Video of the Week: **How to Make a Grow Light**

**ORNAMENTALS**

**Caddo Sugar Maples**

Sugar maples often have significant problems with our Kansas weather. Our hot, often dry summers and windy conditions can shorten the life of these trees. However, some sugar maples are better adapted to Kansas conditions than others. Our John C. Pair Horticulture Center has evaluated sugar maples for well over 20 years and has identified selections that are much better adapted to Kansas. Of particular interest are the Caddo sugar maples which originated from an isolated population in Caddo, County, Oklahoma. These are true sugar maples and are considered an ectotype and are more drought tolerant, better adapted to high pH soils and more resistant to leaf scorch and tatter than the norm. Just how resistant to scorch is impressive. The last three weeks of August in 2003 saw temperatures at our research station over 100 degrees each day with no rain for the month prior. All other sugar maples in the trial had severely scorched leaves. Not a single leaf of any of the Caddo maples was scorched. Leaf water potential readings taken pre-dawn showed all other trees in the trial past the wilting point while the Caddo maples were barely stressed.

Another interesting characteristic of Caddo maples is that they tend to retain their leaves in the winter and therefore have been suggested as screens or for use in windbreaks. Dr. John Pair, the late director of the Horticulture Center, selected and released two Caddo maples over 10 years ago. Both these selections color early and have consistent good red fall color. Drought tolerance and resistance to leaf scorch and leaf tatter are exceptional. However, neither will do well in a heavy clay soil that is frequently saturated. These trees can be damaged or killed if planted in wet sites.

The first selection, ‘Autumn Splendor’, has the traditional sugar maple growth pattern and needs plenty of room to mature. ‘John Pair’ is smaller and more compact and more likely to fit a residential landscape. This tree is also noted for a dense, uniform crown. Flashfire is a third Caddo maple that has done well in Kansas. If you are in the market for a sugar maple, consider these before making a final decision. (Ward Upham)

**How to Tell Poison Ivy and Virginia Creeper Apart in the Winter**

During the growing season, these plants are easy to tell apart as Virginia Creeper has five-leaflet per leaf and Poison Ivy has three. However, during the winter, distinguishing between the two vines can be more difficult as the leaves have dropped. The reason
it is important to be able to tell the difference is that Poison Ivy causes a rash in most people but Virginia Creeper does not. First, let’s cover some facts about Poison Ivy.

- Urushiol is the oil present in Poison Ivy that causes the rash.
- Urushiol is present in all parts of the plant but especially in the sap.
- Urushiol can cause a rash from 1 to 5 years after a plant has died.
- The amount of urushiol that covers the head of a pin can cause a rash in 500 people. The stuff is potent.
- Poison Ivy can grow as a ground cover, a shrub or a vine. We are concerned with the vine in this article.
- Using a chainsaw on Poison Ivy in the winter can release sap which makes a rash more likely. This is worse on warm days where there is more sap rise.

So, how do you tell the two apart? This is actually easy once you know what to check. Look at the aerial roots on the vines of Poison Ivy and Virginia Creeper. They resemble hairs on Poison Ivy but are plumper on Virginia Creeper and are about the size of a pencil lead. (Ward Upham)

**Conservation Trees from the Kansas Forest Service**

The Kansas Forest Service offers low-cost tree and shrub seedlings for use in conservation plantings. Plants are one to two years old and sizes vary from 8 to 18 inches, depending on species. Two types of seedlings are offered; bareroot and containerized. Containerized provide a higher survival rate and quicker establishment. Orders are accepted from now through May 1st, but order early to ensure receiving the items you want.

Orders are shipped beginning in mid-March. Approved uses for these plants include windbreaks, wood lots, wildlife habitat, timber plantations and educational and riparian (streambank) plantings. They may not be used for landscape (ornamental) plantings or grown for resale.

All items are sold in units. Each single species unit consists of 25 plants. For example, a unit of Eastern red cedar has 25 trees per unit. Though a single species unit is most commonly purchased, four special bundles are also available including a quail bundle, pheasant bundle, eastern pollinator bundle and western pollinator bundle.

Tree planting accessories are also available including marking flags, root protective slurry, rabbit protective tubes, weed barrier fabric and tree tubes. If there have been problems with deer browsing on young trees, the tree tubes are a must.

For details and an order form, go to: [http://kfs.mybigcommerce.com/](http://kfs.mybigcommerce.com/) Order forms are also available from local K-State Research and Extension offices. (Ward Upham)

**MISCELLANEOUS**

**Newer Lights Available for Indoor Gardeners**

Many gardeners use fluorescent lights to start young vegetable and flower plants during the spring or to grow certain houseplants all year long. In the past, we used fixtures with T-12 lamps suspended a few inches above the tops of the plants. However, T-12 lamps are fading away due to newer
lamps that are a better choice for indoor gardens. These are known as T-8 and T-5 lamps. The number after the “T” refers to the diameter of the lamp in eighths of an inch. Therefore, a T-12 lamp is 12/8 or 1.5 inches in diameter and are what most people with older fixtures are familiar with. A T-8 is 8/8 or 1 inch in diameter, and a T-5 is 5/8 of an inch in diameter.

So, does a smaller diameter mean less light? Not at all. In fact, the T-5 can be the brightest of the three. Another advantage for these newer lamps is they use less electricity per lumen. The traditional 48-inch T-12 is rated at 40 watts. However, there are newer styles of T-12’s that are 34 watts. The T-8 is rated at 32 watts and the T-5 at 28 watts.

This sounds too good to be true. Are there drawbacks? Maybe so or maybe not. First is cost if you have to replace T-12 fixtures to convert to a T-8 system. However, newer fixtures may be able to handle either T-12’s or T-8’s. Therefore, if you purchased fluorescent fixtures in the last few years, check to see if they are rated for T-8’s before replacing them. Note that lamp costs are comparable between T-12’s and T-8’s. The T-5 lamps may be more expensive so check prices before converting.

The question becomes, is it worth it? If you have a T-12 fixture that is rated for T-12’s only and are satisfied with your results, then maybe not. However, if you are investing in new fixtures or have fixtures that can use either T-12’s or T-8’s, then go with the T-8’s. They will use less energy, last longer and provide more light. Prices for T-5’s have been dropping so you may want to consider them as well.

The newest technology is LED lighting. LED’s have several advantages over other types of lighting including energy efficiency, durability, long life, a cool running temperature and more latitude in choosing specific wavelengths of light. Traditionally, they have been very expensive but costs are dropping rapidly. We are starting to use LED’s as supplemental lighting in the University greenhouses but would suggest only using them on a trial basis at home until you see how they perform for you. Be sure to choose LED “Grow Lights” as they are richer in the wavelengths of light plants actually use.

All-America Selection Winners for 2020

All-America Selections tests and introduces new flowers and vegetables each year that have done well in trials across North America. Others have done well in certain regions of the US. This year there were ten vegetable winners of which seven are tomatoes and four ornamental or flower winners.

Descriptions and images below are taken directly from All-America Selection materials. For more detailed information including how to grow, see https://all-americaselections.org/product-category/year/2020/

Vegetables

**Cucumber Green Light F1**
2020 AAS Edible Winner

This little beauty is an excellent mini cucumber, said many of the AAS Judges. The yield was higher than the comparison varieties with more attractive fruit, earlier maturity, and superior eating quality. “I would absolutely grow this in my home garden” commented one judge. Grow Green Light on stakes or poles for a productive, easy-to-harvest vertical garden that will yield 40 or more spineless fruits per plant. Pick the fruits when they’re small, between 3-4” long, and you’ll be rewarded with great tasting cucumbers, even without peeling. Succession plantings will ensure a summer-long harvest.

Fun fact: This cucumber is parthenocarpic meaning the flowers are all female and the fruits are seedless without needing to be pollinated.
**Pumpkin Blue Prince F1**  
2020 AAS Edible – Vegetable Winner

“Princely” is defined as being sumptuous and splendid; this AAS Winner lives up to its name! For any edible entry to become an AAS Winner, it must outperform the comparisons and Blue Prince Pumpkin certainly scored high in the areas of maturity (earlier), yield, fruit size, and uniformity, color, taste, and texture. Vigorous trailing vines produce 7-9 pound beautiful blue flattened pumpkins with non-stringy, deep orange flesh with savory sweetness. These pumpkins are as pretty as they are delicious; after fall decorating, bake the flesh for a smooth and creamy treat. Of all the varieties trialed, Blue Prince was first to flower and fruit which is beneficial for gardeners with a shorter growing season. Plus, this winner has slightly better disease resistance than the comparisons. A judge’s testimonial: “Overall, if I was looking for a blue pumpkin to display AND eat, I’d pick this entry every time!”

**Tomato Apple Yellow F1**  
2020 AAS Edible – Vegetable Winner

If you’ve never tried an apple-shaped tomato, now is the time. This AAS Winner offers incredible garden performance, a uniquely dimpled apple-shaped fruit with a deliciously sweet citrusy taste and firm, meaty texture. Indeterminate 5’ tall vines produce abundantly in clusters, resulting in up to 1,000 fruits per plant. The fruits are an eye-catching, bright, lemon yellow color reminiscent of the “Big Apple’s” taxicab colors. Judges were excited that a non-splitting, long-holding, uniformly shaped tomato had such good eating quality. With just the right balance of sugar and acid flesh in a firm exterior, Apple Yellow would be perfect stuffed with a savory cheese for a delicious appetizer.

**Tomato Buffalosun F1**  
2020 AAS Edible/Vegetable Winner

All that an heirloom has to offer but better! Buffalosun shone in the trials with fruit that had a better texture than the comparisons (Margold and Striped German), a higher yield and less cracking. This indeterminate tomato should be staked for best garden performance and you will be rewarded with fruits long into the season. The unique yellow with red/orange flame coloration is beautiful on the outside and results in a nicely marbled interior. Good tasting sweet, tender flesh gives the look of an heirloom without the mushiness often associated with heirlooms. Buffalosun also outlasted the comparisons when disease hit in late summer, notably thanks to its late blight resistance.

Fun fact: Buffalosun exhibited good locule development. What’s a locule? That space between tomato sections where the seeds and gel are formed.

**Tomato Celano F1**  
2020 AAS Edible-Vegetable Winner

Celano is a patio type grape tomato with a strong bushy habit. It is best grown with some support, such as a tomato cage. This semi-determinate hybrid tomato is an early producer of sweet oblong fruits weighing about 0.6 oz. each. Plants grow to 40” in height and spread to 24” and have excellent late blight tolerance. In comparing it to other grape tomatoes on the market, one judge summed it up by saying “(Celano) is sweeter, the texture is better, the color is deeper, the plants are healthier, and the
yield is phenomenal.” Prova Celano oggi!

**Tomato Chef’s Choice Bicolor F1**
2020 AAS Edible-Vegetable Winner

The first bicolor tomato in the Chef’s Choice series is here! Indeterminate plants produce large 7-8 ounce flattened beefsteak fruits with beautiful pinkish red internal stripes within a yellow flesh. The lovely stripes extend to the base of the outer fruit skins. These heirloom looking tomatoes are as sweet as they are beautiful with a better flavor and texture than the comparisons. Gardeners will enjoy earlier maturity and more uniform fruits that hold up all season long, producing well into September in the Heartland. As with all the colors in the Chef’s Choice series, each plant can produce about 30 fruits per season.

**Tomato Crokini F1**
2020 AAS Edible-Vegetable Winner

This rockin’ winner has a very sweet (Brix of 8.5), light acidic taste giving it the perfect sweet/acid balance. Pronounced like “rock” not “crook,” Crokini’s round fruits are small and firm with a crunchy texture and good flavor. This winner gets high marks for durability because fruits do not crack on the vine, yielding up to 10-12 fruits per cluster. Crokini provides a lovely burst of sweetness. Overall, the yield was better than comparisons because of the inbred Late Blight resistance well into September. The Southern AAS Judges like the better taste and texture as compared to Sweet Million. Overall, Crokini is a “cleaner” plant because it is slightly more compact than comparisons with evenly distributed fruit.

**Tomato Early Resilience F1**
2020 AAS Edible-Vegetable Winner

Early Resilience is a rounded Roma tomato with a deep red interior color, uniform maturity and good quality flesh for canning and cooking. Determinate, bushy plants can be staked but it is not necessary. The AAS Judges noted that this variety was very resistant to Blossom End Rot, resulting in a high yield and less fruit loss. Similar great taste as the comparisons but a much healthier plant and fruits. (See the long list of disease resistance below) Overall, this is an excellent variety that would be a home canner’s dream. This could very well replace some of the other Roma varieties as a new standard in the arena, or maybe “Colosseum” of Roma tomatoes!

**Tomato Galahad F1**
2020 AAS Edible-Vegetable Winner

Yes Sir! Galahad is a brave new tomato variety that has a high level of Late Blight resistance because both parents are resistant. In this case, one plus one equals a very strong two! Galahad is a high-yielding, great tasting tomato that grows on a strong sturdy plant. Judges agreed that the sweet, meaty flavor is better than that of the comparison varieties and boasts of being crack resistant. Broad shoulders (just like Sir Galahad?) and large, clean fruits grow on a highly productive, disease-resistant plant. Certainly, a variety you’ll want to use in your battle for tomato greatness.
Watermelon Mambo F1
2020 AAS Edible-Vegetable Winner

Summertime means melon time and Mambo watermelon will grow and yield well even in cool cloudy conditions! Gardeners who plant Mambo will enjoy multiple, perfectly round melons with a beautiful dark green rind and deep red flesh. The sweet crisp flesh is extremely tasty and holds well (doesn’t overripen) if you can’t harvest them right away. Each 9” fruit will weigh about 11 pounds at maturity, which is only 75 days from transplant. A smaller seed cavity means you almost get the look of a seedless melon but the superior taste of a seeded melon. The AAS Judges agree this is one of the easiest watermelons they’ve grown because of high seed germination and vigorously healthy vines.

Flowers

Coleus Main Street Beale Street
2020 AAS Ornamental Winner

The first-ever coleus to be named an AAS Winner! Main Street Beale Street coleus is an outstanding variety exhibiting deep red foliage that holds its color extremely well in the garden. The rich color doesn’t fade, bleach or get spotty as the season moves into late summer. The lush, bushy plant grows uniformly and as a huge bonus, does not flower until very late in the season – up to 6 weeks later than the comparisons! A unique feature of this coleus is that it can be successfully grown from full sun to full shade, making it an ideal foliage item for anywhere in the garden. Growers, retailers, landscapers, and homeowners will all appreciate the beautiful color and uniform height of this coleus.

Available in plant form only.

Echinacea Sombrero Baja Burgundy
2020 AAS Herbaceous Perennial Winner

Sombrero® Baja Burgundy will add a bold accent to sunny gardens with its vibrant, deep violet-red blossoms. The beautiful flower color is without equal among coneflowers and is perfect for cut flowers. After being trialed over three tough winters, the AAS Judges noted this standout’s hardiness, sturdy branching, and floriferous blooming habit. Birds and pollinators certainly flock to this deer-resistant beauty making it a dual-purpose plant. Gardeners will enjoy prolific blooms from mid-summer until the first frost.

Nasturtium Tip Top Rose
2020 AAS Flower Winner

Tip Top Rose is a strong yet compact nasturtium with unique and showy rose-colored flowers showcased above medium green foliage. These 14×18” mounded plants were more floriferous than the comparisons varieties in the AAS trials, producing a bigger and better garden show. The uniquely colored flowers are a great addition to the nasturtium family especially since they don’t fade as they age. Judges described the color as “a warm, bright rose with less of the black undertones typical in nasturtium flowers.” Tip Top Rose remained healthy.
throughout the season. It makes a great winter annual in warmer climates and a spring annual in other areas, whether used in containers or in the landscape. The whole plant stayed uniform and healthy whereas other varieties struggled. Bonus: This nasturtium is great for pollinator gardens and both the leaves and flowers are edible!

**Rudbeckia x American Gold Rush**  
2020 AAS Herbaceous Perennial Winner

American Gold Rush’s bright, golden-yellow flowers with black centers and arched petals is a gorgeous addition to any garden. This compact, upright domed-shaped beauty has narrow 2-inch wide hairy foliage bred for its resistance to Septoria leaf spot. This hybrid shows no signs of the fungus even in wet, humid conditions. Blooming from July to September, with some color up until frost, this cultivar has smaller foliage and shorter height compared to other rudbeckia varieties. Incredibly easy to grow and pollinators love it. Destined to be the new rudbeckia staple for gardens and landscapes!

**Contributors:** Ward Upham, Extension Associate

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Division of Horticulture  
1712 Claflin, 2021 Throckmorton  
Manhattan, KS 66506  
(785) 532-6173

For questions or further information, contact: wupham@ksu.edu OR cdipman@ksu.edu
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