COURTESY PHOTO

Ooze hoses are porous and emit water along their whole length.

Extension Offers Watering Options For Your Garden

BROOKINGS — Thanks to the rain this growing season has been a vast improvement over last year's drought for most gardeners, said David Graper, Extension Horticulture Specialist and Director of McCrory Gardens.

"Granted, sometimes we received too much rain at one time but I think that is better than almost no rain at all," he said.

However, even in a year with normal rainfall, Graper pointed out that most people will have to water their gardens at least once in a while to get them through the dry periods and therefore have better production.

There are lots of ways to water the plants in your garden. Some of the most popular utilize oscillating sprinklers that apply water over a pattern that you can select on the sprinkler, impact sprinklers that spray water over a selected radius or full circle and spot sprinklers that spray water over a small area.

"All of these can work well but also have a few disadvantages," he said.

First of all, Graper said they all spray water over head, up into the air, and whenever water is sprayed in the air, there is the potential to lose a significant amount of it to evaporation before reaching plants. Secondly, he said gardeners often fight against one of the common aspects of living on the Great Plains — wind.

"The wind may blow the water away from where you want it to go," he said. "If you add these two factors together along with some hot summer temperatures, you might end up with a watering system that is not very efficient at getting the water to where it needs to go — your plant's roots."

In addition to the first two issues, Graper adds that these methods result in every plant receiving water — including weeds. And, these methods also require gardeners to frequently move the water source.

"This can be a challenge, especially if you are trying to water a large patch of squash or melons that have covered up the garden space. You also have to be carefull to not knock over plants as you drag the hose around. Plus, you have to make sureyou get the water up high enough to effectively water a patch of sweet corn that will block most sprinklers unless you put them on a post or a ladder," he said. "Plus, it is usually pretty muddy after watering so you might lose your shoes in the process."

The final issues Graper sees with many of these methods is the issue of plant diseases, particularly foliar and fruit diseases like the various blights on tomatoes.

"In most of these diseases, both caused by bacteria and fungi, splashing water is a common means for the disease to spread," he said. "Also many diseases need wet foliage over several hours to get established on a leaf. If you can keep your plant's foliage dry you will generally have fewer disease problems."

DRIP SYSTEM IS RECOMMENDED

A drip system can allow you to water the garden without most of the issues Graper described earlier.

"A drip system is a very efficient watering system. Drip systems offer several advantages over overhead watering. They allow you to get water precisely where it is needed, at the base of plants where roots can take advantage of it," he said.

Along with very little evaporation, a drip system keeps the plant's foliage dry which reduces disease development and spread.

And, because it is a more controlled watering method, Graper says gardeners reduce the amount of water in between the rows of vegetables, resulting in fewer weeds to pull.

"And, since most drip systems are installed semi-permanently for the growing season, you don't have to drag a hose through your garden as much as you would with a sprinkler system," he said.

COURTESY PHOTO

Button drip emitters can be inserted where needed.

Of course Graper said there are some disadvantages too.

"Drip systems can be rather expensive and labor intensive to buy and install, at least at the beginning of the season, but once you have them in place you don't have to move them again, at least until the end of the season," Graper said.

He added that some of these costs will be offset by the savings gardeners will see on your water bill from using less water to keep your garden growing versus overhead irrigation.

If gardeners cannot find the supplies they need locally, he encourages them to look for drip irrigation supplies either online or in a catalog. He reminds gardeners that if they have a drip system installed, they will need to be careful when tilling or digging that they do not damage the line.

TYPES OF DRIP IRRIGATION SYSTEMS

There are many types of drip systems available. Graper said the most commonly available type of drip irrigation uses an ooze hose. An ooze hose is a porous hose, often made from recycled tires, that allows water to ooze out of little pores all over the length of the hose, where it then soaks into the soil.

"These are great, inexpensive alternatives to using a sprinkler where you might have a small garden or bed to water or where you may not want to get water sprayed on other things, like your deck, windows or driveway," he said.

Before purchasing, he said gardeners need to check out the package for information on how many hoses you can hook together.

"If you try to attach too many, you may run out of water before the plants at the end of the line can get any," he said.

Flexibility is another benefit of ooze hoses that Graper listed.

"Their flexibility allows you to run the hose along garden rows and around plants very easily," he said.

When choosing an ooze hose, he encourages gardeners to also purchase landscape staples that can be used to hold the ooze hose in place.

"If you have a large garden, you will have to break it down into different zones then connect your garden hose to each zone, allow it to get watered, then move the garden hose to the next set of ooze hoses to water that area," he said.

DRIP TUBING

If you have a larger garden or planting beds around your home or yard, Graper said you might want to invest in drip tubing.

He explained that this tubing often comes with little drip emitters built right into the hose. They are usually spaced out at various intervals, like every 6", 12", 18" or 24". Each emitter will also have a rating of the volume of water that it will emit over the course of an hour, like 0.6 or 0.9 GPH (gallons per hour).

If you have a heavy soil that does not absorb water very quickly you will probably need to look for a lower GPH and also a wider emitter spacing, like every 18" to spread the water out and allow the water to soak in without running off. Lower GPH ratings allow you to cover a larger area from a single feeder source, like a garden hose, but you will have to water for a longer period of time to thoroughly water the whole area. There are also little drip emitters that you can install into blank drip line.

"These work particularly well for planting beds with ornamental plants or for watering a squash or melon planting where you planted the seed in hills," he said.

When installing, just lay out the lines where you want them to go and then insert the drippers where plants are located.

"These also come in rated application rates so you can apply more or less water as needed by different plants," he said.

INLINE DRIP IRRIGATION TUBING

The inline drip irrigation tubing can be purchased in rolls of 50, 250 or 500-feet. Graper said gardeners just need to get the length they need for their garden or planting bed.

"You can also purchase drip irrigation kits that will include the tubing of your choice as well as the various fittings you will need to lay out your drip line for a garden or planting bed," he said.

One other item he recommends gardeners using an inline drip system to purchase is a filter, particularly if you are using water from your own well.

"Particulates and minerals can build up in your drip line and emitters, as well as in ooze hoses, that will eventually clog them up and make them useless," he said. "So use good clean water when using any of these drip systems."

Another accessory Graper suggests is a water timer to turn the water on and off at a set time so gardeners don't have to worry about forgetting to water or to turn it off when it is done.

END-OF-SEASON CARE

Drip systems can generally be reused for several years or growing seasons. At the end of the growing season, let the excess water drain out, then pull it out of the garden.

"I coil mine up and store it in my shed for the winter. Then I can till the whole garden at the end of the year, get my garden planted and lay out the drip lines again the next year," Graper said.

If the drip system is installed in a flower or landscape bed, disconnect the drip line from your hose or hose bibb and let the remaining water drain out. Graper said gardeners can also hook up an air compressor to blow the excess out and reduce the chance of lines bursting during the winter.

To learn more visit, iGrow.org.

Be On Lookout For Dutch Elm Symptoms

BROOKINGS — Dutch elm disease has begun to show up in trees across South Dakota.

The symptoms to be on a lookout for include wilting and browning leaves, often throughout the canopy but sometimes restricted to the length of an individual branch or limb, said John Ball, SDSU Extension Forestry Specialist.

"The trees expressing symptoms now were probably infected last year or even several years ago, sometimes by root grafts with near-by DED-infested trees that were not promptly removed," Ball said.

He added that these early expression of symptoms are not usually due to new infections carried in by beetles.

"The symptoms of new infections started by beetle-carried spores generally occur in July and are often limited, at least initially, to the leaves at the tips of branches turning yellow and wilting," he said.

Bark beetles and root grafts are the primary means by which the fungus spreads from host to host.

Ball said the most effective community-wide effort is to quickly identify and remove DED-infested trees.

"The sooner infested trees are removed, the less likely the surrounding healthy elms will become infected.

Individual, healthy trees can be protected from the disease by root-flare injections of either Arbortect or Alamo fungicides though these must be repeated every two to three years," he said.

To learn more, visit iGrow.org.

Online Garden-Based Training Offered

Interested in using a garden as a teaching tool with children? SDSU Extension is offering a series of Webinars for garden educators. School teachers, afterschool and summer garden program leaders and helpers are all encouraged to participate in the 'Youth in the Garden Webinars.'

Webinars are scheduled for the second Wednesday of the month. The next session will be held Aug. 14 from 10-10:30 a.m. CDT. To participate in the Webinar, visit www.iGrow.org/events and click the link within the event posting. Participants are encouraged to log in within 15 minutes of the specified time.

Lavonne Meyer, Food Safety Field Specialist will offer information on safe practices for handling the harvest with "Food Safety in the Garden." Chris Zdorovtsov, SDSU Extension Community Development Field Specialist will present lessons on insects, soil, plant growth and more with "Science in the Garden."

Save the date for this upcoming session:

• Sept 11, 10-10:30 a.m. CDT: "Pick of the Harvest," presented by Marjorie Zastrow and Physical Activity in the Garden," presented by Nikki Van Dyke, Health and Physical Activity Field Specialist

Future dates include Oct. 9 and Nov. 13.

If you would like to receive more information on trainings and funding opportunities related to garden-based learning programs or to exchanging questions and ideas with others involved in similar projects, e-mail Chris Zdorovtsov at Christina.Zdorovtsov@sdstate.edu to be added to the SDSU Youth Gardening LISTSERV.

Your Place

When Mold Appears, Better Move Quickly

BY ALAN J. HEAVENS
The Philadelphia Inquirer
(MCT)

Q: We have moisture in the crawl space under our house in Rehoboth Beach, Del. The exterminator has been telling us this for about three years, and each year the report gets worse. My husband has faith in the builder of the house, who lives in the neighborhood. Three years ago the builder told us that the exterminator was wrong, so we ignored the warning. Now there is mold growing and other issues.

We were told that the grading of soil needs to be corrected and that we need a French drain for our outside shower that is up against the house. My husband is taking too long to get started hiring someone to do the job. He does not feel that there is any urgency. I want it fixed now. Of course, he is thinking about the expense, but I am thinking about the long-term damage.

What do you think is the prudent thing to do?

A: First, if the builder lives in the neighborhood, he probably built more than just two houses, so it might be worth your while to ask your neighbors if they are having similar problems. My other question is about the qualifications of an exterminator to make these determinations. I think you need a second opinion from a contractor qualified to deal with these issues and then present the report to the builder.

I don't think your husband should wait when he receives evidence that there is a problem when it is provided by someone with expertise in this kind of a situation. When money is involved, we tend to procrastinate, but if the problem is getting worse, not taking care of it will likely result in more extensive damage and a greater expense. And knowing how home insurance companies react to the word "mold," I suggest nipping the situation in the bud when the expert recommends it.

Q: I recently painted the inside of a freezer that had some scratches and stains. I scrubbed it down with a cotton cloth, wiped with mineral spirits, and applied appliance epoxy paint. In hindsight, I realize that I neglected to abrade the inside prior to painting. I was hoping you might know whether the paint will adhere, and if not, what I can do to correct my mistake.

A: I've never heard of anyone painting the inside of a refrigerator, and I assume that doing so would require paint that was food-safe and nontoxic, and I don't think what you used meets either of those requirements. I'm publishing your question to see if any reader knows the answer to this question.

Q: Short of removing the paneling, how can I cover paneled walls?

A: You can cover them with drywall or fabric, of course, but you may be asking about painting them. If you just paint them without the proper prep work, you'll still know they are painted no matter how many coats you use.

As usual, I turn to the Paint Quality Institute in Spring House, Pa., for advice: Wash the surface using detergent and warm water; rinse thoroughly. Lightly sand the surface with fine grit (No. 220) garnet paper, to dull any gloss, and to provide maximum adhesion of the primer and paint; wear eye protection and a dust mask. Wipe down the surface with damp rags. Priming is necessary for adequate adhesion and uniformity of sheen and hiding.

Use a stain-blocking latex primer that is recommended for interior use. Maximum adhesion and stain blocking are available with alcohol-based or alkyd stain-blocking primer. Wear eye protection and an appropriate respirator and provide ample ventilation. Do not leave a primer unpainted. For best dirt resistance, durability, and cleanability, use a top-of-the-line interior latex wall paint in eggshell or satin finish, depending on the appearance desired. A satin finish will provide better dirt and stain resistance.