

YARD & GARDEN REPORT

December 17, 2014

Vol. 2, No. 20

Year of the Slug

According to the Chinese zodiac, this is the Year of the Horse. A horse symbolizes warmth, brightness and energy.

I'm not sure how the weather was in China this summer, but this was clearly NOT a horse-like year for gardeners in North Dakota. There wasn't much warmth at all!

Let's call 2014 the Year of the Slug. Our weather in spring was cool and wet—perfect for slugs. And yes, many gardeners fought and trapped the slimy pests all summer.

Whether or not your garden was invaded by slugs, the 2014 garden season seemed “sluggish.”

Most of us could not plant our gardens until June and the few hot days of summer never seemed to stay (*Table 1*). Most gardens in the state were a couple weeks behind normal all summer. Our gardens grew as slow as a ... slug!

Some plants loved it. Lawns were emerald green. Cool-season crops like peas flourished and the lettuce produced all summer. The “Irish” potatoes thrived in the Irish-like climate.

Some plants hated it. The melon crops across the state were an absolute disaster.

Next year is the Year of the Sheep. Sheep are calm and gentle creatures. I'm not sure if Mother Nature will be calm and gentle in 2015, but I look forward to holding her hand and playing with her in the garden again next year.

Happy Holidays!



Fig. 1. This was the Year of the Slug. The cool, wet spring was perfect for slugs. Gardens got off to a late start and plant growth was “sluggish” all summer.

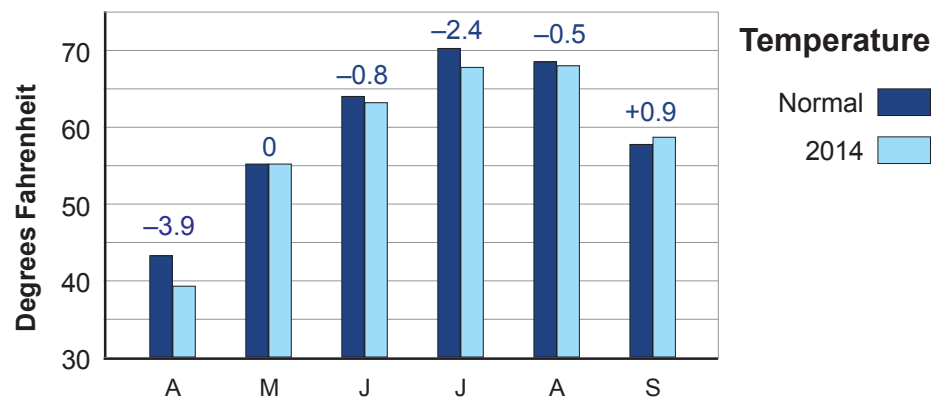


Table 1. Composite mean monthly air temperatures in 2014 and normal (1981–2010) for key locations (Fargo, Grand Forks, Mandan, Minot, Dickinson and Williston) scattered across the state. Departures from normal temperatures are noted above the bars. The growing season started cold and wet, and remained cool for most of the growing season. Source: North Dakota Agriculture Weather Network.

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New mega marigold

The marigold is one of the easiest to grow flowers. Many of us grew our first marigolds as a child. The seeds were big and the results were fool-proof. In a couple months, the plants were filled with bright, sunny flowers. These cheerful marigolds brought happy smiles to our faces.

Now we have a marigold that will bring more than a smile to your face. It will make you gasp in awe! Get to know the mega marigold: 'Garland'.

'Garland' produces absolutely huge blooms—up to 4 inches across—on bushy plants. The plants grow three feet tall and show good tolerance to wind.

Twelve gardeners in North Dakota evaluated 'Garland' this year and eleven recommended it. Comments included:

"Plants were loaded with blooms and the flowers were huge! Its blooms were enormous and very vibrant."

"Blossoms were big and had a nice color. [I received] lots of comments from neighbors and others."

"Very healthy "hedge" of flowers. I loved them...."

'Garland' marigold was developed for making garlands (leis). The garlands are given to show honor and respect in religious weddings and other ceremonies (Fig. 3).

Imagine making a necklace with your children or grandchildren next summer! These marigolds can also be used as a cut flower or simply enjoyed in the garden.

More information on the performance of 'Garland' marigold and other promising flower varieties are available at our North Dakota Home Garden Variety Trials web site: www.ag.ndsu.edu/homegardenvarietytrials/.



Figs. 2–4. 'Garland' marigold has giant flowers and was developed for making garlands. These garlands are easily made using a needle and thread.

Superb sweet corn

Today's sweet corn is 2–4 times sweeter than the sweet corn we ate as children. The new hybrids taste great but many struggle to germinate in cold soils.

This spring was miserable—soils were cold and wet. This made it a perfect year to evaluate sweet corn hybrids for seedling vigor.

Our top performer was 'Xtra-Tender 274A'. It grew vigorously and was ready to harvest a week earlier than the standard 'Summer Sweet' type. Its ears were large and filled with kernels from top to bottom. Gardeners raved over its outstanding flavor.

Over two years of testing, we have been impressed with the performance of the 'Xtra-Tender' hybrids, including 'Xtra-Tender 277A'.

If you are looking for an early corn, 'Temptation' looks promising. 'Trinity' is the standard early variety found at most garden centers, but 'Temptation' surpassed it in every way. Its seedlings germinated better in the cold soil and the stalks were sturdy. The harvest arrived earlier, and its cobs were delicious. The

performance of 'Temptation' was irresistibly good—we recommend it.

We were pleased with the performance of 'Cuppa Joe'. It seems strange to name a corn variety after coffee, but maybe the name fits as the seedlings seemed like they were high on caffeine. They jumped out of the cold soil better than its competitor ('Allure') and matured earlier. 'Cuppa Joe' and 'Allure' produced good yields of quality sweet corn.

For more information on promising vegetable varieties, check out the results of our 2014 Home Garden Variety Trials. Over 425 gardeners tested varieties in 2014 and you are welcome to join our team in 2015. Go to www.ag.ndsu.edu/homegardenvarietytrials/.



New trees for 2015

Did you know our days will begin to get longer in a couple weeks? Spring is coming and it is never too early to start making plans.

When we go shopping for trees, we go to our local nurseries. These trees come from a wholesale nursery, most likely Bailey Nurseries in Minnesota. Bailey has announced their new offerings to nurseries for 2015.

Two new American elms will be offered. Both show resistance to Dutch elm disease, a deadly killer.

Prairie Expedition® was discovered as a lone survivor among a grove of elm trees that died from Dutch elm disease along the Wild Rice River near Fargo. It has dark green leaves, yellow fall color, and develops the classic umbrella shape of American elm (*Fig. 6*). The tree grows fast—about three to four feet per year over a 10-year period. This NDSU introduction was named in honor of the 200th anniversary of the Lewis and Clark Expedition. It attains a height and spread of 50–55 feet in 25–30 years.

First Editions® St. Croix™ American elm has its own legendary tale of survival. An arborist was led to a massive and majestic 100-year old tree in a front yard outside the Twin Cities. The arborist believed the tree had been surrounded by elms that died from Dutch elm disease, but somehow this single tree survived. Just as the case with Prairie Expedition®, laboratory testing confirmed this tree tolerated the disease. St. Croix™ elm will grow into a grand tree of 60–75 feet in height with a spread of 70–90 feet (*Fig. 7*).

Parkland Pillar® Asian white birch is a selection of Dakota Pinnacle®, an introduction from NDSU. It is noted for its columnar shape and dense branching (*Fig. 8*). It grows



Figs. 6–9. Clockwise from top left: Prairie Expedition® and St. Croix™ American elms, Parkland Pillar® Asian white birch, and 'Cupressina' Norway spruce. Photos courtesy of Bailey Nurseries, Inc.

fast and can be used for screening, in boulevards, or as a specimen plant in the garden. It tolerates heat, drought and alkaline soils. The white-barked tree grows up to 40 feet tall with a spread of only 6–7 feet. Its tolerance to heat will make it less susceptible to borers.

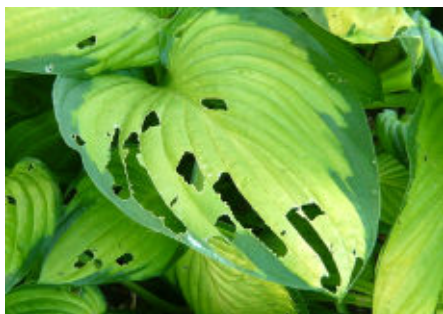
'Cupressina' Norway spruce is a columnar evergreen with beautiful, dark green needles (*Fig. 9*). It shows promise as a specimen tree in limited spaces; or it can be used as a windbreak when planted in groups. Norway spruce grows faster than most spruces and is less subject to diseases.

It's hard to find a good evergreen for screening in urban landscapes. Arborvitae is often used, but its thin needles are sensitive to winter winds. The densely branched 'Cupressina' spruce seems to fit this niche. It grows 12–18 feet tall and spreads 12–15 feet wide. Norway spruce is hardy only to Zone 4 while the other three trees mentioned in this article are hardy in Zone 3 and can be grown anywhere in the state.

Now is a good time to chat with your local nurseries and landscapers. They can share more time with you now as you make your plans for the upcoming spring.

The Top Ten Troubles of 2014

1 SLUGS



Slugs thrived in the cool, wet weather. Rake your garden this spring to remove debris and slug eggs. Control with iron phosphate baits or diatomaceous earth. Set out boards or shingles; destroy slugs that gather underneath.

2 WINTER INJURY



The winter of 2013–2014 was long and bitter cold. The needle tips of many evergreens died (*left*). Weak and marginally hardy deciduous trees died back (*center*); buds were slow to sprout (*right*). Gardeners waited for their perennials to emerge; sometimes they never did. Select hardy materials. Avoid wind-sensitive plants like arborvitae (*left*) in windy, exposed areas. Keep plants in good health to help them tolerate stress. Give thirsty evergreens a drink of water in fall.

3 HERBICIDE INJURY



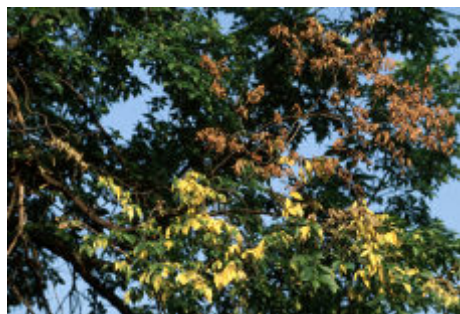
The widespread and continuous use of herbicides to kill lawn weeds can lead to damage on trees, shrubs, vegetable plants and flowers. The increased use of persistent herbicides in pastures is leading to more cases of contaminated manure used in gardens. Use herbicides only when needed. Spray when wind is minimal. Use heavy droplets and avoid hot days. Know the source and history of your manure.

4 SPRUCE NEEDLECAST



A common problem on mature wind-breaks and congested landscapes. Older needles turn yellow and drop. Spray with chlorothalonil or copper in June and early July. Thin out trees to promote air circulation.

5 DUTCH ELM DISEASE



The battle to preserve our state tree, the American elm, rages on. The initial symptoms include the yellowing and wilting of leaves from a major branch. Look for brown streaking in sapwood and beneath the bark (*right*). Immediate removal of the infected tree is the most effective strategy.

6 SHOTHOLES



Found on chokecherry, cherry and plums. Bacterial or fungal lesions drop out of leaves, creating holes. Rake leaf litter. Avoid irrigating foliage. Inspect branches for cankers; remove if found.

7

LEAF BLIGHTS ON CUCURBITS

Several pathogens attack the vines of squash, melon and cucumber. Clean up the garden. Next year, look for disease-resistant varieties. Space out plants. Avoid getting foliage wet. Do not irrigate at night. Fungicides (chlorothalonil, mancozeb, maneb, copper) and bactericide (copper) can prevent spread of diseases.

8

BLOSSOM END ROT

Caused by calcium deficiency. Keep soil evenly moist and do not damage roots when cultivating. Mulch vines.

9

GROUND SQUIRRELS AND VOLES

Economic development and new home construction is bringing more families into contact with these critters. Ground squirrels (*left*) ravage garden beds. Voles (*right*) damage turf and eat bark off tree trunks. Reduce their habitat by cleaning up wood piles and brushy areas. Keep turf mowed regularly. Place tree guards around young trees. Flooding, repellents, poison baits and rat traps are options.

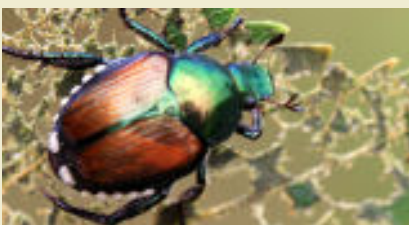
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APPLE MAGGOT

Flies lay eggs into fruits. The maggots hatch and create trails. Pick up fallen apples. Hang traps in July to monitor for flies. Insecticides can protect fruits.

Status of major exotic pests**Emerald ash borer**

This pest is not here and no treatments are needed. The closest infestation remains in the Twin Cities, where it was found in 2009. Don't move firewood when camping. Initial symptoms include dying back of branch tips, woodpecker activity, and suckering at base of trunk.

**Japanese beetle**

It has sporadically entered our state via shipments of infested nursery stock from Minnesota in 2012–2014. This year we also found it in golf courses and parks in Bismarck and Fargo. These non-nursery findings are troubling since it suggests the pests may have survived winter.

**Spotted wing drosophila**

This pest has rapidly spread across the USA and is likely here to stay. The fruit fly was detected in 15 counties of North Dakota in 2014 and 12 in 2013. It attacks berries and cherries. Monitor with apple vinegar traps. Insecticides are available for control. Keep the orchard clean.

Winter houseplant care tips



Watering houseplants

Overwatering is the #1 killer of indoor plants. Cool temps and short days reduce need for water; low humidity increases need. Put your finger one inch deep in soil; irrigate if soil is dry. Irrigate cacti if they begin to shrivel.



Fertilizing and repotting

The days are short and indoor temps are cool. Most plants are not actively growing now and do not need fertilizer. Plants respond better to repotting in March/April when they generate new growth in response to longer days.



Fungus gnats

Little gnats may appear around houseplants in winter. Fungus gnats prefer a humid environment. Let plants dry a bit between waterings and these gnats will be less of a nuisance.

Weather Almanac Temperatures from November 14 to December 16

Site	Avg	Norm	Max	Min	Site	Avg	Norm	Max	Min
Bottineau	12	17	49	-27	Jamestown	16	20	46	-22
Bowman	23	23	59	-18	Langdon	11	15	43	-19
Carrington	14	19	43	-25	Mandan	18	22	48	-16
Crosby	17	18	47	-20	Minot	16	19	49	-23
Dickinson	23	22	59	-11	Mott	22	23	60	-18
Fargo	18	21	45	-14	Rugby	14	17	51	-19
Grafton	15	20	41	-16	Wahpeton	17	22	47	-17
Grand Forks	16	18	44	-14	Watford City	20	21	59	-13
Hazen	19	22	55	-17	Williston	19	23	48	-16
Hillsboro	16	20	46	-21	Wishek	17	21	43	-17

DAYLENGTH (December 16, McClusky)²

Sunrise: 8:23 AM Daylength: 8h 28m
 Sunset: 4:51 PM Change since Nov. 14: -56m

LONG-TERM OUTLOOKS³

6-10 Day: Temp: Above Normal; Precipitation: Above Normal
 8-14 Day: Temp: Below Normal; Precipitation: Above Normal

^{1,2,3} Sources: North Dakota Agricultural Weather Network, www.sunrisesunset.com, and National Weather Service, respectively.

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Written by Tom Kalb, who expresses his gratitude to the NDSU educators who contributed to this report: Becky Buchmann, Janet Knodel, Jared Nelson and Yolanda Schmidt.

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