# NC STATE UNIVERSITY

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#### **EDIBLE FLOWERS**

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Flowers have traditionally been used in many types of cooking: European, Asian, East Indian, Victorian English, and Middle Eastern. Early American settlers also used flowers as food. Today, there is a renewed interest in edible flowers for their taste. color, and fragrance. Edible flowers can be used fresh as a garnish or as an integral part of a dish, such as a salad. Squash flowers can be fried in light batter or cornmeal. Some flowers can be stuffed or used in stir-fry dishes. Edible flowers can be candied; frozen in ice cubes and added to beverages; made into jellies and jams; used to make teas or wines; or minced and added to cheese spreads, herbal butters, pancakes, crepes, and waffles. Many flowers can be used to make vinegars for cooking, marinades, or dressings for salad. Herbal flowers normally have the same flavor as their leaves, with the exceptions of chamomile and lavender blossoms, where the flavor is usually more subtle.

### **Cautions**

Not all flowers are edible: some may taste bad; and some are poisonous. Eat flowers only if you are certain they are edible. Consult a good reference book. An extensive list of poisonous plants can be found at the following Web site: http://www.ces.ncsu.edu/depts/hort/consumer/poison/poison.htm. A flower is not necessarily edible because it is served with food. A partial list of edible flowers can be found in Table 1. The flowers of most culinary herbs are safe to use.

Additional flowers that have been reported to be edible include: Black locust, Robinia pseudoacacia; Cattails, Typha spp.; Clary sage, Salvia sclarea; Common milkweed, Asclepias syriaca; Coriander. Coriander sarivum: Fuchsia. Fushia x hybrida; Gardenia, Gardenia jasminoides; Garlic, Allium sativum; Garlic chives, Allium tuberosum; Gladiolus, Gladiolus hortulanus; Hyssop, Hyssopus officalis; Leek, Allium porrum; Lemon, Citrus limon; Marjoram, Origanum vulgare; Marsh mallow, Althaea officinalis; Mustard, Brassica spp.; Nodding onion, Allium cernuum; Peony, Paeonia lactiflora; Orange, Citrus sinensis; Oregano, Origanum vulgar; Pineapple guava, Acca sellowiana; Plum, Prunus spp.; Radish, Raphanus sativus; Redbud, Cercis canadensis; Rose of Sharon, Hibiscus syriacus; Safflower, Carthamus Spiderwort, Tradescantia tinctorius; Strawberry, Fragaria virginia; ananassa; Water hyacinth, Eichhornia crassipes; Water lily, Nymphaea odorata; Winter savory, Satureja montana; Yucca, Yucca spp.

Pesticides for use on fruits and vegetables have undergone extensive testing to determine the waiting period between treatment and harvest and potential residuals on food. Pesticides used on flowers and ornamentals have not been evaluated to determine their safety on food crops. Do not eat flowers from

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florists, nurseries, garden centers, or flowers found on the side of the road. Consume only flowers that you or someone else has grown specifically for that purpose. If you have hay fever, asthma or allergies, it best not to eat flowers since many allergies are due to sensitivity to pollen of specific plants. It's best to introduce flowers into your diet one at a time and in small quantities.

## **Growing Edible Flowers**

Growing edible flowers is essentially the same as growing flowers for ornamental purposes. Most flowers require a well-drained soil with a pH ranging from 5.5 to 6. Soil test. Use a 2- to 3-inch layer of mulch to reduce weeds, conserve soil moisture, maintain uniform soil temperature, and reduce the amount of soil splashed onto the plant during a heavy rain. Irrigate to keep plants actively growing and flowering; most plants will need 1 inch of water per week. If possible, avoid overhead irrigation because moisture on the leaf surface for extended periods of can increase the chances of disease development. Irrigating with a soaker hose works well.

Chemicals for pest control should be avoided, if possible. Hand-pick harmful insects. Beneficial insects, such as lady beetles and praying mantises, can be used to decrease insect populations. Growing different flowers together provides diversity to support a good beneficial insect population and keeps pest problems low. Many gardeners locate their edible flower garden away from other plants to avoid chemical spray drift. Many edible flowers can be successfully grown in containers.

## **Harvesting Flowers**

Flavor can vary with growing conditions and cultivars. Conduct a taste test before harvesting large amounts of a particular flower. Flowers should be picked in the cool of the day, after the dew has evaporated. For maximum flavor choose flowers at their peak. Avoid

flowers that are not fully open or that are past their prime. To maintain maximum freshness, keep flowers cool after harvest. Long-stem flowers should be placed in a container of water. Short-stemmed flowers, such as borage and orange blossoms, should be harvested within 3 to 4 hours of use, placed in a plastic bag, and stored in a refrigerator. Damp paper towels placed in the plastic bag will help maintain high humidity.

Because pollen can detract from the flavor, it's best to remove the pistils and stamens. Pollen may cause an allergic reaction for some people. Remove the sepals of all flowers except violas, Johnny-jump-ups, and pansies. For flowers such as calendula, chrysanthemum, lavender, rose, tulip, and yucca, only the flower petals are edible. The white base of the petal of many flowers may have a bitter taste and should be removed from flowers such as chrysanthemums, dianthus, marigolds, and roses.

## For Further Reading

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Table 1. Edible Flowers.

Common Name	Scientific Name	Flavor	Color	Comments
Anise hyssop	Agastache foeniculum	Anise	Lilac	Self seeding perennial
Apple	Malus spp.	Floral	White to pink	Eat in moderation since flowers contain cyanide
				precursors
Arugula	Eruca vesicaria sativa	Spicy	White	Annual; once flowers form the leaves become bitter
Basil	Ocimum basilicum	Herbal	White, lavender	Annual
Bachelor's button	Centaurea cyanus	Vegetal	White, pink, blue	Annual; petals are edible; the calyx is bitter
Bee balm	Monarda didyma	Minty, sweet, hot	Wide range	Perennial
Borage	Borago officinalis	Herbal	Blue	Annual; use with nasturtium; use sparingly—
				diuretic effects
Broccoli	Brassica officinalis	Spicy	Green	Annual
Calendula	Calendula officinalis	Slightly bitter	Yellow, orange	Annual; most often used for color rather than flavor
Chamomile	Chamaemelum noblis	Sweet apple	White	Perennial; drink tea in moderation — contains
				thuaone; ragweed sufferers may be allergic to
				chamomile
Chervil	Anthriscus cerefolium	Herbal	White	Annual
Chicory	Cichorium intybus	Herbal	Blue	Perennial
Chives	Allium schoeonoprasum	Onion	Lavender-pink	Perennial; avoid eating whole flower; taste can be
				overwhelming
Chrysanthemum	Chrysanthemum spp.	Strong	Perennial	Use the florets; strong flavor
Dandelion	Taraxacum officinale	Sweet, honey-like	Yellow	Perennial; use young flowers, mature flowers
				become bitter; flowers close after picking
Daylily	Hemerocallis spp.	Vegetal, sweet	Wide range	Perennial; may act as a diuretic or laxative; eat
				in moderation
Dianthus	Dianthus spp.	Sweet clove flavor	Wide range	Perennial; remove the narrow base of the petals
				(bitter)
Dill	Anethum graveolens	Herbal	Yellowish-green	Annual

Common Name	Scientific Name	Flavor	Color	Comments
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Elderberry	Sambucus canadensis	Sweet	White	Perennial; do not wash flowers since it removes much of the flavor
English daisy	Bellis perennis	Mildly bitter	Pink	Perennial; ray flowers have a mildly bitter taste
Fennel	Foeniculum vulgare	Mildly anise	Yellow-green	Normally grown as an annual
Hibiscus	Hibiscus rosa-sinensis	Mildly citrus	Rose, red	Showy edible garnish
Hollyhock	Althea rosea	Vegetal	White, pink, red	Showy edible garnish
Honeysuckle	Lonicera japonica	Sweet	White to pale yellow	Perennial; do not use other honeysuckle flowers
Johnny-jump-up	Viola tricolor	Wintergreen	Purple and yellow	Annual; the petals have little flavor unless the green
				sepals are included; contain saponins and may be
				toxic in large amounts
Lavender	Lavendula spp.	Sweet, perfumed	Lavender	Perennial; use sparingly due to intense
		flavor		flavor; lavender oil may be poisonous
Lilac	Syringa vulgaris	Varies	Lavender	Wide variation in flavor — from no flavor to green
				and herbaceous to lilac
Linden	Tilia spp.	Honey-like	White	Frequent consumption of linden flower tea can
				cause heart damage
Lovage	Levisticum officinale	Celery	White	Perennial
Marigold	Tagetes patula	Bitter	Yellow, orange	Annual; Lemon Gem and Tangerine Gem have the beautiful and the second and Tangerine Gem have the beautiful and the second and
				flavor
Mint	Mentha spp.	Minty	Purple	Perennial; each type of mint has its own unique flavor
Nasturtium	Tropaeolum majus	Spicy, peppery	Wide range	Annual
Okra	Abelmoschus esculentus	Vegetal	Yellow	Annual
Pansy	Viola x wittrockiana	Vegetal	Wide range	Annual; has a slightly sweet green or grassy flavor;
				petals have a mild flavor; whole flower has a
				wintergreen flavor
Passion flower	Passiflora spp.	Vegetal	Purple	Vine; showy flowers best used as a garnish
Pineapple sage	Salvia elegans	Sweet, fruity	Red	Perennial; flavor has a hint of mint and spice

Common Name	Scientific Name	Flavor	Color	Comments
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Red clover	Trifolium pratense	Sweet	Red	Annual; raw clover flowers are not easily digestible
Rose	Rosa spp.	Perfumed	Wide range	Perennial: remove the white, bitter base of the petal
Rosemary	Rosmarinus officinalis	Herbal	Blue	Perennial
Sage	Salvia officinalis	Herbal	Purple-blue	Perennial
Scarlet runner bean	Phaseolus vulgaris	Vegetal	Purple	Annual; flowers last only one to two days
Scented geraniums	Pelargonium spp.	Varies	Wide range	Perennial; the flavor is usually similar to the scent of
				the leaves
Signet marigold	Tagetes signata	Spicy, herbal	Yellow	Annual; may be harmful if eaten in large amounts;
				other marigolds are edible but have a tangy to bitter
				flavor
Snapdragon	Anthirrhinum majus	Bitter	Wide range	Annual; use as a garnish
Squash	Curcubita pepo	Vegetal	Yellow	Annual
Sunflower	Helianthus annuus	Varies	Yellow	Annual; flower is best eaten in bud stage when it has an
				artichoke flavor; petals of open flowers have a bitter-
				sweet flavor; pollen can cause a reaction for some
				people
Sweet woodruff	Galium odoratum	Sweet, nutty, vanilla	White	Can have a blood thinning effect if eaten in large
				amounts
Thyme	Thymus spp.	Herbal	White	Perennial herb
Tulip	Tulipa spp.	Vegetal	Wide range	Bulb; good stuffed
Violet	Viola odorata	Sweet, perfumed	Purple, white	Perennial; use candied or fresh