

June 1st HCMG Meeting	1
President's Message	2
Wildfire Wisdom	3
Event Pictures, Mother Nature	4
June Gardening Tips, Chia	5
Calendar of Events, Green Step	6
Insects & Living Roofs	7
May Minutes	8
All Things Edible	9

Check out in this issue:

Page 3: Wildfire wisdom



Page 5: Chia

Page 7: HCMG Insect Answers



Page 9: Vegetable Gardening



June 2011
Volume 9, Issue 6

June 1, 2011,
1:00 P.M. at Kerr County
AgriLife Extension Office

Our speaker is
Tom Collins
on
**"Hill Country
Butterflies and their
Host Plants"**

The Texas Hill County has around 150 species of butterflies. The program will cover some of the science of butterflies, a look at the members of eight families of Hill County Butterflies and their caterpillar host plants, a brief introduction to the Monarch migration, the periodic invasions by the American Snout, and how to get started learning and enjoying our beautiful scaly winged flyers.

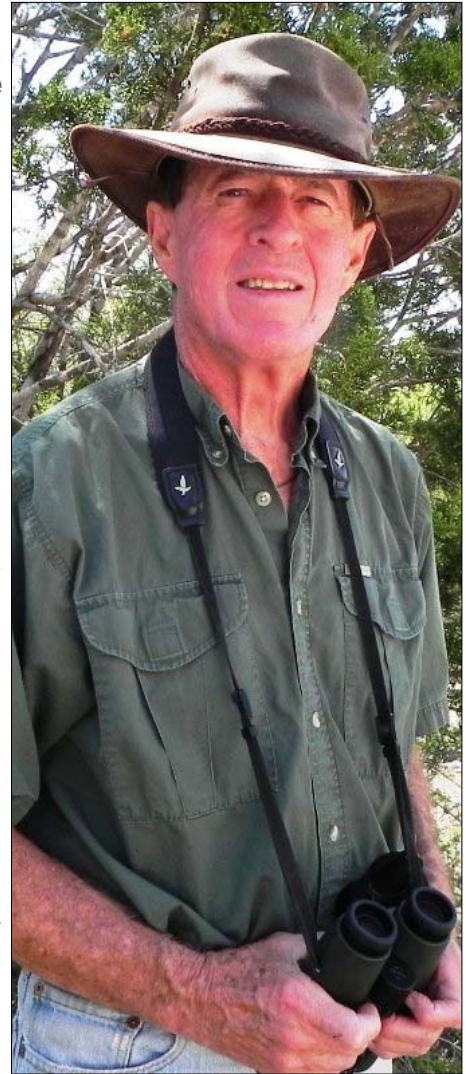
Want to be part of The 2011 North American Butterfly Association (NABA) Counts?

Center Point – June 4 (Saturday) –
Bob Tanner compiler -
bintense@hotmail.com

Boerne – June 24 (Friday) –
Cathy Downs compiler -
mzdowns@hctc.net

Love Creek Preserve (Bandera County) – June 28 (Tuesday) –
Co-compilers Tom Collins
towhee@hctc.net & Rebecca Flack
rflack@tnc.org

Kerrville – July 15 (Friday) –
Tom Collins towhee@hctc.net



The fee will be \$3.00 to participate. The funds go to NABA to cover their cost in compiling and publishing the data.

Contact a compiler if you want to participate. No butterfly identification skills are necessary and this is a great time to go out with people who know butterflies and learn them. We can always use eyes to help us find butterflies. Always wear good shoes, bring water and lunch, full brim hats and plenty of SPF.



President's Message - *Chris Seifert*

If we are wise, difficulty becomes a seed to grow new ideas and needed improvement. Surely now is the time to improve our manner of recruiting project volunteers and helping newer MGs connect to a good cause.

For many years **Tommie Airhart** recruited volunteers masterfully. When she stepped down from that position, **Kathy Russell** stepped up. But it is clear that Hill Country Master Gardeners has grown too big and too busy for one person to recruit all the volunteers needed for so many projects. Since Kathy's leave of absence, we have muddled along, but not well. This must be a good time to regroup and rethink the recruiting process.

Betty West pointed out recently that our HCMG projects in smaller towns appear to have minimal difficulty in finding willing hands. This is probably because Hunt, Bandera, Medina, Boerne and Fredericksburg MGs function somewhat as smaller groups, much as our organization was in earlier days. Because coordinators know who is interested in their projects, these informal teams communicate quickly and flexibly to fill a schedule.

On the other hand, our large ongoing Kerrville projects, particularly the Demonstration Garden, the Greenhouse and Market Days require many volunteers. Recruiting for these is continual.

I am so grateful for and proud of **Vickie Killeen, Ron Smith** and **David** and **Dorothy Buchen**. They are knowledgeable, skilled, dedicated and so dependable! And often they are run ragged. However, with a little better organization, we can help these faithful coordinators and relieve their stress. The idea which follows rates priority discussion at the June 1 committee chairs and membership meetings.

Several truths are self-evident ...

- * Our projects are so successful because of good leadership.
- * Those leaders are very busy with the logistics of their specialized projects.
- * Unfortunately a large handful of us cannot attend meetings regularly, so they miss the opportunities to sign up for projects.
- * New or returning MGs sometimes need help finding fun ways to earn their volunteer credits.

Here's my proposed improvement:

Each large project needs a dedicated volunteer to address solely the scheduling needs of that program. That person is *not* the project coordinator, but works closely with the coordinator, and is just as essential to the success of the project.

If our editor, **Eleanor Baldwin**, has room for a volunteer recruiting column, project communicators would submit needs for volunteers to publish in the newsletter. If still needed, opportunities would continue to be announced at the monthly meeting.

Did you know that Record Keeper, **John LaRoche**, publishes a quarterly summary of the volunteer hours we report? That list is invaluable! To fill the last niches in a monthly work schedule, a project's communicator would simply call MGs who need work hours.

Let's keep talking. Let's be creative! Let's support our project coordinators by relieving them of the continual task of recruiting and scheduling volunteers. Thanks for your ear.



Wildfire wisdom for homeowners

By Barbara Elmore

A homeowner in the Oak Hill community now knows that his metal fence provided the buffer between a fire that destroyed other Oak Hill homes in April,

and his own home, which survived the flames. He also discovered that when he removed cedar trees and raised the canopy on other trees near his home, he increased the chances of saving his home from fire.

At the time, he cleared and cut the trees for looks, and to give him a better view of the surrounding Hill Country. Only after the fire did he learn that his actions had created a defensible space around his home. Meanwhile, two of his neighbors lost their homes to the wildfire.

Texas Forest Service defines "defensible space" as the buffer between nature and a structure. Homeowners can create these areas by removing weeds, brush, leaves, other vegetation and flammable junk to keep flames away and reduce the risks from flying embers.

The story of the homeowner who did the right thing without knowing it illustrates the simple steps homeowners can take to protect themselves from wildfires, which are inevitable and often uncontrollable.



Swept by winds and fueled by vegetation, wildfires spread rapidly, especially during droughts, and especially in areas that were previously unpopulated but now contain homes built and gardened by residents who never thought about the threat of fires.

At a Blanco County

Conservation Expo last September, Justice Jones of the Texas Forest Service noted that people cause 94 percent of wildfires through such actions as setting off fireworks, burning debris, smoking, leaving lighters and matches in places where children can find them, and neglecting to douse campfires. Many times there are more fires than firefighters, he said, although firefighters save many homes.

Fire prevention experts offer these 10 actions that gardeners and homeowners can follow to help protect their homes from wildfires:

1. **Remove brush** from around your home and outbuildings.
2. **Create a defensible space** of at least 30 feet around your home.
3. **Look at retaining walls, fences, sidewalks and driveways** as "fuel breaks." Understand that the wooden privacy fence you prize may be fuel for a fire.
4. **When planting around your home, use fire-resistant plants** -- those that do not have high-resin content.
5. **Space trees 10 to 15 feet apart** at the crown, and prune up to 5 feet.
6. **Keep tree branches away from the eaves** of your home.
7. **If you are building a new home or outbuilding, use fire-resistant siding**, asphalt composite, tile and/or metal. If you are remodeling, consider fire-retardant materials.
8. **Screen vents, attics and other areas** to keep out embers.
9. **If you live in a rural area and use propane, make sure the tank is located away** from the house.
10. **Place connected garden hoses** on all sides of your home for emergency use.

The Forest Service says there are two crucial factors in vegetation recovery after a fire: rain and rest. If the area does not receive precipitation, plants will not grow, whether burned or not. Ranchers should wait six months to a year after a fire to allow grazing on a burned property. Rains help burned areas recover, and reseeding is rarely necessary.



Hill Country Master Gardeners at the 2011 Texas Master Gardeners Conference in Glen Rose

April Market Days



Left to right: (front row) Vickie Killeen, Ron Smith, Milton Wilson (back row) Ron Richerson, Randy Simmons, Jackie Connelly and Margaret McBride.



2011 Graduation Class

Bea Borton, Roylynn Brocksch, Angela Jordan, Milton Wilson, Denise Ferguson, Valerie Fishell, Richeanne Frauenberger, Don Walzel, Torm Darnell, Barbara Noblin, China Long, Sandy Lewis, Meg Scott-Johnson, Anne Hamm, Carol Howard and Pat Johnson

Our Members Suggest

Want to see the Junction wildfire?

https://www.youtube.com/watch?v=0hd5peJa120&feature=player_embedded

Debbie Russell checked out the bubbler for making compost tea that was recommended by our last speaker. Here is the website address for making that brew:

<http://dchall.home.texas.net/organic/teamaker/>

Want information about landscape design? <http://www.snwa.com/html/>

CHA CHA CHA CHIA!

by Judy Fleming

Salvia hispanica, Chia - Is it a pet or a plant? I was first introduced to this herb in 1969 as a supplement for energy and weight loss. After eating the seeds, I was not hungry and I did not sleep for two days, so this was a great boon to cramming before finals. In pre-Columbian times, chia was a main component of the Aztec and Mayan diets. It was known as the running food, and used for endurance. Indians running from the Colorado River to the California coast to trade turquoise for seashells would only bring the Chia seed for their nourishment. So what is it exactly?

Chia is an annual herb growing to about 3 ft tall, with opposite leaves 1.5 to 3 inches long and 1 to 2 inches broad. It flowers in July and August where the blooms appear at the end of spikes. The plant is hardy from USDA Zones 9-12.

Wikipedia identifies Chia as a species of flowering plant in the mint family, Lamiaceae, native to central and southern Mexico and Guatemala. It is still used in Mexico and Guatemala, with the seeds sometimes ground, while whole seed is used for nutritious drinks and as a food source.

The leaves and stems of *salvia hispanica* plants taste great in sandwiches, soups, salads and stews. The seeds of the plant contain high amounts of omega-3 fatty acids, even more so than flax seeds. The seeds can be added to many recipes especially cookies and breads. Another advantage over flax is that chia's high content of antioxidants allow the seeds to be stored for long periods without becoming rancid. And, unlike flax, they do not have to be ground to make their nutrients available to the body. In some circles, it is known as a "super food" due to its nutritional value and the effect it has in facilitating slower absorption of carbohydrates, thus raising the glycemic index of the other foods consumed. This is a tremendous benefit for diabetics. For additional scientific information about this super food please read

Chia, The Ancient Food of the Future by William Anderson (<http://getchia.com/about-chia/the-ancient-food-of-the-future>).



JUNE GARDENING TIPS

by Kathie Marlow



Nitrogen is a garden must. It is one of the three primary plant nutrients. Although it is present in the air, plants must take it up through the soil - either from chemical fertilizers or from the breakdown of organic matter. Because nitrogen is rapidly depleted, it must be replenished regularly.

The best organic sources of nitrogen are manure, blood meal, cottonseed meal, soybean meal and fish emulsion. Good sources found in your own back yard are leaf mold and grass clippings.

Chemical sources of nitrogen include ammonium sulfate, ammonium nitrate, calcium nitrate and sodium nitrate. Read the label listed on a fertilizer label. Nitrogen (N) is the first element listed; Phosphorus (P) and Potassium (K) are the other two. The first number (as in 6-2-1) indicates the percentage of nitrogen in the total mass.

There is no need to dig nitrogen fertilizer into the soil. Water it in or let the rain do it for you. You will know if you have applied excessive nitrogen if blossoms are sparse and foliage grows too fast and lush, which makes plants more vulnerable to disease, pests and environmental stress. There is no antidote: rain and frequent watering will eventually wash nitrogen away.

Plants deprived of nitrogen will look stunted and spindly, with pale foliage that eventually turns yellow and dies. Correct the shortage by adding 1 inch of rotted manure to the soil and by spraying foliage with fish emulsion weekly until symptoms disappear.

Begin to monitor your patio and container plants daily for water needs and pest control. Apply water-soluble fertilizer or foliar feed to plants as needed for healthy vigor (usually every 2-4 weeks). Pinch back straggly plants and deadhead spent blooms to maintain a neat appearance. Replace seasonal and failed plants as needed.



Calendar of Events

by Betty West

(Attendance at events other than Master Gardener meetings is optional; events are listed for those wishing to attend other educational offerings. Be sure to call and

May 28 – HCMG has a booth at Kerr County Market Days – courthouse grounds from 9 am – 4 pm. Plant sale & demo program.

May 28 – San Antonio hosts “*Festival of Flowers*” presented by S.A.W.S. and T.N.L.A. at Alzafar Shrine from 9 am – 5 pm.

For info <http://safestivalofflowers.com/>

May 31 - Fredericksburg NPSOT meets at 7 p.m at the Gillespie County Historical Society Bldg, 312 W. San Antonio St. Visitors welcome.

June 1 – HCMG Executive Committee meeting at 9:30 am Committee Chairs join them at 10:30 am. Our HCMG monthly meeting at 1:00 p.m.

June 7 – Kerrville NPSOT meets at Riverside Nature Center at 7 pm. Bill Neiman of Native American Seed is the speaker. Visitors welcome.

June 14 - Riverside Nature Center in Kerrville will host a “*Brown Bag Lunch and Learn*” from 11:30 - 12:45. Bring a sack lunch and hear Jan Fulkerson discuss the HOT topic “Wildfires.” Free Public Service program.

June 21 - Kerr Cactus and Succulent Society meets at 7:00 p.m. at Wells Fargo Bank on Junction Hwy (5 Corners in Kerrville.) The speaker is Woody Minnich from New Mexico. Visitors welcome.

June 28 – Fredericksburg NPSOT meets at 7 pm at the Gillespie County Historical Society Bldg., 312 W. San Antonio St. Ms. Andy Chidster (*The Natural Gardener – Austin*) will discuss “*How to Use Organics to Enhance Growing Central Texas Native Plants and Trees.*” Visitors welcome.

Green Step



EAT “SLOW” FOOD

Slow food is the name attached to a movement that is trying to reconnect people with the food they eat - knowing where the food you are eating comes from. Many foods fall out of favor because they do not fit into the industrial food production system, and the movement is trying to prevent these heirloom foods from disappearing from the food chain. The organization promotes awareness and education and the use of sustainable practices. There is a local chapter in Austin, and San Antonio is looking for people to start a chapter there.

You can help by buying locally from farmers markets, growing some of your own food and sharing it with a neighbor, and encouraging your favorite restaurant to follow the slow food method for some of its dishes.

Bernadell Larson



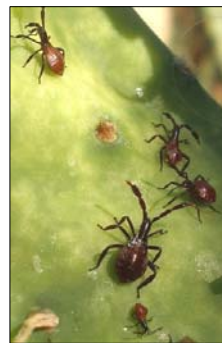
RECENT INSECT QUESTIONS FROM HCMG MEMBERS

by Marilyn Pease

During last month's meeting, I was gifted by Tommie Airhart with a beautiful example of one of our Hill Country native beetles. Upon doing some research, I discovered it was an ironclad beetle of the subfamily *Zopherinae*. It has the magnificent Latin name of "*Zopherus nodulosus halde-man*". Not only is it beautiful (to me, anyway), it is also considered beneficial or at least benign. The name "ironclad" comes from its extremely hard exoskeleton, one of the hardest of any insect. In order to pin a specimen of this beetle for a collection, you will need a small drill like a Dremel to make a starter hole! It also has the habit of playing dead when captured, something I found out when I was photographing it. Tommie thought it was dead and so did I until he started to wiggle. The reason that it should be considered beneficial is that the ironclad beetle is a *fungivore*, meaning that it eats fungus and, indeed, can be found feeding on lichens on the bark of our live oaks. As a *fungivore*, this beetle plays a significant role in the support of the soil food web, something we are only recently beginning to understand. Rest assured, this beetle does not feed on live trees and prefers to make its home in rotting wood.



Also during the meeting, several people asked me about some small bright red insects seen in great quantities recently on cacti. I went outside to investigate my cacti and took some pictures of the red insects that I have. As near as I can figure, these are nymphs of our ubiquitous leaf-footed bugs. Without a specimen, it's hard to pinpoint, but I would bet that is what they might be. The leaf-footed bug eggs should be hatching now and go through a nymph stage such as this. Check out the photos and see if these are what you see on your plants.



LIVING ROOFS FOR THE SOUTHWEST

by Bernadell Larson

In the May 2009 newsletter, I did an article on "Green Roofs", or "Living Roofs". While living roofs have been used on residential homes for thousands of years in other parts of the world, there has been a tremendous increase in interest, research, and installations in the central Texas area in the past two years.

A living roof has plants on its surface instead of shingles, tar, gravel, etc. Homesteaders built houses with roofs of grass sod. Usually, the living roof has a waterproof layer, then a layer with gravel, or something similar so the plant roots will not stand in water, a layer of soil and a layer of mulch. It also must have a way to channel the excess water to the ground.

There are three types of living roofs: Intensive with more than 6" of planting medium, Semi-Intensive with 4 to 6" of planting medium and Extensive with less than 4" of planting medium. The weight ranges from 35-45 lbs per sq ft for the Extensive roof to 70-80+ lbs per sq ft for the Intensive roof. The Intensive roof will probably require new construction to handle the weight. The Extensive and possibly the Semi-Intensive roof could be retrofitted on an existing structure. A living roof can be as simple as planter boxes on the roof or an extensive planting system, with perennials, shrubs, cacti, grasses, and trees, and an irrigation system. In the past it was thought that the roof had to be flat, but more and more roof gardens are being made on pitched roofs.

In our time living roofs are underutilized components in insulating buildings to be cool in the summer, warm in the winter, and absorb noise.

In addition, they minimize storm water run-off by absorbing the rain instead of letting it wash off the building. It can also provide a habitat for butterflies and other animals.



Orchard Central Roof Top Garden Singapore

HILL COUNTY MASTER GARDENERS MEETING MINUTES May 4, 2011

The meeting was called to order by V.P. **Barbara Elmore** at 2:00 pm at the conclusion of the presentation by Colleen Dieter of Red Wheelbarrow Plant Care. There were 43 members in attendance, which included three new interns.

Business Matters:

Barbara asked if there were any correction to the April minutes as written in the newsletter. There being none, a motion was made and seconded to approve the April meeting minutes.

Roy Eliff, Treasurer, announced that we have \$23K in the general fund and \$58K in the scholarship fund. Monies collected from sales of plants from January to present total \$8,281 with expenses of \$4,042 with a net gain of \$4,239. The rain barrel sales were \$2,575 with expenses of \$300 with a net gain of \$2,275. Congratulations to everyone involved with the sales.

Opportunities and Announcements:

Correspondence/Donation: Barbara announced we had received a thank you note and a donation from the Utopia Garden Club. Special thanks to **Carolyn Nall** for giving them a tour of her garden.

Greenhouse Committee: **Vickie Killeen** and **Anne Brown** circulated the May/June Volunteer Watering Schedule. Vickie said training sessions for new interns and certified MGs wishing to water the plants in the greenhouse/pot yard would be conducted later in the week.

New Certified Master Gardener Gavin Walston, Class of 2010, has completed the necessary 50 hours of volunteer service and was awarded his certificate, card and membership badge.

Transferring Member: **Sid Spiller**, Master Gardener from the Blanco Master Gardeners, was introduced. Sid attended our April 9th plant sale and has

transferred to the HCMGs.

Volunteer Coordinator Chair: Barbara announced we are searching for someone interested in taking this chair. We are a volunteer-driven organization and this is a key position for our group.

Nominating Committee: Barbara announced that **Dorothy Buchen** and **Tommie Airhart** have agreed to be the 2012 Nominating Committee. Elections are in November and officers will be installed in December.

Public Relations Committee Chair: Barbara announced that our new Intern, **China Long**, has agreed to take over this chair as soon as she has been certified. In the meantime, she will be helping with the public relations under the direction of President Chris Seifert.

Mentor Training on Telephone Inquiry Desk: **Anne Moss** announced she would conduct "mentor/computer training for interns" on the telephone inquiry desk after the meeting. The new interns will be starting their required telephone duties in May and June.

Class of 2011 Graduation: **Debbie Russell** announced that there were 16 graduates of the 2011 Class May 3. Several of them have already started their volunteer hours and we all look forward to their enthusiasm and helping them achieve their certification.

Profile Sheets: John LaRoche announced that we only have about 15 individual profile sheets that need updating and that Jim Latham would be available after the meeting to take new photos. Anyone who has not updated their profile sheet, please contact Rose Marie Mazanke.

Texas Master Gardeners Conference: **Anne Brown** provided an update on the annual conference held April 27-29. The conference was good. One of the main concerns this year was the "Texas AgriLife Extension Partial Cost Recovery" initiative as it relates to the Texas Master Gardener Association. Texas

A&M has a \$10.3M budget shortfall and is wanting to recover approximately \$4.3M. This might be accomplished by charging fees through Agrilife extension which could mean saving 60 extension agent jobs throughout Texas. The fees are \$10 per person trained by an Agrilife agent or 10% of the revenue generated. Basically, as she understands it, it would only affect the HCMGs fees for initial training for MG Certification or 10% of the fee minus the cost of the manual. This would translate into less than \$17.50 per student or about \$350 for 20 students. Our agent, Roy Walston, will give us further feedback at our next monthly meeting.

Anne announced that the next Texas Master Gardeners Conference will be in San Antonio at the Norris Convention Center at IH10 and 410. For more information visit the website: <http://www.bexarcounnymastergardeners.org> and Anne advised all if they were planning on attending to get their hotel reservations confirmed early.

Member badges: For those members who have not done so already, new badges and membership cards were available for pickup in the office.

Recycling: **Tommie Airhart** suggested that we place recycling bins for plastic/paper at the AgriLife Office for internal use since the office is in the county and a recycling program is not in place. She will get a cost and propose it to our agent.

Festival of Flowers: Jane Rackley announced the Festival of Flowers on May 28th in San Antonio. The website is <http://safestivalofflowers.com/> for further information.

There being no further business, the meeting was adjourned at 2:40 pm. The next HCMG meeting will be held at 1 pm, Wednesday, June 1st, 2011, in the AgriLife Building Classroom.

Respectfully Submitted,
Jackie Connelly, Secretary



ALL THINGS EDIBLE

June 2011

by Pam Bresler

We are now officially in the driest seven-month period since records have been kept. The good news is that our drought-causing La Nina weather pattern should end in July. The bad news? July is historically one of our driest months, and unless

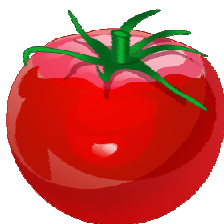
we get a tropical system, we may be waiting until September for rain. To compound our gardening woes, this April was the hottest one on record. My favorite source for long-range weather info is the blog of our LCRA meteorologist, Bob Rose. http://www.lcra.org/water/conditions/weather/weather_column.html

This year we can blame many of our gardening failures on the extreme weather. My peach trees bloomed profusely, set a lot of fruit, and I was faithfully thinning them. Despite the occasional deep watering, my trees have aborted most of their peaches. With little soil moisture, it was a lost cause. Regardless of how much you irrigate, the result is inferior to nitrogen-rich, calcium-free rain.

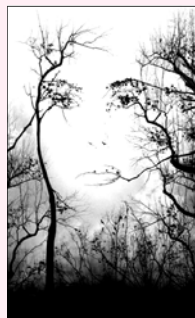
Currently, the number one tomato problem is "Why won't my tomatoes set fruit? I have large, healthy plants." Large-fruited tomatoes have a hard time setting fruit if daytime temperatures are over 90°, or nighttime temperatures are over

70° or under 50°. April 1 was 91° degrees, yet April 4 was 34° degrees, which are difficult conditions for any tomato!

Early June is the time to start fall tomatoes from seeds. Fall tomatoes need to be planted by early July to mature before the first frost, as they ripen slowly in cooler fall temperatures and need a long growing season. I try to carry my indeterminate and small-fruited tomatoes, like "Sweet 100" and "Juliet" through the entire season, but replant your determinate tomatoes to assure a fall crop. I've also had success taking cuttings from healthy tomatoes to start fall tomatoes. Seeds of okra, eggplant and peppers can be planted in June. Transplants of okra, tomatoes and peppers can also go in this month.



If grasshoppers are still plaguing you, see last month's column on Nolo and Semaspore Bait. Another grasshopper tip comes from John Dromgoole's website: Mix one to two cups of the powdered Kaolin clay with a gallon of water and a teaspoon of mild dish-washing soap. To make mixing easier, the Kaolin clay should be slowly added to a cup or two of water first to make a paste with the soap. Add the rest of the gallon of water. Shake well and spray this mixture onto all leaf surfaces. The white film on the leaf repels the grasshoppers. Another spray-on recipe comes from Jay Mertz of Rabbit Hill Farm: Mix one cup of diatomaceous earth with one gallon of water along with two tablespoons of molasses. Spray this onto the plants. Diatomaceous earth looks like talcum powder, but to the insects it is like broken glass.



Memos from Mother Nature

by Bernadell Larson

It is interesting that certain foods target certain body functions and the foods mimic their human body part in appearance.

Grapes hang in a cluster that has the shape of the heart. Each grape looks like a blood cell and all of the research today shows grapes are also profound heart and blood vitalizing food.

Celery, Bok Choy, Rhubarb and many more look just like bones. These foods specifically target bone strength. Bones are 23% sodium and these foods are 23% sodium. If you don't have enough sodium in your diet, the body pulls it from the bones, thus making them weak. These foods replenish the skeletal needs of the body.

Sweet Potatoes look like the pancreas and actually balance the glycemic index of diabetics.

Hill Country Master
Gardeners 2011 Executive
Committee

Chris Seifert - President
Barbara Elmore - Vice President
Jackie Connelly - Secretary
Roy Eliff - Treasurer
Randy Simmons - Ex-officio Advisor
Roy Walston - C.E.A. Advisor

Committees

Archivist: Ida Luckey

Demonstration Garden:
Dorothy & David Buchen, Chairs

Education:
Debbie Russell, Chair

Greenhouse: Vickie Killeen
& Anne Brown, Chairs

HCMG Office Manager:
Judy Simmons

Horticultural Inquiry: Anne Moss

Information: Betty West

Jr. Master Gardener Program:
Sandy Martin, Chair

Market Days:
Ron Smith II, Chair

Mentors: June Sher

Programs: Melva Chancellor

Public Relations: China Long

**Record Keeping & Volunteer
Hours:** John LaRoche

Scholarship:
Judy Fleming, Chair

Speakers Bureau: Kathy Lewis

Technology: Cindy Anderson

Volunteer Coordinator - TBA

Newsletter & Website

Chair & Newsletter Editor

Eleanor Baldwin

**Assistant Editors - Betty West &
Kathie Marlow**

**Columnists - Pam Bresler, Barbara
Elmore, Marilyn Pease, Judy Fleming**

Environmental Reporter

Bernadell Larson

Webmaster - Carol Brinkman

Web Assistants - Anne Moss,

Julie Bartosh, & Betty West

Submissions to baldwin@kcg.com

Living Roofs continued from Page 7

The cost of installing a green roof is higher than traditional roof systems but can be partially offset by lower roof replacement costs.

Of all these benefits, reducing the heat island effect is probably the most significant. The heat island effect is the difference in temperature between urban areas and the surrounding countryside, caused by a lack of vegetation and a large number of reflective surfaces that absorb heat. The Wildflower Center research shows that living roofs can be up to 80° cooler than adjacent buildings with traditional roofs.

Until recently, most commercial green roofs in the US were based on the old European and Chinese green roofing systems. The city of Linz, Austria, has required living roofs for industrialized buildings since 1985!

U S researchers discovered that green roofing systems are not successful in the hot arid climate of the Southwestern U S without excessive irrigation and maintenance. But several companies have formed in Central Texas that have designs based on our ecosystems and climate. Using plants native to the area in which the living roof will be constructed, the system mimics the environment. In times of drought, the plants go dormant and can be irrigated or allowed to remain in the dormant state until the moisture returns.

One company has developed a very light weight mulching system that looks like the Hill Country limestone outcroppings called Roof Rocks. This system mimics an arid prairie ecosystem that has a protective layer of solid rock at the soil surface that shields the soil underneath from the sun and wind and conserves moisture. There is an Austin group that called GroWers (Green Roofs: Working Expertise – Regional Solutions) dedicated to advanc-

ing the use of living roofs in the Austin area. They have test roofs on pump houses, garden sheds, etc. to study the right mixtures for a planting medium and the best plants for living roofs in the area. Their website

*Roof Rock
on
Madrona
Creek
Ranch
Wellhouse*



(growersaustin.com) has pictures of nine different living roofs, one of them in Medina.

The BRIT (Botanical Research Institute of Texas) center in Fort Worth has just completed their new facility. Part of their roof is a living roof and the other part is an innovative new solar panel system. Their living roof is made of planting boxes, making it easy to replace a box instead of having to redo the plantings in mass. Also, the Lady Bird Johnson Wildflower Center is conducting research on living roofs. They have 20 boxes simulating roofs and are tracking soil type performance and compatible plants for the central Texas area. Here is a link to their list of species that perform well. [Living Roof Species List from Wildflower Center Research](#)

*Green Roof
Test Boxes at
Lady Bird
Johnson
Wildflower
Center*



As you can see there is much innovation in the U S, and particularly central Texas, to make living roofs a common building component in residential and commercial construction. Why not do your own experiment?