

HORTICULTURE REMINDERS

1. Prune fruit trees
2. Check fruit trees for scale and apply dormant oil if present..

Lettuce

Though lettuce is most often planted directly from seed in late March to early April, it can be started from transplants. Transplants allow lettuce to mature earlier so that it escapes the excessive heat that can lead to a strong flavor and bitterness.

Seed should be started four to five weeks before transplanting. Because transplants are planted at the same time as direct seeding, now would be a good time to begin. Use a seed starting mix and plant shallow as lettuce requires light for germination. A soil media temperature of 60 to 68 degrees will encourage germination. Watch the media temperature carefully, as seed can enter a thermal dormancy if germination temperatures are excessive. Also, a cooler temperature of 55 to 60 degrees should be used once the plants emerge.

Time to maturity varies depending on the type of lettuce, with leaf lettuce being the quickest, followed by bibb, romaine, and buttercrunch lettuce. Head or crisphead lettuce is the slowest and is least likely to mature before becoming bitter.

Spacing also varies with type. Leaf lettuce plants are spaced 4 to 6 inches apart, buttercrunch, bibb, and romaine are set at 6 to 8 inches and head lettuce should be at least 8 inches apart in the row. Lettuce does not have an extensive root system and requires regular watering if rainfall is lacking.

Fertilize before planting according to soil test. Plants should also be sidedressed when about 1/3 grown. Sidedressing is done with fertilizers that have more nitrogen than phosphorus and potassium. Use 1/3 cup of nitrate of soda (16-0-0) or 1/4 cup of a 27-3-3, 29-5-4 or similar fertilizer per 10 feet of row. The latter fertilizers are lawn fertilizers but will work well for sidedressing as long as they do not contain weed killers or weed preventers. (Ward Upham)

Soil Temperature and Vegetables

One of the most neglected tools for vegetable gardeners is a soil thermometer. Soil temperature is a much better measure of when to plant than air temperature or the calendar. Planting when soil is too cool can cause some seeds to rot and transplants to sit there.

A number of vegetables can germinate and grow at cool temperatures. For example, peas will germinate and grow well at a soil temperature of 40 F. Though lettuce, parsnips, and spinach can sprout at a soil temperature of 35 F, they prefer at least 45 F for best germination and growth. Radishes also do well at a soil temperature of 45 F. Even if the seeds of these cool-season crops are planted below the recommended soil temperature, the seed will rarely rot.

Warm-season crops such as tomatoes, sweet corn and beans are different. They prefer at least 55 F for germination (or transplanting), but others such as peppers,

cucumbers, melons and sweet potatoes need it even warmer, about 60 F. If planted when soils are too cool, they likely will rot before germinating.

Taking soil temperature accurately is a bit of a science. First, use a thermometer with a metal probe. These are sold in many garden, auto parts and hardware stores. Those in auto parts stores are used to measure the temperature inside air conditioning ducts and are often less expensive than those used for gardening. Take the temperature 2.5 inches deep at about 10 to 11 a.m. Temperature variations throughout the day and night affect soil temperature, with lowest readings after dawn and warmest around mid-afternoon. The late-morning reading gives a good average temperature. If taking the soil temperature at this time is not practical, take a reading before you leave for work and a second when you return home and use the average. Also be sure to get a consistent reading for four to five days in a row before planting, and make sure a cold snap is not predicted.

An excellent guide sheet on this subject is published by the Alabama Cooperative Extension System and is titled "Soil Temperature Conditions for Vegetable Seed Germination." It can be found at <https://tinyurl.com/1jw297zt> (Ward Upham)

Leaching Houseplants

Everyone knows that someone stranded in the ocean should not drink the water. The salt content of that water will make a bad situation worse. What many people don't realize is that this same principle can harm plants.

Fertilizers are salts or are converted to salts before plant takeup. They must be salts in order for the plant roots to absorb them. However, salt levels can build up over time and eventually may harm plant roots leading to scorched leaves and unhealthy plants. Though this can happen under field conditions, especially in low rainfall areas, it is particularly critical with houseplants.

Houseplants have a certain soil volume that doesn't change until a plant is repotted. Salt build-up can be a crucial concern especially if the houseplants are fertilized so heavily that the plants can't use all the nutrients and fertilizer salts build up. This is especially common in winter when houseplants do not use much fertilizer due to low levels of light.

Leaching an overabundance of salts can be an important practice to ensure the health of our houseplants. Leaching is not a complicated or difficult process. It consists of adding enough water to wash out excess salts.

How much water is enough? Add the amount of water that would equal twice the volume of the pot. This, of course, would need to be done outside or in a bathtub or sink. Water must be added slowly so that it doesn't overflow the rim of the pot. If salt has formed a crust on the surface of the soil, remove it but don't take more than 1/4 inch of the underlying media. This may also be a good time to repot the plant. (Ward Upham)

An Easy Way to Propagate House Plants

You don't need a lot of equipment to propagate a houseplant. Gardeners can get by with a coffee cup, potting soil, 3 drinking straws, a plastic bag and a rubber band. Start by

making a slit or hole in the bottom of the coffee cup so that it drains excess water. Then fill the cup with moist potting soil. Do not use garden soil as it does not drain well. Too much water (and too little oxygen) will harm cuttings.

Prepare the Cutting

- Remove about a 4-inch or smaller piece from the tip of the plant. The cut should be made just below a node. A node is where a leaf attaches to the stem.
- Remove the leaf or leaves from the bottom node. This is where roots will form.
- If there are just a few leaves on the tip, fine. However, if there is a cluster of leaves, remove most of them below the tip. This will cut down on water loss as the plant makes new roots.

Plant the Cutting

- Push the bottom end of the cutting into the soil. The remaining leaves should not contact the soil. A rooting hormone may be used if desired but usually is unnecessary with houseplants.

Make a Greenhouse

- Place 3 straws equidistant from each other near the outside edge the cup full of potting soil. They will support the plastic bag so that it does not contact the leaves and cause them to rot.
- Place the plastic bag over the cup like a tent and use the rubber band to secure the open end of the bag to the sides of the cup.

Grow the Cutting

- Place the cutting in bright, indirect light. Do not place in full sunlight as the cutting may overheat.
 - Keep the cutting warm. A temperature of 72 degrees is ideal. Roots should form in about 10 days. Check by removing the plastic bag and pulling gently on the cutting. If it doesn't pull out easily, roots have started to form and the plastic bag can be left off.
- (Ward Upham)

Iris Leaf Spot Control Starts Now

Now is a good time to begin control measures for iris leaf spot by removing old, dead leaves. Iris leaf spot is a fungus disease that attacks the leaves and occasionally the flower stalks and buds of iris. Infection is favored by wet periods during the spring, and emerging leaves eventually show small (1/8- to 1/4-inch diameter) spots. The borders of these spots are reddish, and surrounding tissue first appears water-soaked, and then yellows. Spots enlarge after flowering and may coalesce. The disease tends to be worse in wet weather and may kill individual leaves. Though the disease will not kill the plant directly, repeated attacks can reduce plant vigor so that the iris may die from other stresses. Spores are passed to nearby plants by wind or splashing water.

Because this disease overwinters in old leaves, removal and destruction of dead leaves will help with control. For plants that had little infection the previous year, this may be all that is needed. Plants that were heavily infected last year should be sprayed with chlorothalonil (Bravo Fungicide, Fertilome Broad Spectrum Landscape & Garden Fungicide, Ortho Garden Disease Control, GardenTech Daconil, Bonide Fungonil, Bravo

Flowable Fungicide) or myclobutanil (Immunox, Fungi-Max, Fertilome F-Stop Lawn & Garden Fungicide) starting when leaves appear in the spring. Repeat sprays every seven to 10 days for four to six sprays. Iris leaves are waxy, so be sure to include a spreader-sticker in your spray to ensure good coverage. (Ward Upham)

Pruning Deciduous Shrubs

Gardeners are eager to get out and do something in the landscape this time of year. One chore that can be taken care of now is pruning certain shrubs. Often, gardeners approach pruning with trepidation, but it is not as difficult as it may seem. Remember, not all shrubs need to be pruned (i.e. witch hazel), and certain shrubs, which will be identified later, should not be pruned this time of year. Shrubs are pruned to maintain or reduce size, rejuvenate growth, or to remove diseased, dead or damaged branches. Deciduous shrubs are those that lose their leaves each winter. Evergreen shrubs maintain foliage all year and include yews and junipers.

Deciduous shrubs are placed into three groups:

- Those that flower in the spring on wood produced last year;
- Those that flower later in the year on current season's growth; and
- Those that may produce flowers, but those flowers are of little ornamental value.

Shrubs that flower in the spring should not be pruned until immediately after flowering. Though pruning earlier will not harm the health of the plant, the flowering display will be reduced. Examples of these types of plants include forsythia, lilac and mock orange. Shrubs that bloom on current season's growth or that do not produce ornamental flowers are best pruned in late winter to early spring. Examples include Rose-of-Sharon, pyracantha, Bumald spirea and Japanese spirea.

Pruning during the spring allows wounds to heal quickly without threat from insects or disease. There is no need to treat pruning cuts with paints or sealers. In fact, some of these products may slow healing. There are three basic methods used in pruning shrubs: thinning, heading back and rejuvenating. Thinning is used to thin out branches from a shrub that is too dense. It is accomplished by removing most of the inward growing twigs by cutting them back to a larger branch. On multi-stemmed shrubs, the oldest canes may be completely removed.

Heading back is done by removing the end of a branch by cutting it back to a bud and is used for either reducing height or keeping a shrub compact. Branches are not cut back to a uniform height because this results in a "witches-broom" effect.

Rejuvenation is the most severe type of pruning and may be used on multi-stem shrubs that have become too large, with too many old branches to justify saving the younger canes. All stems are cut back to 3- to 5-inch stubs. This is not recommended for all shrubs but does work well for spirea, forsythia, pyracantha, ninebark, Russian almond, little leaf mock orange, shrub roses and flowering quince. (Ward Upham)

Preventing Weeds in Flower Beds

Often mulch and hand-pulling does a good enough job in perennial flower beds to prevent weeds but sometimes the bed needs a little help. In annual beds, judicious hoeing

will keep weeds down until the foliage forms a canopy that prevents weed germination. However, a lack of time may have you considering an easier way than hoeing or pulling weeds that come through mulch. Preemergence herbicides can help though you should not expect 100% control.

Preemergence herbicides do not keep the weed seed from germinating but kill the young plant as it starts to grow. It is necessary to water these products in (1/4 inch of water) so that the young weed root will contact the herbicide. Be aware that most of these products are more effective on grassy weeds such as crabgrass rather than broadleaves such as dandelions or spurge.

They are applied before the weed seed germinates. Additionally, preventers do not last forever once applied to the soil. Microorganisms and natural processes begin to gradually break them down soon after they are applied. However, all should last long enough so that you get canopy cover before the herbicide wears off.

Read the label for information on when to apply the product, especially in relation to transplanting. Also, be sure the ornamental plants within the bed area are on the label before purchasing the product. See below for products we can use.

Dimension (dithiopyr)

- Hi-Yield Turf & Ornamental Weed and Grass Stopper
- Bonide Crabgrass & Weed Preventer

Treflan (trifluralin)

- Hi-Yield Herbicide Granules Weed and Grass Preventer
- Miracle Gro Garden Weed Preventer
- Preen Weed Preventer

(Ward Upham)

Kick-start spring by getting into the garden

As the weather slowly begins to warm up, many Kansans are eager to get back to gardening. K-State horticulture expert Ward Upham said work can begin on vegetables like peas and lettuce.

“If you are tired of winter and hunger for spring, try planting peas as soon as the soil dries and the temperature reaches 40 degrees Fahrenheit,” Upham said.

There are a few options for Kansans looking to plant peas, but the most common is the Little Marvel shelling pea. Others on the recommended list, according to Upham, are Green Arrow, Knight, Maestro, Burpeeana and Mr. Big.

“All of these are early maturing types that allow us to harvest a crop before the hot weather arrives and stops production,” Upham said.

As for snow peas, commonly used in stir-fry, Upham suggests Dwarf Grey Sugar and Mammoth Melting Sugar.

Sugar snap peas share a resemblance with shelling peas but have a thick, fleshy pod that can be eaten like snow peas, pod and all. Sugar Bon, Sugar Ann, Super Sugar Snap and Sugar Sprint are recommended by Upham.

Upham said peas should be planted shallow, about one-half inch deep to encourage rapid germination and emergence, and seeds should be spaced 2 inches apart in a row.

“Many people plant two rows 6-8 inches apart so the floppy plants can support one another,” Upham said. “For some older varieties, this may not be enough. They may need trellising to support the growing vines. You might consider installing fence to keep rabbits away.”

Peas are not the only vegetable that gardeners can begin work on, Upham said lettuce can be started from transplants now.

“Though lettuce is most often planted directly from seed in late March to early April, it can be started from transplants,” Upham said. “Transplants allow lettuce to mature earlier so that it escapes heat that can lead to a strong flavor and bitterness.”

Opportunity for a Irrigated Sorghum Producer

All,

Hello my name is Chris Jewett and work for S&W Seed Company out of Lubbock, Texas. I am currently the Testing Operations Manager for the Sorghum R&D program. We are looking for a cooperator in South West Kansas (preferably around Ulysses, Garden City or Dodge City) that is flexible to work with and flood irrigates straight rows. Ideally, we find a farmer that already irrigates milo and would allow us to plant approximately 20 acres of test hybrids among a commercial field, exceptions can be made. We are looking for a farmer that rotates and has a handle on herbicide management in milo, in hopes to make this a long term relationship. Farmer responsibilities are to raise the crop as their own by herbicide, insecticide and irrigation management, with some exceptions. S&W's responsibilities are to plant, harvest and take notes on plot. Farmer will be paid a per acre price and given grain produced.

I have been involved with running trials in the region for 6 years and it seems that what we are looking for is few-and-far between. I wanted to reach out to y'all and if you had any advice or knew of a way to find a cooperator of such. I will be in the area looking next week so if any of you have input it would be greatly appreciated. Please feel free to reach me by email @ chrisjewett@swseedco.com or phone @ 806-654-4602.

Wheat variety fall forage yield comparison for 2021-2022

Fall forage yield is an important aspect of dual-purpose wheat production. In this system, wheat is typically sown earlier than for grain only production, at higher seeding rates and with additional nitrogen fertilizer to maximize forage production.

The weather experienced during the fall is crucial to determine average level of forage yield, with warm and moist weather typically resulting in greater forage yield than cool and dry weather conditions. Management practices that also maximize forage yield are early sowing, higher seeding rates, placement of in-furrow phosphorus fertilizer with the seed at sowing, and fall nitrogen fertilization.

While the weather is typically the largest player in determining fall forage production, followed by management, there are also differences among wheat varieties in forage production potential. Thus, every year, the K-State Wheat Production Group compares the forage yield of several commonly grown wheat varieties and upcoming lines. This test is usually performed in the South Central Experimental Field near

Hutchinson, Kansas (Figure 1), and the forage sampling occurs sometime during December (Table 1).

At the sampling conducted on December 15, 2021, there were significant differences among varieties in terms of forage accumulation. Average forage yield was high (2715 lb dry matter (DM)/a) and with a wide range (from 2119 to 3752 lb DM/a). The varieties that exhibited the highest forage yield were KS Ahearn and KS Hatchett. LCS Atomic AX also had high forage yield with over 3,000 lb DM/a. The high forage yield was function of the combination of an early sowing with good moisture conditions (Figure 1).

Another important aspect of dual-purpose wheat production is how long each variety can be grazed in the spring. This is measured as the date for first hollow stem, and varieties can differ in as much as 20-30 days in achieving first hollow stem in the spring. The Wheat Production Group at K-State uses this very same trial to measure first hollow stem during late February and early March, so keep tuned to the eUpdate for more information on this developmental milestone.

Table 1. Fall forage yield of wheat varieties sown under dual-purpose system near Hutchinson, KS. Forage biomass was collected on December 15, 2021. Data is shown in pounds of dry matter per acre (lbs DM/ac). There were significant statistical differences among varieties at the 5% probability level. Varieties are listed in alphabetical order and the bold text indicates highest forage yielding group. Different varieties with overlapping letters in the “Statistical group” column indicates that varieties did not differ from each other.

Variety	Forage DM yield (lb/a)	Statistical group
AP Exp#1	2479	defg
AP Roadrunner	2119	g
AP18AX	2770	cdef
AM Cartwright	2472	defg
Crescent AX	2941	cde
KS Ahearn	3752	a
KS Hatchett	3689	ab
KS13DH0041-35	2829	cdef
LCS Atomic AX	3110	bc
LCS Chrome	2304	fg
LCS Helix AX	2337	efg
LCS Julep	2484	defg
LCS Photon AX	2723	cdefg
LCS Revere	2459	defg
LCS Runner	2273	fg
LCS Steel AX	2798	cdef

LCS Valiant	2517	cdefg
Plains Gold Ray	2564	cdefg
Zenda	2962	cd
Average	2715	
Min.	2119	
Max	3752	

Romulo Lollato, Extension Wheat and Forages Specialist, Visiting Undergraduate Scholars- Andrea Gimena Mier, Brahian Nicolas Davila, Jean Lucas Mendes Castro, Guilherme Sueiro, Gaston Olano de Leon, and Jorge Armando Romero, Visiting Scholar