

**INSIDE THIS  
ISSUE:**

Minority Farmers' Conference	1
Trap Crops	1, 4
Beekeeping	2
Small Ruminants	3
Upcoming Events	4
Contact Us!	4

## Second Annual Missouri Minority and Limited Resource Farmers' (MMLRF) Conference

By Catherine Bohnert, LUCE OASDFR Program Assistant

March 15-16, 2013, Lincoln University Cooperative Extension (LUCE) held the second MMLRF Conference. This annual event took place on the LU campus in Jefferson City, Missouri. More than 60 minority and limited resource farmers attended from across the state. Prior to the conference, there was a tour and reception held at The Salad Garden farm in Ashland, Missouri.



Attendees learned about the operation involving moveable high tunnels, growing fruits and vegeta-

bles, raising laying hens, managing a Community Supported Agriculture (CSA) and selling the excess produce at a farmers' market in Columbia, Missouri.

Several speakers from USDA, the Missouri Department of Agriculture, University of Missouri Extension and LUCE discussed issues important to small minority farmers. There were many

technical presentations covering topics as diverse as growing vegetables in high tunnels, beekeeping, irrigation design, soil health, aquaculture, organic certification, integrated

pest management for vegetables, direct marketing, small ruminant health to updates of USDA pro-

grams for small farmers.

The conference concluded with tours highlighting LU's research farms and facilities including high tunnels, the brand new aquaculture production facility, the compost facility and certified kitchen. This conference was made possible through partnership with many governmental and non-governmental organizations as well as a grant from the USDA's Office of Outreach and Advocacy. ☐



## Using Trap Crops to Minimize Insect Damage to Vegetables

By Dr. Jaime Piñero, State Integrated Pest Management Specialist

Trap cropping is an integrated pest management (IPM) method. It has proven to be very successful at controlling cucumber beetles and squash bugs. If these insect pests attack your zucchinis, cucumbers, pumpkins, summer squash and other related cucurbit crops, then you may want to try trap cropping.

Using trap crop plants is easy and inexpensive. Now is the time to grow transplants. You will only need 20-30 plants to protect one-half acre planted in cucurbits.

The key to using trap crops is to transplant the trap crop seedlings to the field at least two weeks before your cash crop.

For example, if you plan to transplant zucchinis on May 15, then it would be best to have the trap crop seedlings already transplanted by May 1. If you plan to transplant your summer squash in early June, then it is advisable to start growing the transplants in early May.

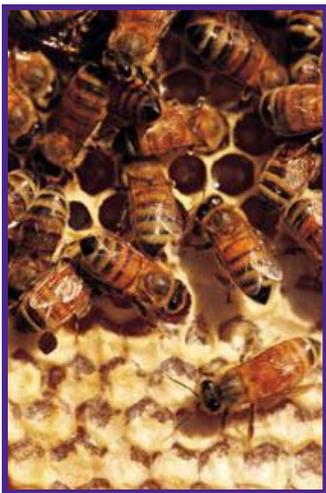
(continued on page 4)

*The Sustainable Connection* is a quarterly publication intended to provide applicable, easy-to-understand information, for farmers in Missouri.

## Beekeeping for Pleasure and Profit

By Miranda Duschack, LUCE Small Farm Specialist

Beekeeping, once a common practice on farms, is gaining in popularity. Managed honeybees can be a positive addition to any farm. The bees' pollination services will increase fruit set on cucurbits, strawberries, cherries and apples. Also, your honey harvest will be the reward for good management. Beekeeping can be very satisfying; however, because of its potential risks, it takes some thought before you begin.



Consider the following:

- Are you or a family member allergic to honeybee venom? If so, what is the severity of the allergy?
- Are you or a nearby neighbor spraying any pesticides that will kill honeybees?
- On average, 30 percent of non-treated colonies die each year. What are your views about treatments for mites and infections?

Honey sales are an easy way to profit from beekeeping. The colony needs about 60 pounds of stored honey to survive the winter, but it will store double or even more than that amount. You can harvest this surplus honey.

The average single colony honey harvest in Missouri is 60 pounds. Bees produce honey during nectar flows; this occurs when trees, shrubs and annuals are in bloom. The spring nectar flow lasts from late April to Memorial Day in late May. The summer flow lasts until late June or July, when clover is no longer in bloom. It is during these flows that the beekeeper harvests the bees' excess honey. The going rate for bottled, extracted honey on the direct market is \$6.00-\$8.00 per pound.

The beginning beekeeper should start with two colonies. That way, if one is strong and the other is weak, bees can be moved to shore up the failing population. At the start of April, the beginner beekeeper installs a nucleus colony of bees into new standard ten-frame equipment of Langstroth design. (Used equipment should be avoided as it can harbor disease and chemical residues that might damage the colony.)

To ensure an early delivery date, the nucleus colonies and equipment must be ordered from re-

tailers by the end of January. Nucleus colonies come with three to four frames of brood (developing baby bees) and one queen. Over the course of the first spring and summer, the colony of bees will increase so that you will have tens of thousands of bees by fall.

The initial investment is around \$800. This will purchase two new hives with supers (beehive boxes) and foundation, protective equipment, such as a suit, smoker and gloves, as well as hive tools and the nucleus colonies.

During the first year, a colony of bees will build up the wax comb, grow in population, store honey for the winter and survive until spring. Supplemental feeding will be needed to help with faster growth and to prevent starvation. Do not expect to harvest honey the first year. You should be prepared for second-year harvests.

Local beekeepers' associations are an excellent resource for beginning beekeepers. Meetings are a fine place to find helpful printed material, high quality nucleus colonies, equipment and possibly even a mentor. ☐



## Factors to Consider Before Buying Small Ruminants

By Jodie Pennington, LUCE Regional Small Ruminant Educator

Small ruminants such as goats and sheep work well on both large and small farms. However, they are especially adapted to small farms as they require limited facilities and are safer to handle than larger animals. Either goats or sheep can be an excellent youth project. Furthermore, goats and/or sheep can utilize forage and other vegetation on the farm that would otherwise have to be mowed and maintained. This saves time and the costs associated with equipment and fuel prices.

You can make a good return on your investment with small ruminants if you have a sound management plan and creative marketing strategies. Like any business, facilities, equipment and the animals can be depreciated or deducted from your tax return with a Section 179 deduction, if appropriate. Goats or sheep can be used to supplement your income, whether you are a retiree or have a full-time job. However, small ruminants require greater management than beef cattle. Goats and sheep have the po-

tential for profit with good management or financial loss with poor management.

Once you have decided to raise either goats or sheep and want to invest in them, you need to decide if raising the small ruminants is going to be a hobby or a paying enterprise. You then need to create a budget. The budget does not have to be extensive; one page may be adequate. Even if you decide to raise the animals as a hobby, you need to know how much you can safely spend. Otherwise, the hobby may quickly become very expensive.

Here are some questions you should answer before you buy any animals.

1. When will you sell the animals to maximize profits?
2. Do you have your facilities ready?
3. Is there adequate fencing to keep the animals in the lot and to keep the predators out?
4. Do you need a guard dog?
5. Do you have adequate feed for the animals?
6. Do you know what healthy animals look like (versus unhealthy ones)?
7. Where will you buy your animals?
8. Do you have the money to buy them?



9. Do you have a calendar of required management practices that includes vaccinations and a deworming program?
10. Who will you ask when you have questions regarding raising goats and/or sheep?
11. Where will you sell the goats and/or sheep once they are market size? This is important to consider because prices vary with demand, and demand can be driven in part by a religious calendar; this is because these animals are in demand for feast days.

Your local extension office can help you with information about goats and sheep. Also, there is a great deal of information on the Internet, though some of it may be misleading.

Use reputable sites such as [sheepandgoat.com](http://sheepandgoat.com) or [eXtension.org](http://eXtension.org), which only contains peer-reviewed information. As with any business, it is beneficial to find a good, experienced mentor who will help you when you have questions. ☐



Visit LUCE's Small Ruminant site: <http://www.lincolnu.edu/web/programs-and-projects/small-ruminant-program>

## Using Trap Crops *(continued from page 1)*

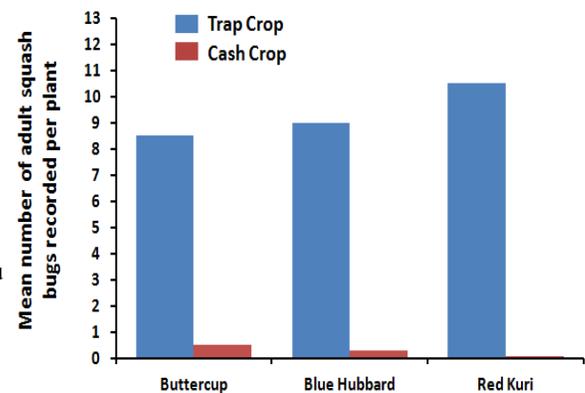
This ensures, you will be ready to transplant the trap crop two weeks before your cash crop.

A second piece of advice is to use an insecticide to kill the insect pests on the trap crop plants. Remember, having one or two cucumber beetles or squash bugs present on your cash crop does not mean that you need to spray. It may be possible that you do not have to control pests on your cash crop because the pests will be killed on the trap crop plants. The graph to the right shows very clearly that Red Kuri and Blue Hubbard squash are excellent trap crops; they harbor at least

nine times more adult squash bugs than the cash crop. Buttercup squash is another excellent trap crop plant; however, the Hubbard squashes have consistently shown to be more effective.

Feel free to contact me at (573) 681-5522 or Nashon Bishop at (417) 846-3948 if you have any questions. We can also provide you with Blue Hubbard or Red Kuri seeds, so you can try trap cropping on your farm. ☺

2012 Selected Trap Cropping Results



Blue Hubbard squash



Red Kuri squash



Buttercup squash

## Upcoming Events

### LU Composting Workshop at Busby Farm

Jefferson City, MO  
Saturday, May 25, 2013

### Small Ruminant Workshop

Neosho, MO  
Friday – Saturday, June 7-8, 2013

<http://www.lincolnu.edu/web/extension-and-research/calendar>

## Contact Us!

The purpose of the OASDFR program is to assist traditionally underserved farmer and ranchers. We are here to help you from seed to plate.

Your phone number, physical address or email address will allow us to send you helpful information and notify you of upcoming outreach workshops and events.

**Dr. Jaime Piñero:** State IPM Specialist  
Phone: (573) 681-5522 Email: [PiñeroJ@LincolnU.edu](mailto:PiñeroJ@LincolnU.edu)

**Nahshon Bishop:** Program Assistant, SW Missouri  
Phone: (417) 846-3948 Email: [BishopN@LincolnU.edu](mailto:BishopN@LincolnU.edu)

**Catherine Bohnert:** Program Assistant, Central Region  
Phone: (573) 681-5174 Email: [BohnertC@LincolnU.edu](mailto:BohnertC@LincolnU.edu)

## Websites

### Innovative Small Farmers' Outreach Program (ISFOP)

<http://www.lincolnu.edu/web/programs-and-projects/innovative-small-farmers-outreach-program>

### Outreach and Assistance for Socially Disadvantaged Farmers & Ranchers (OASDFR) Program

<http://www.lincolnu.edu/web/programs-and-projects/24>



## Cooperative Extension

Jefferson City, MO 65102

Lincoln University in Missouri, and the U.S. Department of Agriculture cooperating. Dr. Frieda Eivazi, Interim Dean, College of Agriculture and Natural Sciences. Distributed in furtherance of the Food and Agriculture Act, 1977 PL 95-98. Dec. 22, 1981

Publications are distributed without regard to race, color, national origin, sex, age, religion or handicap.

### Lincoln University Cooperative Extension (LUCE)

Yvonne Matthews  
Interim Associate Administrator

Publications are available upon request. Contact Pamela Donner, Media Center Coordinator at: [DonnerPJ@LincolnU.edu](mailto:DonnerPJ@LincolnU.edu)

