

Micro-Climates

Barbara Kishbaugh November 1992

A friend in Naco recently developed a micro-climate around his place. He began by building a wall which enclosed the yard, then came patio pavers which separated the small planting areas. Trellises were constructed with slatted tops to allow vines to climb which created mottled shaded areas that give a feeling of soft protection.

In our county, these micro-climates are practical since you choose plants which grow well, offer shade and actually require little water once established. Rain water from the eaves of buildings is an added bonus to these inclusive areas.

This graceful patio was established in less than two years. Plants growing successfully there include: African sumac, olive tree, cat's claw, trumpet and jasmine vines—almost any vine grows well here—succulents and cacti in containers and in the shaded areas violets and begonias. Roses, liriope, day lilies, and mums add color.

You, too, can create such a micro-environment. And if constructing a privacy wall seems too large a project to consider, then just stack some block or brick or stone or some of the strong shade screen material you can now purchase in any store that carries gardening supplies. You could also use metal posts with wire mesh fencing or almost any material to make a barrier to give you the desired effect. Now is the planning and constructing season.

Garden Tip #2,845

Gary A. Gruenhagen May 1996

We like to recycle things around our house—aluminum cans, newspapers, snow shovels . . .

"Snow shovels," you ask?

Funny you should pick up on that. Of course I recycle snow shovels. After all, we certainly don't want our local landfills to be overflowing with them, do we? And, with all the refugees fleeing the snowy north country for sunny Sierra Vista, its getting to be quite a problem.

Actually, I found a perfectly serviceable snow shovel for a quarter in a local consignment store and I couldn't resist the bargain. Not that I am anticipating a bad winter, you understand, but it never hurts to be prepared. In the meantime, I look at it more like a very large dust pan with a long handle than a tool for clearing ice and snow from the driveway. It works great for getting those piles of weeds and leaves from the ground into a garbage can where they can be hauled off to the compost pile.

Happy shoveling.

Robert E. Call

Robert E. Call Extension Agent, Horticulture Carolyn Gruenhagen

Editor

High Desert Gardening

Jerry Ambrose February 1995

January is sure a confusing month, isn't it? One day 70°, the next it is 40°. Three nights in the 40s, then 10 in the 20s. What's a person to do in his or her garden?

Well, because our soil doesn't freeze and snow isn't common, there's much to be done by the active gardener this month.

How about pruning your fruit trees? Peach, nectarine, plum, and apricot need regular work every year. Cherries, pears, and apples should at least be evaluated. In the nuts, almonds need significant pruning each year, but pecans, walnuts, and pistachios just need touch-up for form.

And, after your pruning, a dormant spray of oil and copper or oil and lime-sulphur will clean all overwintering insects and eggs off your trees, as well as beginning the sprays needed for controlling various fungi that affect your leaves and fruit. The other two fungicide sprays should be applied three to four weeks apart; the first one as buds begin to swell.

January may be the month you dormant prune your roses as well. If they are pushing new growth now, prune them now. If not, wait until early February. It is also prudent to dormant spray roses, using oil and copper or oil and lime-sulphur. Before you spray, clean all the old leaves from beneath your bushes and spray the ground thoroughly under them as well. This spraying should drastically reduce your mildew, black spot, and thrip problems in early spring. (continued on next page)



Gardeners know the best dirt!



What's that, you say? You don't have the slightest idea of where to start in pruning your fruit trees and roses? And you wouldn't dare try? Well, then invest in your garden. There are several excellent books all published in paperbacks that describe and discuss how to go about all this. They are reasonably priced and are good as a resource forever. They are available in bookstores, nurseries, and maybe the discount houses. You might also borrow one from the library. Give it a shot.

If you still have questions after reading about it, check with your local nursery professional or with the Cooperative Extension advisor at the University of Arizona.



DeForest Lewis April 1992

Proper operation and care of power equipment can prevent damage and injury to your plants, yourself and to your equipment. Safety procedures and maintenance guidelines can be found in owners/operators manuals, which should be read, kept handy, and passed on when equipment changes hands.

Three key elements for good electric motor and gasoline engine maintenance are:

1. Keep the motor or engine cool. Excess heat will ruin either and is produced when overload occurs or the cooling system is clogged. Keep the machine clean inside and out, around fans, shrouding, and cooling fins. Oil is necessary for both lubrication and cooling and should be of the proper viscosity and rating. Keep oil fresh and at proper operating levels or ratios.

2. Keep dirt and trash out of rotating parts, especially engine parts. Safety first here! Never attempt to clear debris while unit is under power. Trash wrapped around shafts or debris in cooling fan can burn out a motor or burn up an engine. Always check these areas before starting up and during breaks in operation.

3. Keep parts lubricated. Dirt, water, and other contaminants will damage motors and engines if permitted to enter the lubrication usually through system, the carburetor or air intake. The abrasive action of dirty lubricants will cause overheating and thinning of the lubricant. Dirty air or oil filters will cause excessive heating and slow proper lubing. Two stroke engines are lubricated by oil mixed with gasoline. Gently agitate this mixture often and limit storage time to a month if possible. Four stroke engine oil should be changed within 25 hours of service, and 15 hours of heavy dusty use. Periodic lubrication of shafts, cables, and axles will improve machine longevity.

The use of power equipment in our landscape is time saving, convenient, and sometimes very frustrating and expensive. Preventive maintenance of your motors and engines will always pay for itself, so lessen the stress.

If you haven't fired up your trimmer, mower, edger, shredder, or tiller yet, then you should clean

Silverleaf Nightshade

Peggy Dierking February 1997

This silvery-colored perennial is a "prohibited noxious weed" in Arizona. Its attractive, star-shped, violet-blue flowers make one want to take a closer look at it, even put the flowers in a vase until one's fingers meet up with the plant's spiny stems and leaves. Its leaves alternate and are jagged and narrow. The plant itself may grow to only half a foot tall to perhaps two feet.

Mature mustard-yellow pods on the plant harbor many seeds. The pods remind one of tiny tomatoes, gourds, or even berries. Growing at elevations up to 5,500 feet, this plant flowers until frost but grow almost anywhere, especially where it isn't wanted such as in field crops.

Most children learn at an early age that it is a plant pretty to look at, but thanks to its prickly demeanor, not to touch which is just as well. The cute little seed pods on Silverleaf nightshade (as well as its leaves) contain solanine, the poisonous alkaloid, which is very toxic to cattle.

all filters, empty fuel from tank and float bowl if provided, replace with fresh fuel and read the start up procedures from your operator's manual. Electric wiring should be checked for fraying and good connection and replaced if Safe damaged. operation is paramount, but always think clean air, clean oil, clean fuel, sharp edges, proper timing, and your equipment should work for you, not vice versa.

Oh No! Botanical Names

Maggi Crist October 1996

Many people just hate to use the botanical names of plants, and even if they know them they will seldom use them. They're hard to spell and even harder to pronounce. (But there are as many "correct" ways of pronouncing them as there are people who use them!) There are lots of good reasons to learn the botanical names, or taxa, of plants.

It's easier for everyone to know exactly which plant you're talking about. The same common names are often used for many very different plants. For instance, "Lady of the Night," also "La Dama de la Noche" is a name used for an orchid (Brassovola nodosa) which perfumes a whole room at night; for a cactus (Epiphyllum spp.) with huge white flowers, also fragrant at night; and a shrub (Cestrum nocturnum) that has another common name of "Night Blooming Jasmine." If you know the correct names, everyone will know exactly which plant you are discussing, even if you are speaking in a foreign language. It helps to know the correct identification of a plant so you can about learn its cultural requirements. A vegetable gardener should know the family names of crops, since crop rotation is an important consideration. If you learn and use a few of these Latinor Greek-based names, you might even impress your friends with your horticultural knowledge!





Jackie Dillon-Fast February 1990

The herb commonly called "Toothed Lavender" is classified and named as follows: Kingdom Planta Division Magnoliophyta (or Anthophyta) Subdivision Magnoliatae (or Angiospermae) Class Magnoliopsida (or Dicotyledonae) Subclass Asteridae Order Lamiales Family Lamiaceae (Labiatae) Genus Lavandula Species L. dentata

Don't worry, gardeners are rarely concerned with anything above the level of Family, so you don't have to learn ALL of the above! I like to think of the Genus and Species as the plant's "first" and "last" name and that's all I usually need to learn.

Do not think of it as a waste of time to cultivate a few flowers

Beware of Mesquite Twig Girdlers

T.J. Martin July 1994

If you are the proud owner of one or more mesquite trees in our area, you may notice a greater-thannormal amount of debris under your trees this time of the year. If so, you may be the host to an interesting beetle called the Mesquite Twig Girdler. The mama beetle chooses a likely looking tree and lays her eggs in the bark near the tips of the branches. Then she backs down the limb a bit and proceeds to "girdle" or chew a line all the way around the branch. This has the ultimate effect of killing the end of that branch and usually it will fall to the ground under the tree. Meanwhile, back in the twig, the beetle eggs hatch and the larvae feed on the branch.



When you find these branches or observe them hanging from the tips of the tree limb, there really isn't much you can do to save them, the damage has already been done. But you CAN do a lot to prevent this from happening next year. Gather all the twigs and small limbs from the area and destroy them. If there are any limb ends just hanging from the tree, cut them off below the damaged area and destroy them also. This will have an effect by destroying the larvae in the twigs and thus reducing next year's crop of beetles. Be sure to get them all because any that are left behind will simply overwinter in the debris and become egg-laying adults on your trees next year.

The Miracle of Bulbs

Jan Groth December 1994

Just a quick reminder that it's not too late to get those fall bulbs in the ground for that first glorious burst of color in late winter-early spring. Bulbs are а most fascinating perennial, a total unit of self-contained а plant that regenerates year after year with minimal proper care.

A wide variety of bulbs, corms, and tubers will do well in our high desert: hyacinths, daffodils, ranunculus, iris, paperwhite narcissus, crocus, alliums, and more.

Your soil should drain well, but also be able to maintain moisture. Dig the holes abut three times as deep as the bulb's greatest diameter. Place one teaspoon to one tablespoon (depending on the size of the bulb) of bone meal or bulb food (high phosphorous for root and flower development) in the bottom of the hole. Cover this with a layer of dirt and then plant the bulb. Once bulbs are placed and covered with dirt, soak the area thoroughly. With occasional winter rain, this should be enough moisture. But, if our air stays dry and the winter is without rain, soak

the area periodically throughout the winter and into the blooming season.

After the bulbs bloom, spent flowers may be cut off, but DO NOT cut the leaves. This foliage is manufacturing food and sending it back to the bulb for storage for next year's growth! This period after the blooms fade is also a crucial time when you can add bulb food (high in phosphorous and potassium) to the ground around your bulbs for next year's performance.

An established bulb bed which has given multiple performances may benefit from a nitrogen fertilizer application at the beginning of the growing season.

Don't forget—bulbs are also great in containers and do well with occasional soil regeneration and regular fertilization. Container gardening allows you to showcase your bulbs as they bloom and then remove them when the bloom is completed. Just remember that bulbs need a winter chill, so the containers need to be placed outside for the winter in a cold, shady place and covered to maintain coolness and moisture.

So, hurry and get your spring-flowering bulbs into the ground and watch what happens in a month or two! With just a bit of care you can enjoy their performances for years.



Elizabeth Riordan April 1992

Call's Comments . . .

Robert E. Call, Extension Agent December 1996

Fertilizing of trees and shrubs during the winter in the High Desert should not be done. Fertilizer could stimulate plants to come out of dormancy and start to grow and winter damage could occur. These plants are "resting" above the ground but do have activity in the roots if soil temperatures are warm. Normally trees and shrubs that go into winter with adequate soil moisture do not need watering during the winter. Usually winter rains or snow provide enough water. Deciduous plants do not need much water because the leaves, where transpiration occurs, are gone and nutrients needed for growth are not required because there is no shoot growth. The same holds true for most evergreen plants such as pines, junipers, and native oak trees. When the soil and air temperatures are cold and sunlight is reduced, why grow? That is what spring, summer, and fall are for!

Houseplants are generally tropical in origin and survive best in warm humid environments. Houseplants need to be watered because of the limited soil volume they are confined to. House temperatures are warm and allow plants to continue to grow. The best way to determine soil moisture is to stick a finger in the soil one to two inches. If the soil feels moist, don't water. Fertilizing houseplants during the winter months is not encouraged because of reduced light from the sun.

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What's in a Name?

In the Cypress family, "Cupressus: symmetry (the conical shape). In mythology, Apollo turned Kypressos into an evergreen tree." (Don"t mess with the gods!) Source: *The Names of Plants*, D. Gledhill

Recipe for Curing Skunk-Stink

Dr. Deborah Young February 1996

On behalf of County Extension offices throughout Arizona, I recently conducted experiments in how to decrease the thiol odor from a 100 lb. Rottweiler. As many of you are aware, thiols are chemicals produced by many things. including decomposing flesh, fecal matter, and skunks. The striped skunk (one of which lives in my neighborhood) produces trans-2butene-1-thiol. 3-methyl-1butanethiol, and 2-quinolinemethanethiol.

The trick to decreasing the smell of thiols is to change them into other compounds. A chemist named Paul Krebaum has figured out a way to get oxygen molecules to bond with thiols and change them into things that don't smell bad. The recipe is 1 quart of 3% hydrogen peroxide, 1/4 cup baking soda, and 1 teaspoon of liquid soap. Wash while it is bubbling and rinse with tap water.

Other treatments in my experiments included 3 quarts of tomato juice, Massengil douche powder (a favorite Prescott remedy), Nature's Miracle (available in pet stores), and every soap and shampoo I had in the house.

My conclusion is to use the hydrogen peroxide/baking soda recipe.

And keep the dog outside!

A Case Against Roses in the Desert

Gretchen Kent February 1998

I just celebrated my fifth anniversary of coming to Arizona, and my fourth in my present home. It's amazing how the thing that attracts you at first is the thing that drives you crazy after a while. That's the way it is with me...and the roses. We saw the house in October and the roses were stunning. Bright pink and dark red grandifloras, coral and pink floribundas, white and yellow teas...over a dozen in all. It was heavenly! We moved in over Thanksgiving. The previous owner had thoughtfully pruned the roses for us. I should have taken it as an omen that the short, ugly, thorny sticks were laying in wait for me.



I knew there would be pruning, I'd had roses before in East Texas. But anyone who can't grow nice roses in East Texas has no business having anything but gravel in their yard—they have a brown thumb! I was filled with the enthusiasm of a new home owner. I had not yet learned about the importance of low water use and native plants as the mainstay of a Southwestern garden.

Spring came, and the tender red foliage was lovely. I was elated. Then came the aphids. No problem, I'd defeated meaner pests before. Bring out the insecticidal soap! These were hardier than those wimpy Texas aphids, but I prevailed at last. Then came the heat of summer. The amount of water required to just keep them alive was amazing, and then the darn things wouldn't bloom. Six weeks of pitiful, near wilted, thorny, roseless bushes. The love affair was starting to wilt as well.

The weather cooled with the monsoons. Finally, I thought, I'll have lovely roses again. But it was not to be. The double whammy struck. Powdery mildew and black spot had come to visit. I couldn't see how big their suitcases were then, but now I know they wanted to move in for good. I work in the environmental business and know the potential horrors of engineered fungicides in residential areas. Many of these products are teratogens and mutagens. Despite the fact that I didn't know my neighbors well, I would not take the chance of damaging them or their children by using such in close residential products quarters. So I Bordeau'ed and Safer'ed my way through the fall. The paraphernalia was amazing. I tried several types of sprayers and permanently clogged them with the muck that forms in the bottom when using sulfur based products. I was relieved when winter came. I had gotten some lovely roses, but each one had cost me about an hour of my life and four or five dollars, or so it felt.

(Continued on next page)

The first winter that the roses were ours, my husband pruned them. Since then it has been a joint effort. It always reminds me of my Dad's thoughts on lawns. He says, "I have to wonder about people who water and fertilize a crop so they can harvest it several times a year in order to throw it away." I'm beginning to feel that way about my roses. I have developed an allergy to rose thorns. My hands swell, turn red and hurt. I have also developed a Laissez-Faire management philosophy. I still spray when the aphids are really bad, but I prefer to hope that beneficial insects will see the restaurant sign. I supplement the water a bit during the heat, but probably not enough because they always burst forth with an amazing bloom of mildew and black spot when it finally rains. I spray sulfur fungicide after I've pruned in the winter, but that's about it. If I had more time and energy, I'd rip out all but two and replace them with salvias and lavenders. Anyone want some roses?

> **Thanks!** Many thanks to Editor, Carolyn Gruenhagen, a

member of the original staff, and who has edited every issue of the Cochise County Master Gardener Newsletter for the past ten years and hopefully for many years to come!

Spring Planting

Barry R. Bishop April 1996

Have you ever competed in a foot race? I have competed in several, trying hard to be the first one across the finish line. Many of us garden the same say, myself included. We try to be the first to put seeds in the ground and the first to produce vegetables and fruit. Who cares if what we produce isn't the best. It is the first out of the garden.

Perhaps we are in the wrong race.

Wiser people than I say it isn't the speed in which plants produce, but the quality of what they produce. If the fruits or the vegetables are not of the best quality we ran the race for naught. It took me a long time to come around to their thinking, but now I think they are right.

We work hard to prepare the ground for planting. We set out our method of watering. We make rows and furrows and carefully follow the suggested interval for planting. Then, with a big wide grin, we set out planting the seeds. We forget that Jack Frost might have one more freezing cold night in his mind. We also forget that the soil we are planting into has not reached the right temperature for germination. If it has, then Jack's killing frost will soon take care of our lovely little sprouts.

Going back to the race—there really isn't one, however the quality of the product determines whether you have a good crop or not. You don't have to be first, but you do want to be one of the best and you can be. Follow directions, read books, ask questions, and add your own special gardening expertise.

Cuttings 'N' Clippings

> Due to the mild winter and lack of rains, the rabbits found me (and I think they advertised my address on the bunny internet) and destroyed the garden. But—there were a few plants that did not interest them. Here are those fabulous rabbit-proof plants:

Perovskia (Russian Sage) Salvia greggii (red salvia) Santolina (lavender cotton) Penstemon

Buddleia davidii (butterfly bush)

Agave, Cacti & Cholla (okay, so this could be considered cheating, but please don't overlook these hardy natives)

Have you got a plant that escaped the wrath of rabbits, deer, or javelinas? Let us know—contact the Extension Office. *Cheri Melton*

May 1996

➤ Master Gardener and artist for our newsletter, Rose V. Land, has been named 1991 Woman of the Year for Benson! Congratulations! *October 1991*

> Here is the recipe for the "5-5-5 surefire animal deterrent" according to a gardening authority on the Lynette Jennings Home Show. It is supposed to keep away all kinds of wild animals like deer, rabbit, *etc.* from your garden.

Break 5 raw eggs into a one gallon container, including the shells. Add 5 oz. of hot sauce (such as Tabasco), fill container with water, and let stand 5 days to ferment (preferably in the garage). Strain and spray around the perimeter of your garden. Repeat if necessary. *Jo Babbie March 1996*

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High on the Desert

The Cochise County Master Gardeners Association (CCMGA) is awarding up to five full scholarships to the 2000 High Desert Gardening & Landscaping Conference to be held at the Lakeside Activity Centre located on Ft. Huachuca, AZ on February 17 and 18, 2000. Applicants (open to everyone) are invited to submit an essay on one of the following topics:

- Gardening for food production
- Landscaping with native plants
- Environmental stewardship
- Essays must meet the following criteria:
- 1. 750 to 1000 words in length.
- 2. Double spaced and typed on plain bond paper.

3. Represent original scholarship and be suitable for publication. All references and authorities cited must be properly attributed.

4. Entries must be accompanied by an official cover sheet obtainable from the Cooperative Extension Office at the University of Arizona South campus.

5. Entries must be received at the Cooperative Extension Office at the University of Arizona South campus not later than close of business on January 14, 2000.

Entries will be judged by the Cochise County Horticultural Extension Agent and a committee of Master Gardeners appointed by the President of CCMGA and the names of awardees announced not later than January 28, 2000.

High Desert Gardening & Landscaping Conference

February 17 & 18 Watch for registration forms in next month's newsletter and on our web site! www.ag.arizona.edu/cochise/mg/ We hope to see YOU at the conference in 2000!

HELP WANTED: The Plant Sciences Center is looking for a parttime Horticultural Technician. To find out more about this position, call the Cooperative Extension Office in Sierra Vista.