

SPLASH INTO EXTENSION

Chemigation Trainings

March 1, 2018
Holt County Courthouse Annex
O'Neill
1:00 p.m.

March 8, 2018
Antelope County Extension
Meeting Room
Neligh
9:00 a.m.

March 22, 2018
Lifelong Learning Center
Norfolk
9:00 a.m.

April 11, 2018
Holt County Courthouse Annex
O'Neill
1:00 p.m.

For more information and study
guides visit:
<https://water.unl.edu/article/agricultural-irrigation/chemigation>

Winter's Double Whammy

This winter could be a double whammy on many of the plants in our landscapes. It actually started over two months ago.

Preventing Winter Desiccation

We didn't have significant rainfall or snow from early to mid-October until January. This was great for harvest and gave us lots of opportunities to get things done outside this fall. Hopefully one of the things you did was water your lawn, perennials, ornamental grasses, trees and shrubs.

We also had an extended period this fall, clear into December, when the ground was not frozen giving us the opportunity to water our landscapes. Late summer and fall watering is critical because plants will lose moisture over the winter, even though they are not actively growing. If they were already short of moisture due to dry fall conditions, this loss over the winter can cause what we call winter burn or winter desiccation to our woody ornamentals. It can also cause ornamental perennials and turf to dry out and reduce their growth next spring or even kill them.

While it's too late to go back and water this fall if we failed to do so, fortunately we have had some snow in January and early February. If dry conditions redevelop in March, we still have opportunities to water plants if we have a winter thaw. We need

the frost to go out of the top foot of soil so any water we apply will soak into the soil and not run off or just sit on the soil surface.

Record Cold Temperatures

The lack of rain this fall was the first whammy of our double whammy. The second whammy is obvious to anyone who has been outside in recent weeks. Our unseasonably cold January weather, with record breaking lows, coupled with dry late fall conditions is the second major stress for woody landscape plants.

When we have dry soils and little snow to blanket and insulate it, the soil freezes deeper and at colder temperatures than we'd get in a "normal" winter. This has caused a lot of problems that we frequently hear on the news with buried water lines breaking. The same thing is happening around the roots of the plants in our landscape. This can cause winterkill on plants, they just fail to green up next spring.



Severe winter injury to rose stems.
Image by Sarah Browning, Nebraska Extension

A few years ago, the winter hardiness zones were redrawn which shifted most of northeast Nebraska from zone 4 to zone 5. Many garden enthusiasts met this change with great hope of being able to plant new things in their landscape that they were reluctant to try in the past because our hardiness zones indicated they would not do well here.

The problem with this thinking is the hardiness zones are based on average weather conditions and averages do just that, they reflect the averages and hide the highs and lows. Unfortunately, even though the long term averages indicated we had experienced zone 5 conditions, we are now having a zone 4 winter. I anticipate we will lose some of those zone 5 plant materials in our landscapes.

I know it wasn't always well received when I discouraged homeowners from going overboard on planting marginally hardy plant materials in their landscapes. I'll confess, I do have some zone 5 plants around my home, but they are usually planted in protected areas and I consider them experimental when I plant them, just to see if they will survive. However, over 90 percent of the things I have planted around my home are zone 4 or even more winter hardy.

Managing Landscapes with Nebraska's Extreme Climate

So what are you to do? One thing you can do to reduce injury is water plants when conditions are right. Winter watering can be done IF the ground is not frozen and the air temperature is above 40° F. Be sure to apply water about mid-day so it has time to percolate into soil before freezing occurs at night. Avoid excess watering so it does not pool on the surface around plant stems.

If you decide to water this winter, make evergreen trees and shrubs your first priority. Marginally hardy plants should be second on your list. While all plants continue to lose moisture during winter, evergreens such as *Arborvitae* and yews lose more moisture because their foliage is green all year. Evergreens don't recover from the injury as well and may be more costly to replace if severely injured or killed. It is not uncommon for evergreens to turn light brown when spring arrives.

Source: <https://communityenvironment.unl.edu/winter%E2%80%99s-double-whammy>

Water Question & Answer - Distillation and the Sun

Do you have questions about your private drinking water supply? How about wellhead protection, including the management of your private sewage treatment system? Send your questions using the [Ask An Expert](https://communityenvironment.unl.edu/) at <https://communityenvironment.unl.edu/>. Questions will be addressed by Nebraska Extension Educator Meghan Sittler, Nebraska Extension Specialist Bruce Dvorak, and/or Nebraska Extension Educator Katie Pekarek.

If I place a gallon jug full of water in the sun for several days will it result in distilled water?

Meghan: Distillation is a process that removes basically all impurities including most minerals and most contaminants from water. Generally, it is a process that requires heating water to a boil to produce steam. The steam, and heat, rises into a condensing coil that works to return the steam back to a liquid state and collects in a separate chamber. Contaminants such as many minerals, bacteria, volatile organic compounds and others are either left behind during the heating process or are inactivated as a result of the heat. The water that has been heated, gone through the condensing coil and into the second chamber is distilled water. So simply setting a jug of water out in the sun will not complete the distillation process. For more information on distillation and equipment options visit water.unl.edu/drinkingwater.

