September's Meeting Featured Speaker is on Hostas Thursday Evening - September 5th

Lee Coates will be our featured speaker for this month and will devote part of his program on hosta. Mr. Coates is a semi-retired plant geek, writer, speaker, and purveyor of fine Ozarkian humor. Lee, and his wife Peggy, are vendors at hosta and other horticultural events nationwide.

Lee will be speaking and vending at the upcoming Missouri Master Gardener Conference in Springfield, MO. in September. You can read more about Lee and his projects

http://thepapercretepotter.blogspot.com

Hosta Is This Month’s Subject
It’s Now Time To Plant A Fall Garden!

No, I’ve not been playing Rip van Winkle and having been taking a nap all summer long and forgetting to put out my garden. Really and truly, there is a very strong trend to return to a full-fledged fall garden. This fall garden can certainly yield a bounty if you are willing to put in the work to do so.

Now there are just three things one has to do in order to have a successful fall garden. First is to select those crops that you would like to plant.

Next select the area of where you wish to plant this fall garden. Now clean it of all of the summer plant residue and old mulch that is pretty well spent. I just pile it up and burning them. Then till the ashes into the soil which enriches it that much more.

I also like to add mulch that I have prepared throughout the summer along with a product that you should be able to find at Sutherlands. It is mushroom compost. This mushroom compost is very light, fluffy, and extremely rich and just makes a wonderful additive to the garden. I will till all of this to a depth of approximately 4 to 6 inches then raked my bed out real smooth.

Now you should decide what you really want to grow for fall crops. They can be as simple as turnips, lettuce, and spinach. Or you can still plant some broccoli, carrots, peas, late green beans, radishes and beets. Remember some of these seed are very small and hard to sow. I always took my small seed and would mix them with corn meal, coffee grounds, or grits. This will help separate the small seed and give you a better distribution of seeds.

These are all considered cold-weather crops and do extremely well in cool weather just as they did this past spring when you put all of these out. As a matter of fact some of these crops, such as, cabbage, beets, collards, spinach, kale, and turnips will actually benefit somewhat in taste from the first and/or second light frost.

While a fall garden requires the same attention as any other garden one of the things you're going to find is it probably will not require quite as much watering nor will it have as many bothersome bugs and other little varmints pestering.

The fall garden also County keeps you tuned, fresh and really spending some time planning next year's spring garden, thus you find yourself being just about a year round gardener, that's not all that bad. Also while you are working on your fall crops just remember there are many of your favorite flowers and bushes and bulbs that need to be divided and/or put out and fed. The fall is also a good time to trim some of your bushes, and prepare them for spring. All I can say is just don't stop digging yet because there are still plenty to do.
Amorphophallus titanium – Titan Arum

As seen at the Missouri Botanical Gardens just few weeks ago
Now that is quite a name for any flower and don’t even begin to ask me to pronounce. But this is a flower that I learned of many years ago and have had a growing interest in it for quite some time it is more commonly known as “The Corpse Plant”. I will be sharing a lot of information with you today about this interesting plant mostly from the College of agricultural and life sciences at Cornell University.

The corpse plant, is one of the largest flowering structures of its kind in the world it can grow 12 feet and its tumor (storage fruit) can weigh up to 200 pounds. It is native to the rain forests of Sumatra, Indonesia, where it can be

Found on the slopes and hillsides along the edges of the forest. Not only is it uncommon in nature, but it flowers only rarely. In cultivation, it generally takes 7 to 10 years to bloom, and maybe only flower rarely thereafter. For example, one specimen of Kew Botanical Garden in England flowered in 1889 and did not flower again until 1926!

**The Cornell Titan**

Our specimen was grown from seed from a plant that flowered at the University of Wisconsin in 2002. This is the first time it has flowered. We hope that appreciation of this amazing plant can lead to increased efforts at conserving the habitat of these and other rare plant species. Titans are under threat as the forest of Indonesia disappears due to illegal logging and the cultivation of oil palms.

What looks like an individual flower is actually a group of flowers called and inflorescence. The bell-shaped structure is a modified leaf (spatha) that is
green on the outside, but deep red purple on the inside. The column-like structure (spadix) is mostly sterile tissue that is used to diffuse the scent throughout the forests to attract pollinators. The actual flowers are very small and located at the base of this column, hidden by the modified leaf. There are about 450 female flowers in a ring at the base, and 500 to 1000 male flowers above them.

What’s that smell?

When the flowers are ready for pollination, the spadix emits a nauseating scent meant to attract carrion flies, which are attracted to rotting meat. The female flowers open first, and are only receptive for one day. Then the male flowers open to provide pollen for one day. If pollination is successful, bright red fruits are formed. In the wild, these are eaten by giant hornbill birds, which help to disperse the seeds.

After two days, the inflorescence begins to collapse. The plant then sends up a single gigantic leaf about 16 feet tall, which will produce sugars and starches to be stored in the tuber. It goes dormant for 3 to 7 months, after which the plant will send up another leaf. Eventually another inflorescence emerges, growing upward at a rate of some 4 inches per day.
Other facts about the “stinky” corpse plant

- The inflorescence generates heat in order to help disperse its odor. It’s about the same temperature inside as we are: 96.8°F
- At one time, it was rumored that elephants pollinated Titan flowers
- The first documented flowering in the United States was at New York’s Botanical Garden in 1937. It was actually designated as the official flower of the Bronx in 1939, only to be replaced in 2000 by the daylily.
- It is believed the plant originated in the late Cretaceous period, and is related to our native Jack - in - the - Pulpit and Skunk Cabbage.
- The base of the flour is actually composed of thousands of flowers. The odor gets exceptionally strong as the plant heats up during the blooming process.
- The flower evolves its horrendous odor to attract carrion beetles and flesh flies, which normally feeds on rotting flesh.
- Once the flower fully opens, if it is not pollinated it closes up and collapses. The plant begins to open and remains open for about a half a day, before it closes backup.
- This flower has derived its nickname, “the corpse plant” because it smells like that of a long time deceased person or animal.
After pollination, and the plant begins to shed its shell and expose seeds.
Preparing to gather seeds for future plantings
September Gardening Calendar

**Ornamentals**

- **Weeks 1-4:** Continue planting evergreens now.
- **Weeks 1-3:** Cuttings of annuals can be taken now to provide vigorous plants for overwintering.
- **Weeks 1-3:** Herbs such as parsley, rosemary, chives, thyme and marjoram can be dug from the garden and placed in pots now for growing indoors this winter.
- **Weeks 2-4:** Except tulips, spring bulbs may be planted as soon as they are available. Tulips should be kept in a cool, dark place and planted in late October.
- **Weeks 2-3:** Begin readying houseplants for winter indoors. Prune back rampant growth and protruding roots. Check for pests and treat if necessary. Houseplants should be brought indoors at least one month before the heat is normally turned on.
- **Weeks 3-4:** Perennials, especially spring bloomers, can be divided now. Enrich the soil with peat moss or compost before replanting.
- **Weeks 3-4:** Divide peonies now. Replant in a sunny site and avoid planting deeply.
- **Weeks 3-4:** Lift gladioli when their leaves yellow. Cure in an airy place until dry before husking.
- **Week 3:** Poinsettias can be forced into bloom for Christmas if they are moved indoors now to a sunny windowsill. Each night, they must be kept in a cool, dark place where there is no light for 14 hours. This must continue until proper color is achieved in 6-10 weeks.

**Lawns**

- **Weeks 1-4:** Cool season lawns are best fertilized in fall. Make up to 3 applications between now and December. Do not exceed rates recommended by fertilizer manufacturer.
- **Weeks 1-4:** If soils become dry, established lawns should be watered thoroughly to a depth of 4-6 inches.
- **Weeks 1-4:** Begin fall seeding or sodding of cool season grasses. Seedbeds should be raked, dethatched or core-aerified, fertilized and seeded. Keep newly planted lawn areas moist, but not wet.
- **Weeks 2-4:** Lawns may be topdressed with compost or milorganite now. This is best done after aerifying.
- **Weeks 3-4:** It is not uncommon to see puffballs in lawn areas at this time.
- **Weeks 3-4:** Newly seeded lawns should not be cut until they are at least 2 or 3 inches tall.

**Vegetables**

- **Weeks 1-2:** Egyptian (top-setting) onions can be divided and replanted now.
- **Weeks 1-2:** Sowing seeds of radish, lettuce, spinach and other greens in a cold frame will prolong fall harvests.
- **Weeks 2-4:** Keep broccoli picked regularly to encourage additional production of side shoots.
- **Weeks 2-3:** Pinch out the top of Brussels sprout plants to plump out the developing sprouts.
- **Weeks 2-3:** Harvest herbs now to freeze or dry for winter use.
- **Weeks 2-3:** Tie leaves around cauliflower heads when they are about the size of a golf ball.
- **Weeks 3-4:** Pinch off any young tomatoes that are too small to ripen. This will channel energy into ripening the remaining full-size fruits.
- **Week 4:** Sow spinach now to overwinter under mulch for spring harvest.
Fruits

- **Week 1**: Pick pears before they are fully mature. Store in a cool, dark basement to ripen.
- **Weeks 3-4**: Bury or discard any spoiled fallen fruits.
- **Week 4**: Paw paws ripen in the woods now.
- **Week 4**: Check all along peach tree trunks to just below soil line for gummy masses caused by borers. Probe holes with thin wire to puncture borers.

Miscellaneous

- **Weeks 1-4**: Autumn is a good time to add manure, compost or leaf mold to garden soils for increasing organic matter content.
- **Weeks 1-2**: Monitor plants for spider mite activity. Reduce their numbers by hosing off with a forceful spray of water.
- **Weeks 2-4**: Seasonal loss of inner needles on conifers is normal at this time. It may be especially noticeable on pines.

"TIME"

The last wishes of Alexander the Great:

On his death bed, Alexander summoned his generals and told them his three ultimate wishes:

1. The best doctors should carry his coffin;
2. The wealth he has accumulated (money, gold, precious stones.) should be scattered along the procession to the cemetery.
3. His hands should be let loose, hanging outside the coffin for all to see!!

One of his generals who was surprised by these unusual requests asked Alexander to explain.

Here is what Alexander the Great had to say:

1. I want the best doctors to carry my coffin to demonstrate that, in the face of death, even the best doctors in the world have no power to heal;
2. I want the road to be covered with my treasure so that everybody sees that material wealth acquired on earth, stays on earth...
3. I want my hands to swing in the wind, so that people understand that we come to this world empty handed and we leave this world empty handed after the most precious treasure of all is exhausted, and that is TIME.
4. We do not take to our grave any material wealth. TIME is our most precious treasure because it is LIMITED. We can produce more wealth, but we cannot produce more time.
5. When we give someone our time, we actually give a portion of our life that we will never take back. Our time is our life!
6. The best present that you can give to your family and friends is your TIME.

May God grant you plenty of TIME and may you have the wisdom to give it away so that you can LIVE, LOVE and DIE in peace
Grapes: A Brief History

If asked to name the world’s number one fruit (based on tons produced), most individuals would probably guess banana, orange or apple. While all of the previous are very important, none can rival the amount of grapes produced throughout the world. The varieties of ways in which grapes can be used coupled with the number of countries in grapes can be grown accounts for the fact the world produces about 72 million tons of grapes annually. Late August signals the beginning of grape harvest for many regions of Missouri and is a good time to take a closer look at this ancient fruit.

Grape culture (or viticulture) is probably as old as civilization itself. Archeological evidence suggests humans began growing grapes as early as 6500 B.C. during the Neolithic era. By 4000 B.C., grape growing extended from Transcaucasia to Asia Minor and through the Nile Delta of Egypt. King Hammurabi of Babylon probably enacted the world’s first liquor law when he established rules for wine trade in 1700 B.C.

The Hittites are credited with spreading grape culture westward as they migrated to Crete, Bosporus and Thrace, as early as 3000 B.C. Later, the Greeks and Phoenicians extended grape growing to Carthage, Sicily, southern Italy, Spain and France. Under the influence of the Romans, grape production spread throughout Europe.

At the time of the fall of the Roman Empire, grape culture and wine making primarily were associated with monasteries. Later, the use of wine extended beyond religious rites and became entrenched in culture as a social custom. This increased demand for grapes, and grape culture grew steadily from the 16th to the 20th century.

The three primary uses for grapes are for wine, dried fruit (raisins) and fresh table grapes.

The world produces about 7.2 trillion gallons of wine each year, making it by far the most prevalent use of grapes. This value represents a 35% increase since the mid-20th century; Europe (Italy, France, Spain and Russia) accounts for 80% of total world production. Only about 14% of the wine produced worldwide is exported from its country of origin.

Raisins represent a formidable use of grapes as well. World-wide raisin production averages 800,000 tons per year. Since it takes about four pounds of grapes to produce one pound of raisins, the raisin industry uses about 3.2 million tons of grapes each year.

Fresh (table) grapes account for less than 12% of the world’s total grape production. Since fresh grapes are highly perishable and transportation costs high, fresh grapes are consumed primarily in the country of their production. Europe and North America lead in fresh grape consumption. The average American consumes about eight pounds of fresh grapes each year.

Not all of the grapes consumed worldwide belong to the same species. Grapes belong to the Vitaceae family which contains 11 genera and about 600 different species. The genus Vitus is the only food bearing genus in the Vitaceae family and contains about 60 different species. These species are grouped into one of four different categories.

Native Grapes. When the first Europeans visited North America they found grapes growing so abundantly that they named the new land “vineland”. Grape species native to North America include V. labrusca, V. aestivalis, V. riparia, V. berlandieri. Native species are known for their cold hardiness and disease resistance. Unfortunately, their fruits have lower sugar content, higher acid content (a poor combination for making good wine) and are “slip skin”. The latter term refers to the tendency of the skin to separate from the remainder of the berry when eaten fresh. ‘Concord’, a cultivar with V. labrusca parentage, arguably is the most popular
American-derived grape. Fanciers of ‘Norton’ (‘Cynthiana’) could make a formidable argument for their cultivar.

Early settlers often described native grapes as having an “animal den” aroma. Hence, throughout the history of our nation native grapes often were referred to as “fox grapes”. Science has revealed that *V. labrusca* and cultivars derived from that native species contain methyl anthranilate, an earthy, musky smelling compound that (to most) imparts a disagreeable after-taste. Interestingly, science also demonstrated recently that methyl anthranilate is contained by secretions of the musk glands of foxes and dogs. Evidently, our forefather had a very acute sense of smell.

**European Grapes.** The European grape (*V. vinifera*) is the species most often associated with the word “grape” and accounts for the majority of the world’s wine production. The chemical composition of its fruits is superior to that of native grapes for winemaking, but European grape cultivars lack cold hardiness and are susceptible to a number of troublesome diseases. Columbus is credited with having introduced European grape to the Americas but the colonists’ first attempts to grow it resulted in failure due to its sensitivity to cold temperatures. Today, production of *V. vinifera* in the United States is limited to regions with mild winters, long growing seasons and summers that are fairly dry with low relative humidity.

**French-American Hybrids.** The quest to produce grapes with superior wine-making qualities coupled with cold hardiness and disease resistance led to the development of French-American hybrids. Most arose by crossing species of European grape with various species of North American grape. These crosses gave rise to very productive hybrids having adequate cold hardness to be produced in the Midwest along with the ability to tolerate many troublesome diseases. Indeed, it was French-American cultivars such as ‘Chambourcin’, ‘Vidal Blanc’, ‘Seyval Blanc’, ‘Chardonel’ and ‘Vignoles’ that led to the recent revitalization of Missouri’s wine industry. In the development of these hybrids, *V. labrusca* purposefully was avoided as a parent to prevent it from passing it “foxy” flavor to its progeny.

**Muscadine Grapes.** Muscadine grapes (*V. rotundifolia*) are noted for their small berries that have a bold, musky flavor. They are nearly immune to insects and diseases but require a growing season of 200 days or more. Muscadine grape production is limited to states such as Florida, Mississippi, Louisiana and North Carolina, all of which have mild winters.

Grapes are fairly robust in their growth habit and have the ability to tolerate a wide range of soils, including those that are shallow and rocky. Detailed information on the cultural requirements of grapes in Missouri can be found in MU Extension publications G6085 (Home Fruit Production: Grape Culture) and G6090 (Home Fruit Production: Grape Training Systems).

Grape trivia:

- Botanically, grapes are considered to be a berry.
- The oldest grapevine in America is a 400 year old Muscadine vine in North Carolina.
- The grape industry contributes about $125 billion annually to the U.S. economy.
- The average American consumes eight pounds of grapes each year.
- About 25 percent of the grapes eaten in the U.S. are imported from Chile.
- The bestselling grape in the U.S. is ‘Thompson Seedless’ which also is the source of golden raisins.
- Grapes are a good source of vitamins C and K; they also contain protein, carbohydrates, dietary fiber and minerals.
- Resveratrol, a substance found in grapes, has been linked to reduced colon cancer.
Fruit Tree Care
Removing Tree Suckers and Water Sprouts

Apple Tree with Suckers & Water Sprouts

Sometimes, when we garden, it’s thrilling just watching things grow — but not all growth is beneficial. Suckers and water sprouts are some common examples of fast new growth that take away energy from plants and trees. In this article, we’re going to focus on what tree suckers and water sprouts are and why they should be removed from grafted fruit trees and nut trees.

Ideally, any growth from below the graft union or growth coming from the roots/below the ground on a fruit or nut tree should be removed as soon as it appears. This same thing applies to fast-growing vertical shoots coming from the trunk/branches that may appear later on in your tree’s life as it matures.

Allowing suckers and water sprouts to remain on your fruit or nut tree will only take away from the vegetative and fruiting wood you want to grow strong and healthy. If you’re wondering exactly what a sucker or a water sprout is, then let’s go over some definitions.

Definitions*

Suckers: Vegetative, adventitious, growth coming from the root system of a tree
Water sprouts: Vegetative, vigorous, vertical growth stemming from a tree’s trunk or branches

*While sometimes used interchangeably, “Suckers” differ from “Water Sprouts”. Suckers and Water Sprouts also differ from Stolons and Rhizomes.

Removing Suckers

Suckers, which grow from the rootstock, steal nutrients from the grafted part of a tree — the top growth, with the characteristics of the selected variety. The rootstock may be connected to the top growth of the tree, but it is going to differ from the variety that was selected to plant. For example, a Granny Smith apple tree will not have a Granny Smith apple rootstock, so there would be no real benefit from allowing suckers to take over.

Rootstocks are often selected for characteristics like size (dwarf) and disease resistance — not fruit-production or quality.

You may have to move some soil to find the base of a sucker. Be sure to remove as much of the sucker growth as possible. This process will need to be repeated if suckers emerge again, but it is a simple task. As long as they are not allowed to persist for several seasons, even several suckers can be removed within minutes.

Pruning to Remove Suckers from Tree Rootstock  Pruning to Remove Apple Tree Suckers

Removing Water Sprouts

Water sprouts can arise from weather or other damage. It is not a recommended practice for many reasons, but over-pruning — like when a tree that was unpruned for many years suddenly gets pruned heavily, all at once — can also cause water sprouts to form. Water sprouts are fast-growing and have a tendency to grow vertically, either from the trunk or from an existing branch, and they block light and air circulation within the tree. This growth habit means water sprouts are in the way and they reduce the overall quality of potential fruit. And, since water sprouts are usually weaker than other branches, they can be sites for breaks, tears, and disease.

Water-sprout removal should occur close to the trunk or branch they are growing from. Just like with regular, routine pruning, be sure not to leave much of a stub behind when you remove water sprouts. This will help your tree to properly heal itself. Watch this video for a short demonstration on how and why you should remove suckers and water sprouts:

The best time of year for removal is in the early spring when you’re doing other maintenance pruning; however, sometimes this unwanted growth can shoot up during the growing season, so, if you see any develop on your fruit and nut trees, grab your pruning sheers and remove those suckers (and water sprouts). You’ll be doing your trees a favor!
Fall Maintenance for a Healthy Lawn

“Spring came very early this year and warm-season grasses such as zoysiagrass came out of winter dormancy about one month ahead of schedule. Pat Guinan, MU Extension Climatologist, indicated that March temperatures were 12 to 14 degrees higher than normal and placed this March as the warmest on record. He also commented that if March’s temperatures were laid over April of this year, the monthly average for April would still be 5 to 6 degrees above normal. We also had 18 to 20 days above 100 depending on where you were in the state. After that final rain toward the end of May to the first part of June, we went into one of the most extended droughts on record.” These were the facts for spring and summer of 2012. We were about 5 weeks ahead of ourselves on the horticultural and turfgrass side of things. Then the drought changed the color of landscapes from green to brown.

Spring of 2013 was much different. The cool/cold extended spring delayed many plants from budding out (tree foliage) as well as our warm season grasses like zoysiagrass and bermudagrass. The cooler temperatures were making us one of the coolest/coldest springs on record. To date, we have had no days over 100 and only two over 95 for Columbia, Missouri. We had a short period of drought and turfgrasses going dormant; but now, record rains and flooding have hit the southern half of the state. High temperatures in the 70s finished out July and August will appear to me mild as well - great weather for growing turfgrass and ornamentals. This year we were about 4 weeks behind and 180 degrees opposite from last year. Two very different years (at opposite ends of the spectrum) have occurred in two consecutive years.

Weather plays a role in how we manage ornamental plants and turfgrasses every year. Weather controls disease and insect cycles to emerge early in some years and much later in other years (e.g. 2012 and 2013). Keep in mind that weather is not the only instigator to our pest issues. Sometimes our pest issues are due to poor cultural practices.

So, this season has been very mild and lawns are actually looking pretty good for August. Despite the mild summer, there are still some fall management practices that need to be done in preparation for next year.
**Aeration**

Aeration is the practice of pulling soil plugs to open the soil surface for better nutrient and water movement. It is a practice that also helps to reduce compaction and thatch by spreading soil plugs on the surface. Soil plugs are crumbled and fall freely into aeration holes as well as spreading some soil into the thatch layer where soil microbes can feed on thatch debris. Aeration is a practice that can be done in both spring and fall and is the very best way to begin a fall fertilization program. Applications of fertilizer after aeration will move nutrients immediately into the root zone of your lawn. This practice has shown excellent results by improving turfgrass density and color of cool-season turfgrasses to recover from summer stresses. Spreading grass seed after aeration is also an excellent practice for lawns that have thinned some during the summer.

Aeration equipment can be found at local rental stores or garden centers. Machines that pull a ½ inch diameter plug three to four inches deep on three to four inch centers do an excellent job. Machines that force hollow tines into the soil are better than pull-type drums with spoon-tines. Not all machines will meet these specifications; however any amount of aeration is better than no aeration to kick-off fall fertilization. When using aeration equipment as a tool for preparing a seedbed, shallow divots ½ to 1-inch deep is only required. Creating lots of divots with multiple passes is best.

**Over-seeding**

Power rakes are an excellent piece of equipment to prepare seedbeds prior to over-seeding. While the entire lawn may not need over-seeding, working thin areas with a power rake will create a fine seedbed to improve seed/soil contact, therefore improving seed germination. Some turfgrass managers and homeowners may decide to renovate the entire lawn. Spraying roundup to control existing vegetation is can be completed in August in order to prepare the seedbed in early September. Tilling the soil 4 to 6 inches deep can reduce soil compaction and prepare that fine seedbed.

Selecting cool-season grasses for Missouri boils down to a choice of two – a turf-type tall fescue blend or a mixture of turf-type tall fescue with Kentucky bluegrass (90%/10% by volume – fescue/bluegrass).

Blends (three to four varieties in equal portions) of turf-type tall fescues can give deep emerald green appearances with a slightly coarser texture than the bluegrasses. They tend to be a deeper rooting plant, therefore requiring less water than a bluegrass lawn. They are not as susceptible to dollar spot and summer patch, but generally will require some fungicides for the control of brown patch disease. Several varieties of turf-type tall fescues offer superior resistance to brown patch and therefore will improve turf quality. Tall fescues will tiller to help with recovery, but tend to be clumpy with severe thinning. Some newer turf-types do provide some short rhizomes (root extensions underground that will produce a daughter plant). These are called Rhizomatous Tall Fescues or RTFs. Fescues grow well in full sun to partial shade.

Mixtures, such as turf-type tall fescues (in a blend) with Kentucky bluegrasses, combine the advantages or strengths of each species to mask the weaknesses of the other. Any grass seed mixture with perennial ryegrass should not exceed 20 percent perennial ryegrass, as they are not heat and drought tolerant and susceptible to most turfgrass diseases. Unfortunately, many seed mixtures available to homeowners at local garden centers contain large amounts of ryegrass (both annual and perennial).

So which varieties do you select once you decide on a blend or mixture to plant? Various resources provide recommendations for turfgrass varieties for Missouri. Garden centers, MU Extension publications, turfgrass specialists, and other lawn care experts are good sources for information about turfgrass selections. The difficulty for most individuals is to find the varieties suggested. Sometimes the best approach is to list what local sources carry and then cross-reference to the varieties recommended for Missouri or contact a specialist.
Blends and Mixtures Available

The number of seed products being sold over-the-counter and by distributors can be overwhelming to turfgrass managers and homeowners. However, by looking at the seed tags on products, several can be eliminated immediately. These include products that contain large percentages of ryegrasses. Many of these seed products are packaged for national sales and while they are excellent products for many areas of the country, they are not the best for the type of climate we deal with in Missouri (the Transition Zone). Concentrate more on the products that are tall fescue blends or mixtures of tall fescue and Kentucky bluegrass. By doing this the choices becomes more narrow and simplified.

Brand names of turf-type tall fescues to focus on include the following at various garden centers. These will generally have some of the better varieties acceptable for Missouri. They include:

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<th>Turf-type Tall Fescue Blends</th>
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<tr>
<td>Brand Name</td>
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<td>Revolution</td>
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<td>Winning Colors</td>
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<tr>
<td>Independence</td>
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<tr>
<td>Barenbrug RTF Blend</td>
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<td>All-Pro</td>
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<tr>
<td>George’s “Magic Mix” Fescue Blend</td>
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<tr>
<td>Pennington Ultimate Tall Fescue Blend</td>
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<td>The Rebels Blend</td>
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<tr>
<td>Tri-Star Fescue Blend</td>
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<td>Lesco Fescue Blend</td>
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<td>Scott’s Classic Tall Fescue Blend</td>
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Mixtures of tall fescue and Kentucky bluegrass have several nice combinations available at garden centers as well. Many seed companies manufacture the 90/10 combination of tall fescue and Kentucky bluegrass. Of all mixtures, this is possibly the best for Missouri. Some of these products include:
Several blends and mixtures listed above now include some of the rhizomatous tall fescues (RTFs). They include Revolution, Barenbrug’s RTF Blend, and Turf Save Plus with RTF Plus Mix.

Heat and drought is always a major concern during Missouri summers for cool-season grasses. Heat tolerant bluegrass is available in packaged mixes with tall fescue. Scott’s "Pure Premium Heat-Tolerant Blue" includes one of these heat tolerant bluegrasses called, "Thermal Blue." Heat tolerant bluegrasses are genetic crosses between Texas Bluegrasses and Kentucky bluegrasses that are designed to provide heat and drought tolerance. They are recommended in areas where tall fescue and Kentucky bluegrass are presently recommended. This product should be available where other Scott’s products are sold.

Shade’s effect on turfgrasses is a very common question in many lawn situations. Many turfgrasses are tolerant of moderate shade; however no turfgrass is tolerant of total shade throughout the day. The following table does list some mixtures available for moderate shade. Just keep in mind that moderate shade should still allow at least three hours of direct sunlight daily. If you do not have this amount of direct sunlight daily, consider alternative ground covers.

**Shade Mixtures (tall fescues, creeping red fescues, Ky. bluegrass and perennial ryegrass)**

<table>
<thead>
<tr>
<th>Brand Name</th>
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<tr>
<td>Deluxe Shady Mix</td>
<td>Hummert International</td>
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<td>Pennington Smart Seed Dense Shade Mixture</td>
<td>Home Depot, Lowe’s, Wal-mart</td>
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<tr>
<td>Pennington Dense Shade Mixture</td>
<td>Home Depot, Lowe’s, Wal-mart</td>
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above information is intended to make the selection process for turfgrass seed less troublesome and giving you more confidence in your choices. Be sure to always check with your local garden centers first for availability of these products, since all stores do not carry complete product lines.

Fertilization

Fall fertilization should always start with a soil test to determine what the needs of the soil are, if any. Soil pH is also important as it affects nutrient availability to the plants. Soil test results will give you nutrient levels, soil pH and any information about lime requirements. A soil pH around 6.4 to 6.8 is optimum. Soil pH between 6.0 and 7.0 are acceptable. MU guide #G6954, Soil Testing for Lawns gives information on how to take and submit soil samples to the University of Missouri Soil Testing Labs. This guide sheet can be accessed through the Extension Publications Website at [http://extension.missouri.edu/explore/](http://extension.missouri.edu/explore/).

Turfgrass managers and homeowners have a wide variety of fertilizers available to them for fall fertilization. Many organic fertilizers, such as Milorganite, Sustane, Earthworks, Nature Safe and Ringer are available and will provide an excellent source of slow released nitrogen. Organic fertilizers do require soil microbes to release nutrients, therefore as soil temperatures decrease by late Fall, performance of these fertilizers may drop off.

More inorganic types of fertilizers are available to turfgrass managers and homeowners and can be somewhat confusing. Many products have much higher amounts of nitrogen and most are soluble forms (quick release) of fertilizers. These types of fertilizers are there and gone after about three weeks. You will get a quick flush of green growth, then a quick tapering off of color and growth. Find fertilizers with a good balance of N-P-K (nitrogen/ phosphorus/potassium) with a ratio somewhere around 3-1-2. Also look at the guaranteed analysis label on the bag and find a product with 30 to 70 percent slow-release nitrogen. This way your fertilizer is released over a longer period of time requiring fewer applications and allowing the plants more time to efficiently utilize available nutrients.

Total fertilizer rates for cool-season grasses in fall should be 2.5 to 3.0 lbs of nitrogen per 1,000 square feet. Amounts should be divided over two or three applications throughout the fall. Possible combinations would include a pound of nitrogen per 1,000 square feet in early September after aeration followed by 1.5 pounds of nitrogen per 1,000 square feet in late October. A second scenario would include a pound of nitrogen per 1,000 square feet applied in early September, October and November. Most fertilizers are complete fertilizers including phosphorus and potassium; therefore requirements for those nutrients should be based on soil test results. Soil test results indicating high to very high amounts of phosphorus and potassium may require applications of fertilizers with nitrogen alone or lower amounts of P and K.

Winterizing fertilizers are usually recommended as the final application in fall for cool-season grasses. Good winter fertilizers will have higher and equal amounts of nitrogen and potassium (first and third numbers of the fertilizer components). However, there are conflicting comments about applications of additional potassium for hardening off plants. Additional potassium does not increase plant tissue potassium if amounts of potassium in the soil are already high to very high. Application of winterizing fertilizers simply insures potassium levels will be sufficient for plants to harden off. If you regularly soil test and know that your potassium levels are high, then a winterizer fertilizer will not provide additional benefit for you. It is a practice of higher importance for warm season grasses (zoysia and Bermuda) in late summer (early September) as opposed to cool-season grasses in late Fall.

Fall aeration, fertilization and over-seeding can make a difference in the health and beauty of your lawn. These fall practices along with mowing tall (3.5 to 4.0 inches) can provide a deeper root system and up to 80 percent control of annual weeds throughout the following season. For more information, contact: Brad S. Fresenburg, Turfgrass Specialist MU Extension, (573) 268-2545
Meeting
Thursday Evening
Sept. 5th 2013
6:30 p.m.
Extension Office
This month’s recipe

GREEN TOMATO PIE

About 1 1/4 pounds (about 4 cups) very green tomatoes
3/4 cup seedless raisins, plumped
1 1/2 teaspoon grated lemon rind
2 tablespoons lemon juice
1 tablespoon apple cider vinegar
1 1/2 cups sugar
1/8 teaspoon ginger
1 teaspoon cinnamon
1/2 teaspoon salt
3 tablespoons flour
1 or 2 tablespoons fine dry bread or cracker crumbs
2 tablespoons butter

Cut tomatoes in half and slice them almost paper thin. I keep raisins soaking in a little rum in a jar, so they are always plump. You could pour boiling water over them in a sieve to plump them up if you don’t want to use rum. Drain well. Put tomatoes, raisins and lemon rind in a large bowl.

Sprinkle with lemon juice and vinegar. Mix sugar, ginger, cinnamon, salt and flour in a large bowl. Line a large pie pan with dough. Sprinkle crumbs over bottom. Sprinkle about 1/3 cup of the sugar mixture over the crumbs. Stir the rest of the sugar mixture into the tomatoes and heap into the pan.

Dot with small pieces of the butter and top with crust.

Sprinkle the top with a little sugar and nutmeg. I often put 1/2 teaspoon or so of nutmeg into the flour when I’m making the crust also. Bake at 425°F for 15 minutes, then 325°F for 50 minutes more.

And Chick Allen says –

To kill weeds use, 1 gallon of vinegar, 1/2 cup of salt and a couple of Squirts of dawn dish detergent...it will kill weeds and grass in less than Two hours. Plus it is safe for kids and pets too.

Mullen leaves were soaked in warm water in the old days and used for a Poultice on boils, carbuncles and stone bruises.

Digitalis Roots were boiled and used for nerves and heart trouble.

Sheep Pills or Penirite were used to make a tea to drink to break out hives or measles. Papaw leaves ere bruised to make a poultice to treat bee stings and snake bites

Mud dobbs from an old log house were used to put on a young baby’s navel for power. They also used parched flour.
59 Uses for Salt

Kitchen
Bacon – to protect yourself from splatters, add salt to the pan before frying.
Beets – to remove stains from hands, wash hands with salt and a little dish soap.
Cast Iron – to clean, shake salt into the pan and wipe clean.
Coffee – to remove the bitter taste, add a pinch of salt.
Eggs – to easily clean egg spills, cover the spill with salt before wiping up.
Fish – to keep it from sticking to the pan, pour salt into the pan before frying the fish.
Glassware – to remove stains and discoloration, soak the item in 1 part salt and 8 parts vinegar.
Grease Fire – to extinguish, pour salt on the fire.
Hands – to remove food odors, rub your hands with salt and then wash.
Milk – to keep milk longer, add a pinch of salt to it after it’s opened.
Milk – to clean scorched milk and remove odors, dampen the area and sprinkle with salt. Let the salt sit for 15-30 minutes before scrubbing it away.
Oven – to clean spills and remove odors, while the oven is still hot, sprinkle the spill with 1 part cinnamon and 6 parts salt. Once the oven is cooled wipe away the spill.
Refrigerator – to freshen, mix club soda with a little salt and wipe the inside of your refrigerator, using a soft cloth.
Salt – a substitute, mix equal parts garlic powder, onion powder, oregano, basil, white pepper and lemon pepper.
Salt Shaker – to keep it from clogging up, place several grains of uncooked rice in the shaker.
Salt Shaker – to keep it from clogging up, place a small piece of paper towel in the bottom of the shaker.
Sauces, Soups & Stews – if you’ve added too much salt throw a peeled potato, quartered into the pot, it will absorb the salt.
Taste Testing – to check for saltiness, place the food on the center of your tongue, not the tip. The center is more sensitive to salt.
Thermos – to remove odors and clean, pour ¼ cup salt into the thermos and replace the lid, allow it to sit for a couple of days. Add ¼ cup uncooked rice, a drop of dish soap and ¼ cup hot water. Replace the lid and shake. Rinse.
Vegetables – to clean, bathe them in salt water, then rinse.

Household Uses
Air Freshener – to make your own, layer flower petals with salt in a jar.
Artificial Flowers – to clean, pour salt into a paper bag, place the flowers into the bag, petals first and shake.
Bathtub (enamel or porcelain) – to remove the yellow hue, clean the tub with 1 cup salt mixed with 1 cup turpentine then rinse.
Brass – to clean and polish, mix together ¼ cup salt, ½ cup flour and ¼ cup vinegar. Buff the copper with the paste and a soft cloth.
Broom (straw) – to make it last longer, soak the broom in warm salt water for 1 hour.
Candles – to keep them from dripping, soak the candles for a couple of hours in a really strong salt water solution.
Carpet – to clean and brighten, sprinkle carpets with salt before vacuuming.
Chrome – to clean, rub the item with a rag dipped in vinegar and salt.

Copper – to clean and polish, mix together ¼ cup salt, ¼ cup flour and ¼ cup vinegar. Buff the copper with the paste and a soft cloth.

Countertops – to clean stuck on messes, sprinkle with salt and scrub away using a damp cloth dipped in vinegar.

Countertops – for an all-purpose cleaner, fill a spray bottle with 1 cup water, 1 cup vinegar and 1 teaspoon salt. Shake well.

Drains – to keep them fresh and flowing pour a ½ cup salt down the drain then run hot water for a few minutes.

Fireplace – to easily clean soot, periodically pour some salt into your fireplace.

Kerosene Lanterns – to clean and brighten, polish with salt and a damp cloth.

Mop – to clean your mop, soak it in a bucket filled with 1 gallon hot water and 1 cup salt for 12-24 hours.

Piano Keys – to keep the ivory clean, make a paste using lemon juice and salt.

Silver – to clean, place a sheet of aluminum foil in the bottom of a sink, place your tarnished silver on the foil. Pour a mixture of 1 tablespoon washing soda and 1 tablespoon salt dissolved in 4 cups hot water into the sink. Rub with and soft cloth and rinse.

Windows – to control frost, dissolve 1 tablespoon salt in a gallon of hot water. Wipe the window with the solution.

**Health & Beauty**

Acne – to clear up small breakouts, press a cotton ball dipped in hot salt water on the area for 2-3 minutes.

Dandruff – to eliminate flakes, rub a couple tablespoons of salt into your scalp before shampooing.

Dry Shampoo – to make your own, mix 1 part salt and 8 parts corn meal. Apply to hair and brush it out.

Eyes – to remove puffiness, mix ½ teaspoon salt in 1 cup hot water, dip cotton balls in the mixture then place them on your eyes for a few minutes.

Poison Ivy – to relieve itching, soak in a warm salt water bath.

Skin – to exfoliate, apply a mixture of kosher salt and water.

Sleep – to help you sleep, drink 8 ounces of water followed by a pinch of salt placed on your tongue. Allow the salt to dissolve without it touching the roof of your mouth.

**Outdoors**

Bonfire – to snuff out the embers, pour some salt on anything that is still burning.

Garden Tools – to remove light rust, scrub away rust with a mixture of 1 cup salt and ½ cup lemon juice.

Ice Chest – to chill drinks faster, layer ice and salt before filling the chest with your drinks.

Poison Ivy – to rid it from your yard, soak the plant with a mixture of 3 cups salt, ¼ cup dish soap and 2 cups hot water. Repeat 2-3 times until it is gone.

Sidewalk Cracks – to remove unwanted weeds or grass, pour a mixture of 1 gallon water and 1 pound of salt. Make sure that the salt is dissolved; you may have to heat it up.

Wicker – to clean and keep from yellowing, rub with a stiff brush dipped in warm salt water.

**Laundry**

Non-Colorfast Clothing – to keep them from running, wash new clothes with ¼ cup salt and laundry detergent.

Iron – to clean, pour a thin layer of salt on a paper bag, set your iron on low with no steam and iron the bag.

Pantyhose – to keep them from running, mix ½ cup salt and 4 cups water. Soak new pantyhose in the solution for 1 hour prior to washing.

Perspiration Stains – to remove, soak item for an hour in 1 gallon warm water and ¼ cup salt before washing.
Wine Stains (red or white) – to remove, immediately sprinkle with salt to absorb.

Miscellaneous

Artificial Flowers – to arrange, fill a vase with salt, pour cold water over the salt, just enough to get the salt wet. Arrange the flowers, the salt will turn hard and hold them in place.

Paint Brushes – to soften, soak in a mixture of ½ cup kerosene, ¼ cup salt and 4 cups water for 2-3 days.

Shoes – to get rid of odors, sprinkle them with salt and let the sit for 24 hours before removing the salt.

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YOUR GARDEN — MY GARDEN

I want them all – Pictures that is of your

Crops + Flowers and Flower Beds + Garden + and other special Items you may have raised this year –

The October issue of our newsletter will be devoted to those Pictures.

Please send them to:

Onevol90@ gmail.com

No later than Sept 15th Please!

If yours is not in there it is your own fault!
A couple of strands of green beans trying to survive on the right while down on the lower left in an old wooden barrel there appears to be some sort of green sort onions and the wash was hung out back on one strand close line. Water was scarce, and the heat was even worse and the men that were old enough and big enough had gone off to the city to try and find work. There wasn't a story within miles nor did you have the money to buy the food and you just scratched out your living from day-to-day with the hopes and dreams that better things are to come.

These are tales that we hear about and think that somebody just trying to pull our leg until we run across a picture of those times like this. It's hard for us, who are so much more fortunate, to think that life could have been so rough less than 100 years ago in this great country of ours. I would suggest that tonight when you lay down to go to bed you thank our Creator for all the wonderful bounty that we have enjoyed. Ask him to continue to bless us our friends and neighbors and this great country that we may never see those days again.
And More Recipes

Bacon & Egg Spaghetti

Here is a new twist for breakfast favorite bacon and eggs. First don’t skip cooking the eggs in the reserved bacon drippings. Not only does this simple step boost the flavor factor, it means there is one less dish to clean.

Ingredients:
1. Slice one white or whole-grain bread, cut into pieces.
2. 1/3 cup grated Parmesan cheese
3. 8 ounces dried spaghetti
4. 6 slices bacon
5. 3 cloves garlic, minced (optional)
6. ½ Teaspoon salt
7. ¼ Teaspoon crushed red pepper
8. 4 eggs
9. 2½ tablespoon extra-virgin olive oil
10. Snip fresh chives, grated Parmesan cheese, and cracked black pepper. (Optional)

Preheat oven to 350°F. In a food processor combine bread, one tablespoon of Parham Asian, and 1 ½ teaspoon of all. Cover and process until coarse crumbs form. Spread in a 15X 10-1-inch baking pan. Bake, uncovered, for 10 minutes or until golden. Cool on wire rack.

In a large pot cook pasta according to package directions. Drain; set aside. Reserve ¾ cup pasta water.

Meanwhile, in a large skillet cook bacon over medium heat until crisp; drain well on paper towels. Tear bacon into large pieces; set aside. Keep skillet warm, reserving 1 to 2 tablespoons drippings in a skillet.

In the large skillet heat bacon drippings over medium heat. Break eggs into skillet. Reduce heat to low; cook eggs 3 to 4 minutes or until desired doneness.

Divide spaghetti among four plates. Top with bacon and toasted breadcrumbs. Serve with eggs. Sprinkle with chives, farm Asian, and pepper, if desired. Makes 4 servings.

Granny Cake

Contributed by Debbie Stefan, a friend from Tourism

1 1/2 cup sugar
2 cup flour
1/2 tsp. salt (omit if using self-rising flour)
1 tsp. baking soda (omit if using self-rising flour)
2 eggs
1 (20 oz.) can crushed pineapple in its own juice (including juice)
1 cup brown sugar
1 cup chopped pecans
1 cup evaporated milk
1/2 cup sugar
1 stick margarine
1 tsp. vanilla

Mix the sugar, flour, salt, soda, eggs and pineapple together and pour into a 9 x 13 pan. Sprinkle the top with one cup brown sugar and one cup chopped pecans. Bake at 350 degrees for 45 minutes.
Cook the milk, sugar, margarine and vanilla until mixture comes to a rolling boil.
AFTER THE CAKE HAS BAKED AND RIGHT OUT OF THE OVEN, pour the cooked milk mixture over the entire cake.

Crusty Bread
(simplysogood)

3 cups unbleached all-purpose flour
1 3/4 teaspoons salt
1/2 teaspoon Instant or Rapid-rise yeast
1 1/2 cups water

In a large mixing bowl, whisk together flour, salt and yeast. Add water and mix until a shaggy mixture forms. Cover bowl with plastic wrap and set aside for 12 - 18 hours. Overnight works great.
Heat oven to 450 degrees. When the oven has reached 450 degrees place a cast iron pot with a lid in the oven and heat the pot for 30 minutes.
Meanwhile, pour dough onto a heavily floured surface and shape into a ball. Cover with plastic wrap and let set while the pot is heating. Remove hot pot from the oven and drop in the dough. Cover and return to oven for 30 minutes. After 30 minutes remove the lid and bake an additional 15 minutes. Remove bread from oven and place on a cooling rack to cool.

FACTS YOU MAY NOT KNOW

It takes glass one million years to decompose, which means it never wears out
But can be recycled an infinite amount of times!

Gold is the only metal that doesn't rust, even if it's buried in the ground for Thousands of years.

Your tongue is the only muscle in your body that is attached at only one end.

If you stop getting thirsty, you need to drink more water. When a human body is dehydrated, its thirst mechanism shuts off.

Drinking water after eating reduces the acid in your mouth by 61 percent
The Mayonnaise Jar

When things in your life seem almost too much to handle, when 24 hours in a day not enough is, remember the mayonnaise jar and two cups of coffee.

A professor stood before his philosophy class and had some items in front of him.

When the class began, wordlessly, he picked up a very large and empty mayonnaise jar and fills it with golf balls.

He then asked the students if the jar was full. They agreed that it was.

The professor then picked up a box of pebbles and poured it into the jar. He shook the jar lightly. The pebbles rolled into the open areas between the golf balls.

He then asked the students again if the jar was full. They agreed it was.

The professor next picked up a box of sand and poured it into the jar. Of course, the sand filled up everything else.

He asked once more if the jar was full. The students responded with a unanimous “YES”.

The professor then produced two cups of coffee from under the table and poured the entire contents into the jar, effectively filling the empty space between the sand. The students laughed.

“Now,” said the professor, as the laughter subsided, “I want you to recognize that this jar represents your life. The golf balls are the important things - God, family, children, health, friends, and favorite passions. Things, that if everything else was lost and only they remained, your life would still be full. The pebbles are the things that matter like your job, house, and car. The sand is everything else -- the small stuff.” he said.

“If you put the sand into the jar first,” he continued, “There is no room for the pebbles or the golf balls. The same goes for life. If you spend all your time and energy on the small stuff, you will never have room for the things that are important to you...” he told them.

“So... pay attention to the things that are critical to your happiness. Worship with your family. Play with your children. Take your partner out to dinner. Spend time with good friends. There will always be time to clean the house and fix the dripping tap. Take care of the golf balls first -- the things that really matter. Set your priorities. The rest is just sand.”

One of the students raised her hand and inquired what the coffee represented.

The professor smiled and said, “I'm glad you asked. It just goes to show you that no matter how full your life may seem, there's always room for a couple of cups of coffee with a friend.”

Please share this with other "Golf Balls"

Just Some More Stuff

Strawberries are the only fruits whose seeds grow on the outside.
Avocados have the highest calories of any fruit at 167 calories per hundred grams.
The moon moves about two inches away from the Earth each year.
The Earth gets 100 tons heavier every day due to falling space dust.
Due to earth's gravity it is impossible for mountains to be higher than 15,000 meters.
The banana cannot reproduce itself. It can be propagated only by the hand of man..
The University of Alaska spans four time zones.
The tooth is the only part of the human body that cannot heal itself.