged. These amazing creatures should be very noticeable and can do some damage to young trees. To learn more about cicada’s check out our new website at <http://web.extension.uiuc.edu/cicadas/> or contact your local Extension office for more information.

Podcasts: Get the latest news from U of I Extension

Podcasts are now downloadable from the University of Illinois Extension website at www.extension.uiuc.edu. Podcast are radio spots that you can listen to from your computer or download them and take with you on your MP3 player, etc. This new weekly series of reports will be hosted by Todd Gleason, broadcast news journalist with University of Illinois Information Technology and Communication Services. Topics will be broad based from marketing to current pest situations.



EDUCATIONAL OPPORTUNITIES

University of Illinois Agriculture Events

New programs are being confirmed every day. Keep in touch with your Extension Office for programs addressing the topics that interest you and are offered in your County. To find your counties website go to: <http://web.extension.uiuc.edu/state/findoffice.html>

Statewide University of Illinois Extension Calendar Website

<http://web.extension.uiuc.edu/state/calendar.cfm>

To search for programs throughout the state, check out Extension’s searchable calendar. Search by location, topic or date to find a program of you interest.

Research

In Producing Ethanol, Some Cornstalks should be Left in the Field

Don Comis, USDA-ARS News Service, (301) 504-1625, donald.comis@ars.usda.gov

If conservation of soil organic matter is taken into account, the United States at best has to cut in half the amount of cornstalks that can be harvested to produce ethanol, according to an Agricultural Research Service (ARS) study. Jane Johnson, a soil scientist with the ARS North Central Soil Conservation Research Laboratory in Morris, Minn., found that twice as many cornstalks have to be left in the field to maintain soil organic matter levels, compared to the amount of stalks needed only to prevent erosion.

This doesn't mean harvesting cornstalks for cellulosic ethanol isn't feasible--just that when you add soil organic matter concerns to erosion concerns, it slashes the amount of cornstalks available for conversion to ethanol. For example, 213-bushel-per-acre corn yields leave farmers an average four tons per acre of cornstalks after harvest. Farmers could then harvest about two tons of cornstalks per acre for conversion to ethanol--but only from land with low erosion risks, using little or no tillage.

If the same farmers rotate with soybeans as recommended, they can only remove half again as much biomass for ethanol production, or just one ton per acre, to compensate for the lower biomass left by soybeans. Johnson's estimates are part of the Renewable Energy Assessment Project (REAP), formally created in 2006, although she and a core group of colleagues have worked on these measurements for several years prior.

REAP was formed to ensure that cellulosic ethanol programs will be sustainable. Most participants work with corn, but others work on switchgrass for cellulosic ethanol. When cellulosic ethanol is made from corn, it uses cornstalks as well as grain. There are nine

ARS locations participating in REAP in eight states, from Alabama to Indiana to Oregon.

The new program also aims to compare the economic value of biomass for bioenergy versus its value for storing soil carbon. REAP will provide guidelines on harvesting biomass to corn farmers, land managers, the biomass industry and action agencies. Johnson also explored the use of a byproduct of ethanol fermentation as an organic additive to soils. This is an example of the innovations needed to support residue removal.

Resources

Publications Plus –University of Illinois
Agricultural and Horticultural Publications
Call 1-800-345-6087 or order on the web
www.PublicationsPlus.uiuc.edu

It's a one-stop shop for a current catalog of research-based information (Mastercard and VISA accepted)

Distillers Dried Grains with Solubles (DDGS) in Diets Fed to Swine,

HHS-Swine Forcus-001.2007

Dr. Hans H. Stein, Department of Animal Sciences, U of IL

This fact sheet has a detailed discussion on the potential and concerns of feeding distillers grains to swine. For a copy contact your local Extension Office or Dr. Stein at 217 333-0013, hstein@uiuc.edu

Facts About Glyphosate-Resistant Weeds, GWC-1

Chris Boerboom, University of Wisconsin and Michael Owen, Iowa State University

www.glyphosateweedscrops.org

This booklet discusses the importance role of glyphosate in weed control and how to minimize weed resistance. To order a copy contact Purdue Extension, 1-888-398-4636, media.order@purdue.edu

Understanding Glyphosate to Increase Performance, GWC-2

Bob Hartzler, Iowa State University, Chris Boerboom, University of Wisconsin, Glenn Nice, Purdue University, Peter Sikkema, University of Guelph

www.glyphosateweedscrops.org

This booklet outlines best management practices when using glyphosate. To order a copy contact Purdue Extension, 1-888-398-4636,

media.order@purdue.edu

www.ces.purdue.edu/new

Handbook of Forage and Rangeland Insects

Edited by William O. Lamp, Richard C. Berberet, Leon G. Higley, and Craig R. Baird

The Entomological Society of America

The handbook has numerous photographs, illustrations, and references about both major, widespread insect pests (e.g., aphids, alfalfa weevil, armyworms, potato leafhopper) and those less frequently talked about (e.g., alfalfa blotch leaf miner, plant bugs, and stink bugs). Detailed descriptions of pest life cycle, ecology, injury, management, and selected references are included. Some of our favorite multiple-crop insect pests are addressed thoroughly--blister beetles, chinch bug, crane flies, grasshoppers, and white grubs (including Japanese beetle). Also included are sections about forage and rangeland production, integrated pest management, insect identification, and beneficial organisms (parasitoids, predators, entomopathogens, pollinators). There also is a discussion about biological control of weeds with insects. To order, contact the American Phytopathological Society at Bottom of Form 1-800-328-7560 or

<http://www.shopapspress.org/haoffoandrai.html>



Internet Resources

Soybean Rust Scouting video

<http://ncipmc.org/alerts/soybeanrust/index.cfm>

The video features Dr. Yorinori and others who discuss step by step how to scout for soybean rust and how to apply fungicides, if necessary.

"Western Bean Cutworm Short Course" video

<http://www.ncipmc.org/teleconference/wbc2007/videos/>

Presenters included Eileen Cullen (UW), Gary Hein (UN), Marlin Rice (Iowa State Univ.) and Kevin Steffey (U of I) on these topics:

- Review of the situation (Iowa, Illinois, Wisconsin)
- History and biology of the western bean cutworm
- Economic impact of the western bean cutworm
- Look-alikes--moths and larvae
- Managing western bean cutworms

"Nitrogen Management on Dairy Farms"

www.dairyn.cornell.edu

A free, interactive website is now available to help dairy producers better manage nitrogen on their farms. It's the result of cooperative work by scientists with the Agricultural Research Service (ARS), Cornell University and the University of Vermont, funded by a U.S. Department of Agriculture (USDA) Fund for Rural America grant.

The website is part tutorial, with interactive diagrams to aid in the review of information, as well as quizzes. Instruction is provided on sampling and testing manure, soil and crops for nitrogen. Information is also available on interpreting test results and calculating the amount of plant-available nitrogen present in a manure sample. A downloadable spreadsheet, called the "Manure Nutrient Calculator," is provided as an example of a manure-crediting system used in New York State.

**"Managing Soybean Aphids in 2007:
How Will Biological Control Contribute?" video**
[http://www.ncipmc.org/teleconference/
soybean2007/videos/](http://www.ncipmc.org/teleconference/soybean2007/videos/)

Entomologists from eight states made presentations on these topics:

- History and biology of the soybean aphid (David Voegtlin, Illinois Natural History Survey)
- Review of the situation with soybean aphids in the Midwest (David Ragsdale, U of MN)
- What is biological control, and what do we have to work with in the Midwest? (Bob O'Neil, Purdue)
- Predators, parasitoids, and pathogens (Kelley Tilmon, South Dakota State University)
- Practices to conserve and use natural enemies (Matt O'Neal, Iowa State University)
- Introducing new natural enemies into the U.S. (Bob O'Neil)
- Foreign exploration (Kim Hoelmer, USDA-ARS, Newark, Delaware)
- Host specificity testing (George Heimpel, U of MN)
- Studies with nontarget aphids (Cory Straub, UW)
- Management guidelines and potential for biological control (Chris DiFonzo, Michigan State Univ., and Marlin Rice, Iowa State Univ.)

Both short courses were facilitated by the North Central IPM Center. The western bean cutworm short course was sponsored by the North Central IPM Center, and the soybean aphid biological control short course was sponsored by the North Central Soybean Research Program.

Illinois Resource Management Mapping Service

<http://agec31.agecon.uiuc.edu/website/rmms/>

The web site allows people to create maps of any area in Illinois in a matter of minutes over the Internet. It was recently updated and now has information for 84 counties in Illinois. Agency staff can use the RMMS web site to view natural resources, farmers can use the site to view individual fields, and city planners can use the site to review town boundaries and plan future growth. Users can quickly locate, create, print, save, and email maps of large and small areas within Illinois in a few minutes. Numerous map layers from demographic data to resource data may be added to the base map to give a better idea of a specific location's resources and other important attributes. After the base map is selected you can choose resource layers (lakes, river, watershed), administrative layers (townships, legislative, IDNR districts), and economic layers (highways, county roads, railroads). The map engine allows people to buffer points, buffer critical areas, view aerial photographs and tabulate acreages on data features. Users can create maps within watershed, farms, and fields.

About the Ag Update Newsletter

The Ag Update Newsletter is a bi-monthly newsletter providing education and research support to the agricultural industry. Current and past issues may be found at the following website
<http://www.urbanext.uiuc.edu/agupdate/index.html>

Contact your county Extension office and request to be put on their agricultural mailing list to receive the local agricultural newsletter and notices about upcoming agricultural events near you. To find your counties location, phone and website go to <http://web.aces.uiuc.edu/ve/>

For further information about this newsletter, please contact:

Ellen Phillips, Extension Educator—Crop Systems
University of Illinois—Countryside Extension Center

6438 Joliet, Countryside IL 60525

708/352-0109

phillipe@mail.aces.uiuc.edu