



SPECIAL GARDEN PROJECT

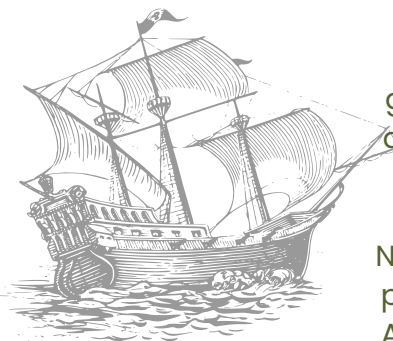


PRINCESS OF INDIA NASTURTIUM

NASTURTIUM FACTS



- Nasturtiums can grow upright, trailing or climbing.
- Much of the plant is edible including the leaves, flowers, and seed pods.
- Some species of nasturtiums can survive at elevations close to 11,000 feet.
- The flowers got their scientific name because the shape and color reminded Carlous Linnaeus of the helmets worn by the Roman warriors.



Many plants were found growing here when Columbus discovered North America. We call these native plants.



Nasturtiums are an introduced plant. They are native to South America and Central America.

A TOUCH OF HISTORY

NASTURTIUMS' FAMILY

PLANTS ARE GROUPED INTO FAMILIES. NASTURTIUMS ARE ONE OF TWO PLANTS IN THE PLANT FAMILY CALLED TROPAEOLACEAE.

IT'S IMPORTANT TO KNOW WHICH PLANTS ARE RELATED BECAUSE THEY SOMETIMES HAVE THE SAME DISEASE AND INSECT PROBLEMS.



PLANTING BASICS

Nasturtiums are a warm season crop. Seeds can be planted directly in the ground after the last frost date and when soils are warm, usually in mid to late May.

Warm soils allow the seeds and plants to grow rapidly. Cold, wet soils will cause seeds to rot.



»»» WHERE TO PLANT?

Nasturtium plants will produce the best when placed in full sun. This is an area that will receive 6-8 hours or more of direct sunlight a day. It will tolerate partial sunlight conditions, but it won't produce as well. Also make sure they have plenty of wind protection.

Nasturtium will do best in fertile, well-drained soil. Make sure to leave enough room for the plants to grow. The more crowded the plants are, the taller they get as they reach for sunlight.

To prepare the soil, spade 6 to 8 inches deep; then work in about a two-inch layer of organic matter. Organic matter is good for all soil types. It helps sandy soils hold water better. In clay soils, it improves drainage so excess water drains away quicker and oxygen is then available to roots. Roots need oxygen to grow and function. Organic matter also adds nutrients to soil as it decomposes.

Compost and manure are examples of organic matter. Do not use fresh manure in spring. It can burn seedlings or cause some plants to grow lots of leaves or stems. Manure is best added in the fall.

>>> DIRECT SEEDING

After the average last frost, plant the seeds in rows, placing about 1 seed every 5 inches. Cover lightly with 1/2-1" of soil. Darkness is required for germination (sprouting). Keep the soil moist. The final spacing should be 8-12" between plants in rows. Thin to 3-5 plants per 10" container. The spacing between the seedlings allows the plants to receive enough sunlight for the plant and will result in thicker stems.

The average last spring frost dates in Nebraska are: eastern Nebraska, April 24; central Nebraska, May 1; and May 10 in western Nebraska. Check with your local Nebraska Extension Office for the frost-free date in your area.

If you don't have room to plant in a traditional garden setting, nasturtium can be grown in containers. Plant seeds in a 10 inch container or one of similar size. Garden soil is not recommended for containers. A good potting mix will work well for growing plants in containers.

NASTURTIUM CARE

>>> WATERING

Nasturtium can tolerate dry, hot conditions very well. Do not overwater. Plants will need about 1 inch of water a week. Try to keep the soil barely moist. At each watering, moisten the soil about 6-8" deep. Let the soil dry out slightly between waterings. Too much water decreases the soil oxygen, which roots need to grow steadily.

If you use a sprinkler to water the garden, try to water in the morning. This will allow the leaves to dry off throughout the day and decrease the possibility of disease.

>>> MULCHING

After the seeds begin to emerge, place a 2-3" layer of mulch around nasturtium to conserve moisture, keep soil temperatures cooler, and reduce weeds. This will help roots to grow quickly and steadily.

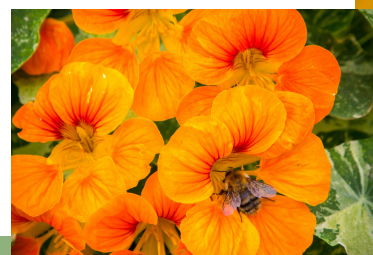
Mulch should not touch plant stems or leaves. Use dried brown grass clippings or shredded wood. Do not use green grass clippings as they can "heat up" and damage plants. Adding too much mulch can make soils waterlogged and lack oxygen and can attract insects and slugs.

>>> WEEDING

Weeds steal water and nutrients from plants, causing them to grow slower. Control weeds when they're small by hoeing, hand-pulling or mulching. Do not hoe too close near plant stems or too deep near the roots, because this may cause damage to the plants.

>>> PINCHING

To encourage more blooms, pinch back the old, faded flowers. Pinching the plant helps to put their energy into producing more flowers instead of putting their energy into seed production. If plants are grown in containers, they can be trimmed back occasionally during the growing season.



FERTILIZING

Nasturtiums don't require much fertilizer. Additional fertilizer may not be needed if they were planted in soils that had added organic matter. If you do fertilize, use a well-rounded, water-based fertilizer once the plants are blooming.

➤➤➤ APHIDS

Aphids are tiny insects that have piercing-sucking mouthparts. They come in a wide range of colors from green, to yellow, and even a reddish color. Some aphids have wings and/or a set of little 'tail pipes' called cornicles out their back end.

They suck out the plant juices and leave a mottled, blotchy appearance to the leaves. If the infestation is large enough, they can also cause the leaves to look puckered or ruffled.



➤➤➤ CABBAGEWORM



Imported cabbageworm larvae are green and have an almost velvet-like appearance. Older larvae can have a faint stripe along its body. The adults are white moths with black spots on their wings. Cabbageworm larvae chew large, irregular holes in leaves and drop greenish brown fecal pellets.

Squish the larvae when they are seen or consider using an insecticide labeled for use in the garden to prevent damage from happening.

HARVESTING & STORING

➤➤➤ HARVESTING NASTURTIUM

Begin light harvesting after plants have become established. It is best done in the early morning when the temperature is cooler and the leaves are less likely to wilt. Flowers are easily bruised when picking, so handle carefully and use the same day.

➤➤➤ STORING NASTURTIUM

Harvest and wash nasturtium leaves and flowers before using. Harvested flowers and stems can be kept in a glass of water or a vase until ready to use or store in the refrigerator for a short period.



USING NASTURTIUMS

EDIBLE FLOWERS

Use the flowers to garnish drinks, salads, soups, pasta, and desserts. Flavor is a sweet and peppery taste.

EDIBLE FOLIAGE

Foliage can be cut and should be washed. The cleaned foliage then can be used like other salad greens or lettuce. It has a mild bland flavor that is followed by a peppery aftertaste.

STUFFED NASTURTIUM FLOWERS

YIELD: 8 SERVINGS

INGREDIENTS:

- 12 nasturtium flowers
- 1 (8oz) package of cream cheese
- 1 garlic clove
- ½ Tablespoon fresh chives
- 1 Tablespoon lemon basil (or lemon balm, lemon zest or lemon verbena)

DIRECTIONS:

- Wash hands with soap and water.
- Make sure flowers are clean and dry. Pick as close to serving time as possible. Store in the refrigerator until ready to use.
- Mix cream cheese thoroughly with herbs. Season to taste. Place 1 to 2 teaspoons of mixture (depending on the size of the flower) in the center of the flower. Pull petals upward to cover the cheese mixture as much as possible. Press lightly into the cheese to stick.
- Makes 4 servings, 4 stuffed flowers per person.



Information compiled by Elizabeth Exstrom, Extension Educator
Nasturtium information:

<https://sandovalmastergardeners.org/plant-of-the-month-nasturtium/>

Career information: <https://www.seedyourfuture.org/careers>
Recipe from food.com photo by Nadia C.

Empress of India nasturtium photo courtesy of Johnny's Select Seeds, Johnnyseeds.com, 1-877-564-6697.

EXHIBITING PRINCESS OF INDIA NASTURTIUM

This Victorian-era heirloom flower can be grown in a variety of ways including in containers. It provides a splash of color from its scarlet flowers and much of the plant can be eaten.

»»» EXHIBITING TIPS

State Fair Special Garden Project Educational Exhibit Class G-775-001. The educational exhibit is based on what was learned from the project. Present information on a poster 14" X 22" or in a clear plastic report cover. The 4-H member's name, age, and county must be on the back of the poster or report cover.

State Fair Special Garden Project Fresh Cut Flowers or Harvested Vegetables Class G-775-002. The current years' Special Garden Project fresh cut flowers or harvested vegetable should be entered in this class.

Nasturtium can be both an herb and a cut flower. Bring 5 stems following the guidelines in the publication 'Selecting and Preparing Vegetables, Herbs and Fruit' 4H226 (revised 2022) or 'Preparing Cut Flowers for Exhibits at County Fair and Nebraska State Fair' (revised 2022) (<https://go.unl.edu/sgpresources>).

The desirable traits the judge is looking for are 5 stems that are at the same maturity and uniform in size that are free from insect damage. Flowering stems should have a similar number of open blooms and closed buds.



Don't forget to fill out the Special Garden Project Evaluation at:
<https://go.unl.edu/2024sgpsurvey>

CAREERS

Horticulture is the science and art of growing and using fruits, vegetables, flowers, ornamental plants and grasses to enhance our living environment. A horticulturist is a person who works with plants. They can have many different jobs from plant breeding, to growing the crops, to even processing and moving of plants.

DID YOU KNOW? A DEGREE IN HORTICULTURE CAN OFFER THE FOLLOWING CAREER OPPORTUNITIES:

- EDUCATOR
- FIELD OR LAB RESEARCHER
- FLORAL DESIGNER
- GREENHOUSE MANAGER
- HORTICULTURE ENTREPRENEUR
- LANDSCAPE DESIGNER
- LANDSCAPE CONTRACTOR
- NURSERY MANAGER
- PLANT BREEDER
- PLANT PROPAGATOR
- GROWER
- VINEYARD MANAGER



»»» SEED PRODUCTION TECHNICIAN

A seed production technician assists in a horticultural company's planning, strategy, and production of seed.

Training/Education Needed

A bachelor's degree in agronomy, plant science, or a related field is needed for most jobs. However, many companies offer on the job training for seed production technicians.

Where to Study

For 2- and 4-year college and university programs across the country.

Salary Expectations

In August 2020, the median yearly salary for a seed production technician was \$29,971, according to Zip Recruiter. Want to find out more about careers like this in horticulture? Visit UNL Agronomy and Horticulture Department at <http://agronomy.unl.edu/>