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Ag & Hort Update

July 2009

As we celebrate our country's independence this month, a nice mix of heat and rain has kept the gardens and fields of Shelby County looking great so far this summer. (Now if only the weeds and the lawns didn't like the rain so much too!) Fair time is quickly approaching, an annual event to celebrate our youth and our communities. Join us for "A Family Tradition" –as always, the 2009 Shelby County fair has something for everyone to enjoy.

Happy Summer!
-Kate Olson

Upcoming Dates:
July 8th- Fair Cleanup day
July 12th-20th- Shelby County Fair!

Ask the ISU Garden Expert

When is the best time to plant rutabagas in Iowa?

The rutabaga is a cool, long-season crop. It performs best when planted in summer for a fall crop. Sow seed at a depth of 1/4 to 1/2 inch from June 15 to July 15 in Iowa. Rows should be spaced 18 to 24 inches apart. Thin the planting within a few weeks of germination. After thinning, rutabaga seedlings should be spaced six inches apart.

'American Purple Top' and 'Laurentian' are suggested rutabaga varieties for home gardens. Both varieties produce globe-shaped, light yellow roots with purple tops. Their flesh is yellow.

How do I control cabbageworms?

Cabbageworms are greenish caterpillars that eat large, irregular holes in the foliage of cabbage, broccoli, cauliflower, and Brussel sprouts. Cabbageworms can be controlled with biological or chemical insecticides. *Bacillus thuringiensis* (Bt) is a biological insecticide (a bacterium) that specifically targets caterpillars. Bt products include Dipel, Thuricide and others. Home gardeners can also use chemical insecticides, such as permethrin (e.g., Eight) or carbaryl (e.g., Sevin).

What are the orange-colored growths on the leaves of my ash tree? Is control necessary?

Ash rust is probably responsible for the orange growths on your ash tree. Ash rust is caused by the fungus *Puccinia sparganioides*. The fungus produces conspicuous swellings on leaves, petioles, and twigs. Infected leaves, petioles, and twigs may become twisted and distorted. Infected areas eventually produce masses of yellow to orange, powdery spores.

Puccinia sparganioides requires two different plant hosts to complete its life cycle. Part of its life cycle is spent on ash and the remainder on cordgrass (*Spartina* spp.). The spores produced on ash are carried by the wind to cordgrass. The fungus then infects the cordgrass. In spring, spores from infected grasses are blown by the wind to nearby ash trees. Warm, wet weather in spring favors ash infections.

Ash rust does not seriously harm healthy, well established trees. Control measures are usually not necessary.

When should strawberries be harvested?

Harvest strawberries when the fruit are uniformly red (fully ripe). Pick the berries with the caps and stems attached to retain firmness and quality. Pinch the stem off about 1/4 inch above the cap. Don't pull them off.

Strawberries should be picked about every other day in warm weather, every three to four days in cool weather. The harvest period for some June-bearing varieties may last three to four weeks. Strawberries can be stored in the refrigerator for up to five to seven days. Optimum storage conditions are a temperature of 32 degrees F and a relative humidity of 90 to 95 percent.

How can I control Colorado potato beetles?

The Colorado potato beetle is difficult to control. Hand picking has been used since before the development of modern pesticides. Hand-pick beetles, eggs and small larvae from infested plants as soon as possible (practical for a few insects on a few plants, but impractical for larger gardens). It's especially important to remove overwintering beetles that appear on young plants in spring.

In large gardens, insecticides are often the best option. When insecticides are necessary, consider timing, coverage and insecticide choice. Timing is critical. Small larvae are much easier to control and spraying when the larvae are small is much more effective (and required with certain insecticides) than delaying and spraying after the larvae are grown. Early treatment is also necessary to prevent crop loss. Complete and thorough coverage of infested plants is necessary for good control. With that in mind, control is generally more effective with liquid sprays than with dust applications.

Because of decades of repeated insecticide use, the Colorado potato beetle may be resistant to many widely used insecticides, including Sevin and malathion. Consider other controls available at your local garden center, including pyrethroids and biorational pesticides such as spinosad, *Bt tenebrionis*, Neem (azadirachtin) and the pathogenic fungus, *Beauveria bassiana*. Note that the biorationals are only effective against very young larvae; they will not kill large larvae or adults.

Get answers to all your yard and garden questions at www.yardandgarden.extension.iastate.edu. For specific questions, call the Hortline at (515) 294-3108, Monday-Friday from 10 a.m. to noon and 1 to 4:30

Study Results of Weed Control in Roundup Ready® Cropping Systems Released

Weed scientists from six universities have joined forces to examine grower weed management practices and develop programs to evaluate and improve the sustainability of weed control in Roundup Ready® cropping systems. Called the Benchmark Study, this multi-state research project is now in its fourth year. Funding for the study has been provided by the Monsanto Company.

University weed scientists have been concerned that frequently employed herbicide programs could affect the sustainability and effectiveness of weed control in Roundup Ready cropping systems. They reasoned that weed populations may shift to species that are more tolerant to glyphosate. Also, without proper management, the potential to select for weeds resistant to glyphosate could adversely impact the utility and life cycle of the weed management system on the farm.

The Benchmark Study began in the winter of 2005-2006 with a telephone survey of approximately 1,200 growers from six states. Growers planting Roundup Ready corn, soybean or cotton for a minimum of three years were included in the survey. The survey was developed by a team of university weed scientists to evaluate tillage practices, herbicide use patterns, grower perceptions of weed pressure, and problematic weeds before and after adopting Roundup Ready cropping systems. Growers were questioned about their awareness of and actions taken regarding weed resistance to glyphosate.

The results of this survey were recently published in the journal Weed Technology in a series of peer reviewed scientific papers. The university collaborators and Monsanto are releasing summary reports – herbicide, weeds, resistance, tillage and overview summaries – highlighting information from each of the Benchmark Study scientific papers. More details are available under new articles on the ISU Extension weed science Web site at www.weeds.iastate.edu/.

In addition to the survey, the Benchmark Study is in year four of a field study that began in 2006. Approximately 150 growers in six states were randomly selected from among the survey respondents to participate in on-farm trials. In each of these on-farm trials, the growers' current herbicide program is compared to a herbicide program recommended by university weed scientists.

The researchers expect the herbicide program recommended by the university to reduce the potential risk of selecting for glyphosate resistance. They have been monitoring weed populations, weed species diversity, weed seedbank, crop yields and economic returns from both herbicide programs throughout each growing season.

This information is currently being reviewed and evaluated, with targets to publish the first two years of the field study in late 2009. The results of the Benchmark Study may provide valuable data comparing the sustainability of growers' current weed management programs compared to more diversified weed management programs, while reducing the risk of selecting for weed resistance to glyphosate.

Study Encourages Farm Succession, Retirement

Retirement is something many long for with plans of traveling, more family time or relaxation in mind. But for the majority of Iowa farmers, full retirement is hardly considered.

According to the new publication, "Iowa Farmers Business and Transfer Plans" (PM 2074) by Ethan Epley, Michael Duffy and John Baker of the Beginning Farmer Center at Iowa State University, only 23 percent of Iowa farmers plan on retiring, and 30 percent say they never will. These statistics are part of the findings from the International Farm Transfers Study done in 2000 and 2006. It focused on the transfer of intangible assets and produced results that didn't surprise Baker.

"I have been working with the international research project and succession plans for well over 20 years, and this only confirmed what I thought," the publication co-author said. "A lot of farmers have no retirement, estate plan or identified successor for farm business."

The study is a replication of a previous Farm Succession Survey written by Professor Andrew Errington of the University of Plymouth, England. In 1999, Errington, Baker and Duffy formed a research partnership that allowed Baker and Duffy to conduct Errington's study in Iowa in 2000. Six years later, in 2006, they replicated it and began to analyze the data and feedback.

According to Baker, for every 10 farmers that want to get into farming, only one is getting out. Additionally, more than 70 percent haven't identified a successor despite the high interest in the occupation, because for many, farming is more than simply a career. It's a lifestyle that retirement will completely disrupt.

"Retirement is seen as not only a loss of occupation, but also a loss of a way of life," the publication states. Beyond the wills, estates and trusts that determine the future of land and physical assets are things like labor, management and decision-making power that also must be handed down. This reality makes the process and idea of retirement more complicated and less appealing to those whose entire lives have been about farming. However, Baker urges farmers to reconsider.

"Farmers need to develop a retirement plan and also be willing to retire," he said. "We have to think about what this means to rural Iowa and rural communities around the nation." Instead of liquidation, a plan and identified successor can ensure continued sustainability and a future for young farmers, both of which excite Baker.

"Agriculture is the one field where every morning everyone in the world gets up and wants what we produce. We must recognize the wealth we have in Iowa," he said. "I am enthusiastic about the future of agriculture, but I think we need to put labor back into farming and capture the value of it. Fewer farms with more acres means that there is no place for young people." While he doesn't deny the continuation of large, high-volume, low-margin farms, Baker believes there still needs to be a place for family farms in the future of Iowa agriculture.

"Iowa Farmers Business and Transfer Plans" (PM 2074) is available from the Iowa State University Extension Online Store, www.extension.iastate.edu/store/ or can be ordered by your local extension office.

As a part of ISU Extension, the Beginning Farmer Center (BFC) was started in 1994 to ensure this exact thing. Designed to assist in the idea of retirement and farm preservation, it conducts a variety of programs including Farm On, which works to connect young potential farmers with those close to retirement. The BFC also produces a variety of publications, like the survey, as resources for policy makers, educators, private industry or even smaller communities who thrive on maintaining their family-farm identity.

"We simply want to raise awareness," said Baker, the BFC's administrator. "We want to help people look at alternatives and think about implications."

Through the BFC, Iowa is one of 20 states that belong to the International Farm Transition Network, which is also headed by Baker, and works to support young people trying to get into farming. With research like the International Farm Transfer Study and networking around the nation and world, Baker hopes to see continued development in the area of educational research-based materials on estate or retirement planning.

USDA Stocks and Acreage Report Released

At the end of June, USDA released its Grain Stocks and Acreage reports. The stocks report fit somewhat within trade expectations, but the acreage report held some surprises in comparison to trade expectations. In the March 2009 plantings report, principal crop area in the U.S. was shown over 7.5 million acres lower than in 2008. By the June report, nearly half of that area had returned to crop production. Corn, soybean, and wheat planted area are all estimated higher than in March. For corn and wheat, the upward revisions were not expected and for soybeans the upward revision was not as high as expected.