Most of us have flowers blooming and vegetables putting on growth in our well-tended gardens. It seems idyllic until we get unwanted visitors in the form of insect pests that chew the leaves, or suck the juices out of our beautiful green plants. In this issue you will read about some of the insects that might be “bugging you”.

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Invasive Species

By Jolene Wallace

July 6 to July 12 is invasive species week—a week to raise awareness, knowledge, and understanding of the damage invasive species can do to our native ecosystems and to enlist the aid of our population to scout for and report suspected invasives.

An invasive species is any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem; and whose introduction does, or is likely to, cause economic or environmental harm or harm to human health.

Japanese knotweed is one of the invasive plant species that pose risks to our biodiversity and is extremely difficult to remove once it has become established. Japanese knotweed is native to Asia and was likely brought to North America in the nineteenth century to be used as an ornamental. Due to its rapid growth it spreads quickly, creating a dense thicket that shades out native vegetation. This loss of native plants results in a change in the habitat of the wildlife in the area.

Japanese knotweed spreads by seed and by large rhizomes, which can reach 40-60 feet in length. Any small piece of rhizome left in the soil is able to grow into another plant. This includes pieces that travel via water, soil, or compost to a new location. These are some of the characteristics of Japanese knotweed:

- Bamboo-like hollow stem
- Reddish brown, smooth, stems, swollen at the joint where the leaf meets the stem.
- Leaf size normally about six inches long by 3-4 inches wide.
- Leaf broad at the base or triangular in appearance with pointed leaf tip
- Branched sprays of tiny greenish-white flowers in late summer through fall

If you think you have seen Japanese knotweed, please bring us a sample for identification and for information on eradicating it.
Nature Abhors a Weed Vacuum

By Peter Hagar Ag and Energy Educator

I recently held a field meeting during which I and a small group of farmers and graziers walked through lush pastures of grass, clover and of course…weeds. I’d like to think that my pastures are in the reduced weed variety but I don’t know if there is such a thing as weed free. Weeds are some of nature’s toughest customers...adaptable, fast growing, tough to eradicate and extremely competitive. Anyone who has ever planted a vegetable garden knows what I’m talking about. If only our vegetable crops and forages would grow this persistently. For those of you with small livestock or a few beef cows, pasture weeds can be a serious problem if they get out of control.

What we need to understand from the start is that weeds are a natural part of the environment and that we will never get rid of all of them. What the dedicated farmer or gardener aims for is management of weeds to reduce their impact on the productivity of the more favorable plants. There are several ways to manage weeds to enhance the growth of pasture grasses and other crops. This is defined as Integrated Weed Management, an economically and environmentally sound approach to weed management. An integrated approach involves scouting, prevention, and control in a coordinated plan.

The first step to reducing weeds is Prevention. By regular scouting of your pastures, you will be able to estimate the quantity of weeds, identify the species present, and the severity of your weed problem. Management should focus on controlling the dominant weeds and preventing the spread of less common weeds. Knowing what types of weeds are dominant and applying the required management is key to improving pasture conditions for desired forages. Most weeds are spread by seed, so anything you do to keep weed seeds from getting on to your soils will reduce potential weed pressure. Weed seeds can be transported in purchased hay, grass seed, mowing equipment, or dispersed by the wind or wildlife. Many weed seeds will pass unharmed through the digestive tracts of birds, wildlife and livestock, thus being spread far from the seed source. Keeping hedgerows and roadways mowed and clean of noxious weed seed sources will help to reduce local seed production.

Once an established weed problem is identified, an appropriate Control method needs to be determined. Cultural practices such as application of lime and fertilizer will increase the ability of desired pasture plants to compete. Generally speaking, a thick and healthy crop of grass will crowd out undesirable plants, prevent establishment of new weed seeds, and utilize a majority of the water, sun and nutrients available for growth. Many weed species are indicators of poor soil fertility and are good sign that soil pH and soil nutrient testing is warranted. Mechanical control such as mowing or clipping pastures is also an effective method of controlling weed populations. Mowing improves the pasture’s appearance, temporarily increases forage production and properly timed, will prevent weeds from producing seeds. Mowing is more effective on annual weeds than perennial weeds and broadleaf weeds more than grass weeds. Biological control involves using other living things to control weeds such as plants, herbivores, insects and nematodes. These methods are unlikely to provide complete control, but will often suppress the weed population to a manageable level.

North Country Gardening
Amy’s Tips for July

By Amy Ivy

Guide to Local Food

Once again Clinton, Essex and Franklin counties have teamed up to produce one map showing the locations of growers, food producers, CSAs and Farmers Markets for all three counties. We have lots to give out to the public so pick one up at our office, or the Farmers Market, and feel free to take a few and give them to your friends! There will be a pdf of the map on the Adirondack Harvest website, but it’s a large document so you’ll want your own hard copy to keep on hand this season.

July in the Vegetable Garden

You can make one last, light application of fertilizer in early July to give your long season crops a boost. Make notes of the varieties that are doing the best for you this summer as well as the ones that aren’t. This is the best way to learn what is best adapted to your particular soil conditions.

Books can only tell you so much; your observations in your own garden are invaluable. Don’t give up on the weeding and don’t wait to pull them until after they flower and set seed. The earlier you pull them the better.

Mid July will be the time to watch out for a condition called blossom end rot on tomatoes, where the bottom of the fruit turns brown and dies. This is usually a sign that your plants aren’t getting enough water. If you water frequently and still see this condition it means you aren’t applying enough water each time. Remember that a long, slow soak every few days is better than a light sprinkle every day. Remove and compost all affected tomatoes, adjust your watering habits, and the next fruit that sets should be fine.

There is still time to give your tomatoes (and peppers, too) a shower of Epsom salt water. Dissolve 1-2 tablespoons in a gallon of water and shower this solution over the leaves of your plants. The extra boost of magnesium in the Epsom salts helps with fruit set and development.

By mid to late July it will be time to harvest your garlic. Watch the leaves closely as continued on page 4 ...
they begin to fade. Wait until most of the leaves have turned brown, but be sure to harvest the crop while there are still 2-3 green leaves left. These leaves are the wrappers around the head that holds the cloves together. If you wait too long to harvest, the head will fall apart into cloves that won’t keep long.

**Fertilizer**

Plants need good nutrition, but too much fertilizer isn’t helpful and can even cause problems. Excess fertilizer, especially nitrogen and phosphorus can leach into ground and surface water, and it actually makes plants more vulnerable to some pests and diseases.

Garden soil benefits from organic matter you add in spring and fall so, in most cases, you only need to add extra fertilizer at or near planting time and again in early July. This can be either a granular product such as 10-10-10 or a poultry-based granular that you scratch into the soil surface just before watering or a liquid product you apply with a hose or bucket. A 2-inch layer of well-rotted manure or compost would be an excellent organic fertilizer, but it will become available more slowly than the other two, so you need to plan your timing a little more carefully.

Containers don’t have the advantage of the natural soil teeming with beneficial microorganisms so they need to be fertilized more often. If you didn’t mix a slow-release fertilizer in the planting mix you should supply a liquid type of fertilizer about every 3 weeks all summer long.

When plants receive excessive amounts of fertilizer their growth becomes soft and lush. It may look attractive to us, but it is much more vulnerable to fungal leaf diseases and leaf feeding insect damage. Aphids can actually tell which plants have more nitrogen in them, and will choose those plants over those with lower nitrogen levels.

If you grow herbs, don’t give them much, if any, fertilizer. Oddly enough, extra fertilizer decreases their flavor rather than enhances it. Keep removing the flowers from your basil plants to encourage more leaf production. If you want a lot of basil, consider making a second planting now that will give you a fresh supply in August. Chives will respond to a mid-summer haircut once they become straggly and finish flowering. Take grass shears and cut the whole plant down to about 2 inches and in a few days new, more tender shoots will emerge.

**Can you identify these as bug or beetle using the clues on page 6?**

Answers on page 11
Grape Grower Training Opportunities

Growing wine grapes is becoming increasingly popular both at home and commercially. It is a very complicated process involving careful site and variety selection, specific planting and pruning requirements, and a myriad of pests and diseases.

Cornell Cooperative Extension established a trial vineyard at Cornell’s research farm in Willsboro in 2005 with 300 vines of 25 hybrid cold hardy grape cultivars. This grape trial is intended to determine what type of grapes will survive in the area but the trial is also a hands on learning experience. Throughout the season there are several seminars intended to help people learn the necessary steps on how to manage a vineyard including pruning, canopy management, pest control, and harvesting.

Anyone with a keen interest and willingness to learn through active helping with some of these tasks is encouraged to contact Cornell Cooperative Extension Field Technician Lindsey Pashow at lep67@cornell.edu or call 518 561-7450 to be put on an email list for future learning opportunities.
Now that our gardens are growing the first pests of the season are showing up. Check your plants regularly in order to spot problems early so you can catch them before they get out of control. Even on your busy days at least make a detour on your way to your car and do a visual inspection as you walk by. Whenever you have a few minutes, take the time to get up close to your plants. Turn the leaves over to look for eggs or newly hatching insects. Here are some insect pests that you may be already seeing.

**Colorado potato beetles** love potatoes, of course, but their favorite crop of all is eggplant, which is related to potatoes. Luckily, they don’t have much appetite for tomatoes, another relative. If you find adult beetles, go hunting for clusters of eggs laid by those adults. The eggs are bright orange, about the size of a fat sesame seed and are laid in clusters of 8-12 on the undersides of the leaves. You want to crush the eggs using a chip of wood or other handy object in order to prevent the next generation from developing.

**Aphids** love lupines. Actually, aphids feed on a lot of different flowers and vegetables but they really do love lupines. If you have a mixed flower garden, the first place you’ll find aphids is there, and they are out right now. I find they are most interested in the flower stalk and will completely cover the stalk as it begins to bloom. You can knock them off with a hard stream of water or direct a spray of insecticidal soap since they move very slowly. Just don’t use that spray on hot, muggy days or it may harm your plants. As soon as the lupine flowers fade I cut the entire plant back to the ground. It quickly produces beautiful new growth that is rarely bothered by aphids and lasts the rest of the summer. Be sure to give this method a try if you grow lupines.

**Flea beetles** love crucifers, which is the group that includes broccoli, cabbage, cauliflower, Brussels sprouts and Chinese cabbage. I don’t have any easy ways to deal with these pests. They are small, round, black beetles that hop like a flea when you get close, so hand-picking is impossible. They make round ‘bullet holes’ right through the leaf and can wipe out young seedlings. There are some dusts you can use that leave a residue for when they hop back that can help. If you have a problem every year you can plant these crops under row covers to keep flea beetles off until plants are big enough to tolerate some damage.

There are many types of pests out there, along with many beneficials, too. When in doubt, bring a sample by our office for a free identification and we can suggest control options tailored to that particular pest.

**Bug or Beetle?**

Do you know the difference between a bug and a beetle? Here are some clues:

<table>
<thead>
<tr>
<th>Bug</th>
<th>Beetle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Piercing mouthparts</td>
<td>Chewing mouthparts</td>
</tr>
<tr>
<td>Wings (if present)</td>
<td>Front wings hard (elytra)</td>
</tr>
<tr>
<td>Membranous of thickened hind wings fold under elytra</td>
<td>when not flying</td>
</tr>
<tr>
<td>Diet—piercing, sucking liquid plant feeder</td>
<td>Diet—chewing plant and animal feeder</td>
</tr>
<tr>
<td>Incomplete metamorphosis</td>
<td>Complete metamorphosis</td>
</tr>
<tr>
<td>Frequently X shaped where wings meet</td>
<td>Elytra meet in center</td>
</tr>
</tbody>
</table>
Weeds continued…

By Jolene Wallace

Chemical weed control involves the use of herbicides. Herbicides should be selected based on forage species being grown, weed species to be controlled, cost and ease of application. Environmental impact should also be considered. Choosing the proper herbicide and application rate is extremely important. Herbicides must be applied at the correct rate and time to be cost effective.

Maintaining a healthy, productive pasture will reduce the population of weedy plants. Good pasture management such as pH testing, fertilization and controlled grazing will result in healthy pastures. While we cannot hope to eradicate all weeds, an integrated weed management strategy involving scouting, prevention and control is the most economical and environmentally friendly approach to pasture weed management.

For questions regarding pasture management, grazing livestock or small farm questions, please contact Peter Hagar at Cornell Cooperative Extension’s Clinton County office at 561-7450 or email me at phh7@cornell.edu.

We have received dozens of requests for information about this not unattractive weed that is making its way into the lawns of many residents all over the state, including my own.

Creeping Charlie, also called ground ivy, is a perennial weed and member of the mint family. It spreads by seed and by stolon. It’s called ‘creeping’ due to its ability to set down roots from the plant stem itself, (stolons, just like strawberries). It produces attractive purple flowers, which are small consolation to those of us who are trying to control Creeping Charlie.

If you have a small patch of it, try to pull out as much of it as possible. If it is invading a large area of your lawn, pulling may not be a reasonable option. There are herbicides that control Creeping Charlie, but they are best applied in the fall after the first heavy frost. The second best time is when it is in flower. You may choose to “learn to love it”. If not, call us for more information.

Check out our upcoming events on Page 11!
What’s A Habitat??

By Chelsea Baxter, 4-H and Nutrition Educator

Summer has finally arrived and it’s time to get outside and play while learning more about the world that surrounds us. Many people have heard that word habitat and have a general idea of what it means, but to truly understand it is very different. Every organism on Earth has some place that they live or call home, this is a habitat. A broader term which encompasses an entire community of living and non-living elements and organisms and their interrelationships is called an ecosystem. The most basic elements for all living organisms to survive are: food, water, shelter or cover, and a place to raise their young. A habitat area can be as small as an earthworm’s pile of dirt or the entire migratory path of a bird.

There are some organisms that require very specific conditions to survive in their habitats. For example, a monarch butterfly requires the availability of milkweed as the food source for their young and other flowering plants for food during their adult stages. Organisms similar to these butterflies are called specialists. While other organisms, referred to as generalists, can survive in a variety of different conditions, such as humans or raccoons.

You can use this information to teach others by going outside and actively observing the areas around you. Two common types of ecosystems found in this area would be forests and streams. Below you can find different characteristics of each of these ecosystems. State parks are a great place to talk about this information because they provide you with an abundance of natural ecosystems and habitats. Be creative and ask about the food chain of each organism you encounter in your outdoor learning lab.

Forest: woodpecker, squirrel, centipede, field mouse, grasshopper, black birds, pinecones, nuts, leaves, etc.

Stream: mayflies, trout, painted turtle, frog, salamander, lily pads, etc.

Further Investigating:
• See if you can locate any living or non-living organisms described in each example of an ecosystem
• Talk about how food chains work. What do plants need to grow? What kinds of organisms feed off plants? What types of organisms feed off of these plant eating organisms?
• Talk about the difference between herbivores, carnivores, and omnivores.
• Choose three animals and talk about the needs of each one. Talk about the ways in which these needs are different or the same.

Continued on page 11...

This newsletter is also available on our website: http://blogs.cornell.edu/cceclintoncounty/ under Gardening: News

North Country Gardening
Grilling is great any time of year, but in the summer, when the house is hot enough, you are outside anyway, and you are looking for a quick meal, grilling fits the bill. Cooking over an open flame is delicious, but the American Cancer Society warns that meat cooked at high temperatures that gets very well done or charred creates chemicals that have been linked to an increased cancer risk. This warning does not include fruits and vegetables, and antioxidants in fruits and vegetables have been shown to reduce the risk for various types of cancers. So why not take fruits and vegetables to the grill?

Most fruits and vegetables will taste best if they are cooked for a short period of time and retain some of their crunch, so plan on cooking them for a shorter period of time than meat. Since fruits and vegetables do not need to reach the same temperatures as meat, do not marinade them together, so the harmful bacteria that can and often does live in raw meat is not transferred to your produce. Fruits and vegetables can actually absorb the marinade along with the bacteria. Then, since they do not reach the high temperatures required to make meat safe to eat, the bacteria could survive and make you or your family ill.

You can grill fruits and vegetables in many different ways. You can skewer fruits and vegetables for kabobs. Try soaking wooden skewers in water first so they do not burn. You can marinate the vegetables, or brush them with oil and sprinkle with herbs for flavor. A grill basket works well for chunks of fruits and vegetables if you do not feel like skewering them. If you do not have a grill basket, you can use heavy duty aluminum foil, or a foil baking dish, with a few holes poked in them. You can also grill larger pieces of fruits and vegetables right on the grill.

A few ideas:

**Grilled corn on the cob** - Pull back husk, remove the silk, and pull the husk back up. Soak the ears in water for 10 minutes and grill for about 10 minutes. I usually remove some of the outer layers of husk, but leave enough to cover the corn.

**Italian vegetable kabobs** - Chop bell peppers, zucchini, summer squash, and onions into large chunks. Mix in baby portabella mushrooms and marinate in your favorite Italian dressing. Skewer the vegetables on soaked skewers and grill just until the edges begin to blacken, but the peppers are still crispy and the zucchini is still holding its shape.

**Grilled pizza** - There are a few methods which will work for this and the addition of the smoky flavor

Continued on page 10.
makes them all taste great. To make this with dough, stretch whole grain pizza dough and brush it with oil on one side. Place the stretched dough, oil side down on the hot grill. Brush oil on the side that is up and flip when the dough begins to cook through, which is usually just a few minutes. Add your toppings quickly and the pizza is finished when the cheese is melted. You can also use a prebaked crust and just brush it with oil on one side and add toppings to the other and grill until the cheese melts. We usually do not add sauce for a grilled pizza, just a little cheese and quick cooking things liked sliced tomato and basil.

**Grilled peaches**—many fruits will caramelize and become even sweeter on the grill. Cut the peaches in half and remove the pit. You can grill the peach halves or cut them into thick slices. Brush them with oil and cook just until the grill marks begin to show and the fruit is hot. They can make a great side dish if they are seasoned, maybe sprinkled with chili pepper, or they can be a grilled dessert, paired with a little frozen yogurt. Next time you fire up the grill, don’t forget the fruits and vegetables.

**Grilled Sweet Potatoes**

**Yield:** 5 servings

**Ingredients:**
- 4 large sweet potatoes
- 1 teaspoon pepper
- 1/ 4 cup (1/ 2 stick) light butter, melted

**Directions:**
1. Preheat the grill for 20 minutes or until all coals are uniformly ashy gray in color.
2. Scrub the sweet potatoes under running water with a vegetable brush.
3. Cut into 1/ 2-inch slices. Brush one side with the butter and sprinkle with the pepper.
4. Arrange brushed side down on a grill rack and repeat the process on the remaining side.
5. Grill for 20 minutes, turning and brushing with the remaining butter until the sweet potatoes are soft when pricked with a fork.

**Nutrition Facts:**
- Calories, 177; Total Fat, 5 g;
- 24% Calories from Fat; Cholesterol, 16 mg; Fiber, 1 g;
- Sodium, 73 mg; Carbohydrates, 32 g; Protein, 2 g

**Source:** University of Kentucky Extension

**BONUS RECIPE—Cornell Barbecue Sauce**

**Ingredients:**
- (enough for five broiler halves)
- ½ cup cooking oil
- 1 cup cider vinegar
- 2 tablespoons salt*
- 1 1/2 teaspoons poultry seasoning
- ¼ teaspoon white pepper
- 1 egg

**Directions:**
1. Beat the egg, then add the oil and beat again.
2. Add other ingredients and stir.

**Notes:**
- The recipe can be varied to suit individual tastes. Leftover sauce can be stored in a glass jar in a refrigerator for several weeks

* Adjust the quantity or eliminate salt to meet individual health needs and taste. Barbecued chicken basted frequently during cooking will be saltier than chicken that has been lightly basted.

**To barbecue the broilers:**
1. Place the broiler halves over the fire after the flame is gone. Turn the halves every five to ten minutes, depending on the heat from the fire. Use tongs or a long handled fork. The chicken should be basted with a fiber brush at each turning. The basting should be light at first and heavy near the end of the cooking period.

2. Cooking time is about one hour, depending on the amount of heat and the size of the broiler. Test the chicken to see whether it is done by pulling the wing away from the body. If the meat is this area splits easily and there is no red color in the joint, the chicken is done.
Answers to Bug or Beetle quiz on page 4

From left to right:
- Boxelder bug—**Bug**
- Colorado potato **Beetle**—though sometimes referred to as a potato bug
- Lady bugs—actually Lady Bird **Beetles**
- Firefly or Lightning Bug—**Beetle**
- Stink Bug—**Bug**
- Volkswagen bug—**Volkswagen Beetle**
- June **Beetle**—frequently referred to as a June bug
- Jitterbug—????????
- Weevil—**Beetle**

SECRET GARDENS TOUR—JULY 12—12:00-4:00 pm

*All lake-view gardens will be the focus* of this year’s Kent-Delord House Museum Secret Gardens Tour. Advance tickets can be purchased at Cook & Gardener or Rulfs Orchard Store for $10. The day of the tour, tickets and maps will be available at Kent-Delord House Museum and Rulfs Orchard Store for $12. Be prepared for some hilly terrain and stairs. Parking is limited, so please car-pool. For more information, contact Nancy at 561-6793 or Dotte at 561-4823.

MARK YOUR CALENDERS

KIDS DAY AT THE PLATTSBURGH FARMERS MARKET—
AUGUST 2—10:00 am to 1:30 pm

Penelope the Clown with face painting, balloon animals, magic tricks, 4-H petting zoo, bounce house, bike helmets, seed planting, games, songs, arts and crafts and more—ALL FREE!

**Farmers Market in Rouses Point**

The Rouses Point Friends of the Library are sponsoring a Farmers Market to be held at the Dodge Memorial Library, 144 Lake Street on Fridays from 3:30 – 7:00 pm. Check out the local goods and enjoy a Friday evening on our beautiful Lake Champlain.

**Office Hours**

Our office, located at 6064 State Route 22, Suite 5, is open from 9:00 am to 4:30 pm Monday through Friday. We will be closed on Friday, July 4 in observance of Independence Day.

**Habitat continued….**

- Talk about yourself; what do you need to survive? Where do you obtain these things?
- You can also talk about the way that natural disasters such as hurricanes, tornados, floods, droughts, etc. affect ecosystems and habitats.
- Create your own habitat, draw a picture, be creative and bring home items you find and make a mini ecosystem in your very own habitat.

North Country Gardening
North Country Gardening

July 2014

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