

VOLUME 2, NUMBER 1

JANUARY 1999

Plant of the Month ... January / February Violet Viola Odorata

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

iolets were once considered indispensable perennials for the well designed garden. Although numerous native violet species occur in Texas, the violet of choice for most southern gardens was V. odorata, which is of European, Asian, and African origin. Dark blue or purple is the predominant color. Well into the early 20th century, violets were among the most popular florist cut flowers. Their fragrance, rich colors, and relatively easy culture contributed to nationwide popularity.

Violets prefer a rich, moist but well drained soil high in organic content. Partially shaded locations are preferred. Their natural bloom period is late winter and early spring. Although evergreen, garden violets become semi-dormant during our long, hot summers. They can, however, endure considerable drought and heat stress, and usually become lush and healthy with the onset of cooler and more moist fall and winter conditions. Landscape uses include borders and ground covers. Large container shrubs can often be enhanced by a mass of violets at their base, providing attractive foliage, fragrance, and color at a season when few other plants are at their peak. Mature height is usually 8 to 10 inches. The rounded foliage is attractive even when the plants are not in bloom.

Usual propagation is by division of mature clumps during early to mid fall. Seeds can also be used to produce new plants, but require considerable attention during the early stages.

Borders of garden violets may still be found in some of the old gardens of East and Central Texas. They can be long-lived and relatively low-maintenance perennials. Few plants perform as well in shady areas and offer color and fragrance during January, February, and March. Availability in nurseries is inconsistent at present, but garden centers specializing in perennials or native Texas plants usually offer violets.

Texas Pecan Shortcourse JANUARY 25-29, 1999

NOW INCLUDES USDA PECAN STATION & BUSH PRESIDENTIAL LIBRARY TOURS

By George Ray McEachern, Professor and Extension Horticulturist Texas A&M University, College Station, Texas

She 1999 Texas Pecan Orchard Management Shortcourse will be conducted in the Rudder Conference Tower on the campus of Texas A&M University, College Station, Texas, January 25 through 29, 1999. The registration fee is \$150 for growers, \$50 for spouses, and \$50 for county agents; parking at the parking garage across the street from the Conference Tower will require approximately \$20. To pre-register, contact Ms. Jacque Hand at the Office of Conferences and Shortcourses, Rudder Conference Tower, Texas A&M University, College Station, Texas 77843, or phone her at (409) 845-8904, or FAX to (409) 845-2519. Rooms can be reserved at the TAMU Memorial Student Center [(409) 845-8909] or at the many hotels and motels off-campus. American Airlines flies to College Station via the Dallas and Houston Intercontinental airports. Registration begins at 8:00 a.m. on the second floor of the Rudder Conference Tower. Class begins at 9:00 a.m. Each participant will receive the 1997 Texas Pecan Handbook as the text for the course, and construct a pecan variety board showing the 48 leading pecan varieties.

This shortcourse was started by Benton Storey in the mid 1960s as a teaching aid for county Extension agents. Classes then typically enrolled fewer than 15 agents. In the 1970s, growers began to attend, and the class size started to increase. A handbook was written in 1973, and it has been updated each year. By the 1980s, the enrollment reached approximately 50 each year, and it continues to be about that size. Over the years, many instructors have taught at the shortcourse, and most of them continue to do so. This is a comprehensive shortcourse, and pecan growers worldwide are welcome. Growers from all parts of Texas, as well as Georgia, Arizona, Mexico, Australia, Israel, Brazil, Argentina, and other areas, have participated.

All aspects of orchard management are covered and include: soil and site selection; irrigation; planting and establishment; varieties; rootstocks; insect and disease management; fertilization; weed control; processing; costs and returns; taxes; and marketing. Management systems will be presented for west, central, east and native pecans. Some topics are covered in one hour, while others take all day. Questions and answers are taken during and after every lecture. In addition to attending classroom lectures, each student will build a pecan variety board on Tuesday afternoon. Also on Tuesday, Cindy Wise of the Texas Pecan Growers Association will make a presentation of the services her organization has available to growers, and she will have pecan literature for growers to purchase. On Wednesday afternoon, the class will visit the new George Bush Presidential Library on campus. On Thursday afternoon, the class will bus to the USDA Pecan Station to learn and see all about the USDA cultivars, rootstocks, and germ plasm repository. This will be followed by a Texas steak dinner in historic Snook, Texas. On Friday at noon, the course is completed, and diplomas are given to each student.

PRE-EMERGENT HERBICIDES: TO USE OR NOT TO USE?

By Gene R. Taylor, Ph.D., Department of Soil and Crop Sciences Texas A&M University, College Station, Texas

Now that spring is right around the corner, many home owners are beginning to think about using a pre-emergent herbicide to control summer annual weeds like crabgrass. But before they go to the garden center and pick up a bag or two of weed control, they need to take a good look at their lawn. If the lawn suffered from last year's drought, chinch bugs, or any other stress that left bare spots in the lawn, the home owner may not want to apply a pre-emergent herbicide. Because of the way some pre-emergent herbicides control weed seedlings, (their mode of action), they may also slow the re-establishment of grass. Warm-season grasses, like St. Augustinegrass, spread by stolons (or runners); stolons allow the grass to spread and fill in bare spots. Root growth from the stolons can be inhibited by some pre-emergent herbicides, causing the grass to take 4 to 8 weeks longer to fill in the bare spots. In an established lawn where there is no concern about filling in bare spots, pre-emergent herbicides can be used without any concern. So, what should the homeowner do? If the lawn has just a few small bare spots or thin areas, go ahead and apply the pre-emergent herbicide. If, on the other hand, there are several large bare areas, it may be best to not apply a pre-emergent herbicide, and encourage the grass to fill in the bare spots with proper fertility, mowing, and irrigation.

LAWN & GARDEN UPDATE

JANUARY / FEBRUARY 1999

Texas Pecan Shortcourse (continued from page 2)

1999 TEXAS PECAN ORCHARD MANAGEMENT SHORT COURSE

Tentative Schedule

Monday, January 25, 1999 8:00 a.m.

9:00

9:15

9:45

10:45

2:15

2:45

3:15

9:30 10:30 1:00 p.m. 2:00 4:00

9:00 10:00 10:30 11:00 1:00 p.m. 2:00 3:00 4:00

1:30 p.m.

Registration......Second Floor, Rudder Conference Tower Welcome......Sam Cotner Keys to Pecan Profitability......George Ray McEachern World Wide Pecan Distribution......J. Benton Storey History of Pecan Production......Bluefford G. Hancock Site Evaluation......L.J. Grauke Orchard Design, Spacing, Thinning and Expansion......George Ray McEachern

Tuesday, January 26, 1999 8:00 a.m.

Planting and Establishing Pecan Orchards	George Ray McEachern
Pecan Irrigation Management	Larry Stein
Native Grove Management	Larry Stein
Regional Pecan Variety Recommendations	George Ray McEachern
Pecan Variety Board Workshop	George Ray McEachern
Texas Pecan Growers Association	Cindy Wise

Wednesday, January 27, 1999 8:00 a.m.

Pecan Disease Control	Chip Lee
Transplanting Large Pecan Trees	Marty Baker
Cattle Production in Native Pecan Groves	Billy Kniffen
Native Pecan Timber and Saw Mills	Ken Rogers
Pecan Nursery Production	J.W. Worthington
East Texas Management	Glenn Huddleston
Central Texas Management	Nancy Roe
West Texas Management	John Begnaud
Bush Presidential Library Tour	

Thursday, January 28, 1999

8:00 a.m. 9:00 10:30 1:00 p.m. 2:30 6:00

Pecan Weed ControlGe	orge Ray McEachern
Pecan Fertilization, Zinc Sprays, and Nutrition Analysis	J. Benton Storey
Pecan Integrated Pest Management	Marvin Harris
Pecan Insect Strategies for 1999	Bill Ree
USDA Pecan Station Tour	
Steak Dinner at Snook	

Friday, January 29, 1999

8:00 a.m.	Tax Considerations For Pecan Growers	Wayne Hayenga
9.00	Pecan Economics	Joe Pena
10:00	Pecan Price Trends	Carl Shafer
11:00	Graduation	Sam Cotner

Registration Fee: \$150.00 at (409) 845-7692

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

Vincs of interest at the Horticulture Field LAB

Numerous structures in the garden are designed to support vines. They provide a third dimension to any garden, and are an economical use of space. Among the outstanding ones this fall is the blackeyed susan, (*Thungergia alata*). Frost has still not visited the garden at the Horticulture Field Lab as I write this on December 12, and the orange flowers with dark brown centers still cover the blackeyed susans. This is an annual vine, easily grown from seed started in spring. Like the hyacinth bean (*Dichlos lablab*) it blooms some in late summer, then puts on a really good show for mid and late fall.

Pris Files planted some annual sweet peas that are coming along nicely on the split rail fence that borders the Lab parking lot. For sweet peas to be successful, they need to be started in the fall in all but North Texas and the Panhandle.

A vine that continues to attract attention is the air potato on the trellis near the nursery growing area. It is actually a relative of the yam, and considered edible according to some sources. Its scientific name, Dioscorea bulbifera, refers to the aerial tubers that form within the lush green foliage in late summer and fall. This is truly one of the most beautiful foliage plants I know of for our gardens. The heart-shaped leaves are arranged like overlapping shingles on a roof, and have interesting veins. In protected places, air potatoes may be perennial for Central and South Texas. In other areas, just save some of the aerial potatoes, and plant them next spring. They quickly grow to cover fences, arbors, and other structures with masses of handsome foliage. While in Tallahassee, Florida in late October, I mentioned air potatoes, and some of the local gardeners indicated concern about them taking over the landscape. With last year's mild winter, they were never frozen back in that area, and were quite prolific.

Among the evergreen vines it is hard to beat some of the honeysuckles. A large specimen of "Pam's Pink Honeysuckle" covers a trellis by the main building. I have now grown this vine for about 20 years. We think it is *Lonicera* x 'Americana', a form that dates back to 1730 in Europe. Pam Puryear, a gardener and historian in Navasota, shared plants with me in 1980, and later with Greg Grant at the Stephen F. Austin University Arboretum in Nacogdoches. This vine has a long and prolific bloom season in spring, with pink, purple, and yellowish flowers that are nicely scented. Smaller bursts of flowers occur at other seasons. The purple stems and healthy evergreen foliage make it a very useful landscape plant.

South College Ave

2818

Hwy.

Horticulture Field Lab Garden

Hwy. 60 (University Drive) Texas A&M University

George Bush Drive

N

Hwy. 6

S

exas Ave.

The native coral honeysuckle (*Lonicera* sempervirens) is planted on a trellis at the entrance to the main greenhouse. Its coral-colored flowers are beautiful in spring, and attract lots of hummingbirds to the garden.



JANUARY / FEBRUARY 1999

Site Preparation for Fruit Tree Planting

By Dr. Larry A. Stein, Associate Professor & Extension Horticulturist, Texas Agricultural Extension Service

Before a fruit tree is planted, there must be adequate space. Most fruit trees require an area 25 feet by 25 feet; dwarfs need about 12 feet by 12 feet. The site must have full sun. And, a single peach tree can easily produce two bushels of fruit -- about one hundred pounds -- so don't plant too many fruit trees for your needs.

Fruit trees are best planted in January to allow time for root development prior to spring growth. During the previous fall, the site should have been prepared as follows: clear the site of perennial weeds, and till an area at least 4 feet by 4 feet well. Any hard pan (layer) beneath the soil should be broken up. Level the site, and till again. Organic matter may be added to the planting area, but it is unnecessary, and never add fertilizer. To allow for soil water drainage, the site may be built up so that the tree will be sitting on a small berm. Seed the site in annual rye grass.

At planting time in January, kill the rye grass berm area with glyphosate herbicide (the dead root channels from the rye grass allow for better water intake in the planting area). Plant the tree in the middle of the killed sod area in a hole as big as the root system, usually about 12 inches square, and at least 18 inches deep. Plant the tree and refill the soil to the same depth that the tree grew in at the nursery, being careful the tree does not settle too deep. In April or May, as the grass greens up, spray 3 or 4 feet around the base of the tree with glyphosate herbicide. It is critical that this be done if the tree is to perform well; if you do little else but maintain this weed-free circle around the tree, the tree will do better than if nothing at all is done.

The best tree to plant is the variety adapted to and recommended for your area; to avoid getting stuck with the luck of the draw at your local garden center at planting time, be sure to order fruit trees in September or October. Select mid-size trees; they are cheaper and grow better than the larger trees. And, it is far easier to cut 3- to 4-foot trees back to 18 to 24 inches, than to prune 5- to 6-foot trees. Such strong cutback is necessary to remove apical domi-



(Jood books are an invaluable resource for home gardeners and professional horticulturists, as well as, Extension agents and specialists. Marsha Harlow's survey of Texas horticulturists identifies the top 10 gardening books:

- 1. Neil Sperry's Complete Guide to Texas Gardening (Taylor, Dallas, \$36.95)
- 2. Perennial Garden Color by William C. Welch (Taylor, Dallas, \$29.95)
- Trees, Shrubs and Woody Vines of the Southwest by Robert A. Vines (University Press of Kansas, 14.95)
- 4. Manual of Woody Landscape Plants by Michael Dirr (Stipes Publishing, Champaign, Ill., \$39.80)
- 5. Sunset's National Garden Book (Sunset Books, Menlo Park, Calif., \$34.95)
- 6. Know It and Grow It by Carl Whitcomb (Lacebark Publications, Stillwater, Okla., \$60)
- 7. Field Guide to Texas Trees by Benny J. Simpson (Gulf Publishing, Houston, \$18.95)
- 8. Native Texas Plants by Sally Wasowski and Andy Wasowski (Gulf Publishing, Houston, \$45)
- 9. The Vegetable Book by Sam Cotner (T.G. Press, Waco, \$26.95)
- 10. Growing Fruits, Berries and Nuts in the South by George Ray McEachern (Gulf Publishing, Houston, \$12.95)

This article is an excerpt from an article in The Dallas Morning News by Marsha Murray Harlow, Bexar County Master Gardener and free-lance writer

Site Preparation for Fruit Tree Planting (continued)

nance, put the top in balance with a reduced root system, and force out strong vigorous shoots which are easy to train. The trees should have healthy white roots with no brown streaks. Also check for borer presence or damage. With proper care, it is highly possible for your fruit tree to fruit the second year after planting.

INTEGRATED Pest Managemen TURFGRASS MANAGER

By Gene R. Taylor, Ph.D., Department of Soil and Crop Sciences Texas ACM University, College Station, Texas

FOR THE

IPM is defined as a multi-disciplinary, ecologicallybased pest management system that uses all available methods to keep pests at non-damaging levels while minimizing the effects on man, the environment, and turf. A sound IPM program is based on the acceptance and tolerance of pests at damage levels which do not significantly reduce the quality of the turf. Once pest damage reaches a specific predefined level of infestation or damage, specific control measures may be taken, using pesticides only when control of the pests cannot be obtained with other non-chemical methods. It is this reduced reliance on pesticides which is an important factor in managing golf courses, parks, athletic fields, and landscapes for water quality. A sound IPM program will include:

- A written copy of the program defining all aspects of pest management
- Within the written document, a set of acceptable pest-tolerance thresholds (weeds allowed in the rough, or number of white grubs per square foot of turf, etc.)
- Non-chemical control measures to be taken for specific pest infestations
- Cultural practices which may help reduce the impact of some pests (aerification to reduce compaction — thus reducing goosegrass populations, planting of insect and disease resistant varieties of turfgrasses, sterilization of topdressing soils to keep weed seeds off of greens and tees, and other sanitary practices)
- Scout for pests frequently
- Keep accurate records of pest infestation found, actions taken, and results

The written copy of the IPM program is very important in that it requires the turfgrass manager to determine and write out all of the factors in his/ her program. The grounds manager should use the writing of the program to gather information from the greens committee, manager, and coaches as to what they expect from him/her in terms of proper pest management. The greens committee and club manager may help in determining pest threshold levels that are acceptable on the site. Once in written form, the plan will be a source of information and an educational tool for the grounds manager and staff about the proper management of pests in the landscape.

Thresholds are pre-set levels of acceptable pest damage or infestation which will determine when control measures must be taken. Thresholds will change from site to site; for example a few broadleaf weeds may be acceptable in a fairway or the rough but not on a green. Thresholds will also change from pest to pest; for example, a small outbreak of dollar spot on a green may be allowed without much concern or any control measures being taken, but an outbreak of pythium blight on a green would require instant applications of control measures.

Non-chemical control methods may include the use of mechanical or attractant traps for insects, the release of beneficial predatory insects or nematodes, and the use of biological insecticides such as Bacillus popilliae for control of white grubs. The planting of turfgrasses which are resistant to some pests is an important way to reduce the need for pesticides. There are several cultivars of tall fescue and perennial ryegrass on the market which are infected with an endophyte fungi, which makes them resistant to some surface-feeding insects. Unfortunately, there are a limited number of biological control methods available for turfgrass, and the ones available may be slow in control, and the golf course may be forced to accept some pest damage even with their use.

The cultural practices a grounds manager uses can significantly impact pest infestation. The simplest way to keep pest damage and infestation to a minimum is to keep the turf as healthy and stress-free as possible by effective use of basic cultural prac-

(continued on page 5)

Integrated Pest Management . . . (continued from page 4)

tices. The grounds manager must have a thorough knowledge of all of the turfgrasses on the site to effectively manage the turf. Mowing of the turf at a height which is too low may cause the grass to be under stress, which in turn makes the turf more susceptible to insect and disease infestation. A dense turf is one of the best controls for reducing weed infestation because it simply out-competes the weed. Aerification of compacted soils will help reduce populations of certain weeds, like goosegrass and spurge, and increase the rooting capability of the turf. The use of fans on greens which have poor natural air flow may reduce the stress on bentgrass turf by increasing transpirational cooling and drying out of wet soils; this will then reduce thinning of the turf, and reduce the chance of disease infestation.

There should be a written scouting plan for insects in the IPM program. Since most grounds managers are out on their site several times a day, they are able to look for problems constantly. But there are some problems the grounds manager may be able to predict, such as germination of crabgrass when soil temperatures reach 60 degrees F, or brown patch infections when daily temperatures and relative humidity are high. These predictable occurrences should be included in the IPM program so that other members of the staff will know when to look for them. The grounds manager should take the time to train his staff to look for potential pest problems.

Once a pest infestation is observed, the grounds manager should first record the pest type, infestation level, and location, and then determine if it is at a threshold level that requires control measures. If so, record the control measures taken and the results. It is important that the grounds manager keep these records, because they may help in predicting future pest problems and the best control measures to take. Mapping of pest populations may help the grounds manager determine problem areas, and reduce the need for blanket pesticide applications. If the grounds manager knows from previous years that crabgrass and goosegrass were problems on only certain areas of the playing field,

Landscape Design Study Course I

Program and registration forms for registration for Landscape Design Study Course I, which is being offered in Bryan, February 8-10, 1999 are now available. This program is co-

sponsored by Texas Garden Clubs, Inc. and the Texas Agricultural Extension Service. It is an opportunity for more in-depth training in landscape design than we normally include in the Master Gardener curriculum. There has been excellent representation from Master Gardeners in previous courses. The program has been approved to qualify for 12 hours of continuing education toward maintaining certification for Master Gardeners.

This is the first course in a four part series, although participants can begin with any of the four courses. The program is nationally accredited by the National Council of State Garden Clubs and offered at approximately six month intervals in the Bryan-College Station area. Should you have questions concerning the program contact Lenora Sebesta in my office (409) 845-7341 or Jacque Hand (409) 845-8904. Though we are late in getting this information to you and your Master Gardeners, we will be able to do better on timing in the future. We do know that Course II will be offered September 27-29, 1999. Thanks for spreading the word about this program to your master Gardeners and others who may be interested. We are pleased to offer
scholarships
for Course I to County Extension Agents with horticulture/and or Master Gardener responsibilities. This amounts to the course paying the \$55.00 registration fee for qualified individuals. We hope that this will be useful as professional improvement for you as we all strive to improve and expand our educational programs.

Integrated Pest Management . . . (continued)

he/she may elect to apply preemergent herbicides only to those areas. This will reduce the amount of pesticide required, the cost of application, and the chance of water contamination from the pesticide. Frequent outbreaks of pests on a given area may also indicate to the grounds manager that there are other possible problems with the turf and its environment, such as low soil pH, nutrient deficiencies, soil compaction, poor drainage, restricted airflow, or damaged or improperly-working irrigation heads.

ROSE CULTURE

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

PLANTING

If planting only a few roses, dig individual holes for them. Holes should be at least 12 inches deep and 18 inches wide. Mix about one-third organic material (peat, pine bark, or compost) with some of the soil from the hole, along with a gallon or two of well-rotted cow manure, if available. A half-cup of bone meal or superphosphate, thoroughly mixed with the soil, is a good addition. A similar amount of agricultural gypsum is beneficial for heavy clay soils.

Soil preparation can be done just prior to planting, but is more effective if completed several weeks or months before planting.

Spacing of the plants will vary with varieties. Most Polyanthas can be planted as close as 18 to 24 inches, while Chinas, Bourbons, Teas, Hybrid Perpetuals, Hybrid Teas, and Hybrid Musks are best at a 3- to 5-foot spacing, depending on the variety. Climbers and ramblers need more space to develop their potential. Eight to 10 feet is appropriate for most, but under good growing conditions, Banksias, Cherokee, and certain others could be spaced at 15-foot intervals.

Bare-root plants should be set out as soon after receiving them as weather and time allow. If a delay of more than a few days is necessary, remove the plants from the shipping bag and 'heel them in' by covering the roots and part of the tops with loose soil. Container-grown plants may be set out at any time, but most rose growers avoid the hot summer months, when extra irrigation and care may be necessary to insure success. Prune tops back an inch or two to just above a live and healthy bud on each cane. Cut back canes or roots damaged in shipping or handling to healthy tissue. Dig the hole large enough to accommodate the natural spread of the roots, and fill with the soil mixture described earlier. Firm the soil well around the roots, and water thoroughly to remove air pockets and settle the soil firmly around the root system. Set plants at approximately the same level at which they had been growing, or slightly deeper.

FERTILITY

Roses are heavy users of nutrients and require frequent application of fertilizers. To determine fertility of existing soil, contact your county Extension agent for instructions on submitting a soil sample.

Do not apply fertilizers until the first set of flowers begins to fade for everblooming types, or in the case of once-blooming roses, 8 to 10 weeks after planting. A heaping tablespoon per plant of a complete fertilizer, such as 6-10-4 or 8-8-8, may be applied every 4 to 6 weeks until about September 1. Application after that time can promote soft fall growth that may result in freeze damage. The time-honored fertilizer for roses is well-rotted cow manure. Since manure may not be available, commercial fertilizers have become popular. Phosphorus is the material that helps plants develop strong, healthy roots and prolific flowering. Superphosphate is usually available, and can be applied at the rate of 3 to 4 pounds per 100 square feet. Since phosphorus is not very mobile in the soil, it should be well mixed during preparation.

Nitrogen is easily and quickly depleted from the soil, and needs to be applied periodically during the growing season. It is necessary for more and bigger canes, stems, and leaves. Slow-release commercial fertilizer or natural materials, such as cottonseed meal, last longer and require fewer applications through the growing season.

Potassium is needed for promotion of new growth, disease resistance, and cold tolerance. All 3 nutrients (nitrogen, phosphorus, and potassium) are included in balanced fertilizers. Many rose growers apply a balanced fertilizer every 4 to 6 weeks during the growing season.



JANUARY / FEBRUARY 1999

-ť

JANUARY / FEBRUARY

BY DR. WILLIAM C. WELCH

Now is an excellent time to transplant mature or established trees and shrubs while they are dormant.

Make flower and vegetable garden plans now before the rush of spring planting. Time spent in armchair gardening before the fireplace will pay off in improved plant selection. Besides, it is fun to page through the garden catalogs.

- ✓ Sow seeds in flats or containers to get a jump on plant growth before hot weather arrives. Petunias, begonias, and impatient should be sown in early January. Warm temperature plants, such as tomatoes, peppers, marigolds, and periwinkles, should be sown in late January or early February.
- Apply a light application of fertilizer to established pansy plantings. Use one-half pound of ammonium sulfate per 100 square feet of bed area. Repeat the application every 4 to 6 weeks, depending on rainfall. Dried blood meal is also an excellent source of fertilizer for pansies.
- ✓ Prepare beds and garden area for spring planting.
- Select and order gladiolus corms for February/March planting. Plant at two-week intervals to prolong flowering period.
- Check junipers and other narrow-leaf evergreens for bagworm pouches. The insect eggs overwinter in the pouch, and start the cycle again by emerging in the spring to begin feeding on the foliage. Hand removal and burning of the pouches are ways of reducing the potential damage next spring.
- ✓ The life of the plant received as a Christmas gift can be prolonged with proper care. Keep the soil moist, but provide drainage so that excess moisture can flow from the pot. Keep the plant out of range of heating ducts and away from heating units. Keep in a cool room at night, preferably at 60 to 65 degrees F.
- Don't fertilize newly set out trees or shrubs until after they have started to grow, and then only very lightly the first year.
- When buying plants, the biggest is not always the best, especially when dealing with bare-root plants. The medium to small sizes (4 to 6 feet) are usually faster to become established and more effective in the landscape than the large sizes.
- ✓ Prune bush roses during February or early March. Use good shears that will make clean cuts. Remove dead, dying, and weak canes. Leave 4 to 8 healthy canes, and remove approximately one-half of the top growth and height of the plant.
- ✔ Now is an excellent time to select and plant container-grown roses to fill in those bare spots in your rose garden.
- ✓ When pruning shrubs, first prune out any dead or damaged branches; then thin out by removing about one-third of the canes or stems at ground level, removing the oldest canes only; and last, shape the rest of the plant, but do not cut everything back to the same height.
- ✓ Plant dahlia tubers in late February and early March.
- In Central and South Texas, the following flower seeds may be sown directly without protection in well prepared flower beds in February or March: nasturtiums, annual phlox, California poppies, coneflowers, and larkspur. Petunia plants may be set out in sunny, well drained locations, with little chance of cold damage except in far North Texas.
- ✓ Water foliage plants as well as other containerized plants only when needed and not by the calendar.
- Climbing roses should be trained but not pruned. Weave long canes through openings in trellises or arbors and tie them with jute twine or plastic/wire plant ties. Securing canes now prevents damage from winter winds, and contributes toward a more refined look to the garden when roses are blooming. Wait until after the spring flowering period to prune climbing or once-blooming shrub roses.

TEXAS AGRICULTURAL EXTENSION SERVICE UNITED STATES DEPARTMENT OF AGRICULTURE THE TEXAS A&M UNIVERSITY SYSTEM COLLEGE STATION, TEXAS 77843

OFFICIAL BUSINESS PENALTY FOR PRIVATE USE \$300 Address Services Requested BULK RATE POSTAGE & FEES PAID USDA Permit No. G-268

Educational programs of the Texas Agricultural Extension Service are open to all people without regard to race, color, sex, disability, religion, age, or national origin. Issued in furtherance of Cooperative Extension Work in Agriculture and Home Economics, Acts of Congress of May 8, 1914, as amended, and June 30, 1914, in cooperation with the United States Department of Agriculture, Zerle L. Carpenter, Director, Texas Agricultural Extension Service, The Texas A&M University System.

JANUARY / FEBRUARY 1999

In this issue . . .

Plant of the Month: Violet	Page 1
Texas Pecan Shortcourse	Page 2
Pre-Emergent Herbicides	Page 2
Vines of Interest at the Horticulture Field Lab	Page 4
Site Preparation for Fruit Tree Planting	Page 5
The Top Ten Garden Books	Page 5
Integrated Pest Management for the Turfgrass Manager	Page 6
Landscape Design Study Course I	Page 7
Rose Culture	Page 8
Garden Checklist	Page 9

Lawn and Garden Update is a publication of the Departments of Soil and Crop Sciences & Horticultural Sciences, Texas Agricultural Extension Service, The Texas A&M University System, College Station, TX. Contributing Editors: Drs. Gene R. Taylor, William C. Welch, and Douglas F. Welsh

Ween Cleler

William C. Welch, Editor for January / February 1999