



# NURSERY NEWS

## Japanese Beetle Quarantine Delayed to 2015

The North Dakota Department of Agriculture has delayed implementation of a Japanese beetle quarantine until approximately April 1, 2015. A public comment period as required by law will take place at that time, after which, the quarantine may be reviewed based on the comments and will be placed effective until further notice. Comments are welcome at anytime before the official comment period as well.

The quarantine is important in slowing down the potential spread of Japanese beetle (JB). JB are small metallic beetles that feed on over 300 species of plants including many ornamentals, corn, soybean, trees, especially linden and roses. This write-up will attempt to outline the key points of the quarantine.

The ND Department of Agriculture (NDDA) has been surveying for this pest since 1960. Prior to 2012, only two beetles had been captured since the beginning of the survey. In 2012 and 2013, JB has been caught in traps hung by NDDA. JB is known to be established in most states east of the Mississippi River, as well as localized populations in the central states and a few western states.

North Dakota is one of the last uninfested states to develop a quarantine for JB. In order to keep the uninfested status, issuing a quarantine is required. This quarantine will allow North Dakota nurseries to continue to ship out of state, as well as protect nurseries and crops from JB. This quarantine does NOT prohibit nursery stock from entering North Dakota. The following paragraphs will discuss what may likely be included in the quarantine, although the draft is still a working document.

Source nurseries in affected states will be required to provide advance notifications of shipments entering North Dakota. These will include the shipping nursery, receiving nursery, date of delivery, and contents of the shipment. Advance notification of all shipments from regulated areas will be required prior to shipment. Nurseries can ship into North Dakota by meeting certain criteria outlined in the quarantine.

Regulated articles will include JB in any stage of development, soil, all plants with roots (bare root are exempt), and grass and sod.



Image 2: Japanese beetle adult and trap,  
Photo by C. Elhard, NDDA

**Criteria I.** If production of regulated articles has been completed during a pest-free window outside of Japanese beetle flight period (June 1st to September 30);

**Criteria II.** If regulated articles are shipped bareroot and free of soil;

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# Got Weeds?

Invasive weeds are often times found in nurseries during inspections by NDDA. These weeds can be detrimental to the plants in the nursery, and great care should be taken to control them.

Invasive species are frequently long lived and highly competitive. They are also able to rapidly grow in a variety of conditions, spread vegetatively and/or produce enormous quantities of seed. Some of these traits are those that we appreciate in our favorite nursery plants. Because ornamental plants can be invasive, it is important that you know which species are on the state, county and city noxious weeds lists. Those listed must be controlled and are illegal to distribute, sell, or offer for sale.

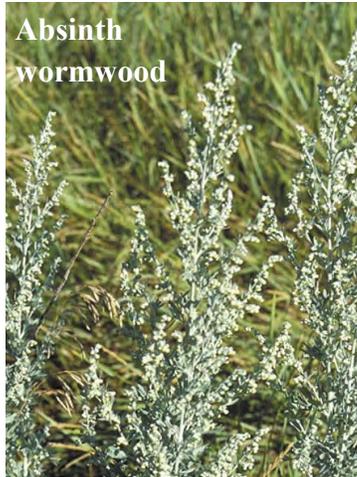
North Dakota's noxious weeds include: absinth wormwood, leafy spurge, purple loosestrife, saltcedar, Canada and musk thistle, Dalmatian and yellow toadflax, and Russian, spotted and diffuse knapweed.

County and city weed boards may designate noxious weeds in addition to those on the state noxious weed list. Control is required of those weeds within the county or city in which they are listed. County and city listed weeds are also illegal to distribute, sell, or offer for sale within the jurisdiction they are listed.

The county and city noxious weed lists can be found at: <http://www.nd.gov/ndda/files/resource/CountyandCityListedNoxiousWeedsSeptember2013.pdf>.

Compliance assistance and education are department-wide priorities. Looking for noxious weeds for sale and as a problematic component of growing areas is a routine part of nursery inspections conducted by NDDA staff. Canada thistle, absinth wormwood, and leafy spurge (shown at right) are the most frequently

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Photos courtesy of NDSU-Extension publication.

## Agriculture Commissioner

Doug Goehring

## Plant Industries Director

Carrie Larson  
cllarson@nd.gov  
701.328.4723

## Plant Industries Staff

1221 W. Divide Ave, Suite 201  
Bismarck, ND 58501  
Fax: 701.328.2240  
www.nd.gov/ndda

## Plant Protection Specialists

Lane Kozel  
ldkoz@nd.gov  
701.328.2250

Samantha Brunner  
sbrunner@nd.gov  
701.328.4765

Rachel Siefert-Spilde  
rsiefert@nd.gov  
701.328.4128

## Noxious Weeds Specialist

Chelsey Penuel  
cpenuel@nd.gov  
701.328.2983

## Administrative Assistant

Elaine Sayler  
esayler@nd.gov  
701.328.2391

## Plant Protection Specialist

Fargo Office  
NDSU Dept 7650; Hultz Hall 271  
PO Box 6050; Fargo, ND 58108

Charles Elhard, Editor  
Nursery Lead  
celhard@nd.gov  
701.239.7295



## Nonhardy Survey Update:

A nonhardy list survey was sent out with the Winter 2013 *Nursery News*. An overwhelming majority of respondents indicated they would like the nursery nonhardy list maintained and continued to be enforced. Thank you for your input!



## Emerald Ash Borer Update

NDDA has begun work on the 2014 EAB trapping campaign. This year it is expected that approximately 350 traps will be placed throughout the state following a protocol established by USDA-APHIS similar to last year. This year more traps will be placed in high-risk areas such as cities, campgrounds, rest areas, and parks as additional traps are available. There are currently 21 states with recognized EAB populations.

NDDA, along with North Dakota Forest Service and NDSU Extension, teamed up to present two, first detector trainings for master gardeners in Fargo and Mandan. Nearly 50 people attended these trainings. Since 2010, over 300 people have been trained to be first detectors. The trainings were well received and each participant received a binder of information and outreach material. In the event of EAB's arrival in North Dakota, these people will be helpful in assisting with responses to suspect infestations.

EAB Awareness Week 2014 has been set for May 19-25 to coincide with the kickoff to summer, right before Memorial Day. Approximately 30 cities across North Dakota have elected to participate this year by hanging posters on "at risk" ash trees.

## Japanese beetle (cont'd from page 1)

**Criteria III.** If regulated articles are shipped into North Dakota in a certified greenhouse or screenhouse that has been determined to exclude the risk of Japanese beetle infestation;

**Criteria IV.** Regulated articles can be shipped into North Dakota if they were produced in a nursery with a trapping program and determined to be free from Japanese beetle.

**Criteria V.** If a nursery cannot meet Criteria I-IV, treatments of soil and/or foliage of plants may be required. Treatments will be outlined in the quarantine.

NDDA has been working directly with the North Dakota Nursery and Landscape Association. During discussions with NDNGA, it was decided to encourage nurseries to contact their supplier to make sure they are aware of JB requirements so they can work to meet those requirements next season. NDDA is also strongly encouraging nurseries to hang JB traps to better establish where JB are entering into North Dakota. NDDA will be hanging approximately 500 traps in 2014. Affected suppliers will include sod growers, nurseries (both herbaceous and woody), and landscapers.

Please contact the North Dakota Department of Agriculture with any additional questions.

## Weeds (cont'd from page 2)

documented weeds in inspector nursery reports.

Weeds can be a haven for insect pests and can take away nutrients and water from the trees and other desirable species, therefore early treatment is essential.

The following identification and control recommendations have been taken, all or in part, from NDSU's "Identification and Control of Invasive and Troublesome Weeds in North Dakota" written by Dr. Rodney G Lym and Andrea J Travnick. This publication and a smaller, pocket-sized weed identification guide written by Dr. Lym, titled "A Guide to North Dakota Noxious and Troublesome Weeds" are available from NDSU Extension or the NDDA.

# Tobacco Mosaic Virus in Petunias

Tobacco mosaic virus (TMV) has recently surfaced as a severe problem on imported petunia cuttings and plugs this season. This issue is so bad that many anticipate a petunia shortage in the United States.

TMV can be considered one of the most common and most destructive plant viruses in the world. There are many different strains that affect plants in the *Solanaceae* family including petunia, tomato, and peppers. TMV can be transmitted easily by mechanical means via pruning, handling or even contact with an infected plant. TMV can spread through an entire crop in a matter of days.

Symptoms of TMV to monitor include deformed or stunted plants (Fig. 1), narrow, spindly leaves, mosaic (Fig. 2) or mottled (Fig. 3) looking foliage and color breaking in the flowers.

The Kansas Department of Agriculture (KDA) has recommended best management practices for their growers (KDA regulates annuals, one of only a few states to do so) producing Red Fox petunias from the Dummer Group's El Salvador farm and those who source these varieties from other growers.

Plant material and soil mix used should be disposed of by bagging and removing it from the growing area. Petunias should be isolated and watched for suspect TMV infected plants. Other hosts should also be scouted. These could include impatiens, verbena, calibrachoa, and other petunias. All weeds should be killed and removed from greenhouses as they can also be hosts for TMV. These materials should NOT be composted.

For more information and sources for this article and Figures 1-3: [www.greenhousegrower.com](http://www.greenhousegrower.com)  
[www.gpnmag.com/virus-diseases-petunia](http://www.gpnmag.com/virus-diseases-petunia)



Figure 1: Leaf Distortion



Figure 2: Mosaic



Figure 3: Mottling



Figure 4: SWD



Figure 5: Monitoring Trap

## Monitoring for Spotted Wing Drosophila

As discussed in last fall's *Nursery News*, spotted-winged drosophila (SWD) (figure 4) was positively identified in North Dakota for the first time in 2013. This pest is devastating to small fruits and stone fruits, and can render a crop useless. In North Dakota, cherries and raspberries were severely affected.

Monitoring is very important in controlling this pest. The following method was taken from Michigan State University—Extension publication. Observation can be done using a simple monitoring trap (figure 5), consisting of a plastic cup with several 1/4" holes around the sides of the cup, leaving a section without holes to facilitate pouring out liquid. Pour pure apple cider vinegar into the trap as bait. To help attract flies and ensure that trapped flies do not escape, a small yellow sticky trap is placed inside the trap. Traps are hung in the shade in the fruit zone using a stake or a wire attached to the sides of the trap. Check traps at least weekly for SWD flies, and change the vinegar. Pour the old vinegar into a bottle or away from the trap location, and place traps back near the crop with fresh vinegar. Continue monitoring through harvest and post-harvest.

<http://www.ipm.msu.edu/uploads/files/E-3140.pdf>