



Down to Earth: Reports from the field

Innovative Small Farmers' Outreach Program (ISFOP): East Central Region



Hello, from the ISFOP Team! It's hard to believe spring has already come and gone! Summer came on quickly, and the high temperatures and rainy weather add to the challenge of farming. We have been out and about visiting area farmers, farmers' markets and other events. We meet the most interesting people, and the name we use for our program "innovative" certainly applies.

A glimpse at a typical week will find us visiting area farms, and we see projects such as mushroom production, vegetable production (in full swing now), pastured beef, pastured poultry and many other projects. There is never a dull moment for a Lincoln University Cooperative Extension (LUCE) Farm Outreach Worker (FOW)!

LUCE has a new resource for you, a staff member, Dr. Jaime Piñero. He is an Integrated Pest Management (IPM) Specialist. Dr. Piñero has contributed an article on page 3 to assist with those unwelcome guests in the garden.

If you haven't been out to your local farmers' market yet this year, you are missing a great opportunity to know your area farmers and buy the freshest food possible. If you are the baking type, you will find cherries, berries and peaches just around the corner! Or, if you prefer to let someone else do the baking, then you will find a vast array of fresh homemade pies, breads and rolls. Right now zucchinis, cucumbers, beets and onions reign supreme! And, we're on the countdown for sweet corn.

TO MARKET, TO MARKET

Nothing says local like the Wright City Farmers' Market. The market is sponsored by the Wright City Parks Department and is held at Diekroeger Park on Thursdays from 3:30 p.m.-6:30 p.m., May-October. Locally grown produce is available with many farms represented. Bring on the pie cherries! You will find farm raised pork (perfect for the grill), vegetables of all sorts, live poultry, handmade crafts, bedding plants and fresh baked goods for that after dinner treat. The Market Master Irv Huser and his wife, Kathy, operate Environmentally Sound products of Missouri (www.espofmo.com) where they raise red wiggler worms for vermicomposting. The

Husers bring bags of worm castings and their superior bedding plants, grown in their soil blend which features the worm castings, as a part of their weekly inventory. So, get out and meet your local farmers! For more information call (636) 456-3066.



SUSTAINABLE AGRICULTURE RESEARCH & EDUCATION (SARE) GRANT PROGRAMS



Inside this issue:

Table with 2 columns: Article Title and Page Number. Includes entries for Hello (1), To Market (1), SARE (1 & 4), Homegrown (2), Chicken Tractors (2), IPM (3), and Upcoming events (4).

SARE promotes farming and ranching practices that are profitable, environmentally friendly and good for the community. If you have a good farming idea that fits any of these criteria, whether you are a farmer, youth, youth educator, a graduate student or a trained researcher, you may want to submit grant proposals for (continued on page 4)

Homegrown at the Mitts' Family Farm

Although there is a great deal of interest in homegrown, pasture-based meats these days, the number of farms providing these alternatives are still few and far between. So, when Jacob and Sonya Mitts of Troy, Missouri decided to begin a small farming operation, a pasture-based poultry and rabbit business seemed to be the logical place to start. Their 11-acre farm is located in the rolling hills of southwestern Lincoln County. After establishing a home on their property in the spring of 2007, they immediately got to work building a chicken house for egg production. They also established two large gardens for vegetable production. Soon to follow was the addition of rabbit hutches and chicken tractors for meat production. Jacob and Sonya's most recent endeavor was the construction of a rabbit tractor for raising meat rabbits on pasture.

Much of what the Mitts grow in their gardens is for their own consumption. Half of what they harvest annually is preserved for meals to be consumed over the winter

months. What they cannot eat fresh or preserve, they sell at a local farmers' market.

They also eat eggs produced by their large flock of laying hens. But they cannot consume all of the production, so they sell the excess off the farm to folks who stop by and request a dozen or more at a time. Additional income is also generated by their herd of meat rabbits. The couple raise rabbits that are a cross between the New Zealand and Californian breeds. They sell harvested rabbits to a local following of customers, as well to patrons at the farmers' market. Jacob and Sonya continue to experiment with a movable building on pasture for growing the rabbits more naturally. The rabbit droppings deposited on the pasture are improving the soil, while the grasses and legumes produced by the pasture are adding pounds to the rabbits.

The centerpiece of the farm and the enterprise that Jacob is most passionate about is the pastured poultry component. The Mitts will purchase their first flock of day-old

Cornish Cross chicks in the early spring and have them on pasture within three weeks. Once on pasture, the flock of birds will be housed in two separate movable buildings for an additional four weeks. Upon the conclusion of the fourth week, the Mitts family will spend a day harvesting the birds, which they will wrap and freeze for customers who have placed reservations. The remaining birds will be made available to customers at the Forstell Farmers' Market. Jacob and Sonya will harvest approximately three to four flocks of birds per growing season.

The Mitts have been working with David Price, the Farm Outreach Worker (FOW) in Lincoln and Saint Charles Counties. David appreciates the diversity of enterprises on the Mitts' farm and their direct marketing approach. He says, "From both a production and marketing standpoint, it's healthy for any small business to not have all of their eggs in one basket – no pun intended!"



A chicken tractor at the Mitts Farm. This portable unit houses the Cornish Cross broilers.

Chicken Tractors: Poultry Pens on the Move

Call it an arc, call it a portable poultry pen, an egg mobile or a chicken tractor, these units put chickens on the move! The concept is quite simple: a lightweight chicken pen designed to be relocated on a daily basis. There are several

benefits to this method of housing chickens:

- The birds have access to grass and insects.
- The chickens fertilize the soil in the area where they are located.
- Disease, pests and mites are minimized.
- Feed costs are reduced.

All in all, it is a win-win proposition! These structures can be elaborate, with some tractors being quite large. Some are on wheels while others are simply moved from place to place with the aid of a dolly. For the small producer, an A-frame structure with a roof is a good option. Rectangular tractors, basically a pen with a roof, will offer the benefits of this type of production and (*continued on page 4*)

Basics of Integrated Pest Management (IPM)

By Dr. Jaime Piñero, State IPM Specialist

IPM is an approach to solving pest problems by applying extensive knowledge about pests to prevent them from damaging crops. Key to this process is a precise identification of the pest and regular monitoring of populations of both the pest and beneficial organisms. IPM emphasizes that the presence of a pest does not necessarily constitute a problem. Before a potentially disruptive control method is employed, appropriate decision making criteria are used to determine whether or not pest management actions are needed. When action is needed, IPM strategies integrate a combination of all suitable techniques in a manner as compatible as possible. Extensive information about IPM is already available through the land grant university's Cooperative Extension services and other sources. There are several preventive measures that should be adopted to minimize pest pressure.

Top Ten IPM Tips for Effective Insect and Disease Management in Vegetables:

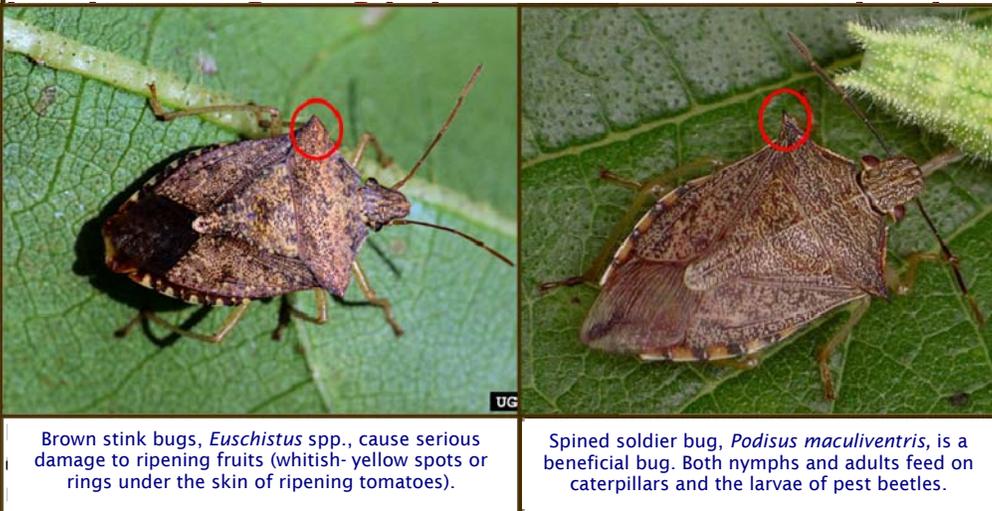
1. **Soil Preparation.** Give plants a head start on pest problems by choosing the proper site, testing the soil, rotating crops, creating raised beds where necessary, and providing sufficient organic matter.
2. **Planting.** For disease prevention, select disease-free transplants, and plant closely related vegetables in separate areas of the garden.
3. **Good fertilization and irrigation programs.** Healthy, fertile soils will produce more vigorous plants that are more able to withstand damages caused by arthropods and diseases. Whenever possible, avoid overhead irrigation to minimize long leaf wetness periods. Space plants to provide

adequate air movement to quickly dry foliage, flowers and fruits.

4. **Maintain good weed control.** This reduces competition for nutrients, makes scouting easier, and reduces alternate habitat for the insect pest, in particular those that are vectors of pathogens. Use of organic mulches is an ideal organic anti-weed treatment. As they decompose, nutrients are released. They also enhance the presence of predatory beetles and spiders.
5. **Maintain good sanitation.** Remove and destroy diseased plant material. Remove plant refuse soon after harvest. Also, disinfect garden tools.
6. **Identify the pest.** Understand that not every insect on a crop is a pest. Learn to recognize beneficial insects and make every effort to save them.
7. **Understand the biology and behavior of the pest.** IPM strategies require knowledge of the pest's life cycle for monitoring and for best timing of insecticide treatments (if needed).
8. **Promote buildup of natural enemies.** By limiting the use of insecticides and by incorporating a variety of plants in the landscape, populations of beneficials are enhanced, keeping pests in check.
9. **Determine, through pest monitoring, if control is needed.** Growers should inspect representative areas of the fields regularly to determine whether pests are approaching a damaging level. Until that threshold is reached, the cost of yield and quality loss will be less than the cost for control.

10. **If control is needed, use the least-toxic option.** Several organic insecticides (e.g., bt [*Bacillus thuringiensis*], neem, rotenone, pyrethrin) and reduced-risk fungicides (e.g., Quadris) are available for use by vegetable growers. Always refer to the pesticide labels before use.

Identify the pest. Predatory bugs (right) have prominent spurs on the "shoulders" (thorax). Plant-feeding stink bugs (left) have a slender beak that is used to pierce the plant tissue.



Other Resources on Organic Insect & Disease Management:

<http://attra.ncat.org/horticultural.html>

<http://www.nysaes.cornell.edu/pp/resourceguide>

<http://extension.missouri.edu/explorepdf/agguides/hort/g06220.pdf>

ISFOP

If you are a small farmer and have a need for information, please contact one of the following Farm Outreach Workers. These people live and work in your community. They can provide information on ways to better manage your resources, reduce expense and increase income. They can also provide information on other available programs and resources that may increase your income and overall quality of life for your family.

You are eligible to participate if:

- Your family lives on a farm, rural or urban.
- Farm products or income from the farm are necessary for you to live where you do.
- Your family provides the management and most of the labor for your farm.
- Your total annual family income is less than \$50,000.

SARE (continued from page 1)

funding consideration. Funds are also available for conducting professional development trainings and workshops. For additional information, visit www.sare.org/ncrsare.

Farmer Rancher (F/R) grants support producers with great ideas for protecting natural resources, enhancing communities and boosting profitability. Individual farmers could receive up to \$6,000 and a group of three or more farmers could receive up to \$18,000. The call for proposals generally comes out in early September with a deadline for submission of a F/R grant proposal in early December. Youth grants are available for conducting on-farm research, demonstration, or education projects by youth ages 8-18, or for attending a sustainable agriculture conference or a camp. Youth Educator grants are available to educators for providing programs on sustainable agriculture for youth. The maximum grant monies available under these two categories are \$400 and \$2,000, respectively. The deadline for submitting applications is usually early September. Please call or write Debi Kelly at (573) 882-1905, kellyd@missouri.edu or K.B. Paul (573) 681-5584, paulk@lincolnu.edu for additional information. **CALL FOR PROPOSALS COMING SOON!**

To learn more, contact:

David Price

priced@lincolnu.edu

(636) 358-7097

Lincoln or St. Charles County

Janet Hurst

hurstj@lincolnu.edu

(660) 216-1749

Franklin or Warren County

We have two openings on our team. Please go to the "Employment" link from the Lincoln University website.

www.lincolnu.edu

Upcoming Events

Missouri Botanical Garden: Visit www.mobot.org or call (314)577-5100 for a summer schedule.

Gateway Greening: Call (314) 588-9600 or visit www.gatewaygreening.org to find out about events and opportunities.

Native Pollinators Workshop: August 13, 2010, 8 a.m.-5 p.m. MU Bradford Farm. Contact Nadia Navarrete-Tindall navarrete-tindallr@lincolnu.edu

Chicken (continued from page 2)

is easy to move. The basic materials are chicken wire, a tarp and wooden planks (sizes 1 x 2 and 2 x 2). The buildings are designed to be lightweight. A quick internet search shows as many varieties of tractors as there are chickens! Some are quite creative, others utilitarian.

Joel Salatin popularized this idea in his book, "Pastured Poultry Profits." Joel is well known for his sustainable farming efforts, pastured poultry and beef. For those considering poultry production, Joel states there is opportunity to develop this market. Salatin says, "The fact is that many consumers want to exit conventional food channels, some of necessity, some of conviction, some of mistrust and some simply because somewhere they've tasted clean food and found it memorable. Pastured poultry offers an alternative to all of these consumers." Salatin runs his flock behind his herd of beef cattle. The chickens assist in pasture maintenance and parasite control. Joel recommends starting small, with about 50 birds, and working up to a larger flock. This is always good advice! This method of sheltering poultry is mainly used for broiler production, but there are also those producers who add nest boxes and use the same idea for egg layers.

Lincoln University Cooperative Extension

Box 29

Jefferson City, MO 65102-0029

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ISFOP Program Staff

- ◆ Dr. K.B. Paul, ISFOP Director
- ◆ Dr. Sanjun Gu, Assistant Program Director and State Horticulture Specialist
- ◆ Vonna Kesel, Program Secretary

