

A newsletter for
Master Gardeners in
Dodge County and
surrounding areas

UNIVERSITY OF
Nebraska
Lincoln • **EXTENSION**



Growing Up

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UNL Extension In Dodge County
1206 W. 23rd Street • Fremont, NE • (402) 727-2775

July 2012

Hello Master Gardeners!

Happy Hazy days of summer!

Ok, so here we are in the heat of the summer. Once while working outside during the winter at a botanic garden in New York, my co-worker and I were so cold we promised each other to never complain about being hot again. So no matter how uncomfortable it gets, I remind myself that it's better to be sweating out in the heat than to be so cold you can't feel your fingers. Hopefully, you have found a happy medium of warm weather and air conditioning.

Because it is summertime, that also means fair-time. For all of you who submit entries to the surrounding county fairs, good luck! Whether or not you show at a fair, there are lots of volunteer opportunities at county fairs, but especially at State Fair. Contact information can be found inside this issue.

Stay cool!
-Natalia

Nebraska Master Gardeners Are Now on Facebook

Keep up with events statewide

- Go to www.FaceBook.com and create a free account.
- Then search for "Nebraska Master Gardeners" and become a "fan."

Each time you log into your account you will receive updates, news and current MG events.

Registration for the International Master Gardener Conference is now open!



More information can be found at:

<http://www.uaex.edu/>

Extension is a division of the Institute of Agriculture and Natural Resources at the University of Nebraska—Lincoln cooperating with the Counties and the United States Department of Agriculture

Volunteer Opportunities, Continuing Education, and Just Plain Fun

Volunteer and Educational Opportunities:

Dodge County Fair

August 1-5
Scribner, NE
402.727.2775

Nebraska State Fair:

August 24-September 3
Grand Island, NE
Contact Cathy Johnston for more information:
402.472.1762

2012 Great Plains Summer Field Day

Oak Prairie Nursery
August 10, 2012
Lincoln, NE
<http://www.nnla.org/>

Next MG Tour (Feel free to bring a guest!)

TLC Country Floral Tour

August 30, 2012
5:00 pm

***Please RSVP to Natalia ***
402.727.2775
nbjorklund3@unl.edu

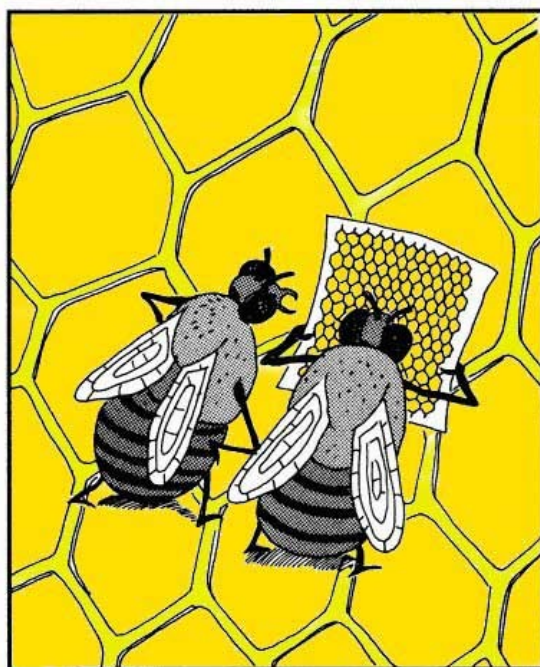
Refreshments will be provided

Other Garden Events:

Sweet Corn Festival

Lauritzen Gardens
August 11/12
Omaha, NE
402.346.4002

If you know of any other continuing education opportunities, events, etc. that you think other MGs would be interested in, please let Natalia know!



The English Gardens of the Lake District and York By Merri Fenton

I went on another knitting and gardening tour in England last month – this time to the Lake District and York – so thought I'd share some pictures of the interesting gardens I saw when I was there. Don't worry. I'll spare you the knitting ones.

On the way from the airport to the lake we stopped at Levens

Hall, which is a beautiful house and garden that is known for its topiaries. I don't know if it's an English thing or just this particular garden but their topiaries are not animals but rather elaborate abstract shapes like hedges formed into parapets to look like a castle or balls stacked on pyramids and such. I had to stop and ask someone what the beds of white flowers were that were

growing everywhere, including huge beds under trees as sort of a ground cover. It was wild garlic or ransoms (*Allium ursinum*), which is big item in the English culinary scene. The leaves are used in all kinds of cooking. And if you think English food is bad, you're behind the times. England is now surpassing Paris as the culinary center of Europe, with a drive towards using local produce that ensures fresh ingredients and the results are amazing.

We visited Rydal Mount, which was Wordsworth's home. The romantic poets, whom I knew nothing about and so had to google before I went, were inspired by nature and you can see that in his gardens. They were less formal than many English gardens and were planted carefully to look more natural and blend into the surrounding landscape. The rhododendrons were in full bloom and the views of the gardens with the lakes in the background were gorgeous. While everyone else toured the house, I went back outside and roamed all through them, even finding their compost operation tucked behind a hill. It was so peaceful and beautiful that I could see how it inspired

Allium ursinum under trees

his poetry.



Gardens of England (continued)

By the time we got to John Ruskin's Brantwood (Ruskin was an important Victorian who seemed to be involved with everything and none of us on the tour had ever heard of him, which surprised the Brits), I was so tired that I sat in the tea shop for most of the time there. But get a load of this picture of the rhododendrons in the car park. Yes, that's a 50+ foot tall rhododendron bush! Clearly the Lake District has perfect growing conditions for them because they were everywhere and enormous. That's a maple tree next to it for size comparison. Amazing.

Once we left the Lakes for York, our garden tours were all bus rides out of the city. Harlow Carr, a Royal Horticultural Society near Harrogate, was full of people and families on the Sunday we visited. It was huge and included all kinds of display gardens in different themes. One of the things that most impressed me was their use of wattling. Now I'll admit to having a fascination with wattle, which is willow woven to create garden structures. I've seen some classes on creating trellises and such here in the states but the Brits use it to create actual garden containers – like big baskets for plantings



Rhododendron next to maple trees

– or as the edges of raised beds. But at Harlow Carr, they were even using it to hold back creek beds from erosion too. It

was interesting to see it sprouting because willow roots so easily and it was in a wet environment. It's got such a natural look and uses materials grown right in the garden. I think it's ingenious and want to try some



Wattle used as erosion control

Gardens of England (continued)



Public vegetable garden in downtown York, part of Edible York project

While roaming around the city of York, I started to notice garden beds growing vegetables smack in the middle of the city. Come to find out, York has a green space program called Edible York.

It's a program that plants public spaces with food that's free for the taking. Outside of a pub where we had lunch one day, there was a newly planted bed with tomatoes, squash and other veggies. What a great idea!

Check it out at <http://www.edibleyork.org.uk/>.



Signage explaining Edible York and it's purpose

Gardens of England (continued)

The last garden we visited was at Castle Howard, which is where Brideshead Revisited (both the PBS series from the early 80's and the more recent movie) were filmed. Our tour concentrated on Ray Wood, which is a huge woodland that's co-managed by Kew Gardens and Castle Howard.

It's known for its rhododendrons and includes a rare one that's only found 3 places in the world. But the wood had gotten overgrown and many of the rhododendrons were being crowded out and not getting enough light to thrive so they'd recently gotten a grant to take down some trees to create areas where the sunlight would reach the ground.

Well, to take out trees without damaging the rare plants underneath required installing zip lines so that trees could be cut down in pieces and then zipped away to an area where they could fall freely. I would have loved to see that set up! But the results were visible, with older bushes re-leafing from their previously bare stems.

View of Ray Woods

So, that's a bit about the gardens I toured. I hope you enjoyed the pictures and maybe got an idea or two that you can use in your garden. If you want to see all my pics (warning – there are more than 300 and

lots of knitting ones), check them out at <http://wahoomerryf.shutterfly.com/>

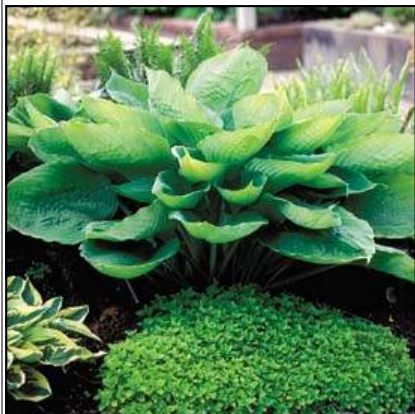
Re-leafing Rhododendron



Meet a Master Gardener - Linda Ryan

by Sylvia Hermone

Linda Ryan is an expert on all things shady—in gardens that is. She also knows many other species of plants and their cultivars and how to grow them in sun,



H. Sum and Substance'

sand, damp or dry areas.

Presently, Linda and her husband live in a gracious home in the center of town that originally was owned by Hazel Keene, an early Fremonter. Two porches and several large trees have created plenty of shade to make a pleasant yard, and she has it landscaped beautifully. Earlier they lived in Omaha and at Ginger Cove. The differing locations gave Linda plenty of experience with all types of plants and soil conditions.

Linda took the Master Gardener training in 2006 after hearing about it from Alice Nott, another master gardener. She was an experienced gardener before taking the training, though. She says she made her first mistake with their first house when she and her husband planted a small tree and Linda planted "big plants" around it that overshadowed the tree. Her

husband Chet cautions against growing trumpet vines, which grow through, around and in everything, as they soon found out.

After raising four children and quitting her job in Valley, Linda got into serious gardening. They lived at Ginger Cove at the time, and she started with daylilies. One plant led to another until she had a large perennial garden. She soon discovered that the sandy soil at Ginger Cove wasn't conducive to growing good flowers. "That's when I had my husband Chet make numerous trips to Bellevue to load our little Ford Ranger pickup down with O-ma-gro."

And that's still Linda's number one tip for gardening. "Prepare the soil. Amend it if needed." Now she and her husband make their own compost, cutting out the trips to buy O-ma-gro.

Her other tip is to know your plants. Know what space they need, how much water they require, how and when they bloom, and what problems they might have.

Her knowledge comes from years of gardening as well as years of learning about gardening. She has taken several non-credit classes on gardening through Metropolitan Community College, subscribed to numerous gardening magazines and "scoped the TV listings" for anything on gardening. A couple of her favorite shows were "The Gardeners Diary" and "Paul James the Gardener Guy" on HGTV. Another show which took people through several public gardens was "a big

influence on me. I loved the lush gardens!"

Linda's favorite shade plants are hosta, and she has a great number of different varieties in her home garden. Some of her favorites are Frances William, Sagae, and Sum and Substance.

Her first flowers were grown in containers and she still plants several containers of annuals each year. In shady spots she often grows house plants. One of her favorite shady container plants is the Rex begonia. At Ginger Cove she grew several Mandevilla vines in containers which covered their deck railing with the huge



Rex Begonia

flowers. People boating by would stop to ask what those big beautiful flowers were.

She prepares the soil well for her containers, too, and uses Osmo-cote, an all-purpose plant food, to give her plants a good start. She also uses a granular fertilizer.

Linda has been a volunteer at the May Museum garden since 2005. She takes care of the south part that used to be under the shade of some lilac trees. Last year the lilacs were taken out and the garden expanded so there is less shade than before, but Linda is up

Summer Notes

by Rich Apking

I'm writing this on the day of the summer solstice, the longest day of the year. I sort of figured that this way I'd have enough time to do the regular chores that one has, take care of those last minute things that always seem to crop up, indulge in a suitable amount of procrastination, and still get this article written in time for the boss to get it in the upcoming publication. So far it's working.

By now your vegetable garden should be pretty well planned and executed. As a matter of fact, I'm sure that the radishes and spinach have been harvested and replaced with some warm weather crops. A few tasks that should be done right away if you haven't already done them are:

1. Mulch your potatoes, and you can check very carefully for some 'new' potatoes.
2. Perhaps make a second planting of beans and sweet corn.
3. Sow some pumpkin seeds for a Halloween harvest of Jack-o-lanterns.
4. Thin your apples and peaches to 6 inches apart, so the trees won't carry more fruit than the branches can handle. Also you'll get larger fruit this way.
5. In that place where your radishes, lettuce, and spinach were, start some Brussels Sprouts, broccoli, and cabbage seeds for the fall garden.

6. I hope you all are deadheading, deadheading and deadheading some more.

7. If you plan on fertilizing your cool-season turf grass the second time, do it now.

8. Your perennial asters and mums should be cut back by a third or half now to have more and later blooms this fall.

9. Just a hint, don't water flowers and veggies from the top, as you are inviting disease. If you have to water from the top, do it early in the day so the plants can dry off in the sun.

10. Keep your eye out for the bad bugs, especially basswood miners and Japanese beetles. Both of these insects damage a broad array of landscape and edible plants.

11. Put down a hardwood mulch to preserve moisture in your flower beds.

12. Later on in July be sure to: Sow some fall lettuce, oriental greens, daikons, and snap, snow, or shell peas.

13. Gather and dry herbs and everlasting flowers.

14. Mulch your potatoes again, and keep very carefully checking for those 'new' potatoes that taste so good cooked with just about anything.

15. Sow some fast growing annual flower seeds in the vacant spaces of your flower beds.

Now what would a start of July article be without mentioning roses. Unless you are really in to self abuse, everyone who grows roses would like to have them be a little less demanding of their talents and treasures. Roses started out as hardy, vigorous wild brambles with some rather nondescript blossoms.

Still many gardeners believe they are tender little things that can't be grown without toxic sprays. Well, it's true that roses can suffer from diseases, but you can manage those diseases and pretty well keep your garden chemical free. Here in a list format are some ideas

Selecting Resistant Varieties

Let's start with disease resistance. Many modern roses are highly susceptible to diseases, mainly due to being bred for flower attributes alone. There are still hundreds of rose varieties that are resistant to many of the common rose diseases.

When you order, tell your supplier you want varieties that can be grown organically in this area, and ask if your choices are suitable.

Summer Notes (continued)

Don't 'fall in love' with a certain rose, more than likely there's a suitable resistant variety that will suffice.

But, if the bright colors of modern hybrid teas and floribundas tempt you, or if you've already planted such roses and now want to wean them from toxic sprays, don't despair. Planting fungus resistant rose varieties is the biggest step you can take toward disease free rose growing. It's easy to treat even these 'tender' plants the safe organic way.

1. Start with regular cultural cleanliness. Pick up and dispose of, but do not compact, infected leaves.
2. Always water roses at their bases, never on their leaves.
3. If you're already growing cultivars that are susceptible to disease, interplant them with resistant cultivars to greatly slow the spread of disease spores between plants.
4. Go easy on nitrogen fertilizers, using too much can result in lush sappy growth that attracts aphids, which transmit disease as they feed.
5. Mulch the bed to keep spores from splashing up on plants when it rains. A 1 inch deep layer of compost can actually prevent disease.

6. To improve air circulation, remove crowded canes and in the summer, remove the lowest leaves from the base of the plants.

7. As a last resort, use natural sprays. For powdery mildew and black spot, apply a solution of 1 tablespoon each of baking soda and horticultural oil with a few drops of insecticidal soap, per gallon of water once a week. Always test treatments on a small area first.

8. For further fungal diseases, apply sulfur dust, wettable sulfur solution (2 heaping tablespoons per gallon of water), or Safer Garden Fungicide spray (a sulfur based product) when the temperature is below 85 degrees F.

9. During the dormant season, spray with horticultural oil twice a month when the temperature is above 40 degrees F.

Wow, this rose thing seems to have taken on a life of it's own. There's a low more I want to say about roses, how to plant them, easy maintenance and so on, but that's for the next issue. So until then, Happy Gardening, Rich

Following are a few roses Natalia had good luck with while curating the rose garden at Lauritzen Gardens, in Omaha.

Hybrid Teas

Just Joey
Silver Jubilee
Tahitian Sunset
Artistry
Midas Touch
St. Patrick

Floribunda

Sexy Remy
Europeana
Easy Does It
Julia Child
Rainbow Sorbet
Hot Cocoa
Moondance

Grandiflora

Love
Strike It Rich
About Face
Wild Blue Yonder
Cherry Parfait

Pictures of Recommended Roses



‘Artistry’



‘Hot Cocoa’



‘Easy Does It’



‘St. Patrick’



‘Cherry Parfait’



‘Strike It Rich’



‘About Face’



‘Midas Touch’

Book Review by Lorri Urban
Sleep, Creep, Leap: The First Three Years of a Nebraska Garden
By Benjamin Vogt

This is an emotional book, not a “how to” book. Perhaps I shouldn’t have finished reading it the morning after we received a much-needed rain. (Gardeners get pretty emotional about rain.) I didn’t want to “finish” it at all...if I hadn’t needed to meet the deadline to get this review in the newsletter, I would have portioned it out over another month, savored it like home-made cinnamon rolls, eating some now and saving some for later.

Benjamin Vogt’s writing is occasionally over-whelming in detail, but mostly it evokes the strong feelings that earnest gardeners have, I think, about their gardens and gardening. We may have started our gardening projects with “flowers” and “vegetables” in mind. After a year, or in some cases three, we become involved with more than just the looks of the garden.

What else is there that the non-gardener does not see? The bugs, the worms, the birds and squirrels, the smells and feels, the sounds of the garden become part of what we experience. Benjamin Vogt describes gardeners’ feelings in

short chapter essays: Elation, loss, wonder, frustration. From the opening quote by Henry Mitchell, through “Skin,” “Mr. Mows All the Time,” and “Confessions,”

I slept, then crept and leapt, laughed and cried through this 105-page (including pictures and the author info) paperback.

The author arrived in Lincoln, Nebraska, in 2003 to begin study on his Ph.D., which became a double Ph.D. in poetry and creative nonfiction (which meant doing a double dissertation). I believe he still lives in Lincoln and now teaches at UNL.

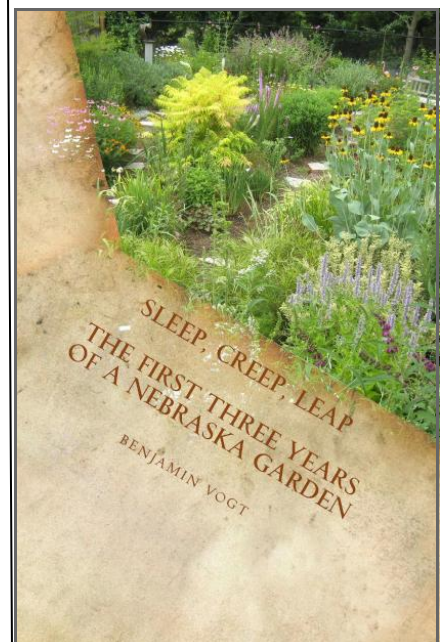
This book has a copyright date of 2011 (the author owns the copyright), and in the back of the book it says, “Made in the USA, Lexington KY, 25 April 2012.”

To the right is a picture of the front cover of Benjamin Vogt book. He also maintains a blog with some stunning garden pictures at:

[http://
deepmiddle.blogspot.com/](http://deepmiddle.blogspot.com/)

I can find no publishing house listed. But, should you be interested, more information about Mr. Vogt, including glowing reviews, the titles of the author’s other books (with publishers) and impressive list of his writing awards (no surprise to me) are all available on line at <http://go.unl.edu.vogt> and other sites.

The best thing you can find on line: this book can be yours for little more than my “overdue” library fine is going to be. I have ordered my copy from Amazon.



Botanic Garden Spotlight—Bellingrath Gardens

by Betty Hamata



The Rose Garden contains over 2,000 roses, and is a test site for All-American Rose Selections. A Conservatory is filled with tropical flowers and plants.

The Great Lawn features gardens reminiscent of the English landscapes. Big, beautiful delphiniums were blooming (in April!).

Although the azaleas and camellias were almost done blooming, the hundreds of plants were visible. They bloom during February and March.

On a trip to the Gulf Coast during April, we stopped at the Bellingrath Gardens and Home near Mobile, Alabama. This is the home and gardens of Walter and Bessie Bellingrath.

and old English flagstone. It is decorated with period furniture and houses the collections of porcelain, silver and crystal collected by Mrs. Bellingrath over 35 years.

Mr. Bellingrath was Mobile's first Coca-Cola bottler and was advised by his physician in 1917 to buy an abandoned fishing camp on the Fowl River so that the over-worked businessman could 'learn how to play.' It was dubbed 'Belle Camp' and was soon beautified with flowers planted by Mrs. Bellingrath.

15-room home was completed in 1935 and features antique local brick, cast iron galleries



Botanic Garden Spotlight—Bellingrath Gardens

by Betty Hamata

Live Oak Plaza is located in the center of the gardens with a series of fountains to carry excess water to the river. Many

Spring brings the tulips, daffodils, and azaleas. Man-made Mirror Lake reflects the azaleas and other flowers.

The Asian American Garden features elements found in both Chinese and Japanese gardens and hosts over 200 varieties of birds.



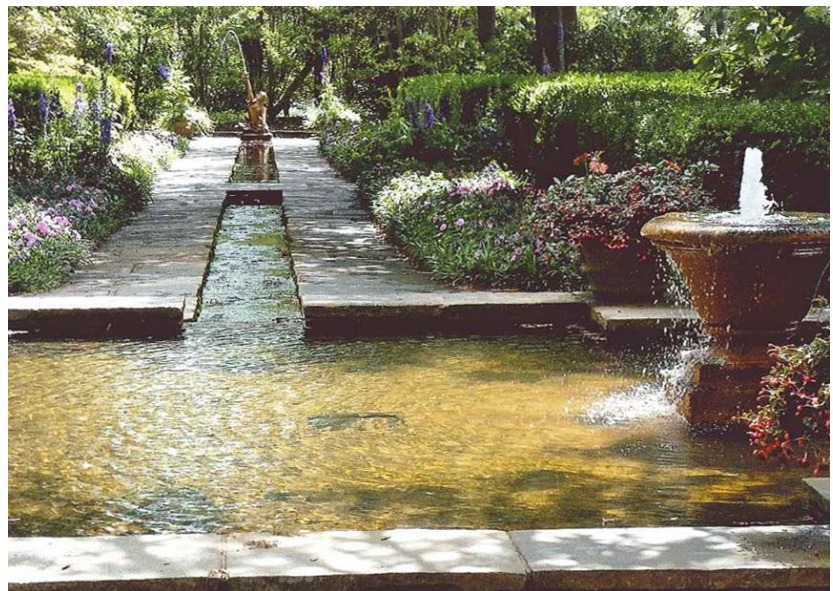
The Dwight Harrigan Exxonmobile Bayou Boardwalk offers a winding trip across an authentic southern bayou with fish, turtles, water fowl and natural vegetation needed to support this ecosystem.

There is also a river front pavilion along the Fowl River that offers a boat ride to see the natural vegetation and marshes of Alabama.

statues and bronze sculptures are also in these area. The live oak trees were dripping with Spanish moss. Many weddings are held here for obvious reasons! The terraces around the house are filled with flowers of the season.

During fall, there is a spectacular Chrysanthemum display with cascading and topiary chrysanthemums.

December brings light shows and beautiful poinsettias.



The following is NebGuide G1633

A Guide to Grasshopper Control in Yards and Gardens

Gary L. Hein, Extension Entomologist; John B. Campbell, Extension Entomologist; and
Ron C. Seymour, Extension Educator

Grasshopper populations fluctuate in cycles. High or very high populations may be present for two to four years followed by low to moderate populations for several years. Even when overall populations are relatively low, grasshoppers in and around the garden can be a nuisance. In outbreak years, however, grasshoppers can destroy unprotected gardens and threaten small trees and shrubs.

Grasshopper damage occurs most frequently in areas with less than 25 inches annual rainfall. In most years, the western half of Nebraska falls into this high risk category; however, grasshoppers can be a problem throughout the state.

Damage

Over 100 grasshopper species occur in Nebraska; however, only four grasshopper species — the migratory, differential, two-striped, and redlegged — cause most damage in yards and gardens. The potential for grasshopper damage increases as summer progresses. Adults will be more likely to move into yards and gardens in July and August. Severe problems may arise when adjacent agricultural crops or grasslands mature or are harvested and grasshoppers move to find new food sources. Defoliation is the primary injury to plants, but fruit and ripening kernels of grain also will serve as food sources.

Grasshoppers show a preference for flowers and some garden vegetables (e.g. lettuce, beans, sweet corn), but when populations are high they will feed on nearly all garden vegetables, as well as trees and shrubs. Defoliation of larger trees will have limited impact unless this defoliation continues for more than one year. Small trees and shrubs will be the most seriously affected.

Grasshoppers will feed on just about anything as long as they do not detect a feeding deterrent. Reports are common of grasshoppers eating paper, paint, window screen, window caulking, fenceposts, hoe handles, etc. during grasshopper outbreak periods. These feeding habits need to be considered. Aluminum window screen is tough enough to resist grasshopper damage but other fabric screen is not.



*Left:
Two striped
nymph*

*Right:
Differential
nymph*



Life Cycle

There are three stages in the grasshopper life cycle — the egg, nymph, and adult. The female lays the eggs in the soil and surrounds the eggs with a frothy liquid that hardens to form a protective structure or “pod”. The number of egg pods deposited by a single female may range from 7 to 30, and the number of eggs per pod may vary from 8 to 30, depending on the species. Typically, a female grasshopper will lay about 100 eggs during the summer and fall. Outbreaks are favored when females produce more eggs as a result of better food quality and/or an extended period in the fall to lay eggs. Egg pods are deposited in the upper few inches of soil in non-tilled areas, such as grasslands, pastures, ditches, etc. Some grasshoppers prefer to lay eggs in soil surrounded by roots of grasses while other species select open areas with only surface debris.

Eggs are well protected by the insulation of the pods and can survive extremely cold temperatures. A few grasshopper species spend the winter as nymphs. Most of these species are “bandwings,” large grasshoppers that make a crackling noise when in flight. These are seen early in the spring and usually are not numerous enough to cause serious injury.

Hatching time is influenced by temperature, with earlier hatching occurring after a warm spring. The egg hatch for a single species may extend over a month or more. The earliest hatching grasshopper of concern in gardens is the two-striped grasshopper. It begins to hatch about mid May or earlier if the spring is unusually warm. Eggs of the migratory grasshopper will begin to hatch about a week after those of the two-striped grasshopper, and redlegged and differential grasshoppers will begin to hatch about three weeks after the two-striped grasshopper.

Nymphs must start feeding within one day after egg hatch and usually feed on the same plants as the adult. Because of limited fat reserves, young nymphs are vulnerable to adverse weather just after hatching. **Extended cool temperatures (less than 65°F) and rainy weather during this early hatching period can result in starvation of the young nymphs.** Grasshopper nymphs go through five instars, or stages of development. After each instar, they shed their cuticle (skin) and grow larger. Grasshopper nymphs normally reach the adult stage in five to six weeks.

Adult grasshoppers, the only stage to have wings, readily move out of hatching areas and begin egg laying one to two weeks after becoming adults. Adults live two to three months, depending on the weather. All developmental stages are influenced by temperature, and grasshopper growth can be advanced or retarded by favorable or unfavorable temperatures.

Natural Control

There are several natural enemies of grasshoppers, and while some of these become more numerous when outbreak populations occur, they are not likely to prevent populations from moving into yard and garden areas. Natural enemies work in concert and their overall effect will significantly impact seasonal populations.

A few of the most common and effective predators of grasshoppers include robber flies, spiders, and blister beetle larvae (on egg pods). Perhaps the most effective and practical natural enemy for use in yards and gardens is poultry, especially guinea hens and turkeys. However, some poultry may cause substantial injury to the garden. Even these predators may be overwhelmed during outbreak years.

A common parasite of grasshoppers and crickets is the horse-hair or gordian worm. These nematodes, up to 4 inches in length, become more numerous in outbreak years, but their life cycle requires water, limiting their effectiveness in dry areas. Another predator is a small red parasitic mite that can lodge itself under the grasshopper wings. These mites may stress the grasshoppers, resulting in fewer eggs or a shorter lifespan, but they are not likely to dramatically affect current populations.

Several diseases can impact grasshopper populations. A fungal disease caused by *Entomophthora grylli* may be the most noticeable. It causes infected, dying grasshoppers to crawl to the tops of grasses where they wrap their legs around the grass stem and die. Impacts from this disease are often not seen until late in the season.

Spores of the protozoan *Nosema locustae* are commercially available as a formulation on bran bait (called Sema-spore, Nolo-Bait). The spores must be applied against small grasshoppers (3rd to 4th instar) in and near the hatching areas to be effective. This disease will act slowly and may take an entire season to reduce populations. It will have minimal impact on later instars or adult grasshoppers that move into yards or gardens.

Chemical Control

Chemical control is often the best alternative for eliminating heavy infestations of grasshoppers. Adult grasshoppers are difficult to control with insecticides due to their size and decreased susceptibility to the insecticides. The best time to control grasshoppers is during the 3rd and 4th instars when they are 1/2 to 3/4 inch long. These stages will occur in mid to late June. At this time most eggs will have hatched and the young hoppers will be more susceptible to insecticides. Also, they will still be concentrated in their hatching areas, and they can be controlled more effectively than when dispersed later in the summer.

Table 1 lists insecticide options available for yard and garden use. Read and follow all directions and precautions on the insecticide label. Most products are formulated in a liquid or mixable dry formulation, and will be registered for use on certain vegetables, turf, ornamentals, or non-crop use. The same active ingredient may be found in numerous different brand name products.

Carbaryl is the only product that is formulated as a bait for grasshopper control. The insecticide is impregnated onto wheat bran flakes or into small pellets. This dry formulation can be useful in and around the garden, especially if there are no recurring infestations from surrounding areas. The bait is easy to apply by hand and can be spread without directly contacting the plants, avoiding residues. Bait blowers can be used to treat larger areas. Bait should be applied to the soil surface or areas of minimal surface residue or canopy so the grasshoppers can easily find it. It needs to be re-applied after rain or heavy dew as it will not persist under these conditions.

The sources of grasshopper infestations (i.e. surrounding grasslands, ditches and other untilled areas) should be treated before the larger adult hoppers move out. Often homeowners do not own the adjacent areas, and treatment may not be possible. In this case, the only option is to use protective sprays to protect as much of the yard and garden as possible. These insecticides will only have a few days of residual activity and repeated applications will be necessary. If most grasshoppers are adults, the best control will be obtained by using the maximum labeled insecticide rates for these products.

Table I. Recommended active ingredients for products designed for grasshopper control in and around the yard and garden. *Always- check label for application instructions, rates and safety precautions.*

carbaryl (available in several liquid or dry formulations)
carbaryl (available as a bait formulation on wheat bran)
acephate (available in several formulations)
bifenthrin (available in several formulations)
cyfluthrin (available in several formulations)
esfenvalerate (available in several formulations)
malathion (available in several formulations)
permethrin (available in several formulations)
lambda cyhalothrin (available in several formulations)

Gardening At Lunch

Join us for this exciting Webinar series, Gardening At Lunch, right from your desk at work or home,

You must pre-register for each program, and will need a computer with internet access and sound to participate. During each program, you can view, listen and interact with the speakers.

To register, go to:

<http://marketplace.unl.edu/extension>

2012 Fall Class Schedule

August 8 — Household Insects

Nicole Stoner, Extension Educator

What are those pesky insects you find in the kitchen? In the basement? Nicole will cover their identification, and control.

September 5 — Weed I.D.

Natalia Bjorklund, Extension Educator

Being able to identify weeds properly is the first step in proper control. Natalia will point out important keys in identifying weeds common to Nebraska.

October 10 — Fall Gardening

Vaughn Hammond, Extension Educator

Vaughn will cover different ways you can extend your gardening into the fall and key things to keep in mind going

Extension is a Division of Institute of Agriculture and Natural Resources at the University of Nebraska—Lincoln cooperating with the Counties and the United States Department of Agriculture.

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2013 Spring Class Schedule

February 6 — Pruning

Kelly Feehan, Extension Educator

Late winter is a great time to prune woody plant material! Kelly will cover the basics of proper pruning techniques.

February 20 — Tree Hazard Awareness

John Fech, Extension Educator

Is that tree branch hanging over your house dangerous? What about that branch that looks damaged after a storm? John will cover what to look for in recognizing tree hazards.

March 6 — Get Ready for Spring Vegetable Gardening

Sarah Browning, Extension Educator

In this program we'll discuss the ideal planting time of vegetables, particularly those that do best with cool spring temperatures, and give you tips on growing strong, healthy transplants at home.

April 3 — Plant Diseases

Amy Timmerman, Extension Educator

Are those spots on your plant's leaves caused by a disease? What do you do if they are? Amy will teach you how to identify different plant diseases, and how to treat them.

May 1 — Outdoor Insects

Nicole Stoner, Extension Educator

Are those insects you find in your garden beneficial to your plants, or are they going to cause problems. Nicole will teach you how to identify the good from the bad!

Everyone is welcome to participate in these live, online webinars, but registration is required. To register, go to:

<http://marketplace.unl.edu/extension>

Registration Fee:

\$10.00 per program or
\$60.00 for the entire program series

Once you have registered, you will receive the program handout and login information via email.

Program Times:

12:05 p.m.—12:55 p.m.
CDT

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