



Kelly Feehan

Extension Educator – Community Environment

2715 13th Street, Columbus, NE 68601

[402-563-4901](tel:402-563-4901)

environment.unl.edu

water.unl.edu/stormwater

platte.unl.edu

Twitter: @KellyFeehan2

Soil Preparation for a New Garden

By: Kelly Feehan, Extension Educator

Release: Week of April 5

Vegetable gardening is on the rise. The hope is people will continue to garden to gain all of the benefits of exercise, stress relief, eating more fresh vegetables, family togetherness and the list goes on.

For new gardens, site selection and preparation is the first step. This may best be started in fall, but spring is okay too.

For vegetables, choose a location that receives at least six hours of sunlight a day. Eight to ten hours would be even better.

The site should be near a water source and have some protection from strong winds.

While a well-drained soil with good water and nutrient holding capacity is ideal, we usually have to live with the soil our site has. However, soil can be improved. Even if you start with a heavy clay soil or a very sandy soil, both can be improved to make them easier to work and to increase production.

Once the site is selected, the next step is to deal with existing vegetation, such as sod. Physical disruption or no-till are two methods to use.

The traditional method is physical disruption where existing sod is removed and the soil is tilled. Remove sod with a sod cutter or spade. Recycle it by using the sod elsewhere or composting it.

To avoid grass coming back from structures left in the soil, kill the sod first with an application of glyphosate (i.e.

Roundup). Wait two to three weeks after application, then strip off the dead sod or till it into the soil to increase organic matter.

Before tilling, and especially if sod is removed, spread a two to four inch layer of compost over the garden and till it in six to eight inches deep. Increasing organic matter improves drainage in clay soils and water holding capacity of sandy soils.

Do not add sand to clay soils to try and improve drainage. While this seems logical, the amount of sand it would take to make a difference is not feasible and the end result can be a cement-like soil.

Organic matter is one of the best ways to improve soil. A soil with 5 percent organic matter is the goal. Send in a soil sample to a soils lab to learn organic matter percentage as well as pH, nutrient content and more. Soil tests only cost about 20 dollars and the information gained is valuable.

If you use tillage, make it a goal to avoid over-tilling. Tilling soils too often or tilling them too fine destroys soil structure and can lead to a number of problems and lower yields over time.

While rototillers are convenient, they can till soils too fine or create hard pans. If feasible, use a garden spade, garden fork or a broad fork to rough till soil; then use a rake to create smoother seed beds or rows.

For no-till, the only sod that would be removed is from the rows or beds where seeding or transplanting will take place.

The rest of the sod is left to hold soil in place and protect it from foot traffic or excessive tillage that can damage structure. It will decompose so mulch the pathways between rows and beds.

With no-till, the sod does need to be killed first. During spring, glyphosate might be the best route to use due to time constraints.

Smothering sod is another method and works best if done the previous fall as more time is needed to kill sod with this method. To smother turf, spread a layer of newspaper over the sod and then spread 4 to 6 inches of organic matter or compost over the newspaper to hold it in place.

21 April 5 PSAs – kfeehan2@unl.edu

It is April, but that does NOT mean it's time for lawn fertilization or applying herbicides for weeds like crabgrass. If you're a do-it yourselfer and apply your own lawn fertilizer; one of the main advantages to doing the task ourselves is we can apply products at the best time of the season. Lawn fertilization and crabgrass preventer applications need to be based on soil temperature and not air temperature or the calendar date. Lawns are best fertilized after they green up and when the spring growth spurt begins to slow down; which is a sign fertilization is needed. This is usually sometime in May. For crabgrass preemergence herbicides, these are best applied once soil temperatures reach 55 degrees F; which is

also, on average, sometime in May. If you take care of your own lawn, learn when the best time is for each care practice. Nebraska Extension has online calendars that list when lawn care practices are best done.

Sphaeropsis or Diplodia Tip Blight is a fungal disease that commonly infects established pines causing new growth to be stunted, black specks or pycnidia to develop on the bottoms of pine cones, and entire branches to die with needles turning light brown and often hanging straight down so they look as if they are wilted. If an Austrian or Ponderosa pine tree developed these symptoms last season, the time to apply fungicides to prevent new infections is approaching. As with all plant diseases, correct timing of fungicide applications is critical to their effectiveness. To control pine tip blight with fungicides, the first application is made at bud break or about the third week of April; a second application is made just before needles emerge, often in early May; and a third 7 to 14 days later. Fungicides such as Propiconazole or Bordeaux mixture are effective against pine tip blight; but only if they are applied to the correct time.

Fruit trees are susceptible to a number of disease and insect pests. While some growers choose to share with insects or accept some disease damage, others prefer to try and control diseases and insects on fruit trees. If you use a fruit tree spray, the time to begin making applications is approaching. When needed, timing of pesticide applications is critical to effectively controlling plant pests. If pesticides are not applied at the correct time for most pests, they will not work. This is a waste of money and an irresponsible use of a pesticide that could harm the environment or beneficial insects. For diseases of fruit tree leaves, the first application is usually made just as leaves begin to emerge from leaf buds. For insect pests of tree fruits, sprays are started just after all flower petals drop off to avoid harming pollinators.

For lawn seeding, late August into early September is the best time to seed cool season grasses like tall fescue and Kentucky bluegrass. If this job can't wait and spring seeding needs to be done, the sooner seed bed preparation and seeding can be done, the better. There are many challenges with spring seeding of lawns from weeds to summer heat stressing young turfgrass plants. One of the largest issues with spring seeding is weed pressure. UNL Turfgrass Specialist, Bill Kreuser, recommends the use of a product that contains the herbicide mesotrione, and which is specifically labeled for use on new lawn seedings. The herbicide mesotrione provides pre- and postemergence control of weeds; and is fairly safe on some new lawn seedings IF label directions are read and followed. Siduron is another herbicide that can be applied to new seedings for weed control, but is harder to find and will not control weeds after they emerge.

Perennial flowers are popular plants for gardens and landscapes. To keep these plants blooming well, and not dying out in their centers, many need to be divided on a regular basis; usually about every three to five years. Gardeners often ask when the best time is to divide perennials. As a rule, divide late summer and fall blooming perennials during spring, beginning just before new growth begins. If a perennial blooms during spring or early summer, it is best to wait until September to divide plants. The time to avoid dividing perennial flowers is right after they bloom as their food reserves are lowest at that time. Division is done by digging up plants and removing rooted divisions from the outer edge of the clump by cutting them, or gently separating them by hand or with a garden fork. Division is also a good way to propagate perennials if you need additional plants or you want to share some with friends.