TEXAS MASTER GARDENER
TEXAS A&M AGRILIFE EXTENSION
Ellis County

E-Gardening Newsletter

Volume XIII, Issue 3
972-825-5175

Official E-Newsletter of the Ellis County Master Gardeners Association
2675 US Hwy 287 Business, Waxahachie, TX 75167

May 2026
https://txmg.org/ellis/

This newsletter is written by ECMG volunteers and is published bi-monthly in a digital format in January, March, May, July, September and November (odd months). For questions or submissions please email: ellisTXMGnews@gmail.com.

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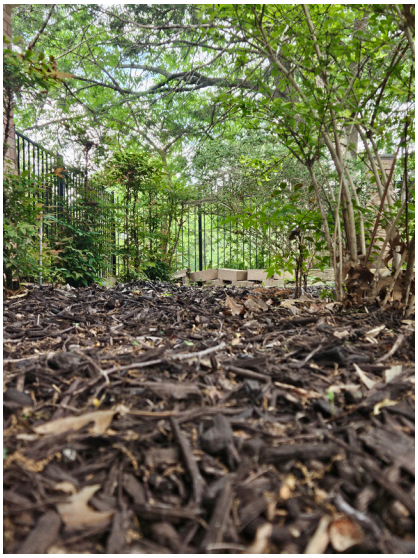
Mulch Match

by Teresa Brown, ECMG

Spring gardening and landscaping often means mulching. Mulch is a layer of material spread on top of the soil to protect plants. It helps keep the soil warmer during the winter, and cooler in the summer. It reduces soil erosion and compaction, amends the soil, helps control weeds, and protects plants during droughts. Texas A&M AgriLife Extension states that a "well-mulched garden" can produce up to 50 percent more vegetables than one of similar size that's unmulched. Mulching benefits do not end there; it can also be used to create landscape design elements, such as forming a dry creek bed, defining uncluttered borders, creating patterns, or highlighting trees or other plants. Although it sounds simple enough, it's useful to understand the different types of mulch and their benefits and limitations, so the right material can be used to maximize its advantages.

Mulches are categorized as organic and inorganic. Organic mulches include any natural material that easily decomposes. Wood chips, grass clippings, nut shells, compost, straw, newspaper, and sawdust are all examples of organic mulches. A benefit of organic mulches is when it decays, some nutrients will make their way into the soil. Sawdust, however, can inhibit nitrogen, so fertilizer must be applied to the soil (or mixed into the sawdust before using it as mulch).



Wood chip mulch is one of the most common mulch types.
Photo by Teresa Brown

Of all the mulch types, organic is probably the least expensive and easiest to find with the least negative consequences except for the need to replace it more frequently. Wood chips and nut shells are commonly used. They allow for air and water circulation, and organic material helps clay soil, which is common in Ellis County, to be more crumbly instead of hard-packed. AgriLife Extension recommends a 4-inch layer of mulch; it will not only allow the ground to absorb more water, but it also reduces water loss. Preventing this loss is essential during Texas' hot summers. When mulching around trees, do not pile the mulch up and around tree trunks, which can lead to disease and pest infestations. Sawdust and compost have a finer texture than chips and shells. With deep layers they can control weeds, but water and air circulation will be inhibited.

Organic materials decompose quickly and require frequent replenishing. AgriLife Extension advises applying enough organic material that when settled, it will be 4 inches thick. Coarser materials, like straw, may need as much as 8 inches or more, and newspapers should be at least eight layers thick. Further, AgriLife Extension recommends adding more mulch during the growing season to keep weeds at bay as the materials break down.

Dyed mulches, such as black wood chips, are not toxic to use, according to the Cooperative Extension at the University of Maine. However, they caution buyers to know the supplier and wood source, so recycled pressure-treated wood can be avoided because it might be contaminated with copper arsenate. The Environmental Protection Agency (EPA), advises that wood treated with chromate arsenicals should not be used for mulch. According to that agency, chromated arsenicals, which include chromated copper arsenate, have been used to treat wood as a pesticide since the 1940s but no public health risks have been found. However, it can be a risk for plants and aquatic invertebrates.

Inorganic or synthetic mulch refers to man-made materials and those that do not decompose quickly. These mulches include plastic, recycled rubber mats, rocks and rock chips as well as landscape fabric. A benefit of synthetic mulches is it breaks down slowly and does not require frequent replacement. On the other hand, synthetics' shortcomings relate to its artificial composition. As it decomposes, it may release chemicals into the ground. It can also create a barrier for rain and air circulation, which may be good for weed control but also negatively affect desired plants.

White plastic mulch protects tomato plants in North Carolina. Photo by Emmanuel Torres, North Carolina State University Extension

AgriLife Extension notes that plastic is the only inorganic mulch used in vegetable gardens. Black plastic helps to warm the soil in early spring and summer, and it can help to reduce weeds. The downside to using it is that at the end of a growing season it must be removed because it cannot be turned back into the soil.

Rock mulch can be used to create landscaping design elements like this dry creek bed. Photo by Teresa Brown

Rocks and stones can add depth and dimension to a landscape. Although it may seem contrary, rocks do not increase ground temperature. While rocks do prevent weeds for a while, they are not a good permanent solution without using herbicides.

An alternative mulch is ground cover, often called living mulches. Lush ground covers are gorgeous to behold for spaces that otherwise might be bare. They fill spaces under trees and in open, sunny areas. Some produce flowers, bringing color into an area that may be plain. Some popular ground covers are ajuga, Asian jasmine, Carex/sedge, periwinkle, ivy, horseherb, liriope, mondo grass, purple wintercreeper, and Texas frogfruit. The downside to living mulches is competition. It competes with other plants for everything -- water, light, nutrients and space.

AgriLife Extension offers some tips for mulch selection. The first is cost -- if you have appropriate material already available, use it. For example, cut branches and trees can be chipped in a wood chipper. Next is to never mulch with the same crop material as what is planted. To illustrate the point, if cucumbers are grown in the spring, do not use those same plants as mulch for an autumn cucumber crop. This simple rule will avoid spreading diseases from one season's crop to the next. The last tip is to consider the mulch color. Light color mulches reflect heat and are better in the summer and fall, but dark mulches will warm the soil for spring planting.

Sources

Environmental Protection Agency. (n.d.) Ingredients Used in Pesticide Products. Chromated Arsenicals. https://www.epa.gov/ingredients-used-pesticide-products/chromated-arsenicals-cca.

Texas A&M AgriLife Extension. (n.d.) WaterSmart Landscapes for the Upper Texas Gulf Coast. https://watersmart.tamu.edu/mulching

University of Connecticut, College of Agriculture, Health and Natural Resources. (n.d.) Mulch Basics. https://homegarden.cahnr.uconn.edu/factsheets/mulch-basics

University of Illinois Urbana-Champaign, Illinois Extension (March 27, 2023). Make the most of Mulch by choosing from living, synthetic, inorganic, or organic. https://extension.illinois.edu/news-releases/make-most-mulch-choosing-living-synthetic-inorganic-or-organic

Mulch Match Sources continued:

University of Maine. Cooperative Extension. Ask the Expert. (June 15, 2022). Is black mulch harmful to plants? Is the dye in the mulch toxic?
https://extension.umaine.edu/gardening/2022/06/15/is-black-mulch-harmful-to-plants

Download the PDF

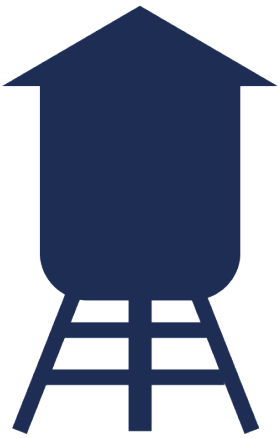
Texas A&M AgriLife Extension. (June 2014.) Easy Gardening: Mulching. PDF Hort-PU-110
https://cdn-de.agrilife.org/extension/departments/hort/hort-pu-110/publications/files/easy-gardening-mulching-1.pdf

Waxahachie INDEPENDENT SCHOOL DISTRICT

ECMGA was named Campus Business Partner of the Year by Clift Elementary school. Master Gardener Agnes Douglas (second from right) attended the luncheon and accepted the award.

RAIN WATER & CITY WATER

By Paul Thomas ECMG



I often wonder why rain really perks up the veggies in my garden, but irrigation does not. There are a number of reasons:

- Rainwater carries small amounts of nitrate and ammonium formed in the atmosphere, giving plants a mild nutrient boost.
- Rainwater is naturally acidic, which unlocks trace elements from the alkaline soils that most properties have in Ellis County.
- Raindrops improve soil aeration by breaking surface crusts and carrying air into the soil, increasing oxygen around the roots. This is beneficial in supporting the roots, sending nutrients up the stem into the plant.
- Rainwater has no disinfectant. In Waxahachie, chloramine is used for city water except in October, when it is chlorine, as part of an annual system cleaning cycle.

See: Why Is Rain Good for Plants? The Science Explained - Biology Insights

Does the chlorine or chloramine in city water dissipate if I let it stand out?

No, at least for 11 months a year in Waxahachie. Each October, the city changes to chlorine as part of the cleaning cycle. However, for gardening, chlorine or chloramine in the water does not affect plants.

Why? Testing shows that some bacteria in the soil will be killed when irrigating, but it quickly comes back. You can, indeed, dissipate the chlorine if you let it stand for a couple of days. Chloramine must be dealt with by other means. It does not ever dissipate by letting it stand.

Do I need to dechlorinate irrigation water? Chlorine and chloramine can temporarily suppress soil microbes, but the microbial community rebounds quickly. For most crops, this has no meaningful effect. The one exception is beans or peas, if you want to inoculate the seeds so that they can fix nitrogen.

There are several ways to neutralize chloramine:

- You can neutralize with an aquarium dechlorinator.
- You can add vitamin C. A pinch of powdered vitamin C should neutralize chloramine in a bucket of city water. See also: Using Vitamin C to Neutralize Chlorine in Water Systems
- You can trap rainwater from your roof. Just get a rain barrel with a strainer on top and a fitting for your gutter downspout.

So, happy growing and perky plants!

Aided by Copilot and Gemini AI, fact checked with Grok AI.

Fallowing, Crop Rotation and Cover Crops: Options for Soil Recovery

by Beth Norris, ECMG

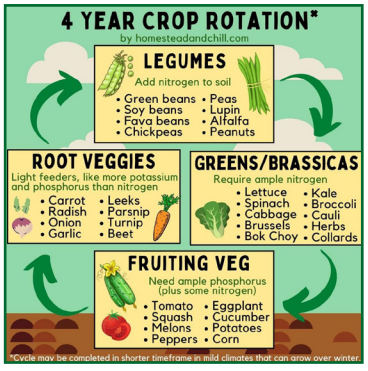
This summer I will be doing some traveling and was concerned about the care and upkeep of my usual vegetable and herb garden. Added to that, I was also looking into assistance with some weeds that keep coming back year after year, no matter what I do to get rid of them. I am already using crop rotation to help keep my beds from becoming nutrient depleted but still having issues with persistent weeds. As I was researching options, I came across the practice of fallowing. I had heard about farmers letting their fields go without growing anything but wasn't sure if this was beneficial to a small home garden.

Fallowing is an ancient technique of letting farmland or gardens rest by not planting anything for a season or longer. Fallow soil or land is allowing the ground to rest and regenerate. In some cases, it can allow potassium and phosphorous deep in the soil to rise to the soil surface where it will benefit future crops. In addition to these, carbon, nitrogen and organic matter levels improved as did moisture-holding capacity. Even beneficial microorganisms were shown to increase. Fallowing can also break the weed/pest and disease cycles by removing host plants for a season. That sounded good to me and my situation.

Fallowing can be done in large commercial crop fields or small home gardens. It can also be used with nitrogen fixing cover crops.

However, my research also enlightened me to the fact that just leaving the soil without any form of intervention was not necessarily the right thing to do. Most of the articles I read indicated that fallowing should be used in conjunction with crop rotation and/or cover crops. Most people are familiar with crop rotation, which means following the practice of growing different types or families of crops in the same area over several years or seasons. Rather than planting the same crop again in the same plot, gardeners and farmers alternate crops using a planned schedule. Cover crops or green manure are plants that are grown in order to protect and improve the soil rather than be harvested for food or profit. These are planted during off-seasons or between regular plantings to prevent erosion, suppress weeds and add nutrients back into the soil. Some examples of cover crops are clover, crimson clover, winter rye and hairy vetch. But you can also grow other cover crops based on the season you employ that practice. For example, sunflowers can be planted in the summer months for the same optimal results.

During my research I also used AI (artificial intelligence) and found similar but more concise information including a chart that credited the U.S. Department of Agriculture, Texas A&M AgriLife Extension and the Ohio University Extension. The chart showed quick-start rotation tips with examples of crops to rotate and when.



In conclusion, fallowing, crop rotation and cover crops are all forms of helping our soil maintain optimal growing conditions especially when used together. Hopefully by using these methods in my vegetable garden this year, I will see a decrease in those undesirable weeds I've been battling for the past several years and give my soil a period for rest and rejuvenation! Please refer to the articles mentioned below to learn more about these options for your gardening experience.

Sources

Darcy Larum. (March 4, 2021.) Gardening Know How
https://www.gardeningknowhow.com/garden-how-to/soil-fertilizers/what-is-fallow-ground.htm

Science Insights. (March 13, 2026.)
https://scienceinsights.org/what-is-fallowing-and-what-does-it-do-for-soil/#google_vignette

Live to Plant. (July 12, 2025.) https://livetoplant.com/fallowing-methods-for-small-scale-home-gardens/

Pesto Presto!

by Beth Norris, ECMG

I can do almost anything with pesto. One of the things I love the most about pesto is that it is so versatile! If you don't have the traditional ingredients, you can use what you have on hand, such as leafy green spinach, kale, arugula or parsley. The only limitation is your imagination.

Most everyone is familiar with the basic basil, garlic, pine nuts, parmesan cheese and olive oil recipe, and that is a good basic and delicious one -- but I don't always have pine nuts on hand or enough fresh basil, etc. You can use any leafy green veggie or herb. I've seen spinach, kale or parsley pesto recipes and other recipes that use walnuts, hazelnuts or almonds instead of pine nuts. Again, your imagination is the only limitation. If you follow the basic formula, you will be able to improvise the basic recipe into whatever your garden and imagination can come up with.

Ingredients:

1/3 cup pine nuts

2 cups fresh basil leaves, tightly packed

3 cloves of garlic, peeled (roasted if desired. This will decrease the sharpness of fresh garlic.)

1/3 cup parmesan (or pecorino) cheese, finely grated

1/3 cup olive oil (best to use a good quality extra virgin olive oil)

1 teaspoon freshly squeezed lemon juice (not a store brand bottled lemon juice)

¼ teaspoon salt

Pepper to taste

Instructions:

- Toast the pine nuts in a dry skillet over medium high heat for 3-5 minutes until golden and fragrant. Set aside to cool.
- Rinse basil leaves and dry thoroughly.
- Peel garlic.
- Finely grate parmesan or pecorino cheese on a fine grater or micro plane. Set the cheese aside.
- In a food processor, pulse the nuts and garlic until coarsely chopped. Scrape the sides of the processor bowl as needed.
- Add basil leaves and pulse until combined with the nuts and garlic. Scrape the sides of the processor bowl.
- With the processor running, slowly drizzle in the olive oil and process until emulsified.
- Add lemon juice, parmesan cheese, salt and pepper, then pulse until combined but still slightly textured. Taste and adjust for seasoning.

Pesto Presto continued:

Storage:
This pesto can be stored in an airtight container in the refrigerator for 1 week. Be sure to cover the top of the basil in the storage container with a thin layer of olive oil. This will keep it from turning brown. When using the pesto during the week, be sure to replace the thin layer of olive oil after each use. When ready to use, just stir the layer of oil into the remaining pesto. You can also store your pesto in ice cube trays in the freezer for up to 2-3 months. Be sure to apply a thin layer of olive oil on each cube before freezing.

Substitutions:
Other nuts such as walnuts, almonds, hazelnuts or pecans can be used. Pecorino romano or asiago cheese can be used instead of parmesan. Spinach, arugula, kale or parsley can be used in place of or in combination with basil.

Using your pesto:
Use it as a pasta sauce, but be sure to save some of the pasta water to help make a creamier sauce. Use it as a dip on sandwiches or instead of tomato sauce on a pizza or flatbread. Pesto is great on top of roasted meats, chicken and seafood as well as vegetables.
So, if you're looking for a great way to use up your bounty of home-grown basil, parsley or leafy green vegetables, don't forget about this basic pesto recipe.

Answer Key

(Find these words from our March newsletter)

Y	O	H	U	P	B	V	P	L	U	T	F	N	Y	W
B	K	X	L	V	I	L	E	S	P	R	V	Y	P	I
U	J	G	A	E	O	E	S	S	T	E	Z	Z	R	N
T	W	N	E	R	D	X	T	C	P	L	B	F	A	T
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E	B	F	O	I	V	O	C	O	P	I	B	E	R	R
R	L	E	I	C	E	D	I	L	R	S	S	E	I	U
F	A	T	X	A	R	L	D	A	O	V	Z	Z	E	K
L	C	S	Z	L	S	S	E	R	D	F	P	E	F	L
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O	N	G	E	G	J	O	W	P	E	S	E	I	Q	H
M	D	S	A	H	Z	R	T	S	P	O	D	Z	J	C
N	A	T	I	V	E	S	P	E	A	R	S	X	K	W

Words Found:

- VERTICAL
- TRELLIS
- WINTER
- FREEZE
- NATIVE
- BLACKLAND
- EXPO
- SCHOLARSHIPS
- SENIORS
- PESTICIDES
- PRODUCE
- MYTH
- PRAIRIE
- BUTTERFLIES
- PEAR
- BIODIVERSITY
- FROGS
- WEEDS

The ECMGA Learning Garden at Getzendanger Park

Come visit! See our new hardscape and plantings.

Find these words from our March newsletter!

Y	O	H	U	P	B	V	P	L	U	T	F	N	Y	W
B	K	X	L	V	I	L	E	S	P	R	V	Y	P	I
U	J	G	A	E	O	E	S	S	T	E	Z	Z	R	N
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O	N	G	E	G	J	O	W	P	E	S	E	I	Q	H
M	D	S	A	H	Z	R	T	S	P	O	D	Z	J	C
N	A	T	I	V	E	S	P	E	A	R	S	X	K	W

Answer key on page 8.

Find these words:

- EXPO
- SCHOLARSHIPS
- SENIORS
- PESTICIDES
- PRODUCE
- MYTH
- VERTICAL
- TRELLIS
- WINTER
- FREEZE
- NATIVE
- BLACKLAND
- PRAIRIE
- BUTTERFLIES
- PEAR
- BIODIVERSITY
- FROGS
- WEEDS