## PLANT | POISONOUS PARTS | SYMPTOMS
--- | --- | ---
AZALEA | Leaves | Severe vomiting, diarrhea, muscular weakness, weak pulse, respiratory paralysis, convulsions. Severe diarrhea.
BIRD OF PARADISE | Seeds and pods, Leaves | Severe vomiting and diarrhea, convulsions, kidney damage. Severe vomiting and diarrhea. Vomiting, collapse.
BUTTERCUP | Leaves, berries, Seed | Severe vomiting and diarrhea, convulsions, kidney damage. Stupor, vocal cord paralysis, twitching, convulsions.
BUCKTHORN | Leaves, berries | Severe vomiting, diarrhea, muscular weakness, weak pulse, respiratory paralysis, convulsions. Vomiting, diarrhea.
CASTOR BEAN | Twigs, leaves, bark, seed | Swelling of tongue, mouth, and throat; vomiting and diarrhea. Fever, rapid heartbeat, dilation of pupils, dry mouth, flushing.
CHERRY | Berries, leaves and roots | Fever, flushing, dry mouth, dilation of pupils.
CROWN OF THorns | Sap, leaves and roots | Vomiting, diarrhea, abdominal pain, severe headache, irregular heartbeat, tremors, convulsions. Severe vomiting and diarrhea.
DEADLY NIGHT SHADE | Bulbs | Nausea, vomiting, diarrhea, gasping, rapid breathing. Diarrhea, labored breathing, excitement.
Eggplant | All parts except fruit, Leaves | Thirst, papillary dilation, dry mouth, flushing, hallucinations, headache, nausea, high blood pressure.
FOXGLOVE | Bulb | Vomiting, diarrhea, abdominal pain, severe headache, irregular heartbeat, tremors, convulsions. Severe vomiting and diarrhea.
HYACINTH | Leaves and buds | Vomiting, diarrhea, abdominal pain, severe headache, irregular heartbeat, tremors, convulsions.
HYDRANGEA | Berries | Vomiting, diarrhea, abdominal pain, severe headache, irregular heartbeat, tremors, convulsions.
IVY, ENGLISH | All parts | Vomiting, diarrhea, abdominal pain, severe headache, irregular heartbeat, tremors, convulsions.
JIMSON WEED | All parts | Thirst, papillary dilation, dry mouth, flushing, hallucinations, headache, nausea, high blood pressure.

### Poisonous plants

Poisonous and when eaten cause severe stomach cramps.

**Irritants**

A number of plants contain irritating chemicals that produce a burning sensation on contact with the skin or eyes. All members of the genus *Euphorbia*, a conspicuous group in the succulent house and on African Hill, contain an irritating milky sap which can even cause blindness if it gets into one’s eyes.

**Allergens**

The most familiar poisonous plants are such allergy-producers as poison oak (*Rhus diversiloba*) and poison ivy (*Rhus radicans*). All parts of these plants produce blistering oils which react immediately with the skin to produce intense swelling that takes weeks to heal. Reactions to these plants vary from individual to individual, with some people being completely immune to the effects of these plants.

Other allergy-producing plants are those that produce pollens which plague hayfever victims each spring. Any plant which produces copious amounts of pollen is a likely source of hayfever, but such plants as ragweed (*Ambrosia* spp.), goldenrod (*Solidago* spp.), acacias, and most grasses are particularly irritating. Not everyone is sensitive to pollen, but those who are will attest to the misery this form of poisoning can cause.

### Avoiding poisonous plants

Although plant poisoning is very common, most cases are not fatal. If you become familiar with the most common poisonous plants, you can reduce your chances of self-poisoning. Over 12,000 cases of human poisoning were reported to the National Poison Center in 1977 and many more probably went unreported. Pass up the temptation to eat any plant which produces copious amounts of pollen.

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Fascinating herbs

By Marvin Schmid, Docent

Herbs, those fragrant delights which have captivated people through the ages, are among the most pleasing and versatile groups of plants utilized by man. Given well-drained soil, they will thrive nearly anywhere. Even on my heavy clay soil, and tended by a purple-thumb gardener, they thrive.

What exactly is an herb? A botanist would describe an herb as a seed plant (usually annual or biennial) that does not develop woody tissue. Most herbs are fairly small plants which die back to the ground at the end of their growing season. However, in common usage, the term "herb" has come to refer to any plant used as a flavoring, fragrance, or medicine.

The botanical garden's herb display (near the lawn) is divided into plots according to the uses of the herbs, which include the following categories: culinary herbs, fragrances, medicinal herbs, flavorings for liqueurs and beers, teas, dyes, pot (edible) herbs.

Chamomiles

A favorite herb group, the chamomiles, can be found in four separate plots (fragrance, medicinal herbs, flavorings for liqueurs, and teas). Two of the most well-known are Roman chamomile, *Anthemis nobilis*, and German chamomile, *Matricaria chamomilla*. Both are low-growing, ranging in height from 4 inches to 2 feet, and have fine, lacy foliage. The dried daisy-flower heads are steeped to produce an aromatic tea which is a popular folk remedy for various ills ranging from earache to indigestion. Also, Roman chamomile is used as a flavoring in some French liqueurs.

Chamomiles also make attractive aromatic ground covers. It is delightful to walk along a chamomile-covered path since the plants give off a pleasant scent when crushed. Even a small garden can provide scented steps. Space plants about 12 inches apart, and they will cover the path within about two months if kept fairly moist. Another two months and the path will need its first trim. After that, chamomile does not require either as much mowing or as much water as grass does.

Feverfew

Another attractive herb which bears a superficial resemblance to the chamomiles is the medicinal feverfew, *Chrysanthemum parthenium*. Although feverfew is in the genus *Chrysanthemum*, its foliage is delicately fragrant in contrast to the sharp pungent odor of its more widely cultivated relatives. The plant can grow up to 2½ feet, and has 1-inch daisy-like flower-heads. Plants spread readily from basal roots and freely self-sow.

A tea made from the flowers is purported to cure headaches, nervousness, and painful menstruation. In medieval times feverfew was mixed with wine and honey to cure persons suffering from depression or "them such as be melancholy." The plant is said to contain active principles which have a healing effect on wounds and sores.

Lavender

Lavender (*Lavandula* spp.) has been used as a fragrance, and a medicine for centuries. Romans scented their bath with it, and the botanical name is thought to come from the Latin *lavare*, to wash. The botanical garden has specimens of English lavendar (*L. officinalis*), French lavendar (*L. stoechas*), and broadleaf lavendar (*L. latifolia*).

The flowers of English and French lavender are popular sources of an aromatic oil used in perfumery. In the Middle Ages, linens were spread over lavender bushes to be perfumed as they dried. And the oil from broadleaf lavender is purported to alleviate "faintness" and "giddiness" when taken in milk, but it can be poisonous in large doses.

In the home garden, lavender shrubs can form an attractive grey-leafed hedge (3 or 4 feet high) with showy purple flowers which grow in clusters on erect stems. Gently brushing the hedge will release a pleasing camphorous fragrance.

Mints

The genus *Mentha* contains so many species, subspecies, and varieties (which tend to interbreed freely) that it is often difficult to distinguish among them. Peppermint (*Mentha piperita*) is thought to be a hybrid between water mint (*M. aquatica*) and garden mint (*M. viridis*) or spearmint (*M. spicata*). Many different kinds of mint can be seen in the herb garden, in the sections labeled culinary, medicinal, flavorings for liqueurs, and teas. All members of the genus *Mentha* abound in a volatile oil which is contained in resinous dots in the leaves and stems.

Peppermint is particularly appropriate for a cool moist spot in the home garden, since it thrives in partial shade. Unless it gets plenty of water, peppermint does not show to best advantage in full sun. In its native haunts it frequents the edges of streams and lakes.

Generally, herbs require well-drained soil, plenty of sun, and not too much water. Herbs which originated in central Europe such as thymes (*Thymus spp.*) and savories (*Satureja spp.*) need more water than most herbs. The remarkable qualities of herbs touch all of our senses in such a pleasing way that growing and using them is habit-forming. A visit to the botanical garden for the springtime show of herbs is a good way to be introduced to these delightful plants, and some herbs will be available at the plant sale on May 13 (for details, see page 1).
New information center opens

Report by Margaret Mitchell, Docent Council President:

The docents are pleased to report the recent completion of the new information center in the botanical garden. When the docents started giving tours of the garden five years ago, we soon realized that a well-located and attractive building would be desirable where tours could begin, pamphlets sold and information about the garden made available to the public.

We learned that the site of the old tropical house might be used for such an information center. With that site in mind, the docents allocated $5,000 from past plant sales for the project. Jim Novosel prepared preliminary plans for an attractive center which were presented to the University administration. The Chancellor's office apparently has been pleased with our past efforts, liked the building plans, and offered to match our $5,000 in funds.

The information center now serves as a docent meeting place to start tours. We also have display space for books, pamphlets, plants of interest, and information on current lectures, special tours and other events for the garden.

Volunteers interested in manning the new center should contact Mrs. Laurianne Hannan, Education Coordinator, by writing or phoning the garden (642-3352).

Report by Jim Novosel, Chairman, Docent Planning Committee:

Designing the new information center for the botanical garden presented an enjoyable challenge. At an informal meeting (attended by garden staff, docents, and Friends/BG) in August, 1977, it was decided that the information center should be fairly small and inexpensive, yet serve several vital functions, and be an attractive addition to the garden.

The present site for the center was chosen for its visibility from the garden and its flat terrain. It also does not encroach on precious garden ground, and contains some of the finest views in the garden.

The building has been structured to blend in with adjacent buildings, yet still be attractive and eye-catching so visitors are naturally drawn to it. The gable roof and redwood siding match the features of the nearly staff building. A redwood lattice overhang is cantilevered out on the north side to signal the entrance.

The building has been designed to serve four basic functions. First, the center is the public's threshold for gathering maps and literature before beginning exploration of the garden. Secondly it provides a display and sales room for books, prints, and photos of a botanical nature. The building has enough room inside for comfortable browsing, or visitors may view the display material and purchase it at the window next to the entrance.

The building's third major function is to serve as a focal point for large tours. The Friends of the Botanical Garden have donated $1,500 for constructing 6 linear feet of redwood benches around the center. Not only will the benches be the finishing touch, they are also a fitting laureate to the union of the docents and the Friends of the Botanical Garden.

And fourth, the center has been constructed to accommodate small groups of docents or Friends/BG who desire to meet, or work on special projects.

Contractor John Capurso has been especially helpful in keeping the project within its financial limits while achieving all the desired elements. The garden also appreciates the aid that the Chancellor's Office and the Architects and Engineers Office have given by contributing an extra $2,900 to complete the project.

The new center now serves many diverse functions, including garden store, office, library and club house. Yet there is one important point to remember: This building is more than the result of any one individual's efforts; its creation laurels many years of highly successful docent tours and plant sales. Its construction is a tribute to continued strong docent involvement in the growth of the garden.
Edible tropical plants

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Edible tropical plants include countries such as Malaysia and Guyana. These coffee species all originally came from the mountains of tropical Africa although the New World tropics (especially Brazil and Colombia) now is the most important coffee producing area.

The foul-smelling durian

Just beyond the compact Coffea arabica is one of the most unusual fruit trees in the Tropical House. This is a small plant of durian, Durio zibethinus, which can eventually grow into a large tree up to 100 feet tall. The spiny green fruit is large (weighing up to 8 pounds), and inside is the edible pulp consisting of several rows of fleshy brown arils which surround the seeds. The pulp has an oily texture of ripe avocado mixed with library paste, and a fecal smell combined with the smell of garlic and turpentine. This fruit is highly esteemed in Southeast Asia although it is definitely an acquired taste.

The peculiar cashew

In the back left hand corner of the Tropical House is a cashew tree, Anacardium occidentale, which is a large tree native to tropical America but now extensively cultivated in the Old World tropics (particularly India and eastern Africa). The plant is in the same family as poison oak, and contact with it causes a similar reaction. Each cashew nut hangs in a rather peculiar manner from the bottom of a fleshy red pedicle that looks much like an apple. In effect, the single cashew seed appears to be stuck to the bottom of the fleshy 'apple.' The garden's displays, and the help with garden-sponsored events. A short training class will be given in late May to those interested in doing volunteer work in the categories listed. Please phone 642-3352, or write to Mrs. Laurianne Hanan, Botanical Garden, University of California, Berkeley, CA 94720 for an application for volunteer work. The application deadline for this training class is May 12, 1978, so please write or call for your application soon.

SELF-GUIDED TOURS

Now you can explore the seasonal plant highlights in the botanical garden through free self-guided tours. The first issue, for Spring, describes 14 interesting and noteworthy plants, and provides an enjoyable way to learn more about the major areas of the garden. Plant descriptions are accompanied by a new updated map for easy location. These tour guides, which are written on a quarterly basis, emphasize plants in bloom and plants of particular interest during the changing seasons. You can pick up a copy of the latest issue at the main office in the garden.

The chewing gum tree

On the right hand side of the Tropical House entrance is a sapodilla tree, Manilkara zapota (Achras zapota), which is native to Central America. The milky latex, which flows when incisions are made in the bark, is the source of chicle gum used for making chewing gum. The tree is also grown for the egg sized fruit that has a translucent brown pulp with a brown sugar taste.

Cocoa trees

Behind the sapodilla tree is a cocoa tree, Theobroma cacao, which is the source of chocolate. The tree is native to the New World tropics, but now almost 80% of commercial chocolate comes from West Africa. Depending on the variety, the large football shaped pods turn yellow or purple when ripe. The flowers and pods are borne on the trunk and large branches, and each pod contains several rows of large seeds covered with a mucilaginous pulp. After harvesting the pods, the seeds and pulp are fermented for several days and then dried. The dried seeds are shelled and roasted. After this, the seeds are ground and pressed to produce cocoa butter and powdered cocoa.
Clip and mail to:
Friends of the Botanical Garden, University of California, Berkeley, California 94720

Please print clearly:

Mr./Mrs./Ms. ____________________________________________
Address ____________________________________________________________________________ Zip ___________
Day phone ______________________ Evening phone ______________________

Enclosed is my check for the following membership:

- $5 Student
- $10 Individual
- $15 Family
- $25 Contributing
- $50 Supporting
- $100 Sponsor
- $250 Patron
- $500 Sustaining
- $1,000 Benefactor

Please make checks payable to: Friends of the Botanical Garden

Join Friends of the Botanical Garden

You are invited to become a member of the Friends of the Botanical Garden. This organization was developed to provide assistance to the botanical garden in improving and extending the plant collection, enriching the education program, and meeting general capital requirements.

Members, in return, are offered special programs on plants and gardening, a 25% discount on selected UC Press books (such as *California Spring Wildflowers* by Munz), preview privileges for the annual sale of unique plants from the garden, and a quarterly publication which covers topics of general interest to plant enthusiasts as well as news of the garden.

Student and Senior Citizen memberships are discounted to $5. Standard dues are $10 for an individual, $15 for a family. The Friends of the Botanical Garden function as a support group under the auspices of the UC Berkeley Foundation, and dues and gifts are tax deductible.