Nebraska Extension In Dodge County **January 2015**
1206 W. 23rd Street • Fremont, NE • (402) 727-2775

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Hello Master Gardeners!

Happy New Year Everyone!

I hope the beginning of 2015 has been good for you, with only better things to come. There will be a lot of new programs and opportunities this year, and I hope you take advantage of them.

Watch the newsletters to come for more information.

-Natalia

Nebraska Master Gardeners Hands on training in Lincoln

June 12, 2015, 2:00—6:00 p.m.

Pruning, EAB update, long term effects on trees of injections. Tour the backyard farmer garden, new campus rain gardens and Keim Hall courtyard to talk about rainwater harvesting for water conservation and more.

Call or email the extension office if you'd like more information.

International Master Gardener Conference

September 22-25, 2015
Mid-America Center
Council Bluffs, Iowa

Registration will open March 1, 2015 or earlier

horticultural horizons
IN THE HEARTLAND
International Master Gardener Conference
September 22–25, 2015

Check out the exciting conference tracks and registration and lodging information on the internet

go to
http://mastergardener.unl.edu/imgc2015
Or
https://www.facebook.com/2015International MasterGardenerConference

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

Opportunities to Grow

Master Gardener Connections
Class Schedule - All programs will be held from 6:30—9:00 p.m. CST and 5:30—8:30 p.m. MST

February 3
Waterwise Landscapes and Residential Rain Gardens

Don't miss out on the opportunity to learn about water-wise landscape practices and about residential rain landscape practices and about residential rain garden design and plant selection to conserve water, reduce nutrient runoff, and add plant diversity to landscapes**.**

- Presented by Kelly Feehan, Platte County Extension Educator

February 10
Pruning Deciduous and Evergreen Trees and Shrubs

Learn about the correct pruning time and methods to enhance the health, function, and aesthetic beauty of deciduous and evergreen trees and shrubs.

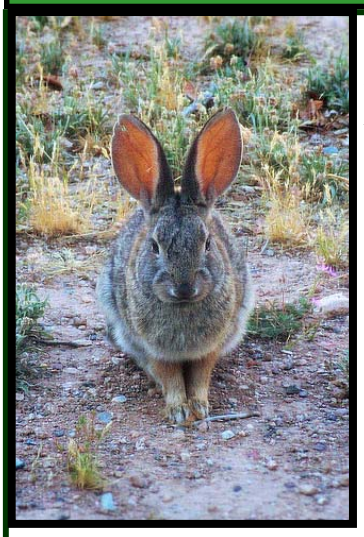
- Presented by Kim Todd, Extension Horticulture Specialist

February 17
Insects—Beneficials in the Garden and Landscape and Vegetable Insect Pests

Learn to know the identification, life cycles, and functions between beneficial and harmful insects found in landscapes and vegetable gardens.

-Presented by Natalia Bjorklund,
Dodge County Extension Educator
and Nicole Stoner,
Gage County Extension Educator

More Opportunities to Grow



February 24

Wildlife Damage Management

What is damaging the landscape or the garden? Here is your opportunity to learn about wildlife that damage landscapes and gardens, their damage patterns, and control options.

Presented by Dennis Ferraro, Herpetologist & Natural Resources Online Educator

March 3

Technology in the Garden and Landscape Photography for Beauty and Diagnostics

Move your tablet off the deck and into the garden with latest trends just for the garden world. Capture the beauty of landscapes as well as the ability to identify plants, insects, and plant damage through diagnostic photos.

Presented by Terri James, Extension Assistant and Jim Kalisch, UNL Entomologist

March 10

Preparing for Emerald Ash Borer: Identification, Management and Treatment Options and Tree Planting Selections Now and Post EAB

Here is your opportunity to learn more about Nebraska's response plan to Emerald Ash Borer once it is found in Nebraska, how to prepare for EAB, and about tree planting selection. Learn how EAB is identified, treated, and tree species selections across Nebraska.

Presented by Laurie Stepanek, Forst Health Specialist and Amy Seiler, Community Forester, Nebraska Forest Service

Opportunities to Grow

Lauritzen Gardens Omaha's Botanical Center Events

Saturday, March 7 and Sunday, March 8, 2015
10 a.m. to 4 p.m. both days

Orchid Show - ***Put on by the Greater Omaha Orchid Society***

The annual Orchid Show will feature orchid desplays from local, regional and national vendors and growers. Visitors will get the opportunity to see prime specimens of these exotic plants up close. Ask local orchid experts specific questions and gain beneficial knowledge on these beautiful plants.
Standard garden admission rates apply. Members are admitted free. Go to http://www.lauritzengardens.org/Visit/Events_and_Exhibits/Orchid_Show/index.asp for more information.

March 17 and 18

Sandhill Crane Migration Trip

Journey along the Plattte River valley and experience hundreds of thousands of beautiful sandhill cranes during their majestic spring migration. This is a must see tour where you will enjoy one of nature's treasures, and is also a great chance for unique birding and photography opportunities. Find additional information and costs involved at
http://www.lauritzengardens.org/Visit/Events_and_Exhibits/Sandhill_Crane_Migration_Trip/index.asp

EXTENSION
MASTER GARDENER
People, Plants and Partnerships

June 12

Nebraska Master Gardeners Hands on training

East Campus, Lincoln: 2:00—6:00 p.m.

Pruning, EAB update, long term effects on trees of injections. Tour the backyard farmer garden, new campus rain gardens and Keim Hall courtyard to talk about rainwater harvesting for water conservation and more. This training is open to Master Gardeners statewide. A combination of area Extension Educators will be sharing their knowledge. Call or email the extension office if you'd like more information.

More Opportunities to Grow

January 28—30

International Society of Arboriculture—Midwest Chapter Conference and Trade Show

Council Bluffs, IA

The 2015 Midwestern Chapter Conference and Trade Show will be held at the Mid America Center - The Annual Conference and Trade Show is open to members and non-members alike. Conference program and registration information can be found on the MW-ISA Chapter website (www.mwisa.org)

January 29

Columbus Tree Care Service Update

Columbus, NE - Kelly Feehan, 402-563-4901

March 7, 2015
9:00 a.m. - 5:00 p.m.

Beginning Beekeeping Short Course

ARDC—Mead

A Beginning Beekeeping Short course will be offered at the Christenson Agricultural Research Education Building near Mead. Registration cost is $40 and includes lunch, breaks and a workbook. To register contact Jeri Cunningham at 402-472-2123. More information can be found at http://entomology.unl.edu/beecourse.shtml

March 27

Siouxland Garden Show

Sioux City Convention Center

Whether your yard is a tiny courtyard hemmed in by other buildings or a stretch of lush green lawn this show is full of ideas that will help you transform your own piece of the great outdoors.
http://www.siouxlandgardenshow.org/

All-America Selections - 2015 Garden Winners

Each year, farm gardeners and commercial farm-market growers sleuth the hardiest, tastiest vegetable varieties along with the flowers that have the newest colors and are the longest-lasting.

The All-America Selections program is the gold standard for introducing new, top-quality garden varieties to the marketplace. All-America Selections, based in Downers Grove, Illinois, was founded in 1932 and is the oldest independent seed-testing organization in North America.

Dixie Sandborn, Michigan State University Extension specialist, said never-before-sold varieties submitted by seed companies are tested in impartial trial and display gardens across the United States and Canada. Plants are judged by professional horticulturists to determine winners. Vegetables with superior taste and garden performance are given the All-America Selections stamp of approval. Once these new varieties are announced as winners, they are available for immediate sale and distribution. Home gardeners will find seeds available from their favorite catalog or online seed source. They also will find the chosen varieties as young plants at their favorite garden retailer.

This week and next, "Agri-View" highlights the 11 national All-America Selections winners for 2015.

'Dolce Fresca' basil

A vegetable award winner, Dolce Fresca is a basil that produces sweet tender leaves that outshine comparison varieties, while maintaining an attractive, compact shape.

If there was an All-America Selections category for an edible plant with ornamental value, this All-America Selections winner would fit the bill. Dolce Fresca is perfect for planting in a container, too.
After harvest, the plant is quick to recover and keeps the desired ornamental shape, making Dolce Fresca well-suited for containers, borders or as a focal-point plant. The breeder is PanAmerican Seed. The close market comparisons are Italian Large Leaf and Minette.

This annual likes full sun. It's 60 to 80 days from seed to harvest, and 20 to 28 from transplant. Plants grow 10 to 24 inches tall and spread 10 to 12 inches. Leaves should be picked just before flowering. Prolong this period by pinching off flowers. This new basil reportedly makes excellent pesto.

'Sandy' lettuce

Sandy is the first All-America Selections-winning lettuce since 1985. An attractive oak-leaf-type lettuce with sweet-tasting, frilly, dark-green leaves, Sandy has exceptional disease resistance, especially to powdery mildew. This 2015 vegetable winner is also very slow to bolt. The new lettuce also isn't bitter when heat-stressed. Sandy is also the second All-America Selections winner that is available as organic seed.

This lettuce can be cut again and again as baby leaf lettuce, or grown to full maturity for loose salad heads. Well-adapted to both raised beds and containers, when planted with cool-season flowers Sandy will add interesting texture to patio containers.

'Dolce Fresca' basil

'Sandy' lettuce

'Emerald Fire F1' pepper

'Flaming Flare F1' peper

All-America Selections - 2015 Garden Winners

2015 Winners—Cont.

The breeder is Seeds by Design. Close market comparisons are Green Salad Bowl and Pannisse. Days to harvest from sowing seed are 30 for baby leaf lettuce and 50 for full maturity.

'Emerald Fire F1' pepper

Emerald Fire F1 is a grill master's delight. At 2,500 Scoville units, this is the hottest pepper among this year's pepper winners, but it also boasts extra-large and tasty jalapeno fruits perfect for stuffing, grilling or using in salsa. Emerald Fire produces glossy green peppers with thick walls that have little cracking, even after maturing to red.
Gardeners will appreciate the prolific fruit set on compact plants that resist disease better than other similar varieties on the market, according to All-America Selections garden experts.

Emerald Fire is a strong-and-vigorous hybrid jalapeno plant that sets a large amount of concentrated fruit. This high-yielding variety's extra-large, hot jalapenos are great for fresh use and canning.

The breeder is Seminis Vegetable Seeds. Close market comparisons are El Jefe and Chichimeca. This annual requires full sun. Days to harvest with transplants are 90. Fruit weigh an ounce and are just bigger than 3-by-1 inch. Each plant produces 25 to 30 peppers. While staking or caging isn't required, Emerald Fire will benefit from it.

'Flaming Flare F1' pepper

Flaming Flare is another 2015 All-American Selections nationally winning pepper. This early-maturing hybrid pepper sets a large amount of mild peppers that are brilliant red when mature and ideal for making chili sauces. This pepper's heat will increase depending on how late in the season the peppers are harvested.
While most Fresno-type peppers are considered rather finicky plants that typically grow better in warm, dry climates, Flaming Flare performed well in all All-America Selections trial sites.

According to All-America Selections' horticulture experts, Flaming Flare is an exceptional pepper that was sweeter-tasting than similar Fresno types and consistently produced larger and more peppers per plant, making it a winner for kitchen gardens. This is another All-America Selections Winner that culinary gardeners should consider for their kitchen gardens.

The breeder is Seminis Vegetable Seeds. Close market comparisons are Havasu F1 and Fresno. This annual needs full sun. Plants are tall at more than 2 feet. Fruit size is 3 3/4-by-1 inch; the flavor is described as "sweet and spicy with medium pungency."

'Pretty N Sweet F1' pepper

Pretty N Sweet is the third pepper among this year's All-America Selections national vegetable winners. It is a sweet-tasting, multi-colored pepper on a compact 18-inch plant, attractive for ornamental gardens and containers. All-America Selections reports that this ornamental pepper can be eaten and it tastes great, too. Against comparable pepper comparisons, Pretty N Sweet is earlier, more prolific — weekly harvest in peak season — and has a much sweeter taste, with more substantial pepper walls to enjoy it fresh or in a favorite dish. These peppers are sweet and mild.

The breeder is Seeds by Design. Close market comparisons are Sweet Pickle and Yum Yum F1 Mix. This annual likes full sun, as peppers do, and dry-to-normal soil conditions. Days to harvest from transplanting are 60. Fruit at harvest is orange, red and yellow with 100-plus peppers per plant. Peppers are 1 to 1 1/2 inches, and can be eaten fresh in salads or for snacking, or preserved by pickling.

Planted in containers on a patio or in ornamental beds with annual flowers, Sweet N Pretty makes a nice display all summer long.

Go to all-americaselections.org for more photos of the 2015 lineup and past years' winners.

Article and photos from agriview.com

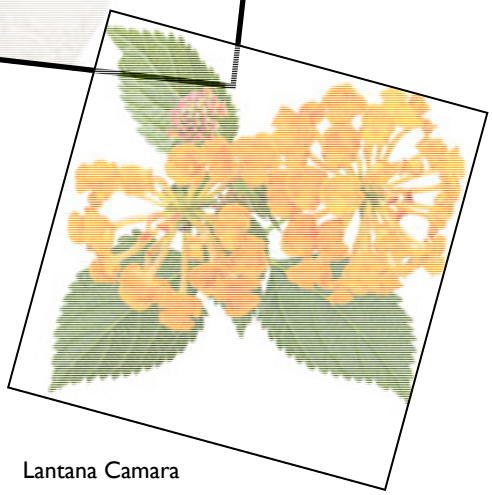
'Pretty N Sweet F1' pepper

What's New for 2015 from Proven Winners

Vermillionaire

Pequeña Rosalita™

Pennisetum



Lantana Camara

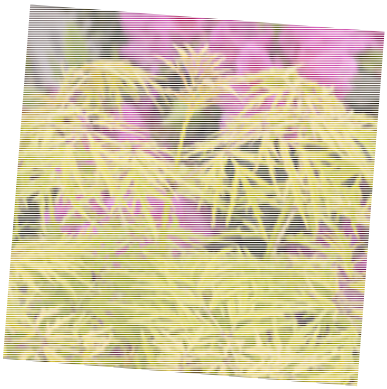
'Vermillionaire'™
Large Firecracker—
Full sun, Height: 18-28" Spread:12-24" A Colorful bloomer that attracts hummingbirds. Plant it in the middle of the border in full sun where its mounding habit will reach about two feet tall. Heat and drought tolerant once established.

Pennisetum
Sky Rocket—
Full sun, Height: 24-30" Spacing: 16-20" A stunning grass at maturity. A variegated form of Purple Fountain Grass that can be used in similar applications. Try it as a thriller in large combination planters or in masse for a focal point in the landscape. Its green and white, strappy foliage is topped with pink plumes that turn cream as they age. Deer will not touch it.

Pequeña Rosalita™
Spider Flower-
Full sun, Height: 18-36" Spread: 12-18" Flower shade soft pink. Continuous bloom or rebloomer, heat tolerant and attracts butterflies.

Lantana camara
'Luscious Marmalade' - Full Sun, Height: 12-18" Spread 18-36" Flowere color orange with yellow highlights. Heat tolerant, use little to no supplemental water in the landscape, will tolerate less than ideal soils and usually don't need to be deadheaded.

Decadence



Lemony Lace

Berry Heavy Gold

Sugar Mountain

Decadence
'Vanilla Cream' False Indigo
Part Sun to Sun, Height: 30-36" Spreads: 42" Pastel yellow buds open to creamy vanilla flowers atop the compact clump of grey-green foliage which emerges bronze in spring. Creamy White flower color. Grows best in full sun and average to well-drained soil. Long-lived perennial.

Berry Heavy Gold
Part sun to sun, Height: 72-96" Spreads: 72-96"
Strike it rich with Berry Heavy Gold, the winterberry with the biggest, brightest gold fruit yet. Great for gardens, mass plantings or as a cut branch. This winterberry has a white flower and bright gold fruit.

'Lemony Lace'™ Elderberry
Part sun to sun, Height: 36-60" Spreads: 36-60" This distinctive golden, thread-like foliage looks wonderful in mixed borders or as a high-impact specimen plant. The

Uniques Shrubs
Sugar Mountain
Balalaika, Eisbar, Kalinka, or Blue varieties
An easy to grow super fruit
These adaptable plants produce lots of tasty, healthy berries. While fruit trees require a large garden, our sweet berry honeysuckle bushes thrive in residential landscapes, and can even be grown in patio containers.

Carnivorous Caterpillars Attack Victims

by Melissa Hogenboom

Caterpillars, they're a bit soft, aren't they? Unappreciated ugly creatures, waiting for their metamorphosis.

All they do is slowly crawl around, munching on plants until they literally spread their wings and fly away.

Not so for all it turns out.

While the majority eat only plants, a certain group has evolved curious, clever ways to eat other unwitting insects.

They mostly feed on soft bodied, sap sucking insects such as aphids (plant lice), ant pupae and larvae. These victims are often duped into a false sense of security by these caterpillars' sneaky tactics.

Some even embed themselves within ant nests and are fed regurgitated food from ants themselves, like cuckoos in a nest.

These "wolves in sheeps' clothing" use a chemical camouflage to mimic the ants' smell which deceives them into thinking they are one of their own.

Others embed themselves within a group of tasty aphids that the ants herd for honeydew, but go undetected as once again they copy the smell of their aphid prey.

"I refer to this as a cloak of invisibility," said David Lohman of City University of New York, US. "They eat aphids but the aphids' own protective ants don't attack them."

Masters of sneak

This group, the Miletinae, are a subfamily of the second largest group of butterflies, Lycaenidae, and are found on four continents.

And they are extremely rare, the 140 species represent less than 1% of the 175,000 or so different species of Lepidoptera, the group that includes butterflies and moths.

They are so rare that a new study looking at the evolutionary history of this particular group took 20 years to collect enough samples to study their family tree.

> "They have really cracked the code for ant communication"

The authors behind the research, published in the journal Evolution, wanted to understand the effect their unusual, predatory lifestyle had on their evolution.

Shifting from a plant-based diet to eating insects itself is not that rare, but those species who make the change usually do not survive for long, explained Dr Lohman, who is one of the lead authors of the study.

This small group has therefore long puzzled researchers: how did they manage to survive this lifestyle whereas other had not?

The answer, it is now apparent, lies with ants.

The Lycaenidae family's historical relationship with ants has been key to helping the Militinae occupy their dietary niche, said another co-author of the study, Naomi Pierce of Harvard University in the US.

Whereas the former can be beneficial to the ants, sometimes even making them a nourishing sugary substance, the latter are parasites.

Ant ghosts

"They have really cracked the code for ant communication. They secrete chemicals on the surface of the larvae that appeases the ants so the ants don't attack the caterpillars," said Prof Pierce.

The reason Militinae were able to evolve and persist in this carnivorous niche is therefore precisely because they have this pre-adaptation of living and co-operating with ants, she added.

But not just any ant will do, the researchers discovered. Just as plant-eating caterpillars only eat certain species of plant, carnivorous

Carnivorous Caterpillars continued . . . .

caterpillars eat particular groups of ants.

"The close relatives of one lineage will associate with certain closely related ant species. We call this the ghost of ant association past as there's no relation between these caterpillars and ants other than they are feeding on insects tended by a particular group of ants," Prof Pierce told BBC Earth.

This association therefore ensures the caterpillars will always find their prey.

Lohman said it was possible that butterflies could even be sniffing out ants their future caterpillars could exploit to survive.

During his field work in Asia he noticed that a group, whose caterpillars feed on aphids, would circle ants even when there were no aphids present.

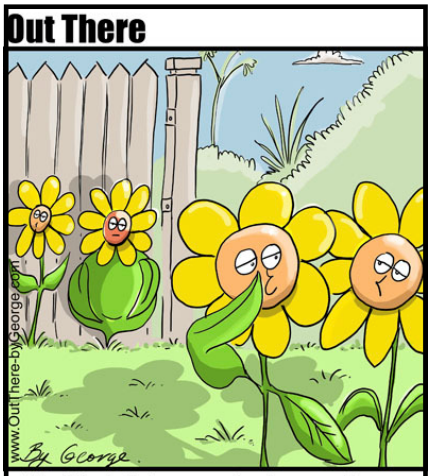
"It makes sense that this habit of living with ants has been passed on from one generation to the next. It has predisposed them to finding ants and along with the ants they often find the insects that they eat," Dr Lohman said.

This parasitic relationship is nothing new. When reconstructing the Miletinae's family tree, the team found that their family was up to 60 million years old, a time when forests thrived and covered much of Earth.

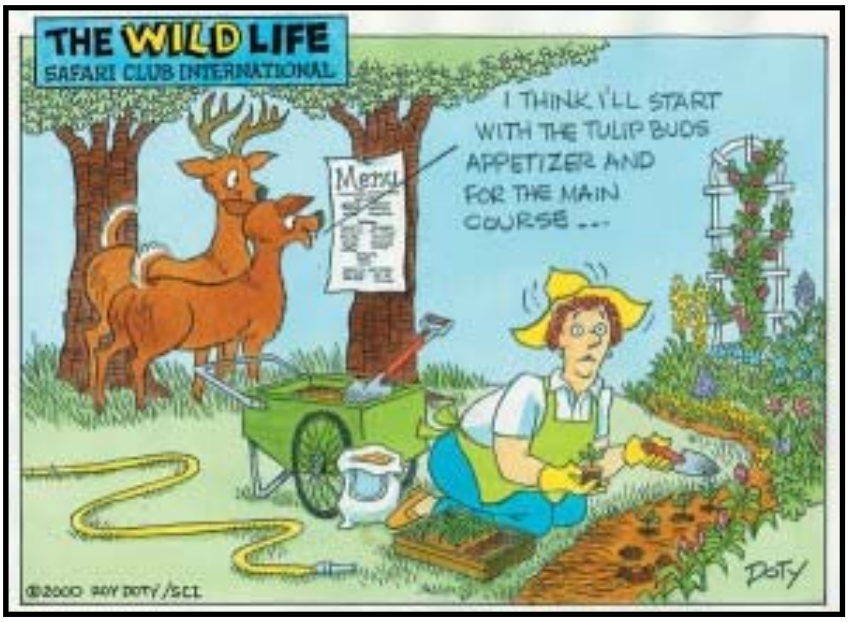
Their rare dietary habits persist when they become butterflies.

Unlike most which drink nectar, adults of this carnivorous group drink the honeydew secretions of aphids and other sap-sucking insects, the same ones their larvae offspring will later eat.

Follow Melissa Hogenboom and BBC Earth on twitter.



"Don't look...but someone has been sucking up too much nitrogen"



Opportunities to Grow

horticultural horizons
IN THE HEARTLAND

September 22-25, 2015,
when Iowa and Nebraska will co-host the
International Master Gardener Conference

We're looking for volunteers to serve on numerous committees, including Decorations, Entertainment, Evaluation, Finance, Food, Hospitality, Registration, Speakers, Tours, Trade Show, Sponsorships, and Communications. If you're interested in serving on one or more of these committees, please contact your local coordinator. The official sign-up list will be available soon. Watch for updates on the conference website, and sign up to "Like" the conference on Facebook.