



The Gardening News

The Newsletter of the Men's Garden Club of Englewood
March 2012 Issue No. 12.06

Flowering Trees Can Greet Spring

Bigger isn't always better in our Florida landscapes, especially since hurricanes seem to do more damage to large trees than smaller ones. But that doesn't mean we can't have a variety of spring flowering trees in our gardens.

One of the best small trees for sunny, well-drained sites is Jerusalem thorn, or Parkinsonian tree (*P. aculeata*). This graceful, airy tree, native from Texas to Argentina, displays abundant yellow-and-red blossoms in spring and autumn, with intermittent flowering during summer.

Jerusalem thorn, which grows about 20 feet tall does best on seasonally dry, nutrient-poor soil and is subject to fungal diseases on enriched, over irrigated sites. It's deciduous to semi-deciduous in winter.

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Flowering Beauty in the Pursuit of Survival

The flight of the honey bee is marked by grim determination and remarkable efficiency. Even in a [summer] garden packed with brightly colored flowers and overwhelming scents, the honeybee never hesitates or seems confused. Although flies, moths and butterflies zigzag and hover in apparent indecision, the bee knows exactly which flowers to ignore and what blooms to land on.

Without even stopping to check whether the misnamed honeysuckle might contain some nectar, the honeybee shuns it and flies directly to the clusters of *irises* and *salvias* in a flower border. After gathering some pollen from wild roses the bee bypasses the *fuchsia* on the porch in favor of the *wisteria* covering the porch rail. Somehow, even in midflight, the bee knows precisely where it is going.

But there is no magic in the flight of the honeybee. The bee does not have a particularly great sense of sight or smell. It has no special source of inside information on the whereabouts of the sweetest nectar. The bee knows which flowers to visit because the flowers signal the insect as to their condition.

The Deal

Many flowering plants need bees just as desperately as the bees need to eat their nectar and pollen. These species' blooms are designed expressly

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Next Meeting

Tuesday, March 13, 2012 at 10:00 A.M.
At the Elsie Quirk Library, Englewood
Fred Santana, PhD
Retired Sarasota County Extension Entomologist
Florida's Buggy Critters – The Bad, Good and Harmless

EDITOR'S 2¢

With this issue of the newsletter I am starting a multi-part article on all about flowering. Did you know that flowering plants are the largest species in the world? Why do bees seemingly buzz around indiscriminately to gather their nectar—or maybe it is not indiscriminate?

This article takes you through a complicated process whereby a pollinator will deposit pollen in a plant which eventually produces a seed so that species can survive. It is a well written and easily understood account of the process. In the telling we meet various scientists and their discoveries including, a German minister named Conrad Sprengel who discovered that plants actually beckon the pollinators to pollinate their plant. It's a fascinating story.

This article and the talk by Dr. Fred Santana should help to prevent some of the confusion in the garden when various bugs and other critters arrive.

President's Message

—Jim Sciarello, President

Hi Everyone,

I returned recently from our "first of the season" plant propagation work session at Paul's yard. On this fine, slightly chilly morning we had a great start with six members in attendance. Our focus was cleaning up old plants and setting up the work area. John and Paul picked up mulch last week and Royce brought a bunch of Brazilian Red Cloak cuttings so we were ready to go. John and Royce prepared cuttings, Tony and Paul mixed dirt, Tom potted plants and I labeled them. Oh yes, Woodie welcomed us back and assisted us when we were eating the donuts.

Our last club meeting was held at the Wildflower Preserve on Valentine's Day. I was prepared for a cold, outdoor meeting but the weather treated us well. It turned out to be a beautiful morning at an idyllic location. There was a short business meeting followed by a dedication ceremony. Mr. James Wade, VP of Lemon Bay Conservancy, discussed the Conservancy and the park, thanked the club for their donation and presented a Certificate of Appreciation to the club. Eva Furner, a board member, provided more background on the park and trails after which Margaret Dunson guided the members on a trail walk through the preserve. Bill Dunson provided additional information about the preserve and the work being done.

Our next meeting will be held on Tuesday, March 13th at 10:00 am at the Elsie Quirk Library. Our speaker, Fred Santana, PhD, is a retired Sarasota County Extension Entomologist and will speak about "Florida's Buggy Critters - The Bad, Good, and Harmless". Most people new to Florida are overwhelmed at first by the sight of a giant crab spider or what seems like a never-ending ant problem, plus the sudden appearance of small soft-bodied insects on a plant they admire. Most people are surprised to learn that the vast majority of arthropods are beneficial and serve an important role in the environment. Only a small number are pests. Dr. Santana will talk about these and a few non-buggy critters. Please join us for an enjoyable presentation.

Check our web site at www.mgcefl.com for more information on this and future meetings. Our web page calendar also has information on other garden related meetings and events happening in the area.

I look forward to seeing everyone at the March meeting and possibly at one of our Tuesday morning work sessions.

Jim

The Gardening News is published by the *Men's Garden Club of Englewood* each month there is a club meeting. We meet each second Tuesday at 10:00 A.M. during October to May at the Elsie Quirk Library, 100 West Dearborn St., Englewood Florida (474.3515) except in January when we have our annual luncheon meeting, and in May when we have a picnic.

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Flowering: Part 1. — from page 1.

to catch a bee's attention and repay the insect for its service. The bee gives the flower a future: a couple of visits from bees ensures that the flower will be transformed into a seed-bearing fruit.

Unaware of what it is doing, the hungry bee is helping the flower do its job. The flower is a plant's reproductive organ. It bears the male pollen and the female egg cell that must fuse to conceive a seed. When it crawls on the flower in search of nectar, the bee brushes against the pistil, the female part of the flower. The pollen that the bee accidentally picked up from another flower is now deposited on the pistil. Then the reproductive process begins. After enough pollen grains have fertilized all the egg cells within the flower, it is transformed into a fruit. And when the fruit drops to the ground, seeds are planted. Soon a new generation of flowering plants germinates.

Everything that is pretty about a flower is for the benefit of the pollinator. A means of long-term survival, each species' flowers use its own complex system of form, scent and color to attract the agent that will transport the right pollen to the right pistil. The partnership between many flowers and the honeybee is mirrored throughout the plant kingdom. Without birds and bees, wind and rain, bats and moths, flowering plants would be extinct.

By taking advantage of relationships that cross the boundaries between plants and animals as well as between living organisms and natural forces, flowers are extremely efficient means of reproduction. In fact, the flowering species are the most abundant plants on earth. These partnerships derive their fascinating complexity from the intrinsic character teeming with cooperative partners and ruthless competitors. Every flower [in your garden or] on your windowsill inherited its basic structure from a series of ancestors that existed solely for the purpose of producing the best seedlings as efficiently as possible.

Where Seedlings Come From

Although they may be pollinated differently, most flowers feature the same basic sexual parts in essentially the same arrangements. It takes a working knowledge of the parts of a flower to appreciate how well they are designed to manipulate a pollinator.

When a flower is still in bud, it is covered by a tough protective sheath formed by a number of *sepals*, the outermost flower parts. Sepals usually are a dull green or beige, designed to hide the flower from view until it is ready to open. As sepals are forced apart by the opening bloom, they soon are dwarfed by the most conspicuous flower parts, the *petals*.

The petals are the flags of the flower. Their bright colors beckon to pollinating animals and make the flower stand out against all the surrounding leaves and blossoms. The petals also function as a landing

Flowering: – continued from left

pad for bees and flies.

The male flower parts, the *stamens*, are threadlike little structures topped by yellow ovals. The swollen ovals are *anthers*, the structures that manufacture pollen. The all-important pollen looks like yellow dust. These minute particles are what must be transported by bug, bee or wind to conceive a seed.

The very center of the flower features the female part, the *pistil*. This pistil is topped by an oddly convoluted, splayed surface that may be as sticky as flypaper. The top surface of the pistil, the *stigma*, is designed to catch the pollen that comes in on the body of the pollinator. When a pollen grain lands on the stigma, it has ended its journey. But its contents still have a short distance to travel.

The pistil chemically makes the pollen germinate, like a seed right down into the flower's base. The pollen sprouts a long tube down the stalk, or *style*, that spans the gap between this stigma on top of the pistil and the ovary embedded in the base of the flower. When the tube is complete, the hereditary contents of the pollen grain travel down the flower and fuse with an egg cell to form a recipient seed. When all the egg cells within the flower have been fertilized, the pistil gradually turns into a fruit, the structure that protects the seeds until it is safe for them to germinate.

This story of the sex life of flowers will be continued in the April issue of *The Gardening News*.

Flowering Trees – from page 1.

One of the favorite small flowering trees is weeping bottlebrush (*Callistemon viminalis*), an Australian native with cascading branches tipped with vast numbers of showy red blossoms. This splendid, 20 foot evergreen tree thrives in full sun on wet or dry sites. The heaviest flowering periods are in spring and autumn.

Among *Tabebuia*s (trumpet trees), there is only one readily available species that is reliably hardy here and can be considered a small tree. This is the golden trumpet tree (*Tabebuia chrysotricha*), which rarely exceeds 20 feet. A semi-deciduous species native to South America, the golden trumpet tree has an open canopy and displays its golden blossoms in early spring.

The famed ipe (*Tabebuia impetiginosa*), with pinkish flowers, is well-suited to Central Florida but, with a 40 foot height potential, must be considered a medium to large tree.

A wonderful plant that can be grown as a large shrub or a diminutive tree is chaste tree (*Vitex agnus-castus*). Cultivated since the Middle Ages, this fast-growing, deciduous species bears multitudes of large blue, pink or white flower spikes in late spring and again in autumn. It also flowers off and on during summer. Chase tree, which thrives on well-drained soil in full or part sun has richly aromatic foliage that's medium green above and silvery below. Its flowers are attractive to butterflies.

Finally we come to *Bauhinia* trees, often called orchid trees. Although *Bauhinias* are sometimes disparaged by native-plant enthusiasts who embrace guilt by association, numerous *Bauhinias* are non-invasive and are outstanding landscape plants.

Among the best small orchid trees are (*B. divaricata*), sometimes called pompom orchid tree. This evergreen species blooms spring to autumn, bearing white flowers that turn pink with age.

Also lovely is the dwarf white orchid tree (*B. acuminata*), a 10 foot evergreen species with white, warm-season flowers. Equally attractive is St. Thomas tree, a sun loving evergreen plant with yellow blossoms from spring to autumn.

Training Jade

A popular bushy succulent finds happiness in looking like a tree.

Jades are succulent plants that produce very attractive, treelike stems that turn a rich brown as they age. They have oval-shaped, fleshy green leaves and equally fleshy stem. They've evolved these characteristics to survive the drought of their native environments. Unlike most succulents, though, jades can survive a considerable amount of over-watering. Potted in plastic or grown among tropical house plants, they are often subject to mistreatment that is caused by the best of intentions.

To be really healthy, a jade prefers a rather small pot and infrequent

Jade — from bottom of page.

watering. Even though jade is often planted in very porous soil and a relatively small container for the quantity of foliage it sports, it is not necessary to water it more than once a week. These plants have rather small root systems of very fine fibrous roots. They soak up water quickly and don't need more. If kept wet for long periods, the roots of jade will begin to rot.

Like most succulent plants, jades love the sun. But you shouldn't buy a jade that has been displayed and grown under a shaded canopy and expect it to survive on your lanai in full sun. It will burn (literally sunburn) its leaves. The foliage so abused browns, then yellows and finally falls to the ground. Generally speaking this destroyed foliage is replaced by new growth that is hardened to the sun in a couple of months. But you'll have a funny-looking bundle of stems for quite a while if you burn your plant. Rather than put them in the sun directly, they should be moved there gradually. Each two week period should include more exposure to the sun. Finally, your plant is ready for its permanent location. In our area, in southwest Florida, you can grow your jade in your garden or lanai all year round. It only needs protection from the cold when nighttime temperatures go into the 30's.

Full sun causes a number of attractive reactions in a jade. The plant's leaves develop a rich red stripe at their outermost edge which indicates they are getting enough sun. What's more, the

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- Sheet moss** *Brachythecium*, a moss that's commonly used in the florist trade. It grows in flat sheets on the surfaces of rocks or rotting logs.
- Short-day plant** A plant that won't flower unless it experiences an extended series of days during which it receives less than twelve hours of sunlight each day.
- Shrub** A relatively small (compared to a tree), woody-stemmed plant with several trunks. A cultivated bush.
- Softwood cuttings** Cuttings taken from a woody plant's new, immature growth. Also called "half-ripe" or "unhardened" wood.
- Soilless mix** A plant growing mixture that contains none of the decomposed rock (called silt or loam) generally associated with upper layer of the earth's surface. Instead, it contains vermiculite, perlite, sphagnum peat moss and other materials.
- Soil solution** The liquid part of the soil. Plants do not extract minerals from the soil, they extract them from the water that flows through the soil.
- Solarization** A nontoxic method of killing weeds and insect pests by covering the ground with layers of clear plastic and allowing the sun to create enough heat to destroy all of the living organisms —good and bad—in the soil.
- Sooty mildew** A type of fungus that forms dusty, dark gray spots or scum on the surface of leaves and stems. It is especially common on plants that are infested with aphids or other sucking insects that excrete honeydew, as the mildew consumes the sugars in the honeydew.
- Sour soil** Acid soil. Described as such by expert soil tasters before the invention of pH meters.
- Spadix** A flashy spike (unbranched stalk of flowers). Usually club-like in shape, it is often surrounded by a spathe.
- Spathe** A large, leaf like organ partially enclosing a stalk of flowers to serve as somewhat of a protective hood.
- Species** A class of organisms, categorized under a particular genus, that are similar in characteristics. Species are able to interbreed freely. The second half of any botanical name, e.g., *Begonia semperflorens*.
- Spectral balance** The distribution of light waves reaching a plant. For best growth, a plant needs light that comes from all areas of the visual spectrum, plus some invisible ultraviolet and infrared light energy.
- Sphagnum** The genus of a swamp plant, a true moss. A shortened term for the horticultural product sphagnum peat moss.
- Sphagnum moss** A horticultural product consisting of the live or freshly harvested plants of the genus Sphagnum. Also may be used as a shortened term for sphagnum peat moss. The leaves and stems of a bog moss used in planting and rooting mixtures. Very water retentive.
- Sphagnum peat** A shortened term for sphagnum peat moss.
- Sphagnum peat moss** A horticultural product consisting of the dried version of the genus Sphagnum. Available in long fibers, chopped hunks and finely milled grades.
- Spike** An arrangement or grouping of several flowers on a single, usually elongated stalk.

- Spination** The distribution and arrangement of spines on a cactus.
- Spine** A sharply pointed, modified leaf. A thornlike plant part, designed primarily for protection.
- Spp.** The plural abbreviation for “species.”
- Spore** An asexual, usually single celled, reproduction organ characteristic of non-flowering plants such as mosses and ferns.
- Sport Mutation** A chance development of an individual plant or plant part showing marked change from the parent plants or parent plant part.
- Springtail** A small wingless insect with special abdominal appendages that enable it to spring through the air.
- Square-foot gardening** A popular system for arranging the plants in a vegetable garden that simplifies planning and makes very efficient use of space.
- Stalk** The organ supporting the flower (flower stalk), the leaf (leaf stalk) or the anther (filament). See also *filament*.
- Stamen** That portion of the plant containing the male reproductive organs where pollen grains develop. The main body of this reproductive organ is call the filament; the is called the anther
- Staminode** A stamen (male flower part) that has no function and is sterile. Staminodes are relics, flower parts of no value that probably will disappear as the plant species evolves.
- Standard** A tree or shrub which is grafted or trained so that it has a single, treelike stem and a terminal ball of foliage. Generally found in formal gardens, where plants are severely pruned and trained.
- Stem succulent** A plant having enlarged, fleshy stems that store water.
- Sterilize** To heat something to a point that kills all living organisms.
- Stigma** The uppermost receptive of the female organ of a flower. The tip that receives pollen from the male stamens of a flower.
- Stock plant** A specimen used by commercial growers for propagating (not ornamental) purposes.
- Stolon** A running stem that produces roots and sometimes shoots along its stem. A trailing shoot that roots into the ground as it grows. A commercial example is the *strawberry plant*. New plants usually appear where the stolon roots.
- Stoloniferous** Producing stolons; trailing roots that root into the ground as they go trailing along. A common example is the *strawberry plant*.
- Stomata** Plural of stoma. Minute openings in the surface of a plant leaf or stem through which gases and water vapor pass.
- Straw** The dried stems and leaves of cereal grains such as oats, wheat or rye. It is often used as a mulch in vegetable gardens or to cover grass seed in a newly sown lawn. Straw contains few if any weed seeds and is therefore more desirable than hay. It decomposes quickly and adds organic matter to the soil.
- Strawberry pot** A type of planter used for growing strawberries and other varieties of small-leaved, trailing plants. The planter has holes in its sides for planting a number of plants.

- Strike root** To form roots. Used when referring to cuttings.
- Style** The slender part of the pistil that rises from the top of the ovary and is tipped by the stigma.
- Subspecies** A subdivision of a species. A grouping of wild plants based mostly on geographical location. A botanical classification between species and variety. It is rarely used.
- Subtropical** Geographically oriented adjacent to the tropics, further away from the equator than tropical areas. Our area is considered subtropical because we have never had a hard freeze.
- Succession planting** Planting repeated crops of fast-growing vegetables, such as lettuce, a number days or weeks apart in order to have a continuous supply.
- Succulent** A plant with thick, fleshy stems or leaves that are designed to conserve water. It is a plant having juicy or watery tissues. They are drought-resistant plants capable of storing water in their thick leaves, stems and branches.
- Sucker** A branch, usually undesirable, arising from the lower portion of the trunk of a plant. Although not necessarily to a plant, suckers can ruin a plant's overall symmetry.
- Superphosphate** A high-phosphate fertilizer often used when planting because phosphorus is the nutrient most responsible for root growth
- Sweet soil** Alkaline soil. Soil with a high pH reading. It is used to describe soil that is not "sour" to the taste.
- Symbiosis** A relationship between two different organisms, to the benefit of each.
- Systemic** An insecticide that is applied to soil or foliage and is absorbed into plant tissues. A systemic renders a plant poisonous to piercing and sucking insects.

T

- Tamp** To pack soil. To fill in excess airspaces following the repotting of a plant.
- Tendril** A long, coiling filament growing from the stem of a vining plant to anchor it as it climbs.
- Tepal** The showy part of some flowers that cannot be distinguished as being either petal or a sepal.
- Terminal leaf** A leaf that appears at the end of a stalk or branch.
- Thatch** Although mistakenly assumed to be caused by grass clippings, actually an impenetrable mat made up of the tough parts of grass plants—the roots, stolons and rhizomes—that fail to decompose normally. Thick thatch prevents water from reaching the grass roots and harbors insects and disease.
- Thinning (out)** Removing weaker seedlings so that other plants or seedlings have room to grow to full size.
- Thrum-eyed** A primrose flower in which the stamens extend beyond the stigma. Compare with pin-eyed.

- Tip cutting** A shoot cutting taken from the outermost growing portion of a branch. A cutting made from young growth.
- Top-dressing** A covering of fertilizer spread over the top of the soil, where it is gradually watered in.
- Topiary work** The cutting and trimming of trees or shrubs into unusual, ornamental shapes, producing a shape distinctly different from the normal growth pattern of the plant.
- Trace elements** Certain minerals, such as iron and boron, normally found in very small quantities in fertile soil. Most plants require the presence of some trace elements for best growth.
- Transpire (Transpiration)** The loss of moisture by a plant through its leaf pores (stomata)—to “sweat.” Excessive transpiration is a cause of wilting in plants.
- Tree** A single-stemmed, woody plant growing taller than ten feet. Indoors, a tall plant with one or two dominant stems and very few lower leaves.
- Tree-fern fiber** The fibrous trunk material of certain kinds of tree ferns (*Osmunda*, *Cyathea*), used as a porous rooting medium for epiphytic plants such as orchids.
- Tribe** A “sub-family” of plants. A grouping of several genera within one family.
- Trigger hairs** Hairlike projections found in the “jaws” of some carnivorous plants such as *Venus fly trap*. When touched, these hairs may spur the closing of a jaw and the disappearance of an insect.
- Tub** Any large, round container with a flat bottom. Also smaller pots arbitrarily may be called tubs whenever folks get tired of the word “pot.”
- Tuber** A modified stem with fleshy tissue, swollen and usually underground, (e.g., potato). They are different from bulbs in that tubers are not composed of scales.
- Tuberous** Producing, bearing or resembling tubers. See tubers.
- Turgid** Swollen or bloated. A turgid leaf is filled to capacity with water.
- Twining vine** A vine that climbs by wrapping its stem around a support. Twining vine can actually damage or strangle trees.

U

- Understock** The lower half (root and trunk) of grafted plant.
- Undulate** A leaf margin or petal that has a wavy edge. The term undulate does not refer to toothed or serrated edges.
- Unisexual** Describes a flower bearing only male or female parts. A flower on a dioecious plant.

Jade — from page 4.

distances between branches and leaves are shortened by growing jades in the sun. This tightening of the spaces between nodes on a jade (called internodal spaces) is a common reaction of plants to lots of light. It makes a denser, more compact plant.

The styling technique used that governs the growing of a trained jade is very simple. It is not as complex as bonsai since wiring is never involved. You first have to determine which branches should be allowed to grow. Those that aren't wanted should be removed as soon as buds turn into small leaves.

Most jade are grown from full-grown leaves that are planted in very porous soil. As the leaf grows it puts up a single vertical stem which grows three or four inches tall. It then makes an effort to branch. At this point you make a decision as to whether you want a single fat trunk or a multi-trunked jade. Rubbing the new buds from the trunk or branches directs the growth of the plant. Essentially, that's all there is to the training of an unusual looking plant.

But there are a few interesting side notes to the styled jade's life. Most jade plants do well in a very small container and are very happy that way. A small pot makes the plant look larger and more treelike than it would look in a bigger, clay container. Think of Hal Mahoney's explanation of perspective in his demonstration of Saikei at the Annual Luncheon in January of this year. It also keeps the plant from being over-watered but it doesn't cramp the jade's roots. When a plant is constantly confined to a small pot, as with bonsai, it responds by growing slowly and producing dwarfed leaves. In the method used here that doesn't seem to happen, the jade doesn't seem to have dwarfed leaves. This is possible because the only change to a plant has to do with the buds that were removed so it couldn't create new branches.

Another practice necessary to keep a jade plant vibrant is they sometimes need root pruning. This should only be done when you believe the fibrous roots are overgrowing their pot. Remove the plant from the pot and remove about 1/3 of their roots. Until new roots have a chance to grow you might want to help support the plant and keep it out of strong sun for several weeks. This rather simple procedure and with enough sun you will end up with a rather striking plant.

If people concentrated on the real important things in life, there'd be a shortage of fishing poles.

— Doug Larson

Friendly Natives

Florida is home to a vast number of spectacular native plants. This short list is worth while investigating.

Flowers

All of these flowers are salt and drought tolerant and attract butterflies and other pollinating insects.

Stokes' aster (*Stokesia laevis*), zones 5-10.

Blanket flower (*Gaillardia pulchella*), zones 8-10.

Lanceleaf coreopsis (*Coreopsis lanceolata*), zones 4-9.

Beach sunflower (*Helianthus debilis*), zones 8-11.

Shrubs

Coral bean (*Erythrina herbacea*), zones 8-10.

Firebush (*Hamelia patens*), zones 8-11.

Groundcovers

Gopher apple or ground oak (*Licania michauxii*), zones 9B-11.

Heartleaf wild ginger (*Hexastylis arifolia*), zones 6-9.

Blue-eyed grass (*Sisyrinchium angustifolium*), zones 5-9.

Vine

Passionflower (*Passiflora incarnata*), zones 6-9.

Sources:

Gil Nelson. *Florida's Best Native Landscape Plants*.

Robert G. Haechle and Joan Brookwell. *Native Florida Plants*.

Both should be available from your local library.