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Winter 2009 Highlights...

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Community Spirit CHRISTMAS TREE RECYCLING GROUP

Each year a group of community minded business people volunteer their time, resources and energies in order to help our environment. This group is organized by the Springs Preserve and is comprised of a number of local businesses and agencies with the sole purpose of encouraging the purchase of old-fashioned farm grown Christmas trees and then having them recycled. This practice keeps our landfills from becoming overrun and the tree farms are instrumental in reducing our carbon dioxide levels.

There are logistics to be worked out like; Where is the equipment to chip these trees into mulch going to come from? And where can we stage the receipt of this material and where can we chip or cut them into mulch? The publicity required comes from billboards, newspapers, and radio in addition to television, posters and handouts. The many hours of effort behind the scenes is donated by tireless local citizens and businesses and Star Nursery is proud of them all. Visit **www.StarNursery.com**. At the bottom click on Christmas Tree Recycling Information.



For all your Online Garden Accessories go to www.StarNursery.com

Winter Color Sprucing up your Home Landscape with Annuals

There is nothing quite like coming home from work to see beautiful color beckoning your arrival, but the onset of cold weather typically means that our landscapes will become dreary for the next four months or so. This does not need to be the case. There are several "easy to plant and care for" flowers that just love our winter temperatures.

Winter flowers like pansies and snapdragons add lots of color for those high traffic and visible areas of your yard. Violas and their larger sister Pansies are annuals and easy to maintain and change out when summer finally gets here, while snapdragons are perennials so changing them is not required if you put them in the right places.

Other winter flowers include Iceland Poppies, Stock (or Matthiolas) Cyclamen, Calendula, and English Primrose.

Don't overlook Ornamental Cabbage or Kale (see below) for winter color. You'll notice that kale will have a more ruffled edge than cabbage, but otherwise their growth habits are about the same.

These beautiful plants also excel in our Desert winters and stay vibrant and colorful through May.

Snapdragons absolutely love our winters. They will bloom from fall through late spring and help keep that high visibility area in front of your home colorful and attractive all winter.

They come in a variety of colors and heights, from dwarf that grows to about ten inches to tall that will top out at 18 inches or more.

Because snapdragons are a perennial here, if you put them in a location that gets afternoon shade they'll stay for several years.

Stock is not only a beautiful addition for winter color, but it's fragrance is powerful and charming.

Ornamental Cabbage



Ornamental Kale



Pansies are constant favorites because of their bright colors and varied faces. The colors will run the rainbow allowing you to create a stunning effect for those viewing your landscape.

Pansies do not get very tall so you can plant them in front of Stock or Snapdragons without hiding them.

Now that you're interested in putting some color into your winter landscape, what's involved? Well, the first thing of course will be taking a trip to Star Nursery to buy the flowers you want to add.

You'll need to clear out the old flowers or plants to make way for the new. Like they've done here at Angel Park Golf Course.

Add some organic compost to the dirt. If the soil hasn't had plants before; add a lot of organic amendment. Rich soil helps to make healthy flowers.

After you've dug a spot for the new plant (about twice as wide as the pot), add a little starter fertilizer to the bottom of the hole. Then gently remove the plant from the nursery pot, and simply plop it into the ground and fill around it with your amended soil.

Because you have provided enough space for growth between each plant, when you're finished it will look a lot like the photo above. Use slightly moist soil and irrigate quickly following planting. Keep moist the first week, but don't drown your plants. Use a moisture meter.

In order to help make your gardening experience more successful and easy, Star Nursery has assembled the "Planting Partners" for you. Paydirt[™] is a fully composted (meaning safe for your plants – containing no weeds or insects, and a low carbon ratio) organic amendment. Gold Dust® is an excellent starter fertilizer, specifically developed for desert soils. Dr Q's Plant Tonic is the ultimate micro nutrient supplement, and will

See WINTER COLOR, *continued to page 3*



Cold Winter Nights in the High Desert

Is your landscape and irrigation system ready?

Using the winter of 1990/91, many of our valley areas reported 0°, and below 17° day and night for about a week. The winter of 2006/07, though not as severe as 1990, reminded us that we can get some very cold temperatures (in low teens in some areas) even if they don't last too long. That winter even brought below freezing temperatures to the Phoenix area and many plants were lost. We live at an elevation of over 2,000 feet and winter cold, or at least very cold periods, are not uncommon.

You can protect yourself against winter plant loss and irrigation system damage while keeping your yard looking its best with a little preparation. Prevention is much less expensive than replacement and repair!

Because of our normally mild winters most of the common landscape plants here are not adapted to a cold winter. They can be more easily damaged in a hard winter or often just a one week cold snap. The cold hardiness of individual plants varies in direct relation to that plant's general state of health. Proper plant choice and placement, combined with suitable watering, regular fertilization and appropriate pruning can produce a landscape better able to handle the rigors of a cold winter.

Infrequent Winter Watering is Essential for Healthy Plants. Cooler weather requires that you dramatically reduce the frequency of your irrigation system. Decreasing the minutes that you water should only be done if run-off is observed. Insufficient watering depth encourages salts to return to the root zone causing leaf damage the following summer. Infrequent yet adequately deep watering helps to preserve plant health through the winter. Water too often and your plants will fail to breathe properly; this will weaken them substantially. Disease can also begin due to overwatering. First frost can come in early November, so if you haven't made this adjustment get to it! The last frost is usually in late February or early March; weekly watering is plenty during this period.

Keeping your Lawn Green. If you want to keep your fescue lawn green through the winter, the most important thing is the type of fertilizer and when you apply it. Though fescue is not frost tender, without adequate nitrogen, it will go dormant after the first hard frost and be difficult to green up again before spring. Applying the right fertilizer too late doesn't have much effect! In order to make sure your fertilizer gets to the root zone of your lawn, it's a good idea to rake thoroughly first. Good quality fertilizers like Dr. Q's WinterGemTM (21-3-7) and Best Nitra King® (22-3-9) are formulated for winter application. Many who care for lawns have used Ammonium Nitrate (30-0-0) to give a lawn it's deep green in the winter. Due to concerns with the potential explosive nature of this product Star Nursery now provides a safe product called "CAN 27" that contains just enough calcium to prevent this risk with virtually all the nitrogen. Apply these high nitrogen products in November, December and mid January only – never in warm weather!

Shrubs, Trees and Vines. It's important to give soft, green summer growth the chance to **harden up.** Soft growth is easily damaged by frost. You can help harden up your plants for winter in two ways; Water very infrequently and fertilize in the fall with a low nitrogen, high phosphorus and potassium fertilizer like Dr. Q's Desert Food. Also, when you fertilize, check the condition of your tree stakes and vine trellises. Cold weather is often accompanied by strong winds.

Mulch is another important tool in preparing your landscape for winter. Surface mulch, over the root zone of plants, keeps the ground from freezing and allows root growth to continue all winter.

Be careful about what you prune! The only plants that should be pruned in the winter are deciduous trees and shrubs. These should be pruned around New Years, when solid dormancy is likely to have occurred. Do not prune evergreens or desert plants until early spring.

Desert Plants. Most desert type plants grow whenever water is available to them. Since new growth is frost tender, limit the water and fertilizer given to these plants, especially cactus, during the winter. Most desert-adapted species can survive a cold winter well with one good soaking at the end of October or mid November, then no more water until late February. This is particularly true for cacti, which may look shriveled, but will survive severe cold much better when they are a bit dehydrated. Spring watering will resuscitate them quite nicely! Often we may experience a rather warm winter. Your watering schedule will need to adjust for this. Warm winter watering for desert type plants can be as often as two times per month. Do not prune desert plants in winter. It induces soft new growth that can be damaged by cold weather. In early spring, apply a specialty fertilizer like Dr. Q's® Desert Plant and Cactus Food to get those showy blossoms.

Container Plants. Plants in containers are subject to an even greater set of extremes, since they are not surrounded by a mass of insulating earth. All subtropical and tropical patio plants should be moved inside or to a windowed garage for the winter, where they can be protected from freezing temperatures. Some plants may show symptoms of shock when moved indoors but will typically recover. When you bring them back out in the spring, expose them gradually to the sun, or they can burn.

Tropical and Subtropical plants: Here in the high

Community Associations & Seasonal Events

Springs Preserves – Desert Demonstration Gardens

333 S. Valley View Rd., Las Vegas

Winter Lights Festival — Admission is \$4 adults, \$2 children The Lights Festival is open from 6 p.m. - 9 p.m. Friday through Sunday (beginning the 14th) then every day during Christmas week, December 24-30. Contact: (702) 822-7700

Star Nursery — all Nevada Stores

See locations and telephone numbers on back page of this publication

Rose & Fruit Tree Pruning and Winter Care

Our specialists will get your roses in shape for a gorgeous spring. Saturdays: January 10, 10 a.m. & 2 p.m. and January 17, 10 a.m. & 2 p.m. Contact: (702) 568-7000; e-mail: comments@StarNursery.com

University of Nevada Cooperative Extension

UNLV Campus, 851 E. Tropicana Ave., Las Vegas

17th Annual Pruning Seminar for Professional Gardeners Friday, January 9, 2009, 7:15 a.m. - 3:30 p.m. English & Spanish Contact: Karen Dyka, (702) 257-5530 or go online to **www.StarNursery.com** for details. desert tropical plants like Strelitzia (Bird of Paradise) and evergreen hibiscus are classified as "frost tender" and if planted outdoors grown as annuals. Sub-Tropicals like citrus, bougainvillea and others are also very tender to frost, but may actually survive if grown in the right location and cared for properly. If you have them planted in the ground, protect their roots with a heavy layer of mulch, and be prepared to use physical cold barriers, like burlap, thermal plant blankets or in the case of a vine like bougainvillea try using an inverted nursery pot filled with mulch to keep the base of the plant warm. Protection should be used if the temperature is expected to drop below 35° on any night. It is preferable that the blanket or burlap not be put directly on the plant. Below 32° moisture falling onto the foliage will initiate crystallization inside, this same process can begin where the burlap comes into contact with leaf tissue.

Most Palm Trees are classified as sub-tropical, but several local varieties are quite cold hardy. The Windmill Palm, Canary Island and Pindo are a few examples. Star Nursery now carries Palm Parkas that can be applied to the more cold tender palms like the Queen. Apply these at the heart of the tree in November and leave them on (if you like) until the last frost.

In an extreme cold snap, even extreme measures may not be enough to save tender sub-tropicals. Most should not be allowed to dry out during the cold weather as their roots are not very active and the drought stress will be more severe.

Annual flowers and vegetables. Tomatoes, eggplant, corn and other summer vegetables will blacken after first frost. Replace them with suitable winter vegetables, including broccoli, cabbage, carrots, radishes and lettuce. Most of these can withstand our normal winter weather, although extreme cold can completely stop their growth until spring.

Re-plant summer flowerbeds with hardy winter varieties like pansies, stock, kale, and primroses. Freshen up the soil with some Pay Dirt[™] and use Gold Dust[®] Starter Fertilizer to help get them off to a good start.

Irrigation systems. Because the ground seldom freezes here, irrigation systems are often not properly installed. In a proper installation, all pipes should be buried six to eight inches deep or permanently covered, with a drain valve installed at the low end of each line.



Pressure Vacuum Breaker (PVB) valves exposed to the elements need to be protected to avoid messy and expensive repairs. A Frostbite PVB Protector is ideal for this.

You can also use a product like Insulated Foam Pipe Wrap to protect exposed pipes. Because it is self adhesive, it's easy to install (also good for reducing heat loss on exposed hot water and water softener pipes). Exposed lengths of PVC pipe can be protected by prefabricated Tube Pipe Insulation. If a hard freeze is in the forecast, close the valve to your system. Then drain your drip system by removing the end cap. This will prevent damage to soft pipes by the expansion of frozen water.

WATCH WEATHER FORECASTS! Severe cold weather is often preceded by many hours of steady, strong wind from the north. If you observe this or hear that cold weather is expected (<u>www.weather.com</u> is a good source), move quickly to— protect your plants. Soak the ground around non-desert evergreens and sub-tropicals. Use Palm Parkas, blankets and burlap for protection. Remove these coverings during the day unless the wind is blowing or the temperature remains below 30°. Do not walk on lawns covered with frost, since footprints will be visible after the thaw.

Selecting and Recycling your Christmas Tree

t's that time of year. The nights are cold and supper is hot and delicious. If you're like me, you try to avoid eating too much, but everything tastes too good. There are plans for getting together with family and friends, and plans for picking out just the right Christmas or Holiday tree. Let's look at that.

First let's look into what is environmentally the right thing to do. What happens to our country and planet if we keep cutting down trees? Well, in regard to trees that are grown specifically for this season, our planet is given precious extra oxygen and a reduction in carbon dioxide! How? All the trees that Star Nursery purchases in order to provide our customers a family centered holiday season are "farm grown." This means that each tree cut is replaced with a tree planted.

Pine trees that are cut down for Christmas nowadays are grown on tree farms. These tree farms are in business with the sole function of planting, cultivating and then harvesting evergreen trees for Christmas.

The process is very similar to any other farm. There is a continual rotation of plants; from seedlings to readyfor-the-season trees. Sometimes this takes seven or more years, and during this time these trees are doing their part to reduce carbon dioxide and produce oxygen. It is solely due to Christmas Tree sales that these tree farms, and the trees they grow even exist.

So, now that we know we're doing our ecological part – how can we select the right tree? As with many things a little planning is the best place to start.

First look around your home and find out where you want to put your tree. There are a couple issues to consider when you're doing this. If you put your tree where there is a lot of air movement, like near an air conditioning duct, it will dry out much faster. You also don't want it in a high traffic spot, where people are constantly brushing up against it. Once you have eliminated the places you don't want it, this will make your choice much easier. Measure the spot that you've selected for height and width. Guessing about what size tree is just right can leave you with some challenges you'd just as soon avoid.

Many families come into Star Nursery to select their tree every year as a matter of tradition, and we do our best to see that their tree is healthy and beautiful, and provide a fresh cut for good water uptake. No matter where you go to purchase your cut tree however, make sure you check the freshness of the tree as well as the beauty and shape, so that you have safety as well as joy from your selection.

If you have large ornaments to hang, you may want to look for a tree with more spacing between the branches. One thing; Often a tree at the nursery may be placed on its stand "off-vertical" due to a poor initial cut,

WINTER COLOR, *continued from page 1*

assist new plants during that sensitive transplant period to avoid shock.

By making sure to use all three of these amendments, you're optimizing your chance of success!

Having a reasonable amount of evergreen plants to keep your yard green during the winter is a good idea. Adding winter color to those highly visible areas in your landscape is very smart when you'd like to make your place a standout and improve the quality of your neighborhood. And changing annuals is not a difficult



First you'll need to clear out the old flowers or plants to make way for the new, like they've done here at Angel Park Golf Course. Add some organic compost to the dirt. If the soil hasn't had plants before; add a lot of organic amendment. Rich soil helps to make healthy flowers.

After you've dug a spot for the new plant (about twice as wide as the pot), add a little starter fertilizer to the bottom of the hole. Then gently remove the plant from the nursery pot, and simply plop it into the ground and fill around it with your amended soil.

this can be easily remedied before you leave the store or lot. However, if you see that the tree has a curved trunk, getting the tree to ultimately look straight may be impossible! Compare your selection with your spatial measurements – you do want it to fit!

Now that you have found a tree that appeals to you, make sure it's fresh. A few inner brown needles are normal so need not be concerned with this. To begin checking your tree's freshness, run your fingers through the branches; shake the tree to remove these dead inner needles. Now, the needles remaining should be flexible and not fall easily. Raise the tree a few inches off the ground and drop it on the butt end. Very few green needles should drop off the tree. The branches should all be very flexible.

Grasp a branch with your thumb and forefinger and pull it toward you to check for flexibility. If the green needles continue to come off after your initial gleaning, or the branches are just too stiff; Choose a different tree.

When you purchase your tree, make sure to get that "fresh cut" on the base of the trunk to allow for water uptake.

• Once home, place the tree in water immediately. Most species can go 6 hours after cutting the trunk and still take up water, but every minute counts.

• Don't bruise the cut surface or get it dirty.

• Always keep an adequate supply of water in the tree stand.

• Dr Q's Plant Tonic or other tree preservatives can help keep the pores of the trunk open, but won't do any good if you don't keep water in the tree stand AT ALL TIMES.

• For prolonged life, keep your tree out of hot locations such as south or west-facing windows or near fireplaces.

When a Christmas or Holiday tree is no longer magical with ornaments and lights, it's too often tossed into the garbage. Think about the example you set for your children when you decide what to do with your old tree. You spend great energy and effort to teach your children to be considerate and responsible. The decision as to what to do with your tree is also your responsibility! Give your old tree a new life! It truly can be an example of the continuance of the cycle of life, as a tree returns to mulch. Show and teach your family that caring for our environment is a community affair, and recycle that tree. For more recycling information, call the Springs Preserve at (702) 822-7700 or visit <u>www.StarNursery.</u> com and click on "Corporate Info" then "Links" for a listing of locations.

Once you are finished with your tree, don't just throw it away – Recycle It!

thing. Because these are single season plants, they will not have deep roots when it comes time to putting in some summer annuals. As you can see from the photos below the changeover is kind of like changing bulbs in a lamp. If you want to know more about winter annuals, irrigation and any of the other issues related to sprucing up your landscape or garden log onto <u>www.starnursery.</u> <u>com</u> and click on "Best Advice." The Seasonal Gardening Tips and Star Notes are provided free to help improve your gardening experience and success.



Because you have provided enough space for growth between each plant, when you're finished it will look a lot like the photo above. Use slightly moist soil and irrigate quickly following planting. Keep moist the first week, but don't drown your plants. Use a moisture meter.



- Only from Star Nursery -

Groundwater Safe! The many benefits of Dr. Q's Fertilizers



If you have noticed the fertilizer sections in the various Star Nursery stores that you've shopped, you noticed that we stock a large variety of Dr Q's fertilizers.

Dr. Q's fertilizers are formulated specifically for desert soils and water in order to efficiently transfer

nutrients into plants with a minimum of loss of nutrients into the ground water. This results in smaller application rates, longer lasting results and much less leaching. Our fertilizers are designed to succeed in harsh desert soils where the pH is high and drainage is often poor. With soils that are often described as "sterile," we found out how to bring them to life!

Environmentally friendly no longer needs to mean "poor performance;" With Dr. Q's fertilizers you can have the best of both worlds. Safe and effective!

Our fertilizers are designed and tested to be so safe that most of them are registered for sale as "ground water safeTM". With increasing concerns about high levels of nitrogen in our drinking water we engineered a fertilizer line that helps keep our drinking water pure. Unique in the Desert Southwest!

ENVIRONMENTAL SAFETY

Misuse and over-application of lawn and garden fertilizers is a leading cause of environmental contamination. Extensive testing beginning in the early 1950's by the National Fertilizer Institute concluded that 60% of synthetically derived nutrients, i.e. N. P. K, leach away before plants can use it. The result has been contamination of nitrates and phosphates in underground water supplies, lakes and coastal eco-systems.

A major cause of ground water contamination is a fertilizers' heavy metal content. Many sources of mined nutrients i.e., phosphates, potash, calcium, iron, sulfur, zinc, etc., contain quantities of toxic heavy metals that will eventually accumulate in ground water. The manufacturers of Dr. Q's fertilizers restrict their ingredients to materials that are extremely low or completely free of heavy metals.

Our manufacturer has been instrumental in lobbying for new state laws that restrict all fertilizers' heavy metal content. Through their efforts, and along with other industry partners, many state regulators are now testing for the following metals in an effort to insure cleaner fertilizer products:

Molybdenum	Arsenic	Mercury
Nickel	Selenium	Lead
Zinc	Cadmium	Cobalt

Many so called "Organic" fertilizers are made using "natural" materials that are primarily water insoluble. The slow availability of these materials leads some customers to believe that they are always ground water safe. But are they?

It's true that organic nutrients leach out of the soil many times slower than synthetic nutrients, but it is important to check all organic materials for biological contaminations (salmonella, E-coli, Listeria, etc.) and animal drug residue.

Read our labels! What you will discover is that you are about to purchase a product that truly has been produced to be safe. When you have tried them on your trees and shrubs, on your vines and your veggies, then you'll also discover how effective they are.

Raised **Planting Beds**

A great option where soils are poor

Las Vegas Soil. Although there are many varieties of soil throughout the Desert Southwest, for the most part our soils are rock and clay. Drainage is very poor and the soil is compacted and hard to dig. To simply dig this soil up, then again replace it around a new shrub or tree is to beg for trouble. It will likely repack, and return to the extremely hard, non-porous, non-breathing soil that it was before. In those few landscapes where the soil is extremely sandy and fast draining, something must be done to improve the soil's ability to retain water, or it is very likely to have plants that die of thirst.

Functional soil, which is not native here for the most part, is an extensive ecosystem consisting of minerals, bacteria, fungi, protozoa, nematodes, arthropods, and earthworms. All these interacting, and each performing a vital function. A functioning soil is able to transport nutrients to the plant, protect roots from diseases and parasites, produce hormones that help plants grow, break down pollutants, retain and improve good structure, and in the Desert Southwest help organic matter to decompose in order to keep pH at tolerable levels. A balance of sand, silt, clay and organic material is also required for optimum plant health.

Often trying to establish functional soil throughout our landscape is very difficult and expensive. With most plants we simply amend the soil around the base of the plant, and hope it grows out. There are techniques to succeed here with shrubs and trees, but what about an edible plant or flower garden? Well, if what you are trying to grow is a garden for smaller plants like this, the answer just might be to build a raised planting bed.

Raised beds can be constructed from a variety of materials. When using a wooden framework, generally some type of wood sealant is recommended to protect against decay. Avoid using railroad ties where the plants in your raised bed are to be eaten.

Most often when using Windsor block the easiest way to guard against corrosion is to line the inside walls with plastic. This keeps our high mineral water from staining the blocks.



Windsor block

An excellent method for supplying irrigation for a raised bed is with a dripperline product like Netafim®

The line can be sub-surface or laid right on top (below left). Each emitter outlet is spaced between 6 and 24 inches apart depending on brand and type, so that all applications and soils can be used.



Select the right location for your garden. Smaller plants usually do much better with afternoon shade, although there are many that thrive in full sun. Know what you want to grow. Decide what size area you need to accomplish your plan. You can calculate the amount of soil required by multiplying the length, width and height in inches then dividing by 1,728 to get cubic feet. Or you can ask our salespeople to help you determine See RAISED BEDS, continued to page 6

Don't Let Weeds Get Started!

Winter is the time to do something

hat is a weed anyway? Here in the desert where it is often so hard to get anything to grow well, this is a very valid question. The answer is really; "a weed is any plant growing where we don't want it." Actually we should probably add a few characteristics like; weeds are invasive and spread themselves easily

- weeds are hardy and do not require much cultivation to survive. Sometimes plants classified as weeds are actually quite beautiful, but difficult to control.



spread by seeds. Many of them are annuals (in that they will not survive more than season) and without getting restarted through seeding, they would not be

much of an issue. Have you ever gone out into your yard and killed all the weeds only to see them return in a few weeks? This is very probably because the weeds had seeds and the herbicide that you used to kill the living plant/weed did nothing to prevent the seed from germinating and producing new weeds.

During the winter most of the seeds from the annual weeds lay on the ground dormant. It is typically too cold for them to germinate so they wait until spring.

In Star Nursery's chemical aisle You will find in addition to the regular post-emergent weed killers, our pre-emergent weed killers. Here is how they can be so helpful to you in your attempt to control weeds.

Pre-emergents prevent seeds from germinating. It's that simple! They typically do not have any postemergent herbicide in them so they do not harm any of the active plants in the area (whether those plants are



desirable or not). So, provided you read the label, you don't need to worry about hurting plants that you want to grow and thrive, when you apply a pre-emergent. Also these type herbicides generally last for up to four months in the soil, so only a few applications take care of your problems for a long time.

Just when is the best time

to apply a pre-emergent? Lets consider when seeds are likely to germinate. Cold temperatures inhibit most seed germination, so though they may be lying on the soil waiting, it is unlikely they'll be doing much without a little warmth. Warmer days can often begin as early as February. The other thing they usually need is a little moisture. They can get this by being located near other irrigated plants (lawn and shrubs) so even though we don't have much rainfall here they have lots of opportunity to get started.

By applying 4 month pre-emergent in mid to late February to those areas of your landscape where you do not want volunteer plants, you can effectively control these type of weeds though June. Another application in late June will give you control until late October. Whether a third application is needed will likely depend on our temperatures in early November. If it gets cold

early, you can probably get away without a fall application.

Spurge (right) is one of the bigger lawn nuisances here and it is very controllable with pre-emergent. If you have ever pulled spurge



See WEEDS, continued to next page

Did You Know? About the Life Cycle of an Aphid?



Aphids spend most of their lives with their beaks stuck into leaves and stems, sucking out plant juices and producing honeydew.

There are over 400 species and varieties of

aphids. The information presented here is typical for those commonly encountered as garden pests.

In spring an aphid egg hatches, producing a wingless female aphid who soon begins producing new wingless females without the aid of fertilization from a male (parthenogenesis).

Generation after generation of wingless females survive one another until hot weather comes or maybe the plant on which they are living dies and then suddenly some of the females grow wings and fly off.

The female nymphs feed on the shoots and leaves of the tree on which they hatch, at the time when the buds are sprouting. After a series of ecdyses (moults) they become mature and give birth to female aphids without any fertilization from a male. This kind of reproduction is called parthenogenesis.

The females are not produced from eggs but are born alive as nymphs. Females grow quickly and have offspring, again by parthenogenesis. Some of these develop wings which grow larger at each moult. When an aphid moults they leave behind their old skins which are often mistaken for an insect itself.

The winged females will have two pairs of wings. The pair behind are quite small. Aphids are not strong fliers but are generally moved by random air currents rather than making intentional flights.

When each winged generation reach a new food source they give birth to other wingless females without fertilization. In warm weather these mature quickly and begin to reproduce in the same way by bearing winged daughters which fly off and infest new plants, often different than their winter host. A newly born aphid becomes a reproducing adult within about a week and then can produce up to 5 offspring per day for up to 30 days! This process goes on throughout the summer. Enormous numbers of aphids are produced in this way. This population explosion may be reduced dramatically by birds, ladybugs and their larvae, lacewing larvae or human intervention.

It was calculated that if all the descendants of a single aphid survived during the summer and were arranged into a military formation, four abreast, their line would extend for 27,950 miles.

In early fall the first male aphids will appear in the reproduction process. These are winged, and fly to a food source plant. Sexual reproduction then takes place. The mated females return to the winter plant-host (if they mated away from it) and they lay fertilized eggs. The eggs are typically black, with thick shells and can withstand extremes of temperature. It is in the egg form only that aphids pass the winter.

Then next spring the females hatch from the eggs and the cycle begins again, with no males in sight. In March the eggs hatch out into wingless female nymphs which are similar to the adults, with three pairs of legs, compound eyes, antennae, etc. There is no larval or pupal stage comparable to those of the butterfly, but with successive moults and continuous growth the nymphs become mature females. No males are hatched at all.

DECEMBER

Over watering your lawn will contribute to fungus. If you detect fungus use a good fungicide before you lose your lawn.



Plant Pansies, Snapdragons and Stock all winter

Water between 8am and 10am. Avoid causing ice!

♦ Water plants the day before a predicted freeze. Plants tend to dehydrate when roots are more dormant, also moist soil will store up heat from the sun's energy and release it at night.

Fertilize winter lawns to maintain good color.



When selecting a Christmas tree, make sure it's fresh. Gently grasp a branch with you thumb and forefinger and pull it toward you. Few, if any needles should come off in your hand.

▶ Keep Christmas trees fresh. Have an inch cut off the bottom at purchase to allow for water uptake. Use Dr Q's Plant Tonic in the water to stimulate water uptake.

JANUARY

Recycle your Christmas & Holiday trees. See our website for a listing of locations!

Protect tender succulents and cacti from cold by covering them with N-Sulate.

Gray aphid population explodes in a warm winter. Try a long lasting insecticide like Bayer Rose & Flower Insect Killer, so you don't need to spray so often.



NTER Calendar

Prune your roses to get the most out of them next season – don't forget to fertilize with the "Rose Potion".

Prune deciduous fruit trees: Apples, Peaches, Pears, etc.

It's not the time to prune citrus, but you can remove suckers and watersprouts.

Use Daconil and Volck oil where appropriate to prevent disease and insects from ruining next years crop.

Check out our Rose and Fruit Tree seminars this month to help (see events section)!

Some leaf drop is normal for citrus particularly in the late winter/early spring as new leaves are pushing out. Extra heavy leaf drop could be due to a variety of circumstances: from improper watering to improper fertilization.

Young citrus trees should have trunks wrapped and foliage covered only if a hard freeze is forecast-28 degrees or lower. Use burlap. A mature citrus tree, older than 6 years, will survive with minimal damage.

FEBRUARY

Get your house plants off to a good start this year by repotting them into slightly larger containers. Use a high quality potting soil like Filthy Rich™. Don't water them with salt softened water.

Time to get the soil ready for vegetable and flower beds. For each 100 square feet of soil, sprinkle four pounds of 16-20-0, ammonium phosphate and treat soil with IronWorker™. Top this off with three inches of organic mulch. Mix it together well and then water.



Seeds to sow: African Daisies, Alyssum, Basil, Carnation, Delphinium, Gaillardia, Gloriosa Daisy, Hollyhocks, Larkspur, Lupines, Nasturnium, Pansy, Petunia, Phlox, Poppy, Scabiosa, Shasta Daisy, Snapdragon, Sweet William, Verbena, Viola.

Help to produce more blooms when you freshen up flowerbeds by removing faded or spent blooms.

Prevent powdery mildew that may appear on new rose growth, grapes, cucumbers, citrus and euonymus by keeping over-spray off your plants.



Treat mildew infected plants with fungicide like Neem oil.

Dark green veins on a light green or yellow leaf for an evergreen plant (including citrus) may be expected because of the cold soil.

A false spring can be expected where we get temporary warm weather, but this doesn't mean we're out of the woods for possible freezes. Be

prepared to rush out and cover those frost-tender plants when forecasts warn.

Sign up for Star Nursery news alerts at www. StarNursery.com

Late February is the time to fertilize deciduous fruit and nut trees. Use Dr Q's Fruit and Nut fertilizer; It's developed for our poor soils. Apply according to rates on the bag.

Pecan trees and grape vines need extra zinc to help them produce their best. Use Dr. Q's Plant Tonic.



WEEDS, continued from previous page

you may have felt the many seeds this plant has. It's this that makes it so invasive, and what makes controlling it with pre-emergent possible.

It is generally very easy to pull, but every time you pull one, you're likely dispersing a dozen seeds only to add to your weed problems.

Crabgrass (right) is a common pest in our lawns here in the desert. Though it dies out each winter, the seeds start easily in the spring.



Poanna (or poa annua - right) is another of our annual lawn invaders. When this grass is taking over, spots on your lawn will have a noticeably different color.



In your lawn, the prime consideration is whether you intend to over-seed or not. If you apply pre-emergent to your lawn it will prevent the grass seed from germinating the same as... spurge seed for example. So, if you want to use a pre-emergent and you need to over-seed your lawn, you'll want to get the grass seed going first before you apply the pre-emergent. Also, the new grass seed will be vulnerable for a little while after it has first sprouted. Read the label on the pre-emergent to confirm this, but generally I'd wait at least four weeks.

Whether they are in your lawn or your landscape weeds are a nuisance. Post emergent herbicides like Greenlights "Com-Pleet" or a weed-n-feed work well to make the weeds disappear quickly. In order to get some long term control make sure to use a pre-emergent, weed preventer like Amaze or Portrait whenever you treat with a weed killer. A small amount of effort to prevent can reduce your overall maintenance a lot!

Water Conservation & Plant Health During the Winter

Proper watering is vital in the summer for saving water. What many may not realize; this is critical in the winter as well. Frequent watering during the winter is a major cause of plant loss as well as creating unnecessary water use.

If we are to have healthy plants in winter or summer they need to have deep roots, not shallow ones. This is especially true in order to conserve water. Soil moisture at the surface quickly evaporates in summer and encourages shallow roots. During the cold season there is an added problem from shallow roots. Surface roots are much colder and so very often dormant. Dormant roots can not supply the needed water and nutrients to the plant, so winter drought stress is much more likely. Plants will suffer frost damage in these cases where, if they had a deep root system, they would be just fine. It's not just the temperature – it is the plants state of health.

When a normally cold hardy plant has shallow roots during the winter the plant will struggle to get enough water to support health. The result is often leaf curl then complete drought stress and loss of foliage.

Most often the plant does not completely die, but by the time the warm season arrives it will look like heck, and may struggle through the heat.



Oleander with winter drought stress

RAISED BEDS, continued from page 4

this. Clear the area and plan out the irrigation to your raised bed. The flow rate required by your garden can be determined if you have an idea how many plants and what type you intend to grow. Our irrigation specialists can help with that. Block walled beds are much longer lasting, and likely to be the best choice. The Windsor type block needs only a 2 inch deep trench to anchor the base, and then it's quite like building with "Lincoln logs" (if you remember these – if not "google" an image).

Before commencing the actual wall, make sure the irrigation is stubbed into the foundation of the bed. A single feed line can later be tapped into to supply the entire watering grid.

Irrigation for raised beds here in the desert is very often done with sub-surface dripperline. This tubing has built-in flow emitters that regulate the amount of water dispensed in order to accommodate the many various Ever wonder why you see certain varieties of plants do well throughout the winter in some yards while they look totally stressed in others? It's not that one landscape is warmer then the other, it is healthy, deep roots, properly fed and watered.

Deep watering conserves water all year round, and adds greatly to plant health. I've seen plant varieties normally frost tender quite healthy during the winter because they were properly deep watered, while others stressed. With a well established deep root system many drought tolerant plant species only need to be watered once every two weeks in the winter. They are less likely to freeze and the water savings is double. Frequent winter watering is a common problem when we fail to understand these issues.

During the summer months we are constantly reminded about being careful how we water our lawns. The method we use to water our shrubs or trees is equally important, but different. Often the proper concept for watering trees and shrubs is confused with how we need to water our grass. The SNWA issues watering restrictions for lawn watering and their literature attempts to clarify the difference between drips for trees and shrubs with sprinklers for grass. To many homeowners proper watering is 5 minutes three times a day, whether it's lawn or shrubs. Five minute watering is shallow and great for grass, but bad for shrubs and trees. Shallow watering – shallow roots!

How to Deep Water? Run times need to be long; an hour is a good starting point. Obviously if we are using shrubblers designed to flow at 13 gallons per hour, we can't have them running for an hour. We'd have a flood and waste lots of water. The pressure compensated drip is what the doctor ordered. With these emitters you'll not be putting too much water onto your landscape when the timer runs for an hour, and because it's running this long the water will penetrate deeply encouraging deep roots.

Often with drip irrigation systems I see the adjustable 0 to 13 gallon per hour sprayers used. These sprayers have their place with more shallow rooted plants like annual flowers, but because they can not run for an

applications: Slow or fast flow depending on soil, and closed spacing or wide depending on type of plants.

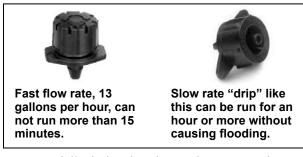
Small beds (less than 25 cubic feet) could be filled with bagged product, but for larger beds, you'll want to get bulk soil-mix. This is a mix of sand, silt & clay in addition to about 40 to 60 % compost. You'll find both at Star Nursery.

Plan to have your raised beds completed a month before planting season, to avoid missing optimum planting times. Here in the desert with our harsh weather, the right time to plant comes and goes quickly. Plants are tender and vulnerable when first planted. Star Nursery offers a wide variety of planting information in our Star Notes and Gardening Tips, both on line and available at our stores.

When you do plant, make sure to use some Gold Dust starter fertilizer and Dr Q's Plant Tonic to help

hour or two without creating a flood, they can not help promote deep roots.

Slow watering is what it takes for deep roots, and that generally will mean a one or two gallon per hour emitter running for an hour or so.



Especially during the winter, when evaporation and plant water use (transpiration) is low, a deep root system will have water many days, often for a couple weeks after watering. The deep roots are warmer and won't go dormant in the same way that the surface roots do. That deep reservoir of water will greatly help sustain plant health and save our precious water and it's expense at the same time.

Mulch! The insulation for the roots that an organic compost mulch provides adds to the vigor of those roots during our winters. Make sure that you have applied a fresh two inch layer around your shrubs and trees during the fall. Mulches provide an excellent insulation for root systems, keeping them warmer and functioning properly. Remember though that when we get to the warmer spring weather that these mulches should be pulled back from the base or trunk in order to prevent fungus and other forms of rot from damaging the bark and causing disease.

Water conservation is an all year project, as is keeping our landscape healthy. The winter with it's extremes is challenging to both. We need to routinely take a look at our landscapes and their irrigation, and take care of those little challenges before they become large problems. Wet soggy soils not only indicate a waste, but they are dangerous for plants. Infrequent deep watering is the key to doing the right thing.

assure your plants get their best start. The nutrients provided in these products have been formulated specially for our poor desert soils and alkaline water. Always dig the holes wide but not deeper than the roots. Avoid putting dirt over the top and suffocating your plants.

By selecting the right location and providing good soil and nutrition you can actually grow just about anything here. Raised beds can be just the thing to get that garden growing successfully. If you've had trouble growing much in the desert soils, you're going to appreciate this option.

We do have relatively cold winters, so many frost tender plants may only live one season. That's why Star Nursery provides growing and cultural requirements for the plants you buy right on the sign in front of each plant. Ask our trained plant specialists if you have more questions. They'll be happy to help you.



Star Nursery is your community partner and shares a dedication to helping improve & green-up our environment through better understanding and techniques.

DROUGHT WATERING RESTRICTIONS FOR LAWNS

Winter temperatures are cold! Watering restrictions apply to the scheduling for lawns. Larger plants like trees and shrubs should be watered for much longer periods of time (typically 1 hour) with slow-rate drip emitters. Always avoid daily watering of Trees and Shrubs!

Watering Group	NOVEMBER - FEBRUARY	Watering Minutes
Α	Monday	4 minutes, 3 times
В	Tuesday	4 minutes, 3 times
С	Wednesday	4 minutes, 3 times
D	Thursday	4 minutes, 3 times
E	Friday	4 minutes, 3 times
F	Saturday	4 minutes, 3 times



Dan was born in Downey, California, and did much of his growing up in Lakewood, Ca. He joined the Air Force in 1972 and graduated from their Tech School in air craft maintenance (with honors!). He is also no stranger to business as he was a body shop manager for 15 years. Dan in a suit and tie; Imagine that?

Dan met his wife Susan in California. Susan has a business head on her shoulders and was con-

templating moving to Las Vegas at the time in order to help run a landscape business here. Dan decided that moving here with Susan was a good idea and so it was "Vegas, here we come." Being more of a down-to-earth kind of guy, Dan's brother-in-law sent him to driving school to get his Commercial Drivers License (CDL) training. Dan and Susan started a wonderful family and now have three children to go along with five grandchildren. The tough thing for Dan (just like the rest of us) is trying to remember all the birthdates.

Gardening and landscaping are some of Dan's favorite pastimes when he's off the road. His favorite plants are the Lantanas (though he has many others) because they're pretty with lots of blooms and they do so well here in the desert. When it comes to customers, Dan loves to be able to help them out. When he drops off materials, you'll find him walking the store to see what's in (that he didn't bring), and answering customer questions when he can. Sharing his gardening ideas and then getting the really tough questions to our specialists. Basically Dan is another reason that Star Nursery has such a community spirit

and why we're so proud of him, his efforts and his family. "Drivin' truck" has plenty of risk to it when you consider some of the other drivers out there and we're glad to have a responsible guy like Dan!

The next time you see a Star Nursery truck on the highway, think about Dan, his lantanas, his family and his chili. It's all part of why you shop at Star Nursery.



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 performance performance p

M. Dale: Pines can be low water use plants. That is not to say you give them a little water three times a day. Water them well and let them dry between watering. I know of one man watering 180 gallons of water each time and only applies water four times a year. Mark this in your gardening book — "Do not be too kind to them and do feed them several times a year with low nitrogen fertilizers, try Triple Play, 7-7-7." ~ Mark

Mr. Dale: The Eldarica or Mondell pine is very hardy and drought tolerant, but it actually does need some water. If you'll notice many throughout the valley with scarce foliage and lots of pine cones – these are being grossly under-watered. Often these trees find their own source for survival, but, as Mark said; water deeply and infrequent.

Q I am planning to supply drip irrigation for my tomato plants. Can I water for five minutes like the Water Authority suggests? If so, how often?

MS. Malldrink, North Las Vegas

Ms M.: Re-read what the Water District says. Pay attention to the "Drip Irrigation" section. The answer lies within. $\sim Mark$

Dear M.: The key wording is "Drips" and "Sprinklers." Drips are great for gardens here, but these need to run for 30 to 60 minutes at least. Let me be frank — Five minutes sprinklers are for your lawn.

~ Frank

Q Our Mediterranean Fan Palm is doing very well. I have a worry; the underside of the leaves are covered with a white film, kind of fuzzy looking. Do we have some sort of disease? Norm L. Onedur, St. George, UT

A Mark my word — Nope!

~ Mark

 \mathcal{A} Norm: The white velvety pubescence that you see on the newer fronds is normal on many types of drought tolerant plants. I'll be frank — It actually insulates the leaves from the extremes of temperature. This is a very common concern, but you need not worry – it's actually a sign of health. ~ *Frank*

Dan Johnson – the truck drivin` man!

Star Nursery now has eight stores here in the Las Vegas Valley, one in Pahrump and two more in St. George and Washington City, Utah. With so many stores you may have wondered just how all the beautiful plants, products and various soils and rock get to our stores. We have our own fleet of trucks with skilled and attentive drivers to get them to our stores in order to help assure that your materials are here when you need them.

Dan Johnson is one of the finest drivers you'll ever want to meet. He will be with Star Nursery for 9 years next June, and has already driven over 850,000 miles with the company. Dan spends much of his time between Las Vegas and Southern California where he brings us a large variety of plants and soil products. When he began driving for us, he was hauling the Star Nursery race car to its events. Dan's involvement with the racing team extended beyond driving. Dan not only was a pit crew member, he organized the hauler, made sure that all the equipment was in order for the upcoming race and even cooked meals for the team. Oh yeah, Dan likes to cook! His specialties are Mexican food and chili. Sounds to me like he enjoys it spicy.

Drought Update

Southern Nevadans should be commended on their water conservation efforts. Our per capita water usage continues to decline. Notwithstanding Lake Mead supplies water to thirsty residents in Arizona, California and Mexico and their demands are much greater than ours. We need to continue to do our part and encourage our neighbors to roll up their sleeves and conserve every drop they can too.

In a 2008 report on the status of Lake Mead, scientists at the Scripps Institution of Oceanography predict there is a 50% probability that Lake Mead will be completely dry by 2021, because of climate change and unsustainable overuse of Colorado River water. The report concluded, "Today, we are at or beyond the sustainable limit of the Colorado system. The alternative

to reasoned solutions to this coming water crisis is a major societal and economic disruption in the desert southwest; something that will affect each of us living in the region." Lake Powell, the reservoir that feeds Lake Mead, has had total water inflows this year of only 78% of average.



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2600 W. Ann Rd. Ann Rd. & Coleman (702) 216-7827 (STAR)

5340 S. Boulder Hwy. E. Tropicana & Boulder Hwy. **(702) 456-8818**

NEVADA STORES

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5380 Blue Diamond Rd. Blue Diamond, west of Decatur (702) 444-7827 (STAR)

8725 S. Eastern Ave. S. Eastern, north of I-215 (702) 361-5202 8170 W. Charleston Blvd. Charleston & Cimmaron (702) 360-7827 (STAR)

9480 W. Tropicana Ave. Spring Valley, NV 89147 (702) 728-7827 (STAR)

911 Buol Road, Pahrump (just off the 372, 1 mile off 160) (775) 727-5300

SOUTHERN UTAH STORES

1145 W. Sunset Blvd. W. Sunset Blvd. & Bluff Street St. George, UT (1/4 mile west of Bluff St.) **(435) 673-0820**

385 W. Telegraph Rd.

Washington City, UT (1/2 mile from Green Springs Dr. & I-15 (435) 986-0820



The New Star Nursery at Tropicana and Fort Apache opened this past September to a very happy group of customers. Our commitment to providing a first class customer experience now extends to our neighbors on the west end. This modern store is staffed with friendly and helpful professionals with everything you need from a huge selection of plant to diagnosis and design help. You'll find a complete line of fertilizers, landscape lighting and all the irrigation supplies to keep your landscape beautiful and healthy.



PROUD DISTRIBUTORS and PROPRIETORS

Star Nursery is proud to distribute for these and other fine manufacturers: Agrifim • Ames • Barenbrug • Bayer • DeWitt • Greenlight • Hunter • Irritrol Little Giant • Malibu/Intermatic • Rainbird • Superior Sod • YardFeeder

In so doing, we can bring you the wide variety of quality items you ask for! In addition, our own line of fertilizers and soil amendments are not "private labeled" items but are our own developments and are exclusive to Star Nursery. Designed especially for our customers' requirements here in the arid, alkaline and harsh Desert Southwest. **The Dr. Q's line is superior.**

What to do with established Daylilies & Fortnight Lilies (Butterfly Irises)

ave you noticed how attractive a Fortnight Lily is when it is young but often has many dead leaves after several years. Then it seems difficult to make it look nice by pruning? Pruning will leave



GARDENER'S TIP

k nice by pruning? Pruning will leave the plant with many half-dead stubbly leaves surrounding tall and otherwise beautiful leaves. This type of problem is because pruning is not the right thing to do with this type of plant.

Fortnight Lilies are among a group of clumping or tuberous/rhizomatous perennials and should be separated as they age rather than pruned.

Divide spreading, clumping or tuberous perennials like fortnight lilies, chrysanthemums, daylilies, and ornamental grasses.

In mild-winter climates like most of the desert southwest, fall is the best time to divide spring- and early-summer-blooming perennials. In cold-winter climates, divide these plants in early fall so the roots can get established before cold weather sets in. As clumping or bulblike perennials grow, they put out new growth around the center clump.

Dig up the clump and divide, gently by hand or with a sharp knife, the outer clump into sections, then discard any unproductive growth and save only the healthiest parts of the plants. Be sure to include equal amounts of roots and stems. All brown foliage should be cut off at ground level to encourage strong, fresh growth in spring.

Not only will you get new plants to fill the gaps in existing beds you can start an entirely new border. Dividing also improves the health of an established plant so it will grow vigorously and bloom profusely.

So, next time you want some pruning done to make your landscape more beautiful – reconsider what to do with your Butterfly Iris and other similar plants. Though these can be pruned they'll look a lot better and maintain better health if you have them divided. If you or your gardener do not have enough time to divide them, then my recommendation is to replace them every three to four years. Pruning them does not look good!

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Look for **Star Notes** and **Seasonal Tips** under **The Best Advice** menu bar. *These information sheets cover nearly every gardening and landscaping category imaginable.* Still have questions? Click on **Ask Dr. Q** and fire away! *You'll receive a prompt answer.*