SPH

SOUTH PLAINS HORTICULTURE

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FALL COLOR: WHY DO LEAVES TURN COLORS IN THE FALL?

Color change is actually triggered by day/night length. Studies have shown that trees in a given geographic area will begin the process of leaf abscission (drop) at approximately the same time every year, regardless of temperature. Each tree species has a different critical threshold of night length and when it is reached, abscission cells begin to form a boundary at the join between the leaf and the stem to which it's connected. This boundary layer of cork like cells restricts the flow of carbohydrates out of the leaf, inhibits the renewal and production of chlorophyll and finally reveals other leaf pigments present in the tissue like xanthophylls (yellow) and carotenoids (orange). Anthocyanins (red and purple) are not ever present in the leaves, but are produced from the sugars trapped in the leaves. Over time, all of these pigments will break down leaving only brown tannins.

TEXAS A&M AGRILIFE EXTENSION

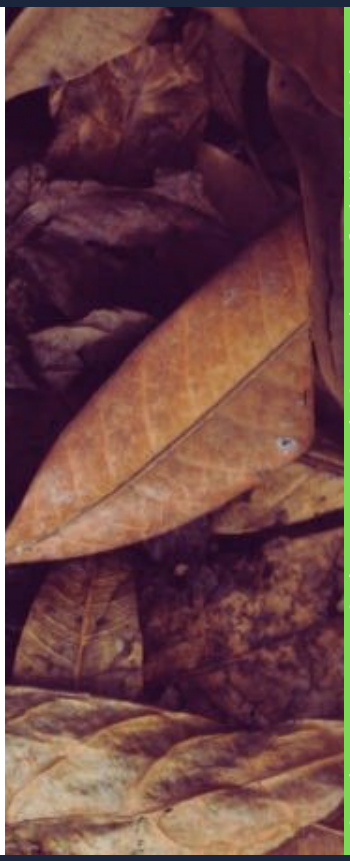
INSIDE THIS ISSUE

THREE TIPS TO RECYCLE FALL LEAVES

Many people are coming across top-grade fertilizer in their yard, then simply raking it up and tossing it to the curb: fallen tree leaves.
Putting raked leaves in a landfill has a long-term cost for a community. Even recycling green waste via community-wide collection, while less problematic than throwing it away, is still not the simplest and most economical use of this gardening treasure.

Leaves contain a wonderful blend of nutrients that a tree needed to grow those leaves in your yard in the first place. Getting rid of fallen leaves doesn't make any sense from an environmental standpoint, economic standpoint or just the standpoint of how nature grows leaves.

1. Mow the leaves into the lawn to recycle their nutrients. The simplest, easiest way to use the leaves, is to mow over them with a mulching mower so that the leaf pieces can fall down between the grass blades. The leaf pieces will release nutrients as they decompose.



2. Collect and mulch the fallen leaves
A pile of fallen leaves can be chopped up and used as mulch. The next-simplest alternative is to collect the leaves and spread them around shrubs, trees or vegetables so they can work as mulch. When you grind them up a little bit with a mower, it gives them a nicer look, and they're less likely to blow away. Mulch moderates soil temperature, prevents erosion and evaporation, greatly reduces weed problems, and provides nutrients for plant roots as it decomposes over time.

3. Use the leaves as compost
A third option for using falling leaves is to compost them. Composting leaves takes more commitment than mulching them, but it creates a nutrient-rich mix that can be mixed with soil to help plants thrive.

The leaves have so many uses in the garden and landscape!

PUMPKIN VS SQUASH

WHAT'S THE DIFFERENCE?

Since pumpkins, squash and the ever-confusing gourds are all so closely related, how do you know the difference? Tradition tells us that pumpkins are something you carve, squash is something you cook, and a gourd is something you look at. But it is not that easy, or really that hard either. The answer is in the stem. All of these fall favorites belong to the same genetic family, Cucurbita. Within that family are several species- Cucurbita pepo, Cucurbita maxima and Cucurbita moschata. The pepo species is the true pumpkins - varieties within this group have bright orange skin and hard, woody, distinctly furrowed stems. The maxima species also contains varieties that produce pumpkin-like fruit, but the skin is usually more yellow, and the stems are soft and spongy or corky, without ridges. They do not really make good handles for jack-o-lanterns. Varieties such as 'Atlantic Giant' or 'Big Max' are often listed as pumpkins but are more properly called pumpkin-squash. Other members of the maxima group are Hubbard squashes, banana squashes, and turban squashes- in short, most autumn and winter squash. Finally, there is the moschata species- they are usually long or oblong instead of round and have a tan skin. The stems are deeply ridged and enlarged next to the fruit. Members of this group include cushaw squash, winter crookneck squash, and butternut squash.

TRUSTY *Fall Favorites*

Cabbage & Kale

- Can be used as an annual ornamental and/or a cool-season vegetable
- Likes rich soil, plenty of water, and good fertilization

Want to know how to eat this? See page 4

Chrysanthemum

- Native to China
- Loves full sun
- Perennial
- Comes in multiple colors

Swiss Chard

- Can be used as an annual ornamental and/or a cool-season vegetable
- Cut back when it reaches 1' tall to maintain flavor
- Full to part sun
- Nutritional powerhouse- vitamins A, K, C, magnesium, potassium, iron and dietary fiber

Pansy

- Comes in a variety of colors
- Sun to partial shade
- Grows best in temps of 45-75

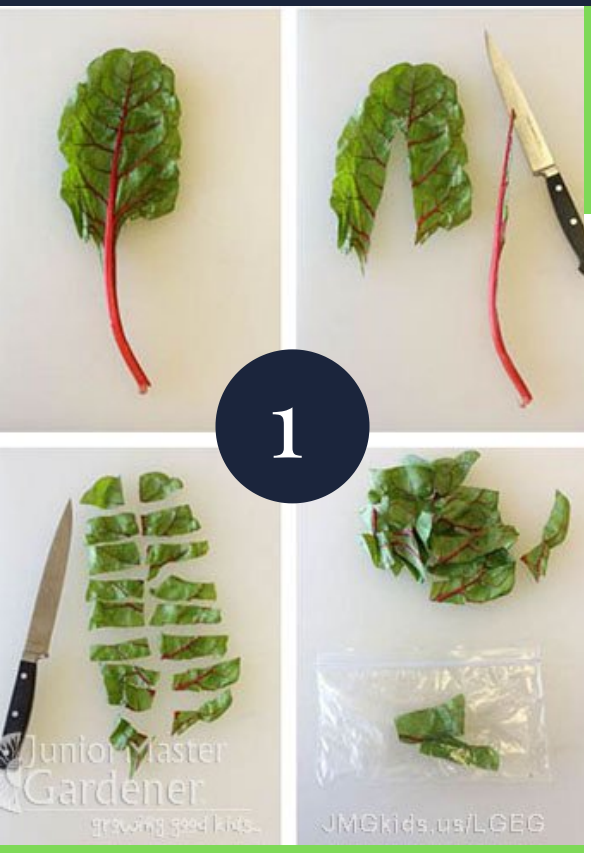
Reminders

Plant wild flower seeds now! Seeds need ground contact and water to germinate.

VEGGIE PREPARATIONS

SWISS CHARD

TIPS ON PROPERLY WASHING, HANDLING, CUTTING AND PREPARING VEGGIES



Wash leaves carefully under cold water. Cut away the base stem. Slice the leaves into thin, 1/2" long slices.

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Fun to make with children!

I. Sunflower Spinach Chard Power Salad

Prep time: 15 minutes
Serves: 8
Serving Size: ½ cup

Utensils needed
Colander
Measuring cup
Knife
Cutting board
Large mixing bowl
Mixing spoon

Ingredients
2 cups of Swiss chard leaves, thinly sliced
2 cups of baby spinach
⅓ cup of balsamic vinaigrette dressing
⅓ cup of roasted sunflower seeds, lightly salted
Optional: ⅓ cup of dried cranberries

Directions
1. Wash your hands and clean your cooking area.
2. Rinse the chard leaves and pat them dry.
3. Cut away and discard the stems. Cut the leaves into ¼-inch slices.
4. Place the baby spinach in a colander and run water over it. Drain it and pat it dry.
5. In a large mixing bowl, combine all the ingredients. Toss the salad gently.

Nutrition Facts
Serving Size 1/2 cup
Servings Per Container 8

Amount Per Serving	
Calories 60	Calories from Fat 30
	% Daily Value*
Total Fat 3g	5%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 170mg	7%
Total Carbohydrate 8g	3%
Dietary Fiber 1g	4%
Sugars 4g	
Protein 1g	
Vitamin A 25%	• Vitamin C 8%
Calcium 2%	• Iron 4%

*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Saturated Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

Calories per gram:
Fat 9 • Carbohydrate 4 • Protein 4

www.jmgkids.us/LGEG

Kitchen math and Science
1. What percentage of the daily value of vitamin A is in 1 serving of Sunflower Spinach Chard Power Salad? _____
2. How many leaves of Swiss chard did it take to fill 2 cups after they were thinly sliced? _____
3. What are 5 edible colors of Swiss chard?

   _____ _____ _____

   _____ _____

   (Hint: Use your *Veggie Mania Research Chart*)
4. Swiss chard contains a large amount of vitamin K. What percentage of the recommended amount for vitamin K is in 1 cup? (Hint: Use your *Veggie Mania Research Chart*)? _____
5. How many calories are in 1 serving of this recipe? _____

How the children can help: Wash the produce, measure the ingredients, drizzle the dressing over the salad, and toss the salad

Junior Master Gardener