



Ag & Hort Update



May & June 2008

I am combining two months into this newsletter; the next issue will be sent out at the end of June. Please remember that the WIN No-Till Field Day is June 17 near Minden.

If you are interested in becoming a Master Gardener, please call or stop in and get your application; we are currently signing up for fall classes. If fall classes do not work, we will also hold a class session beginning January 2009.

I would like to receive your feedback on the Ag & Hort Newsletter, please let me know if I can add any other topics of interest to you or if there is something that you already like about the newsletter. These suggestions will allow me to discuss topics that are of interest to you. Email me at ganzer@iastate.edu

Kent Ganzer

Upcoming Events

- June 6 – Farm Safety Day Camp
- June 10 – FSQA Final Training, 6:00-8:00 p.m.
- June 14 – Pullorum Testing Fair Chickens, 1:00-3:00 p.m.
- June 15-24 – College World Series (if you like baseball!)
- June 24-26 – State 4H Conference
- June 17 – WIN No-Till Field Day, Minden
- June 27 – CSI Camp, Fairgrounds
- June 28 – CSI Camp, Fairgrounds
- July 6 -14 – Shelby County Fair

May Is Beef Month

Whether it's the All-American hamburger or a thick steak on the grill, Iowans have a love affair with beef. With this the season of outdoor activities and backyard barbeques, that relationship grows even stronger. In honor of this, May is declared "Beef Month" in Iowa. This celebration started more than 40 years ago; it honors the dedicated men and women who constantly produce the highest quality, nutritious beef that Iowa is known for around the world. The beef industry also plays a crucial role in Iowa's overall economy. Cattle generate \$5.1 billion in total direct and indirect economic activity to Iowa's economy. The cattle industry also supports Iowa's corn and soybean producers—148 million bushels of Iowa corn and over 78 million bushels of Iowa grown soybeans were fed to cattle in 2006.

Iowa State University and ISU Extension has provided our local cattle producers with information and education for over 100 years. As consumers, ISU Extension is here to provide you with the facts and information to answer any questions that you may have. The resources in Extension seem to be endless; we will provide you with unbiased, researched-based answers to your questions. ISU Extension is here for the consumer just as we have been for the producer. Everyone in Iowa depends on our local beef producers to some degree, whether it is for that juicy steak on the table or having a market for our grain and forage. Beef production is a big aspect of agriculture, so

take time and thank your local beef producers for adding value to Shelby County. Here is an award winning recipe from the National Beef Cook-off. *Information provided by the Iowa Beef Industry Council & the Beef Check off.*

Steak de Burgo

Makes 4 Servings

Ingredients:

- 4 Beef Sirloin Steaks (6 oz. each)
- 1 teaspoon lemon-pepper
- ½ teaspoon ground cardamom
- 3 tablespoons butter
- 8 small mushrooms, thinly sliced
- 2 tablespoons diagonally sliced green onions
- 2 tablespoons white wine
- 1 tablespoon light soy sauce
- 1 teaspoon Dijon-style mustard

Mixing Instructions:

Combine lemon-pepper and cardamom; sprinkle over beef sirloin steaks. Heat butter in heavy frying pan to bubbling (Do Not burn).

Add steaks and sauté 7-8 minutes, turning once. Remove steaks to heated platter, keep warm.

Add mushrooms and onions to skillet; stir-fry 2-3 minutes. Stir in wine, soy sauce and mustard, scraping up brown meat bits; heat thoroughly. Pour sauce over steaks. Serve immediately.

Iris Borer

The iris borer is the most destructive insect pest of iris. They directly damage leaves and rhizomes and introduce the bacterium that causes a foul-smelling soft rot. Damage will first appear in May or June when the iris borer caterpillar feeds inside the foliage and causes dark-streaked, watery areas or ragged edges on the developing leaves. The caterpillars move downward in the plant and by July or early August may have caused extensive destruction inside the rhizomes. Rhizomes may be completely hollow from borer feeding or decayed by the soft rot bacteria.

Iris borer moths emerge from the pupae in the soil by late summer and lay eggs on the drying iris leaves and surface debris. The eggs overwinter and hatch the following April or early May. There is only one generation per year. If you find empty damaged rhizomes, search the nearby soil for shiny, dark chestnut brown pupae and discard them. There is also no benefit to treating the soil when replanting the irises. *Information provided by Laura Jesse, ISU Plant and Insect Diagnostic Clinic.*

Good News – Bean Leaf Beetles Hit Hard By Winter Cold

During the last 20 years, the bean leaf beetle has undergone tremendous population changes in Iowa. From 1989 – 1996, the populations were relatively insignificant and they were not considered a serious pest. In 1997, the population in Iowa began a yearly escalation until it reached a historical high in 2002. Populations in 2002 were nearly 400 times larger than those in the mid-1990s and we believe this was due to milder winters followed by earlier planting of soybeans. Since then the populations have returned to more normal levels similar to what we witnessed at the beginning of the beetle explosion.

Insecticide applications for aphids during July and August have greatly reduced the second generation of bean leaf beetles. Each year that we spray for aphids, fewer beetles go into hibernation, resulting in a benefit from soybean aphid applications has resulted in the beetles becoming a secondary pest. So what are we to expect in 2008? It was a long, cold winter, and based on temperatures, we predict that the mortality rate of overwintering beetles is very high. It is predicted that west central Iowa has a mortality rate of 93%. Beetles will be back this spring, but at the lowest levels in the past seven years. As in the past, the first emerging fields of soybeans should be scouted and managed if necessary. *Information provided by Marlin E. Rice & Rich Pope, Department of Entomology.*

New Trapping Procedure for Emerald Ash Borer

Des Moines, Iowa -- To help in the detection of the emerald ash borer (EAB) in Iowa, the Iowa Department of Agriculture, Iowa Department of Natural Resources, Iowa State University Extension, and the U.S. Department of

Agriculture Plant Protection and Quarantine have rolled out a new survey initiative to look for the exotic, ash tree-killing insect. EAB researchers have developed a new survey tool, a purple prism trap and lure that will be used in Iowa and in 45 other states throughout the country. EAB survey crews will place nearly 1,200 traps in ash trees at strategic locations throughout Iowa. The purple traps are covered in glue and contain a lure to attract and catch any EAB adult beetles that may be present in the State. Program officials will monitor the traps throughout the summer and will remove the traps in the fall. Citizens are encouraged to assist in EAB detection and education; if you are contacted, please allow officials to place a trap on your property. If a suspect beetle is found in a trap, it will be sent to a U.S. Department of Agriculture for identification. If you come across a purple trap that is damaged or lying on the ground, please contact the State's Entomologist's office at (515)725-1470. You may also call the EAB survey hotline at (866)322-4512. For more information please visit the online website at www.PurpleEABsurvey.info

Purple Trap Specifics:

- * The purple prism traps are made of corrugated plastic, roughly 1-foot wide x 2-feet long
- * The outside of the traps will be coated with a non-toxic glue and will be hung in ash trees
- * The traps will contain a lure (Manuka Oil) that is attractive to EAB adult beetles
- * The traps will be monitored and insect specimens will be collected
- * The traps pose no risk to humans, pets, or wildlife; however the glue may be very sticky

Calculating Growing Degree Days

For plants, disease organisms, insects and other "cold-blooded" creatures, development is dependent on the temperature around them. So if we can understand the key temperatures needed for a given species, we can often monitor and predict development based on measuring how much heat each species accumulates from the environment, relative to its functioning temperature range. Scientists have estimated a temperature approximate to the coldest temperature where effective development occurs for many species. That is the lowest cardinal temperature. For most species, there is also a high cardinal temperature, which is a point where growth and development are at their peaks. Regardless of the base (lower cardinal temperature), the process to calculate degree days is similar. To model crop or pest growth, we estimate the accumulation of heat on a daily basis. We look at each day as a provider of heat that leads to development. Here is the process for collecting information for a given day and degree-day base.

- * Collect the daily high and low temperature for a site (or the average)
- * Average the high and low temperature to estimate the average heat gained for that day
- * Temperatures below the base contribute nothing to development; therefore the low should be adjusted to the base temperature. The same is true for the high temperature, if the high is over the maximum base temperature, adjust to the base.
- * Subtract the base temperature from the average temperature and you have the accumulated degree days for that organism.

Here is an example. Let's calculate how many base 50 degree days have accumulated for black cutworm development in Iowa for May 4 and 5 somewhere in Iowa.

Day	Low	High
May 4	38	69
May 5	55	75

May 4th – First, adjust the low temperature to 50 degrees (because no development occurs below 50). So we average the high (69) and the adjusted low (50) which comes to 59.5, subtract the base (50), that means that we gained 9.5 degree days for May 4. (If the average is below the base (50), do not subtract because we would have gained 0 degree days)

May 5th – Repeat the same process, however, the low temperature is above the base (50), the low will need no adjustment. So average the high (75) and the low (55), which comes to 65. Subtract the base (50) that means there were 15 degree days for May 5. The two-day total of base 50 degree days is 24.5. Usually the low base is 50

degrees and the high base is 87 degrees. Anytime the low is under 50 and the high is above 87, you will need to adjust to these base temperatures. *Information provided by Rich Pope, Department of Entomology.*

My daffodils produce foliage in spring, but no longer blooms. Why?

If your daffodils aren't blooming, the plants weren't able to store enough food in the bulbs in the previous year. Daffodil foliage typically doesn't die back until four to six weeks after blooming. During this period, the daffodil foliage is manufacturing food. Much of the food is transported down to the bulbs. In order to bloom, daffodils must store adequate levels of food in their bulbs.

Cutting off the foliage before it has died back naturally may prevent the plants from storing adequate food in the bulbs. Allow the daffodil foliage to die completely before removing it. Plants in partial shade in May and June may not be able to store enough food in the bulbs because of insufficient sunlight. Dig up daffodils in partial shade when foliage has died back and plant the bulbs in a site that receives partial to full sun. If given proper care and favorable growing conditions, weak daffodils can be encouraged to bloom again.

Why does my crabapple tree bloom every other year?

Some trees, such as fruit trees and crabapples, bloom heavily one year and then sparsely the following year. Hand thinning of excess fruit on fruit trees will help to overcome this tendency to flower and bear fruit in alternate years. There are four crabapple tree varieties that tend to flower heavily every other year, "Bob White", "David", "Mary Potter", and "Red Splendor". When selecting a crabapple tree, choose a variety that blooms heavily on an annual basis.

June is Dairy Month

Get summer started off on the right foot with "3-A-Day" of nutrient rich dairy foods. From calcium to potassium, dairy products like milk, cheese and yogurt contain nine essential nutrients which may help to better manage your weight, reduce your risk for high blood pressure, osteoporosis and other certain cancers. Whether it's protein to build and help repair the muscle tissue of active bodies or vitamin A to help maintain healthy skin, dairy products are a natural nutrient powerhouse.

Osteoporosis is a major public health threat, affecting more than 28 million Americans. One of the reasons for such high rates is the fact that most adults have critically low calcium intakes. Dairy products contribute 73% of calcium in the food supply and most are not getting enough in their diet. Consuming at least three servings of milk, yogurt, or cheese a day is an important step to build strong bones and osteoporosis.

High blood pressure affects 50 million Americans and is a major cause of heart disease and stroke. Studies show that a low fat diet providing 3 servings of low fat dairy products and 8-10 servings of fruit and vegetables, significantly lowers blood pressure, especially when combined with a low sodium intake.

Results also show that calcium may help in reducing the risk of colon tumors. Four servings of milk, yogurt or cheese when added to the diets of high-risk patients reduced the return of single adenomas by 19% and reduced the total number of adenomas by 24%. These findings are consistent with previous research suggesting that nutrients found in milk and other dairy products may reduce the risk of developing cancers of the colon and rectum. In honor of Dairy month, please enjoy this great smoothie recipe:

Strawberry Banana Smoothie

- 1 ½ cups of 1% low fat milk
- 1 pint low fat vanilla yogurt
- 2 ripe bananas, peeled and sliced
- 1 ¼ cups sliced strawberries
- 2 tablespoons honey
- 12-14 ice cubes

In blender jar, combine milk, yogurt, bananas, strawberries and honey; add enough ice to measure 6 cups in the blender. Process until smooth; scraping sides as necessary. Garnish each serving with a strawberry slice and fresh mint if so desired. Makes 5 servings (8 ounces each)

WIN No-Till Field Day

June 17, 2008

(Rain date June 19)

I-80 Exit 29, Minden, IA

8:00 – Noon

At The Field, NE Corner of I-80 & Exit 29

**Field Demonstrations, Rainfall Simulator, Equipment Displays
Ride & Drive Display**

Noon – 2:30

Minden Community Building

FREE Cattlemens Ribeye Steak Sandwich Lunch

Elwynn Taylor and Bill Northey

Brought to you by the Shelby, Harrison and Pottawattamie
NRCS, ISU Extension and Soil & Water Conservation Districts

* The Field Day and Lunch is FREE with

Pre-Registration By: June 11

Please Call: 1-888-644-2105 or email csgorham@iastate.edu