July’s flower is the Water Lily

**Botanical Names:** Delphinium elatum

**Other Names:** Candle Delphinium, Larkspur

**Description:** Spikes with clusters of trumpet shaped, disc shaped or dolphin shaped flowers.

**Colors:** blue, lavender, red, white, pink, purple

**Season:** All year round

**Meaning:** Comes from the Greek word, delphis meaning dolphin. Flight of fancy, ardent attachment, agility.

**Bloom Size:** 8 to 20 inches long

**Color Pattern:** solid, spotted, striped

**Facts:** Extracts of the plant has been used in herbal medicine. Often used as filler in arrangements. The juices of the flower will create a blue ink when mixed with alum.
News…
Notes from the PREZ…
By Barbara Ross

July all ready? The year is half gone. Sorry I missed the June meeting. I hear Lee did a fine job as stand in president. She is now doing a fine job of organizing the headhouse junk—excuse me, the stuff that guys like to save," just in case".

The Dow dinner to get our grant check was very nice, but looong! The check is in the bank and we will be putting in the rain water harvesting system soon.

There certainly is no shortage of rain water. This is the most rainy summer we've had in years. The county has done a good job on our drainage, but when the rain doesn't stop long enough for the ground to dry out a little between rains, plants get in trouble. Roots standing in water cause leaves to yellow and drop off. All our plants at the Education Station are beginning to show signs of distress. All, that is, except the bamboo, which is thriving. In 2004 we planted the Budda bamboo. It was in a 5 gallon pot and about 2 foot tall. Now it is about 15 feet tall and covers about 5 square feet of ground. The Gaint Timber bamboo at the entrance to the tropical bed is a shooting star! Ed Barrios said it was like fireworks in slow motion, an excellent description.

Come out and help us watch it rain. Try to stay dry and happy gardening

To plant a garden is to believe in tomorrow.

Barbara Ross

July General Meeting…

Our July meeting was held at the Education Station. We started it off with a pot-luck meal, which we enjoyed in a pleasant breeze in the shade of the big pecan tree. Thanks to all involved for the fine spread.

The general meeting, also under the pecan tree, was called to order by our Second Vice-President Lee Withers, in the absence of our president and second vice-president. Barbara Ross, Ed Barrios, Paula Craig, and Rich Tillman were all absent because they were at the awards dinner given by Dow to honor the Community Grant winners for this year, which includes BCMGA.

Minutes from the June meeting were read and accepted. The Treasurer’s Report told us that our current balance was over $17,000, and that our net for the year to date was $6402.

The condition of things at the Education Station is good. Jesse Knight told us that the vegetable trial garden mostly has a good crop of nut grass. Some planting has been done (beans, okra, melons), but most has not – rain is still a problem.

Gil Livanec reported that work is under way on the new orchard. It has been laid out, and some tilling has been done. The first planting will include some eighteen varieties of citrus.
Lee reported on the actions of the Design Committee, which met recently. They put together a list of proposed projects at the Education Station over the next five years. The list has not been prioritized.

Pam Peltier, our representative to the state organization, gave a presentation about last spring’s state conference, which was held in the Hill Country. She and David (her co-representative) attended quite a varied list of presentations, ranging from fire ant control to plants of the pioneers, which she described to us. Next year’s conference will be in Montgomery County (at Conroe), April 24-26.

After the meeting was adjourned, we proceeded to the plant swap. Many nice things had been brought in, and there was no excuse for going home empty-handed.

At the Demonstration Gardens...
By Ray Michalik

A rare ghost orchid has been found growing high in an old cypress tree in a southwest Florida nature preserve.

Two visitors looking for owls on Saturday spotted the endangered orchid growing about 45 feet off the ground in a tree at Corkscrew Swamp Sanctuary in Naples. The orchid, featured in the nonfiction book "The Orchid Thief" and the fictional movie spin-off "Adaptation," is about 150 feet from the sanctuary's boardwalk and can be seen only with binoculars and good lighting.

The orchid, which blooms for about two weeks, has nine flowers, triple the usual number. It is not clear how long this ghost orchid has been blooming.

Naples photographer Ralph Arwood spent hours waiting to get a shot of the rare blooms.

"They're very rare, and this one is unusual because it has so many flowers," Arwood said. "They're pretty impressive flowers, too, as big as your hand. It's nice to have it at Corkscrew. If it's here, it's safe."

Park Manager Ed Carlson said the orchid could have been in the tree for decades. It is the first ghost orchid discovered near the sanctuary boardwalk in 12 years.

"It's got a big, old root mass on it," he said. "We've just never seen it before. I'm sure it's been blooming, but they bloom in June and July, and that's when cypress are leafed out. So, it's possible a cypress branch covered it up all those years and fell off in Hurricane Wilma. Who knows?"

Demonstration Garden Work Days:

Tuesdays and Fridays from 7:30/8:00 a.m. until noon. Feel free to come out on non-workdays. You’ll always be able to find some weeds to pull if nothing else!
The Organic Gardener…

By Ellen Pedisich

I think most of us Master Gardeners have a favorite gardening book. It may be on Texas bugs, perennials, roses, or one of many other topics. Lately, my favorite is *Teaming with Microbes, A Gardener’s Guide to the Soil Food Web*. I carry it around with me and reread it.

At the end of the book is an appendix with a list of laboratories that do biological testing. I checked this out on the web. The lab will test for fungi, bacteria, protozoa, and nematodes. I can not see these organisms, but I need them for good soil.

Last night at the meeting Pam told us about a presentation on biological testing that she attended at the annual conference. Now I am excited and I will pursue getting this test done for our site and use her contact from the yearly get-together. Now I will get back to my book and the chapter on fungi.

Haiku

My fungi make tubes.
They take food and nutrients
to roots of my plants.

The Inquiring Gardner…

By Ann McLain

From what I’m hearing from other Master Gardeners, as well as what I see at my own place, this has been the summer of the worms – caterpillars, to be more precise. We all know we are supposed to admire and protect those babies that grow up to be pretty butterflies. But what to do when those babies are juvenile delinquents, demolishing our hard-won garden crops? That’s what tests the naturalists among us.

This year I have not had stink bugs on the tomatoes, knock on wood. I don’t know why — I had an incredible population of them last year. Probably it is because this spring I went out and bought a hand-held vacuum with a flexible hose, as recommended by Ray Michalik. I thought this method was supposed to work by sucking up the stink bugs as they appeared — I didn’t realize that all I needed to do was to have a vacuum in its box sitting in the kitchen. I wonder if an empty box would work as well?

Anyway, I did plant one big tub of tomato plants on the driveway, and no stinkbug damage. Instead, as the first tomatoes approached ripening, I had several weeks of blossom end rot (no edible tomatoes), followed immediately by a tomato hornworm devastation (no tomatoes). The hornworm starts little, but it gets big really fast. Over one weekend my tomatoes went from full and bushy and healthy, to plants stripped of leaves and with green tomatoes gnawed in half. I went from hopeful that I might at last have a few tomatoes, to a feeling that probably I should just dump the whole project.
After two days of searching, I finally found the first culprit and squished it. By that time it was five to six inches long and very stout. Not something my friendly resident anoles would be able to handle. When I was a kid, picking the tomato worms was my garden job (I couldn’t be trusted to pull the right things when I was assigned to weed). So I am able to deal with these evildoers. I can’t squish them with my fingers, however, and I don’t like to get their goo all over my Crocs, so I hit this offender with a shovel and it exploded very nicely. The ants were cleaning up the mess for the rest of the day. Eventually there were eight corpses on the driveway.

As you probably know, the tomato hornworm eventually turns into a moth, rather than a beautiful butterfly. The adult form is a hawk moth, fairly big and nicely marked, although, to me, those adults never look big enough to have come from an enormous hornworm. All in all, though, these are not the sort of things folks are thinking about when they talk about butterfly gardens.

On the other hand, the caterpillars I find on citrus plants are very much the sort of thing one wants in a butterfly garden. Those disgusting things that look like bird droppings in their younger stages, only to develop nasty red horns as they get large, are actually the babies of the giant swallowtail. I just found a few of the small bird poop size on my new Satsuma, and I flicked them off into the woods. A few years ago, four of those little yucks totally stripped a potted tangerine in only a few days. Since then, two things happen. First, I get nervous when I see the big beautiful black and yellow adults swooping around. And, second, I know that I have to frisk my citrus often for bird droppings that may actually be alive. As Paula often points out about all sorts of insect problems, the first defense is constant vigilance.

Hand-picking, or perhaps hand-squishing is a better descriptor, seems to work quite well for dealing with canna leaf rollers. Whenever I wander near the cannas I keep my eyes peeled for the tell-tale rolled edge of a leaf. Then, rather than messing around uncovering the caterpillar or clipping off the leaf, I simply pinch the leaf on the rounded part. Yes, icky stuff often drips down, but my fingers have only touched canna leaf, and since I move along briskly to the next suspicious fold, the squish doesn’t bother me. There do seem to be lots of insects looking for a dinner of squish who will come along and clean it up.

But this summer I have had endless problems with another canna-eating caterpillar, and it isn’t so easily dealt with. This worm is tiny, not more than an inch long. It begins life down in the tightly rolled leaf just emerging at the top of the stalk. Either the worm itself, or more likely, its moth/butterfly mother, binds the tightly rolled leaf together with patches of silk. The leaf grows – up, up, up – but it never unrolls. When I break the silk ties and unroll the leaf, it is a disgusting mess of wet, partly eaten leaf and caterpillar poop.

Hand picking is not possible with this nasty pest, and blasting it with the hose won’t help either. I have thought about trying Bt, a bacterium that kills young caterpillars. But how would I get it down into those newly forming leaves? Probably the only thing that could work would be some sort of general insecticide to kill the mother moth/butterfly. But when to apply it? Where? How to keep it away from all the good guys? So I do nothing, and wait, assuming that next month these canna worms will have gone and a whole different pest will have appeared.
Chinese hibiscus, *Hibiscus sinensis*

by Dr. William C. Welch, Extension Horticulturist, Texas A&M University, College Station, TX

Chinese hibiscus offer an excellent source of summer color in the landscape, and are among our most popular tropical and subtropical flowering plants. Popularity in Texas appears to be increasing in recent years, although insects, diseases, and winter injury limit their use. Even the southernmost extremes of Texas occasionally experience sufficient cold to kill this plant. With this in mind, *Hibiscus rosa sinensis* should be grown as an annual or container specimen in most of the state. In areas where winter does not cause damage, hibiscus is a perennial, and may be used as a more permanent landscape plant.

The glossy green foliage varies considerably in size and texture among the many varieties. Flowers range from 4 to 8 inches in diameter, and may be double or single. *Hibiscus* belong to the mallow family and are closely related to cotton, hollyhock, Turks cap, the mallows, shrub althaea, Confederate rose, and okra. Colors vary from white through pink, red, yellow, apricot, and orange. Generally, the single-flower *Hibiscus* bloom more, and, therefore, offer a bigger show in the landscape, but doubles are sometimes preferred for their spectacular individual flowers.

Hibiscus flowers are popular for decoration. They need not be placed in water to prevent wilting, which adds flexibility to their use. An objection is that the flowers of most varieties last only one day, especially during hot weather. To keep flowers open until evening, pull blooms as soon as they are fully open in the morning, and keep in the refrigerator until just before using. If no leaves are pulled with the blossoms, picking does not damage the plant or reduce the total amount of flowering.

Hibiscus prefer a sunny location and well drained soil containing plenty of organic matter and nutrients. From April through September, small monthly applications of a complete fertilizer are beneficial. Container-grown plants will require more frequent applications. To bloom and grow profusely, *Hibiscus* must have sufficient water. As with most other plants, watering should be done thoroughly and not too frequently. Some protection from strong winds is necessary, since the flowers are easily damaged.

It should be remembered that *Hibiscus* are not cold hardy. If your area is subject to freezing temperatures, your Chinese hibiscus must either be treated as annuals and allowed to freeze or be protected during cold weather. During mild winters, plants may
freeze to the ground and then sprout from the base the following spring. Applying a loose mulch, such as pine straw or oak leaves, around the base of the plant before cold weather sometimes prevents severe winter injury. Certain varieties are more susceptible to cold damage than others. If greenhouse space is available, plants may be dug, placed in containers, and replanted in the landscape after the danger of frost has passed.

In recent years, there has been an increase in use of hibiscus as container plants. Small plants may be purchased early in spring or summer, placed in large pots (at least 12 inches in diameter) and enjoyed until frost.

**Classifying Chile Peppers - National Garden Bureau**

By now, Texas gardens are overflowing with chile peppers. How do we make sense of all these variations in size, color and "heat"?

**Beginning with Nomenclature** - Peppers are members of the nightshade family, *Solanaceae*, as are tomatoes, potatoes, and eggplants. Chiles - and all other peppers - are in the genus *Capsicum*. Although there are five species in cultivation, the most common chiles - Anaheims, Jalapenos, Cayennes, Poblanos, and Serranos, and almost all other chile types used in the United States are all *Capsicum annuum*. The most familiar exceptions are the Habanero types (*C. chinense*), Tabasco, and a number of the Asian hot peppers designated *C. frutescens*. Other chiles worth exploring: some of the wild peppers from Mexico and the American Southwest like the notorious chiltepins and chilipiquins (*C. annuum avicular*), (recently re-classified taxonomically to *C. glabruisculum*), fiery chiles belived in other countries such as the Peruvian 'Aji Colorado' and the Caribbean 'Scotch Bonnet' (*C. chinensis*) and 'Peru Yellow,' as well as the milder but very flavorful 'Peri-Peri' from Portugal (*C. baccatum*).

**Classification** - There are two ways of classifying chile peppers - by their heat and shape. In 1912 pharmacist Wilbur Scoville invented a test to measure the hotness of peppers by diluting the pepper until the heat was just perceptible on the tongue. The Scoville rating is measured in multiples of 100; he rated a bell pepper 0, while a Japanese chile came in at 20,000 on the Scoville scale.
Following are the 11 most common categories of chile peppers, classified by their fruit shape and their heat (in Scoville units):

**Asian/Thai:** Small slender, thin-walled fruits; green ripening to red; no distinct pepper flavor; high to extreme heat (8,000 to more than 60,000 Scoville units). Very attractive plants are heavy producers. Use red ripe, fresh, or dried, to add heat to curries, marinades, soups, and stir-fries (Shape H).

**Cayenne:** Long, curved peppers with two cells and thin wrinkled skin; generally green but can be yellow or purple; medium to high heat (5,000 to more than 60,000 Scoville units). ‘Super Cayenne’ (1990 AAS Winner) is especially vigorous. Harvest red ripe; use fresh or dried to add heat to marinades, pizza, stews, soups, stir-fries, and curries. (Shape G)

**Chile/Anaheim/New Mexico/Paprika/Pasilla:** Long and tapered, with fairly thin walls and two cells; ripen from green to red; mild to medium heat (1,000 to more than 8,000 Scoville units). Many varieties, some of which grow well in short northern climates and at high altitudes. They have mild pepper flavors; best roasted and stuffed, or chopped and added to ethnic dishes; good for drying when red ripe. The Paprikas have deep rich flavors; allow to ripen fully, then dry and grind up. Add to stews and soups and use as a garnish (Shape A).

**Habanero:** Small lantern shape; thin-walls; fruity taste and extreme heat (8,000 to more than 60,000 Scoville units). Fruiting may be erratic in northern gardens. Use sparingly when fresh in fruit salsas, ceviche, jerk sauces, and Caribbean curries (Shape D).

**Hot Cherry:** Tomato-shaped, thick-walled green peppers; ripen to red; medium heat (5,000 to more than 8,000 Scoville units). They have a rich, sweet flavor; use for pickles or pack them and stuff with meat or cheese (Shape I).

**Hungarian Wax/Banana:** Long and conical, tapering to a point; medium thick walls, ripen yellow to red, mild heat (1,000 to more than 5,000 Scoville units). Adaptable to many climates. Use yellow or red ripe for pickles and chutney, or add them to salsas and fried dishes (Shape E).

**Jalapeno:** Short and stubby with thick meaty walls; deep green; medium to high heat (5,000 to more than 60,000 Scoville units). Numerous varieties include Jalapenos for short northern climates, selections with yellow and orange stages of ripeness, and others that are highly productive. Harvest Jalapenos green; use fresh in salsas, pickle, and grill
and add to tacos or burritos. Smoke dry - either green or red ripe - to make chipotles (Shape C).

**Ornamental/hot edible:** Upright, small, round or tapered, and thin walled; medium to high heat (5,000 to more than 60,000 Scoville units). Bred in a variety of colors and with different shaped peppers: 'Black Pearl' (2006 AAS Winner with black fruit) and 'Super Chili' (1988 AAS Winner; small red chiles borne in large numbers). Taste these peppers cautiously first, as some are bitter, some are exceptionally hot; pickle to add heat to salsas, marinades, and soups. (Many shapes).

**Poblano (called Ancho when dried):** Flat and round, slightly tapered with a blunt end; thin walls with three cells; dark green; mild heat (1,000 to more than 5,000 Scoville units). Harvest green for roasting and stuffing; dry when red ripe and grind up for basic salsas and moles (Shape B).

**Santa Fe Grande:** Medium-sized, tapered and conical; medium thick walls; yellow-to-red; medium to high heat (5,000 to more than 60,000 Scoville units). Use fresh when ripe; pickle or roast and add to quesadillas and tacos (Shape C).

**Serrano:** Slim, slightly club-shaped with medium thick walls; green; rich flavor; medium to high heat (5,000 to more than 60,000 Scoville units). Use fresh in the green stage or fry or grill and use as a garnish or add to salsas, tacos, guacamole, and other traditional Mexican dishes (Shape F).
### 2007 Calendar of Events:

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<tr>
<td>Aug 14</td>
<td>BCMGA Meeting</td>
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<td>Sept 11</td>
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<td>Oct 9</td>
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<td>Oct 24-26</td>
<td>New MG Specialist training: Master</td>
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<td>Tarrant County Extension Office</td>
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<td>Fort Worth, Texas Coordinator:</td>
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<td>Steve Chaney, CEA-Hort</td>
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<td>Nov 13</td>
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### NEWS AND NOTES:

Dave Whitinger, creator of davesgarden.com, lives near College Station. He made a presentation to the Texas Master Gardeners Association board this past Saturday. He introduction of a new feature of davesgarden.com to provide content to horticultural educators. Dave and I discussed this concept a few weeks ago and he wrote the code and made it a reality. Attached is the power point he made to the Master Gardeners. Bottomline: you can sign up as a educator at davesgarden.com/edu and begin receiving weekly info from the website. Examples of such info are in the power point.

The rainwater harvesting system is scheduled for installation at the Master Gardener Education Station on August 29 and 30 during regular working hours. In addition to "hands on" training, we will have some more formal training that you can pass on to residents of Brazoria County. Please let me know this week if you will attend. We can't handle much more than 20 people.

"Cindy Goodrum is cleaning up the water trough between the tropical garden and the Earthkind rose bed with the intention of turning it into a water garden. See asks that members bring old or broken china/dishes to the Education Station. These will be used to mosaic the top of the water trough/ water garden."

The Adult Learning Leisure Program (ALLP) is run by Brazosport College for Senior Citizens. It is separate from the evening classes we have been teaching. It is a no charge class (BCMGA gets no money for this but whoever teaches does get the hours credit toward Recertification).

These are one hour day classes covering a six week period. They are held at the main College campus. We did not get enough volunteers to cover their Fall program but I told them we would see if we might be able to do something this Spring.

Anyone interested in making a presentation during the Spring semester, please contact Don Gerard, Ed Barrios, or Paula Craig.

Don't forget, one of the prime functions for Master Gardeners is Education.

Please pray for Jeannie Tillman, daughter of Rich and Cookie Tillman. She is only 21 years old and is battling cancer. She had a brain tumor removed a year and a half ago. She was cancer free for almost a year then two other tumors showed up. She has just completed radiation on those two and found out yesterday she has two more. I work with Rich and know Jeannie to be a wonderful young Christian woman.

### Garden Checklist – JULY

By Heather Vincent

- 🌅 Move hibiscus into less afternoon sun if they wilt excessively, drop buds or sunburn.
- 🌱 Watch water gardens; levels may drop dangerously low due to evaporation.
Raise the lawnmower blade. Cutting grass too short exposes the roots to heat and drought.
Replace spring annuals with summer flowers such as gaura, Mexican zinnia and scaevola.
Clean hummingbird feeders every 3-5 days.
Keep azaleas well watered. They’re setting next years flowers now.
Deep water plants to force roots to grow downward instead of sideways.
Put a bird bath near tomatoes if birds peck at the fruit. Often they are looking for moisture.
Keep an eye on trees. If they show stress, rich compost spread beneath the canopy has been known to produce dramatic results. For large old trees, seek professional help. Large trees may die from the inside out, producing new foliage even though the core is dead.
Plant cantaloupe, okra, squash and sweet potatoes.
To banish ants, blend garlic, liquid dish soap, hot peppers, water; strain and pour over mound.
Seed or plant heat loving annuals: Coleus, cosmos, globe amaranth, mistflowers, nasturtiums, pentas, purslane, yarrow, and zinnias. Seed morning glories along bare fence line
In very hot, dry, sunny spots, try bulbine, flame acanthus, Copper Canyon daisies, rock rose, trailing lantana, scaevola, and yarrow.
Feed perennials, like bee balm, regularly to increase bloom production.
Remove weeds.
Pinch flower buds off coleus and copper plants for prettier leaves.
Consider moving non-blooming roses and daylilies into more sun.
Pinch hydrangea leaf tips after blooms have faded to encourage more lush growth.
Hit insect-infested plants with a hard water spray early in the day.
Remove spent crape myrtle flowers to prolong the bloom period.
Try herbs, vegetables in hanging baskets.
Sprinkle earthworms over lawn and gardens. They work wonders.
In shade, try barlaria, gingers, firespike, hosta, indigo, pigeonberry, and Virginia sweetspire.

Happy July Birthday Wishes
Ruth Tvedt 22nd
Larry Lewis 23rd
Lillie Licklider 25th
Gary Gardner 26th

The Brazoria County Master Gardener Association shall not be affiliated with any commercial enterprise for the profit of an individual member or group of members. No member shall use their position with the Association to further the manufacture, distribution, promotion or sale of any material, product or service in which they have either a direct or indirect financial interest.