Ipheion, Brodiaea, Muscari armeniacum, Ranunculus, Galanthus, Freesia, Dutch iris, Allium, Anemone, Scilla, Jonquilla, Tazetta narcissus, Tulips, Species tulips, Crocus and more

Guest Presenter...
Naturalizing Flower Bulbs for Central Texas with Ginger Soule

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November 2010
November Meeting Speaker — Ginger Soule

Naturalizing Flower Bulbs for Central Texas

Ginger Soule began gardening with her mother and grandmother as a preschooler. Ms. Soule's grandmother, father and she maintained a large Victory garden during World War II. However, her real love was the beautiful free-flowering daffodils which grew back then. When many of the heritage daffodils became unavailable later, she began searching out these older bulb varieties, especially after she retired. Her program on Wednesday night will show the results of many years of trial and error to arrive at a collection of the most reliable winter and spring flowering bulbs and the practices that assure their successful growth here in Central Texas.

Master Gardener Meeting information:
Wednesday, November 3rd, 2010 starting at 7 pm.
Zilker Botanical Garden

Ginger has been a member of Austin Organic Gardeners (the oldest continuously meeting organic garden club in the U.S.) since 1989. She has served as a board member, special projects chairman, vice-president, president and originator of the club's annual transplant sale.
Hello Master Gardeners:
A Message From Your President

We, throughout this wonderful state of Texas, have so much to be thankful for. Living in this wonderful city of Austin also offers much to be thankful for. But it is the absolutely beautiful people of this Master Gardener Association that I also give many thanks for . . . your volunteering spirit, your caring, your love of gardening and the many ways we find each and every year to make all this come together! What a fabulous way to enjoy the benefits of giving back to this community.

I sit here reviewing the past year of working with our Executive Committee, who have stood beside and behind me through every issue we faced. If you have never volunteered to serve in this capacity, please give it a thought in the future as you will really contribute to this organization in a totally different way that benefits and builds upon our strengths. To the members who braved the cold at the East Austin Garden Fair and to all the members who volunteered for Zilker Garden Festival — a big thank you. You made both these events a strong message of giving back to our community. What a gardening gift those two weekends gave to our city!

To the many members who have taken the time to become specialists in so many areas and given back so freely . . . Wow! To those of you that work with our JMG program and school garden design — you are just wonderful. And, to those that put together our many, many public education seminars and garden tours, what an truly amazing scope of programs you have provided to this city. To the many members who work plant clinics, the demonstration garden (finally back in business), and answering those many, many phone calls at the Extension Office — you deserve many kudos. To the greenhouse volunteers who propagate, water, repot and pot again, thank you. To the Speakers Bureau group who represent us at large and small gatherings throughout the area — always spreading our message of what to plant, when to plant, etc. — you are just great. To the ones who work with the MG Class and the ones who work to bring us the Compost Bin each month — you are doing a wonderful job. To those who have and continue to work with either the Garden Guide or our upcoming new xeriscape publication, a big thank you too. To all who signed up to volunteer whenever a call goes out for help with an event, a garden, a friend — you are the best.

And so, this month’s message from me to you is a BIG THANK YOU! It is so easy to feel blessed with so many gardening friends, but it is sometimes hard to let all of you know that your continued volunteering is not something I take for granted. It is something I feel very fortunate to be a part of!

Happy Thanksgiving and safe travels!
Carolyn

Above: Fall color in Kentucky.
November is here and much of the hard work of preparing for the fall season is behind us. Our mild winter weather means that we can continue to seed radish, beets, carrots, turnips, spinach, collards and kale; these plants are frost tolerant and once established they are rarely bothered by cold weather. Planting these vegetables in succession — a short row or small block every 2 weeks or so - is preferable to planting one long row that will be ready all at the same time. Unless you are planning to pickle beets or share turnips with the neighborhood (and there’s nothing wrong with that!), succession planting is an excellent way to spread your harvest over the season. Vegetables that were planted in August or September will be reaching maturity this month; be sure to harvest them at the right size. Lettuce and other greens can be eaten at any size, root crops like beets and turnips should be harvested when small and tender, about 2-3” in diameter. Most radishes are ready in 28-30 days and should be harvested after when they are only an inch or so in diameter. Any bigger and they will start to get woody. Broccoli and cauliflower should be harvested before the head starts to separate.

Check cauliflower plants regularly and once the head begins to form pull the leaves up around it to shield it from the sun. This technique, called blanching, will help maintain its pure white color. The large, outer leaves can be held together with twine, old panty hose, a rubber band or a clothespin. The clothespin makes it easy to peak inside to check on the developing head. Blanching is not necessary for colored cauliflower varieties.

If caterpillars are eating more of your greens than you are, dust or spray the leaves regularly with Bt. This organic insecticide is fatal to all caterpillars (even the ones that turn into pretty butterflies) once ingested, so apply it only where they are doing damage to your edibles.

As we anticipate our first frost and the transition to leafy greens and cole crops be sure to rid the garden of spent plants from summer and fall. Healthy plant debris can be chopped up and composted but diseased leaves, stems or roots should be discarded.
And speaking of compost, this is an excellent time to start a new compost pile, or two, or even three! As the leaves begin to fall and frost-tender plants begin to fade, you will have plenty of material to add to the heap. If possible, build your compost piles near the vegetable garden so you will not have to tote the contents far when they are ready to use. Think of all the products coming from within your home and garden that could be contributed to a compost pile instead of a landfill: coffee grounds, leftovers (vegetables or grains) past their prime, vegetable trimmings, ancient herbs and spices from deep within the cupboard, moldy bread (what do you think will happen to it once it gets deep into the pile?), cooking liquid from pasta or vegetables, stale crackers or cereal, freezer-burned vegetables no longer fit for consumption, grass clippings, plant trimmings, etc. Avoid adding animal products or fat as they may attract critters to your pile, but even paper towels, napkins and newspaper are good carbon sources and will eventually be decomposed by microbes. Sometimes in winter we tend to have an overabundance of carbon sources (leaves), so add a nitrogen source by sprinkling some cottonseed meal, alfalfa meal or even a handful of fertilizer between layers of leaves as you build the pile. Turn or mix the pile periodically, moving the outer layer of dried material to the center, and by spring you will have a valuable source of organic matter for your garden.

Glazed Turnips and Apples
2 slices bacon, chopped [optional]
1 Tbsp. butter
1 lb. small turnips, peeled and sliced into wedges
1 cup apple cider
2 tsp. sugar
1 large apple, peeled and cut into ½” slices

Cook bacon till crisp; set aside to drain. In same skillet, pour off bacon fat and melt butter. Sauté turnips in butter 2-3 minutes. Add cider, sugar and 1 tsp. salt. Simmer 8-10 minutes, until turnips are tender. Add apple slices and simmer till liquid is reduced, 2-3 minutes. Sprinkle with bacon and season with pepper. Yield: 4-6 delicious servings
Sydney Eddison has written six other books on gardening. Her garden has been featured in magazines and on television. A former scene designer and drama teacher, Eddison lectures widely and continues to teach a course on color at the New York Botanical Garden, Bronx, New York.

Read a review of her newest book on the next page.
Book Review

by Frankie Hart

Gardening for a Lifetime: How to Garden Wiser as You Grow Older
by Sydney Eddison

My mother gave me this book after she had read it. She is trying to scale back and slow down in her own garden and while I’m not at the same stage as my mom, it is something I also think about — more than I use to. I still love to spend hours outside in my garden puttering around, but now I am aware that I don’t have the same stamina and energy I had 10-15 years ago to tackle the big jobs.

Sydney Eddison is a well known garden writer and designer who lives in Connecticut and has a large garden she has developed and maintained for 48 years. Even after the death of her husband and with her own health issues, she made the decision, at least for the present, to stay in the place she loves. Ms. Eddison realized, however, to be able to stay, she would have to make some changes and adjustments. She does have help to maintain her garden, but is still very much involved in it.

I found this book very readable and useful. It is filled with advice, stories, plant lists and suggestions, but it is also a personal story of how the garden developed over time and also how Ms. Eddison views things now. An admitted garden perfectionist, she realized that she couldn’t maintain the garden as she once did. Based on her own personal experiences and those of gardening friends, she has written about some of the solutions she discovered along the way.

To her, maintenance is the key issue. Ms. Eddison feels that a sunny perennial bed is the most labor intensive form of the garden. So, she decided to remove many perennials and plant flowering and evergreen shrubs instead. She states that once planted, most shrubs are less maintenance, but you can still enjoy flowers and foliage.

Another suggestion she had to keep the plants you love, particularly if you have a large collection, is to consider scaling back to just your favorites. She previously had a large daylily collection, but realized she couldn’t keep up the daily maintenance when the plants were in bloom. A few years ago, she chose her absolute favorites and gave away or donated the rest. She says it was a hard decision, but she is happy with it now because it made things much simpler.

Other chapters discuss more garden-wise suggestions including moving to container gardening, keeping to-do lists of garden tasks so you don’t feel overwhelmed when you step outside, learning labor saving techniques, how to hire (and how to find) help when you need it, and deciding whether to stay put or move on. At the end of each chapter, there is a list of “gleanings” which highlight the lessons learned. This really helped summarize the chapters for me.

I enjoyed reading this book because of the touching, personal story of a gardener, but also because the book contains a lot of practical advice to help simplify your own garden. Even though I garden on a much smaller scale than Sydney Eddison, reading this book gave me lots to think about. I’m thinking of using shrubs more and maybe even creating a mini-woodland area, which should be lower maintenance once established. Reading this book made me look at my future garden plans in a different way and I think I’ll try to find more ways to keep it simple.

*Gardening for a Lifetime: How to Garden Wiser As You Grow Older*
by Sydney Eddison is published by Timber Press, $19.95, hardcover, April 2010. ISBN: 978-1604690651
Ornamental Plants to Avoid in Your Central Texas Garden

by Bob Beyer

Fall is here and it is the best time of year to plant trees and shrubs for next year’s garden enjoyment. We see many articles and resources about best and recommended plants to grow in our region, with emphasis on native and adaptive plants well suited to our climate and environment. However, there is a flip side to that coin — plants to avoid for various and very good reasons.

First of all, we should avoid the spreading of non-native invasive plants that overwhelm and threaten our local native plants. A list of these is found in the City of Austin’s “Grow Green” book — free at any nursery or plant center in Austin. But in addition to those recommendations of plants to avoid, I see many other plants sold at local nurseries that can create major problems in your garden and should be avoided. Here’s my top 12 “no grows” list.

**Photinia x fraseri** - The Red Tip Photinia does produce dramatic color on its new growth but has many reasons not to use it. It grows rapidly and ultimately into a small tree, yet is planted like a shrub. As a member of the rose family it is subject to a fungal disease (black spot) and requires considerable pruning maintenance. Most often, they are planted too close to foundations and to each other for a hedge effect. This inexpensive and widely overused plant comes with many potential problems for the homeowner.

**Artemesia vulgaris** - This species of Artemesia spreads rampantly throughout your garden from roots which can grow 5 – 10’ underground and send up new plantlets everywhere! If even a tiny piece of root is left in the ground, a new plant will emerge. It is extremely rampant and there’s even a variegated variety ‘Oriental Limelight’ that is being widely sold at nurseries. This would be like buying variegated nutgrass for your garden! Container grow only.

**Euonymus japonicus** cultivars - This plant has bold variegated color to offer along with Euonymus scale and other pest problems. Frequently it reverts to solid green and has a short life. It is an inexpensive plant that is overused in landscapes. However, *E. fortunei* does not have the same problems as *E. japonicus*.

**Wax Leaf Ligustrum (Ligustrum japonica)** - The green or wax leafed ligustrum is a rapid grower, has a pungent smelling white bloom in spring, and ultimately grows to small tree proportion but is often planted as a shrub. It is one of the most overused and inexpensive shrubs used in initial landscapes and if often planted too close to foundations and to each other. Watch out for wax scale also.

**Variegated Chinese Privet (Ligustrum sinense)** - This colorful small-leafed shrub is overused and inexpensive but generally looks very nice in landscapes until it begins to revert to solid green! This is a problem. It spreads rampantly by seed endangering our native plants.

**Heavenly Bamboo (Nandina domestica)** - The red berries are beautiful but all one needs to do is take a walk in an urban or rural nature area and see this plant coming up everywhere from bird spread seed. It is very invasive and endangers our local native plants. Only non-berry producing varieties should be used. Nandina can’t take our intense bright sunlight and heat of summer well either.

**Indian Hawthorne (Rhaphiolepis indica)** - Although popular for its spring bloom, this plant is very often infected with scale, a sooty mold and other diseases. This plant tends to be overused in southern landscapes, contributing to the spread of these undesirable infestations. It favors acidic, organic soil so is not suited well to TX Hill Country.

**Chinese Wisteria (Wisteria sinsensis)** - Spring blooms are beautiful and fragrant but this vine can grow almost 12” per day and strangle anything nearby. It is especially invasive and hard to control — almost like Kudsu.
Ornamental Plants to Avoid in Your Central Texas Garden

Pampas Grass (*Cortaderia selloana*) - People who plant this regret it! Clumps get extremely large and thick, blades contain sharp cutting edges, and it takes a stick of dynamite to remove!

Running Bamboos - These are a fascinating plant, but can running bamboos can run rampant among your garden area unless container grown. They are very difficult to remove, once spread out, so avoid running varieties unless you have acreage to spare. Clumping bamboos, also spread but from the base, not runners, and can be controlled with periodic basal trimming.

*Clerodendrum bungei* ‘Cashmere Bouquet’ - This beautiful root hardy sub-tropical plant is enjoyed for its fragrant large cluster of blooms, large foliage, and tropical look, but spreads rampantly from underground roots, plus wind and bird dispersed seed and can create it’s own jungle in short order. Unless contained, avoid it in the garden.

*Pittosporum tobira* - The Pittosporum also gets large, requires much pruning to maintain, and is subject to being damaged at below freezing temperatures and wax scale infestation.

Of course this is not a complete list, so do your homework before going plant shopping. I recommend going go a nursery or garden center with a specific list of researched plant selections in mind, and if not available look elsewhere. I let my fingers do the walking (telephoning local sources) when looking for a specific plant. Before deciding on an alternative plant, I once again do my homework first.

So, the Fall season is a good time to be thinking about next year’s ornamental garden and getting new permanent plantings in place so they can become well established by spring. This is especially true of deciduous and spring flowering trees and shrubs. Knowing which plants to avoid is as important as those best suited for your garden.

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Leaf Cutting Ants
by Wizzie Brown

Texas leaf cutting ants are known by numerous names such as cut ant, town ant or parasol ant. Many people know these ants for the damage they cause.

Leaf cutting ants are reddish-brown with three pairs of spines on the thorax and one pair of spines on the back of the head (Fig. 1).

Workers come in various sizes, but can be up to ½ an inch long. Mounds can become large and are sometimes mistaken for fire ant mounds. Leaf cutter ant mounds have a central opening and often a crater shape at the top (Fig. 2).

Cut ants typically forage at night when the temperature is cooler. Plant damage consists of defoliation and small trees can be completely stripped overnight. Leaf cutting ants remove leaves and buds from plants in the landscape. Plant pieces are not consumed by the ant, but are used by the ants to raise a fungus garden within colony. Cut ants tend a species of particular fungus and weed out any other fungus from the garden.

Colonies may exist for years and can exceed over two million ants. It is not unusual for a single colony to cover an acre of land. Colonies are usually found in well-drained, sandy or loamy soils.

Plants can be temporarily protected by using spray adhesives around the base of the plant. These would need to be refreshed often when dirt or debris accumulates on the adhesive. Temporary protection can also be provided with contact insecticidal spray or dusts. If mounds are located in an area, the bait product labeled for leaf cutter ants, Amdro Ant Block, can be broadcast with a hand-held spreader around the mound area. If no mounds are seen, then residual sprays and dusts can be used along foraging trails and around openings.
Inside Austin Gardens Tour 2011

By Link Davidson

The Date: Saturday, May 14, 2011

The Travis County Master Gardeners Association, in cooperation with the Travis County AgriLife Extension Service, will host the Inside Austin Gardens Tour 2011 on Saturday, May 14, 2011, from 9:00 am to 4:00 pm. This year, the tour will focus on water-wise gardening.

The tour will feature the work of Master Gardeners Sheryl Williams, Sue Nazar, Rebecca Matthews and Joe Posern, each of whom uses a variety of water-wise techniques in creating their distinctly different spaces. A collaborative effort between Master Gardener Link Davidson and neighbor Wendy Brennan demonstrates that cooperation can have some pretty nice consequences, including a more efficient use of rainwater. Finally, Jeff Pavlat, president of the Austin Cactus & Succulent Society and speaker at a recent TCMGA meeting, will open his phenomenal succulent and cactus garden to tour visitors.

Sheryl Williams moved to Austin from Oregon in the last couple of years. In the brief time in her new home, she’s stripped her Wells-Branch-area yard — both front and back — of its lawn. In the front space, she’s planted native sedge grasses. Her back yard she’s converted into a food-producing area with everything from vegetables to herbs to fruit trees. About the periphery of the property, she’s used a mounding technique to retain water during rain showers. Her two rain-collection systems — one driven by gravity, the other by pump — provide water to all of her gardens.

Sue Nazar has participated in the Inside Austin Gardens tour once before. Since the 2006 tour, she’s planted the “hell strip” — the area between street and sidewalk — in front of her own and her neighbors’ properties with drought-tolerant plant varieties. She’s also developed a rain garden. Now the rainwater which follows a slope away from her home catches in a planted area. Sue’s front-yard shade gardens join with the rain garden to create a tropical feel in a climate which is often anything but tropical.

Rebecca Matthews’ space includes a front-yard collection of heat and drought-tolerant native and adapted plants and a backyard shade garden. Her quaint, backyard garden feels far-removed from the Central Texas heat, reminding the visitor of a series of cottage rooms, something Rebecca has created with a variety of cast-off objects and a sense for artful placement. Underground, she’s replaced the existing hard dirt with a rich, productive soil. Water requirements are at a minimum in this tree-shaded, wildlife-friendly oasis.
From his front yard, no one would guess that Joe Posern’s home sits on nearly a half acre. But go through the gate into the back yard and what reveals itself is an expansive series of water-wise gardens. From rain gardens brimming with wildflowers to a production area abundant with food crops to landscaped areas, Joe relies on water-conserving techniques to keep everything looking good and doing well. He plans to take an even bigger step this fall, when he hopes to install a rain-collection system much larger than his existing city-issued barrels. Perhaps most amazing about Joe’s gardens is that he’s done it all in the last several years.

Not too long ago, neighbors Wendy Brennan and Link Davidson worked together to create a natural-looking, low-maintenance transition between the front yards of their two properties, and to re-make Wendy’s front yard which was an expanse of struggling St. Augustine. Today it is a minimal space interrupted by little else than a dry-creek bed, a recycled sidewalk, and a shade garden has replaced the St. Augustine. The transition space between the properties features a series of terraces that work to catch and hold rainwater, and a dry-creek bed which works in tandem with Wendy's version below it to direct excessive rainfall to a sideyard rain garden.

Jeff Pavlat and his gardens have appeared on KLRU’s Central Texas Gardener several times. To many, he has become one of the best information sources for everything cactus and succulent related in the area. Jeff’s Westlake home features a yard populated almost entirely by cacti and succulents, but peppered with a native plant or two. A series of walls terrace the severe slope which separates street level from front yard. At house level, a pond gently disrupts the space, creating an oasis about which more of the gardener’s favorite plants thrive. As if the space itself were not enough, Jeff’s greenhouse contains a collection of still more cacti and succulents. It’s a yard not to be missed.

Information on ticket sales and educational seminars along with a schedule is forthcoming. Save the date, and plan to learn something!
Extend Your Growing Season with a Cold Frame or Hotbed

By Anne Van Nest

Cold frames (or hotbeds) are simple structures that have two main purposes, to act like miniature greenhouses to trap radiant heat and to provide protection and insulation from the elements. Cold frames traditionally have a sloped top that is positioned for maximum sun exposure, lift off or slide open sash (lids), insulated side walls that sit on the soil surface or are excavated below ground. Cold frames and hotbeds differ only in that one is heated and the other isn’t. Both types are useful in the garden — particularly from fall through spring to protect plants during cold or stormy weather. They are handy for extending the growing season and to provide a warm, sheltered area to ripen tomatoes longer into the fall or winter, to start cool weather crops (lettuce and leafy greens, radish, peas, cabbage, and more) earlier, or in some locations to overwinter forced bulbs, root vegetables, or hardwood cuttings. Many cold frames have the advantage of being temporary and portable too. Some gardeners profess that their cold frame extends their growing season by 4-6 weeks in spring and fall.

Cold frames differ from root cellars because they are designed to keep plants growing, not just for cold storage. They have no supplemental heat but rely on solar thermal energy for warmth. The design of the sloped wooden outer frame collects and traps heat from the sun. With a purpose to protect plants, most cold frames will keep plants one hardiness zone warmer (about 10 degrees F.) and work well to extend the season. Cold frames are great for getting an earlier start in the spring (especially when growing shorter, cool weather plants such as pansies, dusty miller, primroses, dianthus, dwarf snapdragons, cyclamen and ornamental cabbage), hardening off young plants in the spring or to keep root crops longer into the winter (instead of using a root cellar).

Hotbeds are cold frames that have the addition of a heat source (usually either mechanical or biological). Hotbeds are used for the same purposes as cold frames with the addition of being a good site to propagate woody cuttings which root faster with bottom heat. Hotbeds can have electric heating cables installed in the base substrate or use somewhat fresh manure for warmth.

Cold frames can be easily made from recycled materials and cost almost nothing for the materials, or an already manufactured version can be purchased for $100-$500. Do-it-yourselfers with access to 2 x 6s, 2 x 8s or 2 x 10s and window sash can easily construct a cold frame.

**Location**

Cold frames and hotbeds can be located using the same principles. A southern exposure is beneficial so cold frames and plants can get the most benefit from sunlight. A west-facing direction is the second best orientation. A solid (or mostly solid) windbreak on the north side, which doesn’t cast any shade on it, will create an even warmer microclimate for the cold frame. If a close windbreak is not available, bales of straw can be used on the north side wall for temporary added insulation.

Site your frame near the house for easy access and attention. Pools of water in the vicinity of the frame should not sit for long periods during the fall, winter and spring. Good drainage is beneficial for plants. An accessible (summer and winter) water supply (and electricity if needed) should be a consideration for locating a cold frame.

**Construction**

Most cold frames are a simple rectangular box, about 2-3 ft high that either sits on the soil surface or can be sunk into the ground. The sloped front faces south or west and is angled at about 1” per foot (about a 6-8” difference from top to bottom or 35 to 55 degrees). The angle will vary depending on whether the cold frame is to be used in the winter. The higher the angle, the more sun will enter the frame during the winter when the sun is lower in the sky. One simple formula is...
to add 15 to 20 degrees to your latitude. Another consideration is the equipment available to make the angled cuts. In some cases a standard 45 degrees will be perfectly adequate.

The frame height depends on what the cold frame is being used for — but to get the best angle for the sash, there isn’t much opportunity to go much beyond the standard 18” back (north) and 12” front (south) frame heights. Within reason, you can make your frame taller if you will be hardening off older plants or shorter for starting flats of seedlings.

Many different materials, both recycled and new can be used for the sash (frame lid). These include such options as glass, fiberglass, poly film or wooden snow fence. In many cases the size of the sash will determine the size of the cold frame — ok it’s just much easier this way.

Double glazed windows make good durable sash that are heavier than other materials. Glass is generally looked upon as the best material to cover a cold frame. Other materials include discarded storm windows from screen doors or no longer needed patio doors or bathroom shower doors.

If polyethylene plastic is used, the film should be clear and at least 6 mil thick. Consider using a double layer for extra insulation. The poly is not very durable and will probably have to be replaced each year.

Fiberglass or polycarbonate materials make very good sash for cold frames, although they are quite a bit more expensive to purchase.

### Comparing Cold Frame Sash Material

**Glass**
- Recycled windows can be used.
- Good light transmission.
- Good insulation value.
- More hail-proof (weatherproof) than polyethylene.
- Glass is heavy. The extra weight means the sash and side frame must be able to withstand the extra weight.
- Opening and closing involves additional weight.
- Broken glass is more difficult to replace and repair.
- Expensive to purchase.

**Polyethylene film**
- Inexpensive to purchase.
- Probably must be replaced each year.
- Easy to install and lightweight to handle.
- A double layer will provide more insulation. Won’t withstand large hail stones or heavy snow or ice loads.
- Sash must be secured so that it doesn’t take flight in a strong wind.

**Polycarbonate panel**
- Strong and durable. Will last many years.
- Better insulation value when using double polycarbonate layer panels. Expensive to purchase.
- Nonstandard sizes involve extra cutting.

**Fiberglas panel**
- May lose good light transmission over time and become more opaque.
- Expensive to purchase.
- Nonstandard sizes involve extra cutting.

**Wooden fence/lath**
- Easy to construct. Often used with polyethylene film to give added support.
- Inexpensive.
- Can easily be removed to ventilate. Not good insulation or thermal conducting without the addition of other materials.

### Side Frame Materials

A wide range of materials can be used for the cold frame box. These include wood, brick, masonry, cinder, concrete blocks or metal pieces. The insulation value of each of these materials varies and should be a consideration when picking the best material as well as availability and handling ease. Straw bales can also be used to make a temporary cold frame using a couple of saw horses and some heavy plastic. Metal cold frames should only be used where minimal temperature protection is needed as they have very little insulation value and heat won’t be retained long.

Mostly cold frames have traditionally been made of wood. With this material they are easy to construct and can be dismantled, moved or expanded easily. Untreated wood is recommended (recycled or new) and home treated using a non-toxic wood preservative. If untreated wood is used, then the inside of the frame can be painted with a white latex-based paint to add more light reflection. Use a minimum of 1” thick lumber (2” will add greater durability, strength and insulation.)
Seal all cold frame joints to maximize heat retention. Foamboard insulation can be used inside the frame on the above-ground, north-facing side for even more insulation.

**Building a Hotbed**

Cold frames can be turned into hotbeds through the addition of a heat source. Hotbeds have the advantage over cold frames because they are more consistent in their temperature and can be used for an even greater number of overwintering or season extending purposes. If a constant and accurate temperature is required, electric heating cables should be used in the soil under the plants. If this is the case, position the hotbed near an electrical outlet.

For less demanding heating needs like we have here in Central Texas, other materials such as light bulbs, manure, hot water or steam can be used to heat the hotbed. Many people find that hotbeds are not needed and simply use passive solar energy to heat their cold frames. When doing this, black painted barrels filled with water absorb heat during the day and slowly release it at night.

**Using Manure**

When available, manure is a cheap and convenient heat source. Hotbeds can be made by placing the frame on a manure pile and mound ing it around the frame. This works best to extend the spring and fall season. Alternatively, a layer of manure 18-30 inches deep below the hotbed is a source of heat. Let manure sit for at least 10 days before using it in a hotbed. Place a 6” layer of soil over the manure to protect plant roots. Monitor the soil temperature and move plants into the hotbed only when temperatures are below 85 F. Hotbeds using manure must also have excellent drainage. Manure will stop fermenting (and stop producing heat) if it becomes soaked with water.

**Extra Insulation**

On unusually cold nights, loose straw can be piled on top of the cold frame sash to provide extra insulation if needed. A thermal blanket (purchased from a nursery or a cast off flannel sheet) is also ideal to put over the plants. This will trap the heat that accumulated during the day and keep the plants warm into the night.

**Starting Seeds**

Soil temperatures between 65 -78 F. are ideal for starting many seeds. To prevent seedlings from stretching and growing soft, monitor the temperature once they germinate and vent the frame if air temperatures are above 75 F. Many cool-season crops (lettuce, peas, cabbage, cauliflower, onions, etc.) are ideal for cold frames and can be started here in late summer. The frame though must be checked regularly and may need venting on bright, sunny days.

**Venting a Cold Frame**

Cold frames are designed to be quite versatile in their venting options. Depending on the amount of venting required and the direction of the wind, the sash can be propped up, slid up, pushed down or removed entirely to provide good air circulation. In many cases, when outside air temps reach 60 F. the interior temps are high enough to warrant venting – even if it is lifting the sash a few inches at the bottom to let the heat escape.

If other commitments don’t allow for frequent temperature checking of the cold frame so plants inside don’t get overheated or chilled, several models of automatic vent openers are available to purchase and install. These can be set to open and close at specific temperatures. Many have pneumatic cylinders that respond to temperature changes and gradually open the sash in increments as the temperatures rise. These start at about $50. No external power is needed for many of them and the automatic openers lift up to 12 pounds in weight up to 17 inches in height.

**Best vegetables to grow in a cold frame.**

**Root crops:** beets, carrots, parsnip, rutabaga, onions, leeks, kohlrabi

**Leaf crops:** Brussels sprouts, cabbage, cauliflower, radish, Swiss Chard, kale, collards, lettuce, mustard, spinach, mâche/corn salad, scallions, kale

Cold frame diagrams can be found at the following websites:

http://pubs.ext.vt.edu/426/426-381/426-381.html

www.abe.psu.edu/extension/ip/IP822-34.pdf

**Beekeeping 101**

**Saturday, November 6, 2010**
8:45 am - 4:30 pm

Austin Community College
South Campus
1820 W Stassney Lane, Room 1130
Austin, Texas

This Advanced Educational opportunity is for Travis County Master Gardeners and Master Gardeners in surrounding counties. TCMGA members will receive 8 hours of Continuing Education Units (CEU) toward 2010 MG recertification. TCMGA members must sign-in for credit. MGs from other counties are responsible for obtaining CEU approval for the class and for report hours.

**Cost:** $30 (lunch not included)

Beekeeping 101 gives you easy-to-understand, step-by-step instructions on how to start your first hive. Presenters are San Marcos Area Bee Wranglers experts. Class is expected to cover:

**Bees, flora & the apiary**
- Bee biology
- Castes
- Life cycle & jobs
- Reproduction, swarming and supersedeure cells

**Apiarist location characteristics**
- Bee flora

**Apiarist equipment**
- Bee space — the hive and its components
- Tools of the trade

**Hive management**
- Checking a hive (the process)
- Finding the queen, brood
- Feeding the bees
- Supervising the hive
- Moving the hive to the nectar and pollen
- Other management

**Pest, honey and winter**
- Diseases
- Honey harvesting
- Bees in the winter

RSVP deadline Oct 22: $30 check made out to TCMGA, mailed to Rosalie Russell, must be received by Oct 22. Minimum of 20 students or class will be canceled and checks returned. Maximum class size is 40 students.

Parking is free. There will be a 45 minute lunch break. You are encouraged to bring your own lunch or utilize the café in the building. A small kitchen with refrigerator and microwave adjoins the class room. There is a large area of tables and chairs inside and outside of the building. There are a number of restaurants within two blocks of the campus offering other possibilities.

If you have questions, email or call Rosalie Russell, TCMGA VP of Programs, gisathccs@aol.com or 512-804-2257.

**Growing Culinary Herbs in Texas**

**Saturday, November 13, 2010,**
10:00 am - 10:00 noon

American Botanical Council
6200 Manor Rd., Austin TX 78723

Herbs are a delight to the senses and an easy way to add beauty to your landscape! This class will cover the basics of growing both seasonal and perennial culinary herbs in central Texas, and will offer some suggestions for their use. Class size is limited, so sign up early by calling the Master Gardener Help Desk at (512) 854-9600.

This seminar is free and open to the public. It is presented by the Travis County Master Gardeners, a volunteer arm of the Texas AgriLife Extension Service in Travis County.

www.tcmastergardeners.org.

Bee photos courtesy of Wizzie Brown
# TRAVIS COUNTY MASTER GARDENER ASSOCIATION
## 2010 EXECUTIVE BOARD

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
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<tbody>
<tr>
<td>President</td>
<td>Carolyn Williams</td>
</tr>
<tr>
<td>Immediate Past President</td>
<td>Manda Rash</td>
</tr>
<tr>
<td>Vice President for Programs</td>
<td>Rosalie Russell</td>
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<tr>
<td>Co-Vice President for Education</td>
<td>Vicki Blachman</td>
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<tr>
<td>Co-Vice President for Education</td>
<td>Bonnie Martin</td>
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<tr>
<td>Volunteer Coordinator for Projects</td>
<td>Vacant</td>
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<tr>
<td>Co-Volunteer Coordinator for Trainees</td>
<td>Sherrill Nilson</td>
</tr>
<tr>
<td>Co-Volunteer Coordinator for Trainees</td>
<td>Pat Mokry</td>
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<tr>
<td>Secretary</td>
<td>Susan Jung</td>
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<tr>
<td>Treasurer</td>
<td>Marty Berdan</td>
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<tr>
<td>Membership Director</td>
<td>Becky Waak</td>
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<td>Greenhouse Manager</td>
<td>Dorothy Akin</td>
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<td>Greenhouse Manager</td>
<td>Chris Giaraffa</td>
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<tr>
<td>Greenhouse Manager</td>
<td>Vicki Olson</td>
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<tr>
<td>Austin Area Garden Council Representative</td>
<td>Joe Posern</td>
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<tr>
<td>State Council Representative</td>
<td>Jo Kautz</td>
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<tr>
<td>State Council Representative</td>
<td>Tommie Clayton</td>
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<tr>
<td>Director of Publications</td>
<td>Vacant</td>
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<th>Past Presidents (Non-voting):</th>
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<tr>
<td>Bill Baldwin</td>
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<tr>
<td>Bill Boytim</td>
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<tr>
<td>Susan Cashin</td>
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<tr>
<td>Tommie Clayton</td>
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<tr>
<td>Susan Decker</td>
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<tr>
<td>Don Freeman</td>
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<tr>
<td>Manda Rash</td>
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<tr>
<td>Peggy Stewart</td>
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<tr>
<td>Becky Waak</td>
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<tr>
<td>Will Walker</td>
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<th>Ex Officio Member of the Board (Non-voting):</th>
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<tr>
<td>Texas AgriLife Extension Travis County Horticulture Agent</td>
</tr>
<tr>
<td>Daphne Richards</td>
</tr>
<tr>
<td>1600-B Smith Road, Austin, Texas 78721</td>
</tr>
<tr>
<td>512-854-9600</td>
</tr>
<tr>
<td><a href="mailto:drichards@ag.tamu.edu">drichards@ag.tamu.edu</a></td>
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This issue of the Compost Bin has been published thanks to the contributions of the following Travis County Master Gardeners and Wizzie Brown — Texas AgriLife Extension:

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512-854-9600

Visit the websites: www.tcmastergardeners.org and http://travis-tx.tamu.edu

The End...

Time to Get Gardening!