

Missouri Environment & Garden

February 2015

Volume 21, Number 2

Pineberry: A Reintroduced Strawberry



Photo credit: Chad Finn

For those who like novelty plants, pineberry (*Fragaria chiloensis* x *virginiana*) is a hybrid strawberry that produces small, white, highly aromatic fruit with red achenes (seeds) (Figure 1). While it is marketed as a berry with pineapple-like flavpineberryor, not all may perceive this flavor. Pineberries are slightly larger than a dime and are soft. In The Netherlands, they are grown in greenhouses. In Chile, white-fruited berries are grown in tunnels with ultraviolet-filtering plastic to maintain this characteristic. Plants require full sun, but the fruit tends to turn pink to blueish-pink with exposure to sunlight. Some nursery sources recommend cross-pollinating pineberry plants with a typical red-fruited strawberry, while others do not. Those who have grown pineberry report that the fruit softens early, but berries are not ready for harvest until the achenes turn from green to red in May. Compared to typical red-fruited strawberry cultivars, pineberry plants are considered sparse-bearers. Pineberry cultivars available from online sources in the United States include White Albino, White Carolina, White Pine, White D and Wonderful. To maintain the white-fruit character of the berries, only plants (not seed) should be purchased.

White-fruited strawberries of *Fragaria chiloensis* (Chilean strawberry) have been traced back to Chile where the native peoples, the Picunche and the Mapuche, cultivated them more than 1000 years ago. Although uncommon, native white strawberries can still be found in southern Chile today. Although early explorers documented these strawberries, they were not introduced into Europe until 1712 when Lt. Colonel Amedee Frézier brought *F. chiloensis* plants to France. Thereafter, the Chilean strawberry was naturally pollinated by *Fragaria virginiana* (red-fruited type known as scarlets). More recently, Hans De Jongh, a grower in Etten-Leur, the Netherlands obtained a diseased pineberry plant from a strawberry plant collector in France, who believed it was from the original cross from the 18th century. After selecting plants over a six year period, De Johgh released his pineberry cultivar in 2009.

Pineberries should not be confused with the albino fruit disorder of commonly-grown red-fruited strawberries. In California, warm weather followed by cloudy and foggy skies can cause albino fruit with poor flavor. Albinism has also been associated with excessive nitrogen applications in of red-fruited strawberry cultivars including, Diamante, Chandler, Sweet Charlie, and Etna.

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The Power of Flowers



Photographer: Petr Kratochvil. Public domain image.

February brings with it Valentine's Day and the prospect of millions upon millions of flowers being sent to those who hold a special place in the hearts of the people who send them. Indeed, it is estimated that nearly 200 million roses alone will find their way into the lives of "significant others" throughout the United States this year. Flowers are remarkable in many ways, not the least of which is their influence or power over those around them.

The fact that flowers hold a special place in the lives of humans should come as no surprise. Flowers have been used by people since ancient times to express their feelings, enhance their surroundings, and commemorate important occasions. For example, in Israel an ancient burial pit dating back 14,000 years was found to contain impressions of stem and flowers from plants such as mint. Later, Egyptians were known to have placed flowers in vases and bowls whereas Greeks and Romans mainly wore flowers in the form of garlands and wreaths.

By the time of the Renaissance, flower use had become much more elaborate and commonplace. Flowers were used not only for special occasions such as pageants or feasts, but also for everyday use in homes. Each succeeding era (e.g. Victorian) brought with it changes in flower design and usage. Today, flowers are an integral part of our everyday lives and are used to express various feelings from deep sympathy to abundant joy.

Until recently, the unique need that humans seem to have for flowers in their lives had not been investigated in a scientific manner. That changed several years ago when the Society of American Florists funded research to study the effect flowers have

on people. The research was conducted at various universities across the United States.

One study on the effect of flowers was conducted at Rutgers University by a team lead by Dr. Jeannette Haviland-Jones from the Department of Psychology. This study focused its attention on the ability of flowers to relieve stress and improve emotional health. The findings were interesting and came as little surprise to many. The Rutgers University research demonstrated that:

Flowers have an immediate impact on happiness. Research participants expressed "true" or "excited" smiles upon receiving flowers, demonstrating extraordinary delight and gratitude.

Flowers have a lasting positive effect on moods. Those who participated in the study reported feeling less depressed, anxious or agitated after receiving flowers. Additionally, they exhibited a greater sense of enjoyment and life satisfaction.

Flowers tended to make intimate connections between people. The presence of flowers in the surroundings of individuals led to increased contact with family and friends.

In a follow-up study on senior citizens, the same research team found that flowers have a significant impact on the elderly. Over 100 seniors participated in the study. Some received flowers while other did not. Their research demonstrated that flowers can help reduce depression, promote social networking and help refresh memory as people age.

An overwhelming 81 percent of seniors who received flowers reported a decrease in depression follow their arrival. A widening of social contacts was reported by 40 percent of the flower

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The Power of Flowers (continued)

recipients. And, finally, 72 percent who received flowers scored very high on memory tests when compared with test results of seniors who did not receive flowers. The team concluded that a small dose of nature (such as flowers) can do wonder for our well-being as we grow older.

Another study on the effect of flowers on people was conducted at Harvard University by Dr. Nancy Etcoff of Massachusetts General Hospital and Harvard Medical School. Called the “Home Ecology of Flowers Study”, researchers drew three main conclusions from their results:

Flowers evoke feelings of compassion. Study participants who had fresh-cut flowers in their home environment felt an increase in feelings of compassion and kindness for others. This true even when the flowers were in the home for a relatively short time.

Flowers relieve “the blues”. Simply put, study participants felt less negative after being around flowers at home. Flowers placed in rooms frequented in the morning after arising can help to dissipate the “morning blahs”, they concluded.

Flowers give people a physical and psychological “lift”. Increases in energy, happiness and enthusiasm at work were reported by those who had flowers in their home environment.

Trying to maintain a “competitive edge” in business is important for success. According to experts, maintaining a happy, productive workforce is critical. A recent study conducted at Texas A&M University revealed that Mother Nature just might be the key to a successful business. Research subjects were asked to perform a variety of common office tasks in various workplace environments. Some of the environments included flowers and plants; others did not.

Idea generation, creative performance and problem solving skills improve significantly when the workplace environment included flowers and plants, according to their findings. In the study, men generated 15% more ideas than women. However, women developed solutions to problems that were more creative and flexible.

Finally, flowers can be very powerful simply because they usually are gifts. In her books, award-winning author M.J. Ryan relates to her readers how acts of gratitude and generosity can result in feelings of increased happiness, health and the sense of being more closely connected with others.

According to Ryan, “Gift recipients experience compelling connections with givers, and the positive link is particularly evident in the exchange of flowers.” She went on to say, “I can think of no other item besides flowers that evokes such positive feelings and perceptions for both the giver and the recipient.”

In closing, a late colleague once observed how paradoxical it is that flowers are used both to express joy and to offer sympathy. In both cases flowers help to make an intimate connection between two people that often transcends words. The fact that flowers have an immediate impact on happiness and long-term positive effect on mood helps to explain why the advertisement “say it with flowers” is a timeless truism.

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March Gardening Calendar

Category	Week				Activity
	1	2	3	4	
Houseplants	x	x	x	x	Two handsome houseplants that provide fragrant blossoms indoors this month are the Confederate jasmine (<i>Trachelospermum jasminoides</i>) and Japanese pittosporum (<i>Pittosporum tobira</i>). Both thrive in average home conditions and are easy plants to grow.
	x	x	x	x	As day lengths increase, plants begin new growth. Repot rootbound plants, moving them to containers 2 inches larger in diameter than their current pot. Check for insect activity and apply controls as needed. Leggy plants may be pruned now.
Ornamentals	x	x	x	x	Trees, shrubs and perennials may be planted as soon as they become available at local nurseries.
	x	x	x	x	To control iris borer, clean up and destroy the old foliage before new growth begins.
	x	x	x	x	Fertilize bulbs with a "bulb booster" formulation broadcast over the planting beds. Hose off any granules that stick to the foliage.
	x	x	x	x	Dormant mail order plants should be unwrapped immediately. Keep the roots from drying out, store in a cool protected spot, and plant as soon as conditions allow.
	x	x	x	x	Loosen winter mulches from perennials cautiously. Re-cover plants at night if frost returns. Clean up beds by removing all weeds and dead foliage at this time.
	x	x			Heavy pruning of trees should be complete before growth occurs. Trees should not be pruned while the new leaves are growing.
	x	x			Seeds of hardy annuals such as larkspur, bachelor's buttons, Shirley and California poppies should be direct sown in the garden now.
		x	x	x	Summer and fall blooming perennials should be divided in spring.
			x	x	Ornamental grasses should be cut to the ground just as the new growth begins.
			x	x	Spring bedding plants, such as pansies and toadflax (<i>Linaria</i> sp.), may be planted outdoors now.
			x	x	Apply a balanced fertilizer such as 6-12-12 to perennial beds when new growth appears.
			x	x	Apply sulfur to the soils around acid-loving plants such as azaleas, rhododendrons, hollies and dogwoods. Use a granular formulation at the rate of 1/2 pound per 100 square feet.
				x	Gradually start to pull back mulch from rose bushes.
Lawns	x	x	x	x	Mow lawns low to remove old growth before new growth begins.
		x	x	x	Apply broadleaf herbicides now for control of cool-season perennial and annual weeds. These must not be applied to areas that will be seeded soon.
		x			Apply controls for wild garlic. It will take several years of annual applications for complete control.
			x	x	Thin spots and bare patches in the lawn can be overseeded now.
Vegetables	x	x	x	x	Any root crops such as horseradish, parsnips, Jerusalem artichokes, or carrots still in the ground from last year should be harvested before new green top growth appears.
	x	x	x	x	Cultivate weeds and remove the old, dead stalks of last year's growth from the asparagus bed before the new spears emerge.

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March Gardening Calendar

Category	Week				Activity
	1	2	3	4	
	x	x	x	x	Fertilize the garden as the soil is being prepared for planting. Unless directed otherwise by a soil test, 1 to 2 pounds of 12-12-12 or an equivalent fertilizer per 100 square feet is usually sufficient.
	x	x			Delay planting if the garden soil is too wet. When a ball of soil crumbles easily after being squeezed together in your hand, it is dry enough to be safely worked.
	x	x			Asparagus and rhubarb roots should be planted as soon as the ground can be worked.
		x	x	x	Plant peas, lettuce, radishes, kohlrabi, mustard greens, collards, turnips, Irish potatoes, spinach and onions (seeds and sets) outdoors.
			x	x	Plant beets, carrots, parsley and parsnip seeds outdoors.
			x	x	Set out broccoli, cabbage, Brussels sprouts, Chinese cabbage and cauliflower transplants into the garden.
				x	Start seeds of tomatoes, peppers and eggplants indoors.
Fruits	x	x	x	x	Gradually remove mulch from strawberries as the weather begins to warm.
	x	x	x		Continue pruning apple trees. Burn or destroy all prunings to minimize insect or disease occurrence.
	x	x			Continue pruning grapes. Bleeding causes no injury to the vines. Tie vines to the trellis before the buds swell to prevent bud injury and crop loss.
		x			Cleft and splice grafting can be done now. This must be completed before rootstocks break dormancy.
			x	x	Aphids begin to hatch on fruit trees as the buds begin to open.
			x	x	Apply dormant oil sprays now. Choose a dry day when freezing temperatures are not expected.
			x	x	Spray peach trees with a fungicide for the control of peach leaf curl disease.
				x	Mulch all bramble fruits for weed control.
				x	Peaches and nectarines should be pruned just before they bloom.
Miscellaneous	x				Red maples begin to bloom.
	x				Set up nesting boxes for bluebirds.
	x				Watch for the harbinger of spring (<i>Erigenia bulbosa</i>) blooming in rich wooded areas.
		x	x	x	Spicebush is blooming in moist woodlands.
		x			Raise purple martin houses this week.
			x		Purple martins return to the St. Louis area.
				x	The white flowers of serviceberry (<i>Amelanchier</i> sp.) and wild plum (<i>Prunus americana</i>) are showy in wooded areas.
				x	Watch for the fuzzy blooms of the pussy willow (<i>Salix</i> sp.).

Gardening Calendar supplied by the staff of the William T. Kemper Center for Home Gardening located at the Missouri Botanical Garden in St. Louis, Missouri. (www.GardeningHelp.org)