



Texas Agricultural Extension Service

The Texas A&M University System

# Horticultural Update



## Plants of the Month . . . September

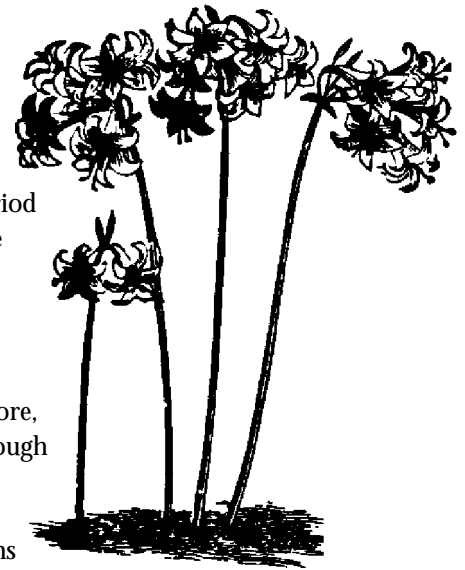
*Dr. William C. Welch, Landscape Horticulturist  
Texas A&M University, College Station, Texas*

- Spider lilies** *Lycoris radiata*
- Oxblood lilies** *Rhodophiala bifida*
- Rainlilies** *Zephyranthes spp.*

One indication of an eventual end to our long, hot summers is the emergence of several bulbous perennials. Spider lilies (*Lycoris radiata*), oxblood lilies (*Rhodophiala bifida*), and certain rainlilies (*Zephyranthes spp.*) suddenly appear and add color and interest to our tired, heat-weary gardens. These plants are not natives, but they appear to be, since they often come back year after year and slowly increase in numbers and flower production.

All three plants have in common that they produce most of their foliage during the winter and spring, go dormant during the heat of summer, then flower in early fall. They actually require a dormant period during the heat of summer when little or no water is needed. Artificial

watering during this period may be harmful to these plants. Spider lilies and oxblood lilies are especially sensitive to over watering during their "baking period;" therefore, it is best to plant these tough and hardy bulbs where they are out of reach of normal sprinkler systems or artificial watering.



Spider lilies are a novelty in the world of ornamental plants. Each spring the strap-shaped foliage appears, ripens, then dies down with the heat of summer. In September, usually after a soaking rain, clusters of red, pink, white, or yellow flowers suddenly spring forth from the ground. Stems may reach 18 to 24 inches, and they are topped with spidery-like flowers with wavy-edged segments and long stamens. They are very easily grown, especially in the eastern third of the state. The red form (*Lycoris radiata*) is much more common than the others and is the easiest to grow.

### *In this issue . . .*

Plants of the Month: Fall Bulbs .....	Page 1
Late Season Pecan Shedding .....	Page 2
Plan Now for Spring Flowers .....	Page 3
All Plants Have a Place in Xeriscapes .....	Page 4
Stop Insects to Reduce Potential for Disease .....	Page 5
What Fruit Crops to Grow? .....	Page 6
Garden Checklist for September .....	Page 7

*Continued on Page 4*

# Late Season Pecan Shedding

*Dr. George Ray McEachern, Extension Horticulturist  
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The 1995 pecan crop in Texas is large; however, it is still too early to know the size of this year's harvest. Commercial and yard trees in all areas of the state are loaded, and many growers are noticing how large the crop is for the first time. The very short crop in 1994 and the physiological effects of alternate bearing are the main reasons for this year's big crop. Unfortunately, much of the 1995 crop will not be harvested if we do not get more rain.

Pecans may fall to the ground prematurely for one of many reasons.

**Pollination Drop.** A common pecan drop occurs in May and June when nuts fall to the ground because of poor pollination. On a heavy crop year, the ground can be covered with thousands of very small dried-up pecans. Poor pollination can result from a shortage of pollen when the small female nutlets are receptive. Dr. Tommy Thompson, of the USDA Pecan Breeding Station, says the small female pistol flowers are ready to receive pollen when the stigma is sticky. It is not good to use color as an indicator of receptivity. He says the best test is to sprinkle some pollen onto the stigma, and if it cannot be blown off, the stigma is receptive. This receptivity can last for a short period or several days. Rain, cold, or extreme heat can interfere with pollination. The best prevention is to have a pollinator variety at least every four rows. The late L. D. Rombery also said that having a row of different varieties or natives greatly improves pollination in any orchard. Lack of pollination can cause nuts to go all the way into August without a live embryo or kernel sac. A few can remain on the tree until harvest, but this is rare, since any stress usually causes non-pollinated nuts to drop.

**Physiological Drop.** Every spring and summer a large number of pecans will drop for no apparent reason. Horticulturists call this physiological drop. It is a very real problem, however, and one we need to recognize. Mr. John Cooper demonstrated how serious physiological drop can be at the Georgetown Orchard while working on IPM strategies in the early 1980s. By counting all the nuts that dropped into large catching frames under the trees, he found that up to 30% of premature pecan drop could be due to physiological drop.

**Casebearer Drop.** The pecan nut casebearer feeds on the

base of nutlets in May, which causes them to fall to the ground. It is easy to determine casebearer drop because there is a small hole at the nutlet base. Though there are three generations of the pecan nut casebearer, the drop is usually greatest during the life of the first generation. The second and third generations are born 42 days after the previous generation.

**Waterstage Drop.** The most confusing drop is the one that occurs at the waterstage of nut development. This is the point in time when the nut begins to shift from sizing to kernel development. In waterstage drop, the kernel sac fills with water, and the positive benefits from auxin production by the embryo is evidently diluted or at least affected. The auxin plant hormone is responsible for stimulating growth and also for the maintenance of a strong abscission zone between the nut and the stem. Dr. J. Benton Storey explains that the auxin balance in the abscission zone must be greater on the nut side of the zone, making the pecan attachment strong; when the auxin balance is greater on the tree side of the zone, the nut can drop from the slightest stress.

Any tree or nut stress during the waterstage results in nut drop, and there are numerous causes of stress in late July and August. A heavy crop, drought, pecan scab disease, weeds, tree crowding, shallow soil, compacted soil, high temperature, insect feeding, various diseases, flooding from heavy rains, twisted shoots from high winds, and other factors can cause nut drop during the waterstage.

**Late Summer and Early Fall Nut Drop.** Once kernel development goes into the dough stage and shell hardening begins, it becomes increasingly difficult for shedding to occur. It is during this period that symptoms of stress manifest most often as poor kernel development and, in extreme stress conditions, Stick Tights develop. Stink bug and pecan weevil feeding can cause pecans to shed, especially if this occurs early while the kernel is filling and the shell hardening. Once the pecan has been shed to the ground, it is extremely difficult to see insect damage. Shuckworm feeding on shucks before shell hardening can also cause nut drop. It can sometimes be identified by a little white ring around the entry hole. Aphids usually do not cause nut drop, but they do cause serious leaf drop.



# Plan Now for Spring Flowers

*Dr. William C. Welch, Landscape Horticulturist  
Texas A&M University, College Station, Texas*

If you want to have an abundance of winter and spring flowers in your garden, now is the time to begin work. Most of Texas enjoys mild enough winters to develop a long lasting and good quality crop of such favorites as pansies, snapdragons, calendulas, candytufts, larkspurs, petunias, and sweet peas, to name a few.

Annuals planted in the fall will usually bloom three to six weeks earlier than those planted in the spring, depending upon the variety and species. Occasionally, plants may be damaged by extreme temperature changes, prolonged low temperatures, or high winds, but many gardeners consider it worth the risk.

Primary attention must be given to bed preparation and watering. Beds should be prepared several weeks prior to planting and raised enough to insure good drainage during prolonged wet periods. When starting plants from seed, it is especially important to keep the soil moist. Any drying during the germination period is hazardous. Water should be allowed to flow slowly through shallow irrigation furrows or a fine sprinkler every time surface drying is observed.

Seeds should be planted closer together than for spring planting. A close stand of seedlings seems to have less chance of damage from winter cold. This insures a sufficient number of plants even if part of them are winter killed. A light mulch of straw, hay, pine needles, or similar material can help in retaining moisture, preventing packing of the soil, and maintaining even moisture levels.

Well rotted manure is an excellent soil conditioner and fertilizer. Chemical fertilizers containing nitrogen, phosphorus, and potash are more convenient to use but offer no soil conditioning qualities. Peat moss, pine bark, compost, and other organic matter are essential to the success of gardening. This organic matter should compose at least 20% of the garden soil by volume. For best results, prepare the soil several weeks prior to actual planting. This allows the soil to settle, reducing air pockets and allowing chemical fertilizers to become diluted and unlikely to burn the tender seedlings.

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## Late Season Pecan Shedding *(continued from Page 2)*

A number of pecan diseases can occur in late summer which contribute to shedding. The most common is what Dr. Jerral Johnson calls Stem End Blight; the old name for the disease is Sticky Shuck. This is one of the major causes of August drop. The ground can be covered with pecans with black shucks. The classic symptom is the shuck turning black at the stem end; however, the black color can be anywhere on the shuck. A totally different disease is called Shuck Disease, and it is associated with the 'Success' variety and varieties with 'Success' as a parent. With Shuck Disease, the entire crop can fall to the ground in one week during August or early September.

In recent years, growers in the southeastern states have worked hard to identify several disorders or diseases which affect the crop just before harvest. There is no question that stress from one or all of the above factors can contribute to unhealthy shucks, wafer kernels, and

shedding. Dr. Chuck Riley, USDA scientist in Byron, Georgia, feels that both Glomeralla, which is called Anthracnose, and Phomopsis, which is called Shuck Decline, when combined with stress, can exhibit black shucks, wafer kernels, and shedding. If the nuts remain on the tree, the shuck can develop into a tulip shape, being sunken and dark brown at the base and open at the top. Though Texas and the Southwest have many problems, these two are not serious at this time.

**Summary.** The heavy 1995 Texas pecan crop, combined with drought and high temperatures, are currently contributing to a serious pecan drop problem. If this drought stress continues, Stick Tight problems could become serious in October. Growers, both commercial and home, are encouraged to irrigate pecan trees as much as possible in September to reduce drought stress.

# All Plants Have a Place in Xeriscapes

Dr. Douglas F. Welsh, Landscape Horticulturist  
Texas A&M University, College Station, Texas

Every plant in the nursery or garden center truly has a place in a Xeriscape landscape. It's not which plant you use, but where you put it. Three different plant zones can be incorporated into a Xeriscape: a Regular Watering Zone, an Occasional Watering Zone, and a Natural Rainfall Zone.

- **Regular Watering Zone**

Plants in this zone would require watering once every week or more, **once established**, in the absence of rain.

- **Occasional Watering Zone**

These plants would require watering once every two or three weeks, **once established**, in the absence of rain.

- **Natural Rainfall Zone**

Plants in this zone would require only natural rainfall, **once established**.

By zoning the plants in the landscape according to their water requirements, you prevent the situation of having to over water one plant type to meet the needs of another.

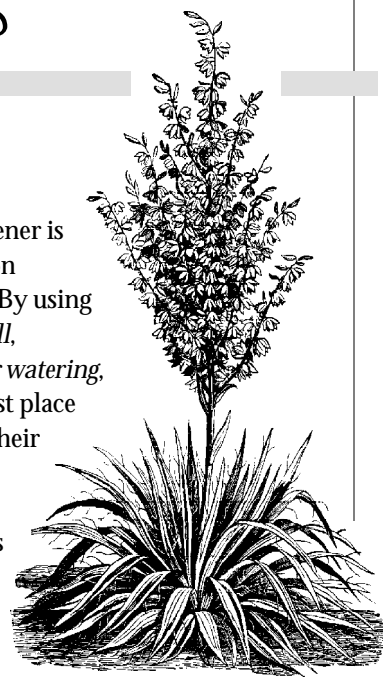
Every region of Texas has a palette of plants to choose from which are adapted to the soil, temperature extremes, and pest problems of the area. The challenge for both the

professional and amateur gardener is to categorize the plants based on expected water requirements. By using the categories of *natural rainfall*, *occasional watering*, and *regular watering*, most gardeners can find the best place in the garden for the plants in their region.

For example, in much of Texas (areas of 30+ inches of rainfall), the following categorization is often used:

- **Regular Watering Zone:** Turf grasses and annual flowers
- **Occasional Watering Zone:** Perennial flowers and tender woody shrubs and vines
- **Natural Rainfall Zone:** Tough woody shrubs and vines, and all trees

All plants do have a place in a Xeriscape landscape. Visit your nursery or garden center today and start creating your own beautiful, water-conserving landscape.



## Plants of the Month . . . September (Continued)

Oxblood lilies are another introduction from Argentina. They were introduced by a German-Texas plantsman named Heinrich Oberwetter, an early colonist in central Texas. Oxblood lilies appear to be equally well adapted to heavy clay or deep, sandy soils. The flowers resemble small red amaryllises and are borne several to a stem. Foliage is strap-like and emerges after flowering to flourish through the winter, and then it yellows and disappears by summer.

Among the large and diverse group of plants known as rainlilies, the most common cultivated form is *Zephyranthes candida*, the white rainlily, which is sometimes called "Autumn Crocus" because of its tendency to bloom profusely in the fall. It somewhat resembles

monkey grass and is useful as an edging plant in the garden during the fall, winter, and spring when its foliage is most abundant and attractive. White rainlilies are native to the shores of Rio de la Plata, the River of Silver, in Argentina. Flowers appear mostly in late summer and fall, usually beginning with the first autumn showers.

Rainlilies, oxblood lilies and spider lilies are all propagated by dividing mature clumps of bulbs. This can be done successfully at any season, but transplanting just after the foliage starts dying down in late spring or early summer is less likely to interrupt their bloom cycle. Commercial availability is limited on all three of these plants although it appears to be improving.

# Getting Your Garden Off to a Good Start

This article was provided by **Garden America News Service**

**S**elect good soil. Plants cannot live off water and sunlight alone. They need nutrient-rich, healthy soil to feed upon. The best way to determine whether or not your soil has the proper pH and nutrients is to take a sample to your local county Extension office. They can help you determine the additives your soil needs to support a healthy vegetable garden.

**T**ill or turn under soil before planting to break up clumps of dirt that could block a seedling's path to the surface or its roots' path to moisture. The deeper you dig the better, especially in hard, packed ground. Ideally, soil should be "broken up" to the depth of about 1 foot. When this is not feasible, at least try to turn under to a depth of 6 to 8 inches.

**A**ccurately plant your seeds, placing them at the right depth and with the right spacing. Once you have taken the time to carefully prepare soil for planting, it doesn't make sense to be sloppy when sowing seeds. Read package directions or consult your seed dealer for the proper depth and spacing for planting different types of seeds.

**R**ake or hoe to help control weeds between plant rows and to enable plants to break through the soil surface. Sometimes a rain after planting will harden the soil surface enough to prevent seedlings from getting through. Delicate raking in these areas can break up packed dirt and allow plants to emerge.

**T**hin plants out when they are small. As seedlings emerge, you may find that you have placed seeds too close together. Pulling out some plants before they begin to crowd one another will help remaining plants to grow larger and to be more healthy.

## Dried Flowers

Wayne R. Pianta, County Extension Agent - Horticulture  
Texas Agricultural Extension Service

**F**or hundreds of years gardeners have preserved flowers by drying. The so-called "everlasting" types, like straw-flowers, have been most popular, but there are many other annual flowers which can be used. Summer annuals which are excellent for drying include marigolds, salvias, cosmos, zinnias, coreopsis, and *gloriosa* daisies. Ageratum dahlias, calendulas, chrysanthemums, dianthus, asters, and daisies also make fine dried specimens. Many native flowers and plants, such as cattails, dock, oats, and numerous grasses, dry naturally or produce interesting seed heads. Flowers can be preserved by hanging, pressing, or drying with various drying agents.

**Hangings.** Air drying, or hanging, is the easiest and best method for preserving many flowers. Remove the flowers' leaves and hang upside down in a warm dry place until dry. An attic, closet, or pantry work well for flower drying.

**Pressing.** This method is quick and easy, but it flattens the flowers. For pressing, use unglazed paper such as news-

print or an old telephone book. Place the flowers between several thicknesses of paper, making sure they do not overlap. Weigh down with a heavy object. This method takes from 2 to 4 weeks.

**Use of Drying Agents.** Flowers can be dried by burying them in sand mixed with borax, cornmeal mixed with borax, or silica gel. These materials work well for drying certain flowers, but are undependable for others. Silica gel has the capacity to quickly absorb a large amount of moisture. Flowers, minus leaves, should be buried in the gel in a closed container and left for about one week. Silica gel can be used over and over by re-drying it after use in a warm oven. The gel can be purchased in most garden centers, nurseries, florist shops, and hobby shops.

After drying, secure each flower to a wire stem by using a 2 to 4 inch section of No. 2 florist's wire; then, wrap all wire with green floral tape and make your arrangement.

# What Fruit Crops to Grow?

Dr. Calvin G. Lyons, Extension Horticulturist  
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With the approach of fall and winter, home owners need to begin planning fruit plantings for the coming year.

Question to ask include:

- Can you expect success if you plant a fruit or nut tree?
- Are you willing to do what must be done to insure production?
- Do you have a suitable location?

When you're deciding whether to grow fruits or nuts, consider the time, labor, logistics, and chemicals involved in producing the crop. Some crops, referred to as low-

maintenance types, include blackberries, figs, Japanese persimmons, and pears. Productively speaking, the hardest to care for and most cantankerous crops are peaches, plums, apricots, and pecans.



For maximum production, fruit plants need at least 6 hours of full sunlight daily. If

you moved to the country for beautiful live oak scenery and shade, don't expect fruit and nut trees to do well in that environment. Extremely shaded landscapes are not ideal sites for fruit planting.

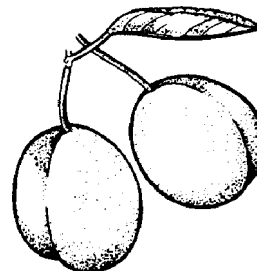
Soil and drainage are also important considerations. Most fruit and nut species cannot tolerate excessive periods of "wet feet." Fruit trees planted in soil with poor drainage show reduced growth, pale green leaves, iron chlorosis, zinc rosette, leaf abscission, and, in some extreme cases, drought stress. These symptoms are brought about by the plants' inability to absorb nutrients and water from the soil. For nutrients and water to enter the plant oxygen must be adjacent to the roots. If oxygen is not available in the soil, the plant is unable to absorb the essential nutrients necessary for growth. In some instances, the plant will not be able to absorb water even though it may be standing in water. Growing trees and shrubs on large

raised beds can improve soil drainage where the native soil is unsuitable.

To evaluate soil drainage, dig a hole 32 inches deep, and 8 inches in diameter and fill it with 7 gallons of water. The hole should drain in less than 48 hours.

- If it is empty in 1 hour, your site has *excellent* internal drainage.
- There is *very good* internal drainage if the hole is empty in 8 hours.
- If the hole is empty in 24 hours, there is *good* internal drainage.
- If the hole is empty in 48 hours, you have *adequate* soil drainage.
- At the end of 48 hours, if the hole still contains water, it will be extremely difficult to produce regular crops of high quality fruits on that soil.

A fruit crop does best in soils with *excellent* soil drainage. Peaches and plums need *very good* soil drainage. Apples, pears, and grapes need *good* soil drainage, while pecans, figs, and persimmons can survive with *adequate* soil drainage.

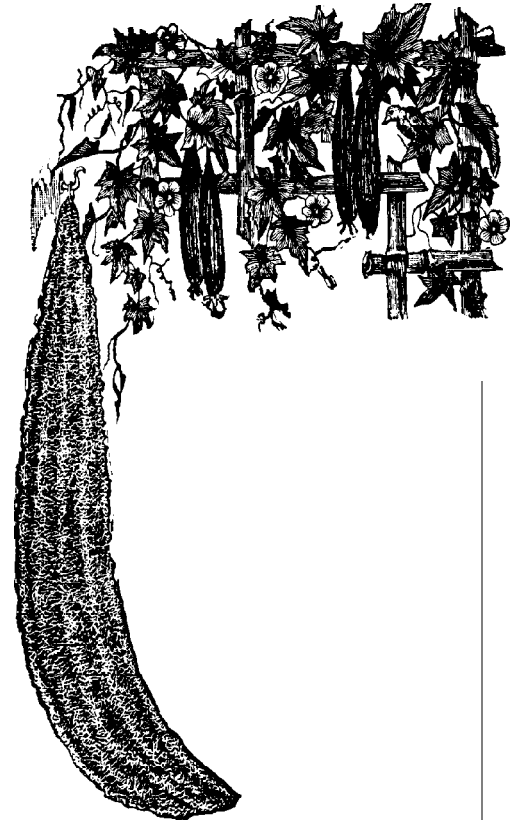


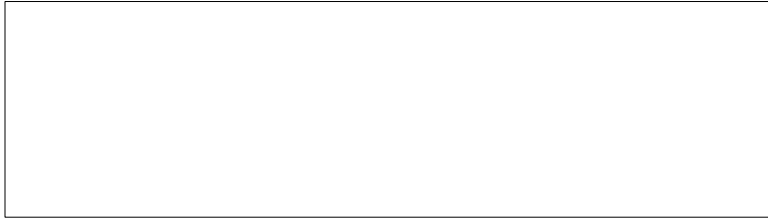


# Garden Checklist for September

*Dr. William C. Welch, Landscape Horticulturist  
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- ☑ Rejuvenate heat stressed geraniums and begonias for the fall season by lightly pruning, fertilizing, and watering.
- ☑ Caladiums require plenty of water at this time of year if they are to remain lush and attractive until fall. Fertilize with ammonium sulfate at the rate of  $\frac{1}{3}$  to  $\frac{1}{2}$  pound per 100 square feet of bed area, and water thoroughly.
- ☑ Don't allow plants with green fruit or berries to suffer from lack of moisture. Hollies will frequently drop their fruit under drought conditions.
- ☑ Remove weak, unproductive growth from crepe myrtles and roses to stimulate new growth for fall beauty.
- ☑ Prune out dead or diseased wood from trees and shrubs. Hold off on major pruning until midwinter. Pruning now may stimulate tender growth prior to frost.
- ☑ Sow seeds of snapdragons, pinks, pansies, and other winter flowers in flats for planting outside during mid to late fall.
- ☑ Prepare the beds for spring flowering bulbs as soon as possible. It's important to cultivate the soil and add generous amounts of organic matter to improve the water drainage. Bulbs will rot without proper drainage.
- ☑ Divide spring flowering perennials such as irises, shasta daisies, gaillardias, canna lilies, daylilies, violets, liriopes, and ajugas.
- ☑ Fertilize and groom verbenas, perennial salvias, and lantanas to stimulate a long and productive fall bloom season.
- ☑ Continue a disease spray schedule on roses, as black spot and mildew can be extremely damaging in September and October. Funginex, used every 7-14 days, will usually give excellent control.
- ☑ Christmas cacti can be made to flower by supplying 12 hours of uninterrupted darkness and cool nights (55 degrees F.) for a month starting in mid-October. Keep plants on the dry side for a month prior to the treatment.
- ☑ As they begin to dry naturally on the plants, cut ornamental gourds and store in a well ventilated, dry place for several weeks prior to use.





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## Coming Events

### Oktober Gartenfest

October 27-28, 1995, at the University of Texas Winedale Historical Center & The Round Top Festival Institute

#### ***"Celebrating the Spanish Influence on Texas Gardens"***

- Friday evening and all-day Saturday program
- Sale of heirloom and unusual plants of Spanish and Mexican origin.
- Call Glorinda Jaster, UT Winedale Historical Center at (409) 278-3530.

### **TEXAS & SOUTHWEST *Greenhouse Growers' Conference***

November 14 - 16, 1995, Hilton Hotel & Convention Center, College Station, Texas

- Over 25 speakers covering a broad range of topics of interest to floral and nursery professionals
- More than 50 trade exhibits and special educational sessions
- For more information, please contact the Texas Agricultural Extension Service at (409) 845-7341

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EDITOR SEPTEMBER 1995

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