

# THE ROCK SPRINGS ROTATION

A monthly newsletter from the Organic Cropping Systems Project team

February 2010

## Meet the Team



### Mary Barbercheck

Mary Barbercheck is a Professor of Sustainable Agriculture in the Department of Entomology. Her research program focuses on soil biodiversity and function, particularly as it relates to soil invertebrates and biological control of arthropod pests. She co-developed and co-teaches two organic agriculture courses - Principles and Practices of Organic Agriculture and Organic Fruit and Vegetable Production.

Mary serves as co-director of our project and helps manage investigations of select soil physical characteristics, insect pathogens, and key beneficial and pest arthropod populations. She also participates in the outreach events.

Outside of her “day job” at Penn State, Mary has served on the board of directors of PASA since 2003. One of her key activities with PASA is as the co-chair of the annual conference committee. She also serves on the Certification Review and Outreach and Education Committees of PCO. Mary’s main hobbies involve

her pets – Buck (dog), Mokie (cat), Wilbur and Elmer (donkeys) and Sonny (horse).



### Scott Harkcom

Scott Harkcom has been at PSU for nearly a quarter of a century, having obtained his BS and MS degrees in the Department of Agronomy. He is currently the Agronomy Farm Manager, a position he has held for the past 10 years. As a member of our Project Advisory Board, Scott provides technical support and input on equipment and practices that can be used to accomplish our experimental objectives. For Scott, this project has been a learning process, and he feels that he is benefiting from his involvement (as are we!).

Scott is originally from Westmorland County in SW Pennsylvania and currently lives on the Agronomy Farm property. When Scott is not managing the research and production activities on the Agronomy farm, he can often be found hiking, camping, walking his dogs, or working on classic vehicles.

### Project contacts:

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### We're on the Web!

<http://agsci.psu.edu/organic/research-and-extension/Organic%20forage>

### Did you know?

- Pennsylvania ranks sixth in the U.S. in the number of organic farms and third in the value of organic sales (trailing California and Washington state)
- Nationwide, 2008 organic sales totaled \$3.16 billion, including \$1.94 billion in crops sales and \$1.22 billion in sales of livestock, poultry and their products

Source: USDA-National Agricultural Statistics Service

# Thinking back, looking forward...

## New publication about cover crops

A major goal of our project is to communicate the results of our research in organic cropping systems to other researchers and the general public. Much of our research involves cover crops, particularly how they can be integrated within organic feed and forage production systems so as to maximize their beneficial impacts on soil quality and weed suppression. A recent publication developed by members of the PSU Weed Ecology Lab (Eric Nord, Bill Curran, and Matt Ryan) and project participant Rich Smith explains how cover crops can be used for weed management in Pennsylvania's cropping systems.

The publication is titled *"Suppressing Weeds Using Cover Crops in Pennsylvania"*. In it, the authors explain that cover crops can provide important benefits to croplands—in addition to soil and water conservation, they can suppress weeds, thereby helping to reduce

the need for economically and environmentally-costly weed management practices. But knowing which species may be most suitable for a particular rotation and how best to manage them is not always clear. That's where this publication comes in. In it, readers will find useful information on a variety of topics, including (1) Different types of cover crops, (2) Cover crop establishment, (3) Management of cover crops for weed suppression, (4) Control of cover crops, (5) Other benefits of cover crops, and (6) Potential disadvantages of cover crops.

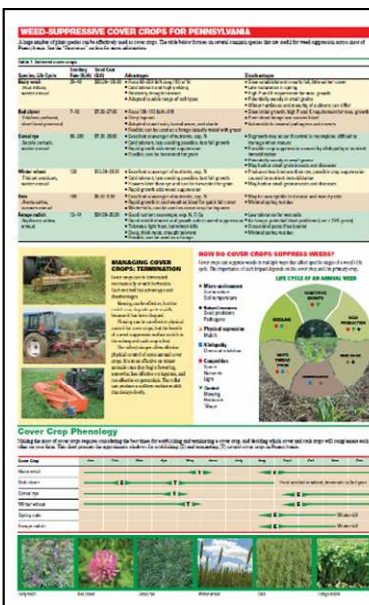
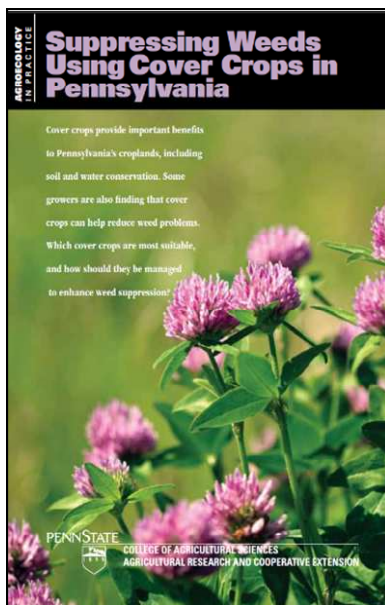
The cover crop management section includes information about species selection, establishment times, seeding rate, row spacing, planting arrangement, and soil fertility and termination considerations. Cover crop control strategies covered in the publication include, tillage, mowing, rolling, and chemical approaches.

A particularly exciting feature of the publication is that it folds out into an informative and attractive full-color poster. The poster contains a table that details the seeding rate, seed cost, and advantages and potential disadvantages of six popular cover crop species:

hairy vetch, red clover, cereal rye, winter wheat, oats, and forage radish. The poster also includes a handy cover crop phenology chart showing the best times for establishing and terminating the six different cover crop species. In addition to the table and chart, the poster also includes

informative graphic panels explaining how cover crops can be terminated mechanically and the different ways that cover crops impacts weeds throughout their live cycle.

The publication is the second in a series of outreach products to be featured in Penn State's new Agroecology in Practice series. The publication can be downloaded free of charge from the PSU College of Agriculture's publication web site at <http://pubs.cas.psu.edu/FreePubs/PDFs/uc210.pdf>. Contact Eric Nord ([ean2@psu.edu](mailto:ean2@psu.edu)) or Rich Smith ([rgs14@psu.edu](mailto:rgs14@psu.edu)) for more information .



Front cover (left) and fold-out poster (right) from the new *Agroecology in Practice* series publication *Suppressing Weeds Using Cover Crops in Pennsylvania*. The publication can be downloaded free of charge from the PSU College of Agriculture's publication web site.

