



**Down to Earth:  
Reports from the field**

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

## Microloan Program from Farm Service Agency (FSA)

By Janet Bollinger, FSA

If you have a small farming operation, the Farm Service Agency (FSA) Microloan Program might give you the assistance you need. This type of loan can help if you are just starting out. It can also be used if you have been in operation for some time but do not need to borrow a lot of money. Microloans were designed to meet the needs of beginning, niche or small family farm operations. The limit for these loans is \$35,000. There is less paperwork and the process is simpler than to apply for a regular FSA operating loan.

The Microloan application form is FSA-2330. It is seven pages long and combines at least three forms into one. It can be found at <http://forms.sc.egov.usda.gov/efcommon/eFileServices/eForms/FSA2330.PDF>.

Microloans can be used for all the same approved operating expenses as a regular FSA operating loan. The only difference is that expenses can be no more than \$35,000. Expenses can include, but are not limited to, the following:

- Initial start-up expenses
- Annual expenses, such as feed, seed, fertilizer, cash rent, fuel, utilities, etc.
- Family living expenses
- Purchase of livestock, equipment and other materials essential to farm operations
- Minor farm real estate improvements, such as wells, fencing, etc.
- Hoop houses to extend the growing season
- Irrigation costs



*High tunnels could be funded by the Microloan Program.*

- Refinancing farm-related debts
  - Training costs for borrower training
  - Expenses related to reorganizing a farm to improve its profitability
- Below is a list of some rules about eligibility. They apply to the applicant and to anyone who signs the promissory note:

- Must not be ineligible for a loan as a result of conviction for controlled substances
- Must be of legal age, mental capacity and have authority to enter into a legally binding agreement
- Must be a citizen of the U.S., U.S. non-citizen national or a qualified documented immigrant under applicable federal immigration laws
- Must have an acceptable credit history as demonstrated by debt repayment
- Must not have caused the agency any loss by receiving debt forgiveness or must have cured the debt forgiveness by repaying the agency's loss
- Must not be able to obtain sufficient credit elsewhere to finance actual needs at reasonable rates and terms
- Must not be in delinquent status on any federal debt, other than a debt under the Internal Revenue Code of 1986 at the time of loan closing; must not have any outstanding

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## Microloan Program from FSA . . . (continued from page 1)

unpaid federal judgments, other than those filed as a result of action in the United States Tax Court

Must not be ineligible due to disqualification resulting from a Federal Crop Insurance violation

Must demonstrate sufficient managerial ability to assure reasonable prospects of loan repayment as determined by the agency; for microloans, this criteria can be met in a variety of ways

Must agree to meet borrower training requirements

Must be the operator of the farm

The security requirements for the Microloan are as follows:

For annual operating purposes, Mi-

croloans must be secured by a first lien on farm property or agricultural products having a security value of at least 100 percent of the Microloan amount and up to 150 percent of the microloan amount, when it's available.

Any other type of Microloan must be secured by a first lien on a farm property or agricultural products purchased with loan funds and having a security value of at least 100 percent of the Microloan amount.

The repayment term will vary; it can be as short as one year up to no more than seven years. Annual operating loans are repaid within 12 months; or they can be repaid when the agricultural products are sold.

Loans for other than annual operating purposes can be repaid in two to seven years.

This will depend on the repayment ability of the operation and the type of security. Interest rates can vary monthly. In April 2013, the rate was 1.375 percent. After the loan is closed, the rate is fixed.

To find out more, talk to your local FSA office. You can get contact information for the Farm Loan Programs personnel who work with this program. Farm Loan Programs personnel (Farm Loan teams) might or might not be in your local FSA office on a daily basis. They have specific territories that cover every county in the state. Your Farm Loan team will provide you with an application package. They will review your completed application when it is returned. Then, they will process your application. They are your point of contact for any questions that you might have. ■

(This article was adapted from information at <http://www.fsa.usda.gov/>.)

## IPM Corner: Preventing and Diagnosing Ailments on Vegetables and Small Fruits

By Dr. Zelalem Mersha, LUCE State Extension Specialist—Plant Pathology

Crop diseases are one of the main challenges that a farmer or home gardener faces. Plants can become sick from non-contagious or contagious diseases. Non-contagious diseases can be caused by a lack of proper nutrition; they can also be caused by bad weather or soil conditions. Contagious diseases are those that are the result of infections. These infections can be by fungi, bacteria, nematodes (roundworms) and viruses. To diagnose an unknown ailment on a plant, first try to recall all of the recent events and practices on your farm and nearby (e.g., spray drift). Also review the past and present weather conditions. Your diagnosis will come when you match the current problem with any previous symptoms or signs. If you cannot, the next step is to take a few well-focused photographs of the affected plant and plant parts. Take a few aerial photos and some at the ground level. Then contact your local extension educator for advice. The other option is to properly pack and send samples to one of the plant diagnostic labs listed in the highlighted box.

There are three elements that must be present for a contagious disease to occur. First, there must be a susceptible host. Second, there must be a virulent pathogen.

Third, there must be a favorable environment. One way to lower the chance of disease is to start with a resistant variety. Also try to modify the growing location in favor of the crop. However, invisible microbes

are everywhere. Often, an environment which favors the crop also favors the unwelcome organisms (pathogens). You should always be vigilant; use proactive and eco-friendly methods. Also, use the least harmful strategy to target the pathogen.

Here is a list of tactics that a grower should use to decrease the problem of diseases. One method is crop rotation. Use resistant varieties of planting materials (seeds, transplants or cuttings), if they are available.

Good sanitation is needed; keep your farm clean. Also, scout the farm regularly. This will help you to detect and treat quickly. Follow best

management practices (e.g., mulching). Apply pesticides responsibly. Use the "integrated disease management"

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### Contacts for Disease Diagnosis

Your local contacts include regional and/or state extension specialists at Lincoln University; University of Missouri, Department of Agriculture; or Kansas State University. OR you can send your properly packed samples to one of the following plant diagnostic labs. It is always helpful to call first to learn how to package and ship the samples.

#### Kansas State University, Plant Disease Diagnostic Lab

4032 Throckmorton PSC, Manhattan, KS 66506; Phone: (785) 532-5810; Email: [clinic@ksu.edu](mailto:clinic@ksu.edu)

#### University of Illinois, Plant Clinic

1102 S. Goodwin Ave., S-417 Turner Hall, Urbana, IL 61801; Phone: (217) 333-0519; Website: <http://web.extension.illinois.edu/plantclinic/>

#### Iowa State University, Plant and Insect Diagnostic Clinic

327 Bessey Hall, Ames, IA 50010; Phone: (515) 294-0581; Email: [pidc@iastate.edu](mailto:pidc@iastate.edu)

#### University of Arkansas, Plant Health Clinic

2601 N. Young Ave., Fayetteville, AR 72704; Phone: (479) 575-3189 or (479) 575-2727; Email: [ssmith@auex.edu](mailto:ssmith@auex.edu)

## Building a Low Cost Cold Room

By Nahshon Bishop, LUCE 2501 Program Educator, Southwest Missouri

A cold room stores fresh produce and supplies at low temperatures. It is a valuable tool for today's small farmers. These cold rooms ensure slower respiration rates of raw fruits and vegetables; thus, they extend freshness and shelf life. This simple step reduces waste through the growing season. It also makes fresh and more nutritious foods available to customers. Because the customers can buy fresh, high quality produce, they are satisfied with the grower and often will become repeat customers. This benefits the grower with a solid customer base, less waste and a higher profit margin.

Despite its many benefits, small farmers often will not build a cold room because of the cost. An 8' x 8' cold room usually needs a commercial compressor. These units can cost more than \$2,000. With today's uncertain economy, many small farmers are unwilling to make this investment for a small cold room.

However, there is a new device that solves the cost problems of building a traditional cold room. This device is a CoolBot™. It can lower the temperature of a well-insulated room to 35°F. Another reason to get excited about this device is its cost. At \$299.00, you will pay only a fraction of the price of a commercial-scale compressor and cooling unit. The CoolBot™ is a simple, small, plastic unit. It allows a standard window air conditioner (AC) to reach very low temperatures. The CoolBot™ also continually monitors the fins of the AC to keep them from freezing.

In Southwest Missouri, several CoolBot™ units have been installed in the past few years. One belongs to a Lincoln University Cooperative Extension (LUCE) farmer-collaborator, Mr. Nhia Xiong. Xiong lives and farms in Anderson, Missouri. He has come to depend heavily on his CoolBot™ to cool produce. Over the past three years, Xiong has earned an extra \$4,000 - \$5,000 per year in sales. This resulted from the increased amount of produce he was able to keep fresh and sell. Mr. Xiong keeps his cold room at 42°F in the summer; there he stores salad greens, spinach, cucumbers, zucchinis and squash. Speaking about his Coolbot™, Xiong stated with a smile, "It has made a big difference."

David Brown of Brown's Berry Farm in Miller, Missouri planted three acres of

strawberry runner tips for fall annual production. He needed a cool place to store the runner tips; hence, he began to build a cold room in the summer of 2012.

Brown said, "You can use the room for so many things besides cooling produce, cuttings

or tips." The room is now being used to store fertilizers, fungicides and other high-value products that must be kept at a certain temperature in the winter. "With very few carpentry skills, a person can construct one of these rooms and cool it for the price of a single commercial compressor," said Brown. The room that Brown built was about 12' x 12'. The walls and the ceiling were covered with two sheets of 4' x 8' one-inch foil faced insulation. David also made sure to cover the floor. He laid down 4' x 8' sheets of insulation boards; these were covered with plywood. Covering the floor ensures a more stable temperature. In this way, produce can be cooled evenly and more efficiently. According to Brown, "Most people do not consider the flooring when they think about insulating a building, but this is where you lose most of your cold air." Brown stated that building a cold room in the summer had its challenges: "When we built this cold room, Southwest Missouri was in the middle of a record heat wave and drought. We could not find a window unit in our area." Brown is satisfied with the ease of the installation and set up. He said, "Anyone can do this. I highly recommend visiting the CoolBot™ manufacturer's website. A lot of the information there is very easy to understand. It's helpful when beginning the process of building your own cold storage room."

In July 2012, after listening to success sto-



Nhia Xiong's completed unit.

ries like these, the University of Missouri's Southwest Research Center installed a cold room; it is equipped with a CoolBot™.

Below is a list of the materials used to build the cold room at the Southwest Center. This list is meant as a guide. However, keep in mind that the total cost will vary depending on location, room size, material costs, structural details and the expertise of the person building the room.

#### Materials List:

22 sheets of 1" Foil Faced Perma "R" 4' x 8' insulation: \$286.00

1 large 18,000 BTU window air conditioner unit: \$499.99

1 CoolBot™: \$299.00

Electrical Supplies: \$150.00

Hardware Supplies: \$60.00

Misc: \$100.00

Total Expenses: \$1,395.00

CoolBot™ Website: <http://storeitcold.com/howitworks.html>

If you would like to see the cold room at the Southwest Center or have additional questions, feel free to contact Nahshon Bishop by emailing [Bishop@LincolnU.edu](mailto:Bishop@LincolnU.edu) or call (417) 846-3948. ■

# ISFOP

If you are a small farmer and need information, please contact an ISFOP Farm Outreach Worker (FOW). FOWs 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 programs and resources that may increase your income and the overall quality of life for you and 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.

**How to Contact  
East Central Regional ISFOP  
Farm Outreach Workers:**

- **Miranda Duschack**, East Central Regional Coordinator, St. Louis County and City

[DuschackM@LincolnU.edu](mailto:DuschackM@LincolnU.edu)

(314) 604-3403

- **Janet Hurst**, Franklin and Warren Counties

[HurstJ@LincolnU.edu](mailto:HurstJ@LincolnU.edu)

(660) 216-1749

- **Joyce Rainwater**, Jefferson and Washington Counties

[RainwaterJ@LincolnU.edu](mailto:RainwaterJ@LincolnU.edu)

(314) 800-4076

- **Vacant**, Lincoln and St. Charles Counties

**For general information  
call the LUCE ISFOP office at (573) 681-5312.**



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**Lincoln University Cooperative Extension  
(LUCE)**

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## Position Announcement

The Innovative Small Farmers' Outreach Program (ISFOP) at Lincoln University is seeking a Farm Outreach Worker (FOW) or Program Assistant for Lincoln and Saint Charles counties (Job code # D4-460). The FOW must reside in either Lincoln or Saint Charles County because the selected candidate will have to work out of his/her home. Initially, the FOW will work in the county in which he/she lives. Later, the work area will be expanded to cover the adjacent county mentioned above. The job responsibilities include, but are not limited to, assisting area small farmers and ranchers to set goals; guiding them to achieve these goals; disseminating information on whole farm planning, best management practices and all aspects of production agriculture and marketing. The FOW should develop positive working relationships with local officials, community leaders, University of Missouri Extension Regional Specialists, and federal and state agency personnel serving the counties. The FOW will also help with in-service training programs and other activities as directed by the Program Supervisor. A high school diploma and a minimum of two years of farm- or agriculture-related work experience is required. In addition, the applicant should possess good communication and people skills and must be able to work with socially and economically disadvantaged clientele. The applicant should possess a valid driver's license and an insured and dependable vehicle and be willing to maintain flexible work hours. Computer knowledge is essential. Some Spanish language skill is desirable. Interested applicant must submit a cover letter, a completed Lincoln University Application Employment Form downloadable at <http://www.lincolnu.edu/web/human-resource-services/human-resources>, a current resume, a copy of his/her high school diploma and three current letters of reference. These must be sent by the posted deadline to Human Resource Services, P.O. Box 29, Lincoln University, Jefferson City, MO 65102-0029. Application deadline is July 18, 2013 or until the position is filled. Lincoln University is an Equal Opportunity/Affirmative Action/ADA Employer. Women and minorities are encouraged to apply. ■

## IPM Corner...(continued from page 2)

technique; this means combining two or more of the previously mentioned methods. Remember that there is no single solution for any crop disease. You must be extra vigilant against the outbreak of disease. By taking the proper measures to prevent and control diseases, you can reap a bountiful harvest.

If you have questions that relate to plant diseases, please call me at (573) 681-5634, or email me at [MershaZ@LincolnU.edu](mailto:MershaZ@LincolnU.edu). ■



**Mulching: a common and popular practice helps in conserving soil moisture, suppressing weeds and curbing the spread of diseases.**