

How to grow glorious, versatile Geraniums

Geraniums, *Pelargonium x hortorum*, have long been popular landscape bedding plants and for good reason. Their versatility is widely known in gardening circles. Whether used in massed bed plantings, window boxes, urns or planters, geraniums will continue to put forth a strong show of color throughout the growing season until frost in colder climates. Warmer areas can boast geraniums in bloom all year long.

The variety of flower colors, leaf shapes, color patterns, growing habits and compatibility with other plants make them a sure winner with consumers. Their ability to tolerate both hot and cold conditions, handle complete dryness, and resistance to most pests makes them wonderful choices for the landscape.



Martha Washington geranium

Two common types of *Pelargonium x hortorum* are:

1. **Seed produced geraniums** can be referred to as **“Hybrid” geraniums**. These have single flowers and smaller flower heads. They are generally used in mass plantings and do not have to be dead-headed.
2. **Cutting produced geraniums** can be referred to as **“Zonal” geraniums**. They are sturdy, have stronger “zoned” leaves, large shatter resistant flower heads, great variety of colors and excellent display throughout the summer for specimen plantings in flower beds, patio pots and containers.

Some popular geranium varieties include:

- ❖ Ivy geraniums, *Pelargonium peltatum*, derive their name from their ivy-shaped leaves and trailing, cascading habit. They are excellent choices for hanging baskets, planters and urns.
- ❖ Lady Washington or Martha Washington geraniums, *Pelargonium x domesticum*, are



continued on next page ►

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seasonal rather than year 'round bloomers. Their flowers are usually only seen for a few weeks in the spring, making them popular gift choices for Easter or Mother's Day.

❖ Scented geraniums, *Pelargonium x fragrans*, *Pelargonium x graveolens*, *Pelargonium tomentosum*, are just a few varieties grown primarily for their fragrant leaves. Check the herb section of your local nursery or garden center for scents. Use in potpourri or as flavorings when cooking. Scented geraniums make nice additions to your flower or herb border. Always check with an authority before using any plant for cooking or eating purposes. A wide variety of scented geraniums are available at: www.plantamerica.com

Combinations

Geraniums work well as stand-alones in containers and planters. So if “just geraniums” are your preference, they will delight you all season long. However, should you decide to spice things up a bit, consider the many combinations that can be created using geraniums. Before you do, a few simple points to keep in mind:

❖ Choose plants that have the same requirements for light--geraniums will do best with 6 hours of sun a day.

❖ Same with watering needs, geraniums like a “happy medium” with soil moisture.

Thanks to the continued work of plant breeders and collectors, more and more ‘unusual’ plants make their appearance in nurseries, garden centers and seed catalogs each year. Is the plant upright, vining, cascading? Knowing the habit of the plant before you buy is important, especially in planters and baskets where space is at a premium.

Here are some standard combinations that are known to work well with geraniums:

- ❖ petunias and million bells
- ❖ vinca
- ❖ ivy
- ❖ verbena
- ❖ spike dracaena

Let this be the year to try something new; just remember to select plants with “like conditions.” If the container is especially large, tuck in an ornamental grass like Elijah Blue fescue for interest after the flowering season.

Garden Journal

If you haven't started a garden journal, now would be a good time. Take periodic photos of your geraniums and garden. Make special note of plants that perform well; and those that do not. If you are pleased with the combinations you have created, take photos. It will be so much easier next year when you look to duplicate your successes.

continued on next page ►

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Plant Maintenance

Preparation

If using plants in a container, make sure the container is thoroughly cleaned and disinfected before use. To disinfect: Use 9 parts warm water to 1 part bleach. Allow pots to soak to remove dirt and debris. Tough residue can be removed with a wire brush. Rinse well. Make sure there is adequate drainage in the pot selected.

Location

Choose a site where geraniums get a minimum of six hours of full sun and with day temperatures of 70° to 85°F and night temperatures of 55° to 65°F. Martha Washington types will also do well in partial shade.

Watering

Geraniums prefer moist soil. After receiving a good watering (this is very important!), allow the soil to dry slightly before the next watering. Over watering results in root rot. For best results, water well and wait until the soil is dry an inch or two below the surface before the next irrigation.

Fertilization

Geraniums need to be fertilized heavily and frequently. Slow release granular fertilizers are good, but timing is important. Don't wait until leaves begin to yellow. Always follow label directions for best results. Water-soluble complete fertilizers may also be used.

“Overwintering” Geraniums

There are several techniques you can try:

1. Hang geraniums by the roots in the basement for the winter. This technique has little success if your basement is warm; plants tend to dry out too much.

However, if temperatures can be kept in the 40-50°F range, consider digging up your plants, and hanging them by the roots. Cut plants back 1/3 to 1/2 of their height and hang from beams or rafters. Replant in the spring.

2. Indoor Houseplant Culture. This method treats your geranium as part of your regular houseplant collection. Geraniums are carefully lifted from flowerbeds or urns before frost, removing 1/3 of the top growth. Pot them in clean flower pots and place in a sunny, cool (50-60°F) window. Water thoroughly, allowing the soil to dry slightly between waterings.

3. Storage of Plants. Geraniums are lifted and cut back to approximately 6” in height. Root-prune any long roots and pack all plants together in deep wooden crates or boxes. Cover the roots with moist peat moss. Boxes should then be placed in a well-lit and ventilated location. Water sparingly only when the peat moss is thoroughly dry.



continued on next page ►

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4. Propagation of New Plants. If you choose to elect methods 2 or 3 for over-wintering, you will be providing yourself with some propagating material.

- ❖ Using only healthy terminal tips, cuttings should be approximately 4-5” in length.
- ❖ Strip off the bottom leaves if possible.
- ❖ Allow cuttings to sit on a countertop for several hours to start the callousing process.
- ❖ Dip the cut end of the shoot into a rooting hormone and carefully insert into a prepared soil pot or flat of perlite or coarse sand.
- ❖ Keep media moist (not wet) during the rooting process. Cuttings should root within 4 to 6 weeks. Any that show signs of rotting should be removed immediately.
- ❖ When rooted, cuttings can then be repotted into individual containers for further growing.

- ❖ Pinch out the terminal shoot of your cutting to stimulate a better branching habit for the plant.
- ❖ Water when the soil starts to dry out.
- ❖ A monthly application of a 5-10-5 or other low-nitrogen fertilizer is a plus.

Regardless of the method you select for over-wintering, do not set your plants outside until all danger of frost has passed.

Plant Problems

Integrated Pest Management (IPM) Considerations

IPM is a common sense approach to pest control and plant care. It uses a number of measures to prevent, control or reduce plant problems. These include the use of:

- ❖ Resistant plant varieties.
- ❖ Proper plant selection and placement.
- ❖ Good aftercare.
- ❖ Use of biological or mechanical controls.

Pesticides are typically used as a last resort; although an important tool in the IPM tool kit. When selecting a pesticide, consider the following points:

- ❖ Pick one that is least toxic.
- ❖ Consider humans, pets and natural predators.
- ❖ Make the application when it will be most effective in preventing, controlling or reducing the problem; as the saying goes “timing is everything.”

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Accurate diagnosis of a problem is key when determining control measures to employ. Bring a representative sample of the problem to your local Cooperative Extension office or garden center for diagnosis and recommendation. Pesticide laws vary from state to state; seek the advice of a professional always.

Insects

Geranium Budworm

This small (1/4-1/2" long) green worm enters the unopened bud of geranium flowers and feeds on the petals. Because of their size and coloring, the only indication of their presence is the black droppings on leaves below the flower heads. This insect can cause a great reduction in the number of flower heads. The worms should be handpicked when possible and destroyed.

Aphids

These sometimes colorful, small, juicy insects can be found clustered on young growth and emerging buds. Don't forget to look on the undersides of leaves for their presence as well. A forceful stream of water may help with this pest. Regular inspections may keep any insect populations to a minimum.

Diseases

Botrytis, Bud Blast

A fungus favored in hot, humid weather followed by cooler nights and cloudy, wet days. A symptom of bud blast is early discoloration of the small buds, possibly just after they have emerged from the terminal shoot. In other cases, the buds have already enlarged and turn a mustard-like color overnight. The third stage of Botrytis is at flowering, when portions of the petals turn a grayish color and are mushy in appearance. Early morning inspection of the plants will show web-

like strands of this fungus on the damaged parts.

Good sanitation practices should be followed. When the plant is dry, carefully remove and discard any affected plant parts, avoid overhead irrigation (irrigate at the surface) and allow for good air circulation, if possible. Remember to thoroughly clean up and discard all plants in the late fall, eliminating the opportunity for the fungus to overwinter on plant parts.

Bacterial Blight

Caused by a bacteria that produces an overall tiny spotting or wedge-shaped yellow area on a geranium leaf. Wilting leaves and a black dieback of growing plants results. Severely affected plants should be tossed out. Avoid splashing water onto healthy plants, and provide adequate ventilation and proper spacing. Do not propagate from affected plants. If possible, locate new plants in a different part of the garden the following year.

Oedema

A physiological disorder caused by overwatering and poor lighting. Watersoaked spots that turn black and corky can be found on the undersides of affected geranium leaves. The ivy-leaved varieties are especially vulnerable. Regulate watering practices and allow for ample sunlight to correct this disorder.

About Your Expert

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PlantAmerica Horticulturist Donna Moramarco (a.k.a. "Donna in the Garden") has been helping gardeners solve problems and achieve their dreams for over two decades. Donna has degrees in horticulture and education plus over 20 years as a Cornell University extension horticulturist.