



Selection

What are good perennial flowers to plant in Nebraska?

A good perennial is adapted to the growing conditions of the site and fulfills the aesthetic purpose or function needed in the garden such as color, time of bloom, size, and growth habit. There are many perennial flowers to grow in Nebraska. Refer to the following publications for perennial lists.

Perennials for Water Wise Landscapes: <http://ianrpubs.unl.edu/horticulture/g1214.htm>

Wildflowers for the Home Landscape: <http://ianrpubs.unl.edu/horticulture/g1074.htm>

Perennials: <http://ianrpubs.unl.edu/horticulture/g1015.htm>

Soil Preparation and Planting:

Resources say perennials need a well drained soil. What is a well drained soil?

Well drained soils allow excess water to drain and do not remain saturated too long. Good drainage is a must for success with most perennials. Perennials are susceptible to crown and root rots which are promoted by wet soil conditions.

If you have poor soil (very sandy or clay), how can it be improved?

The addition of organic matter such as compost will improve sandy and clay soils. In sandy soils, it improves water holding capacity, nutrition, and beneficial microorganisms. In clay soils, it improves drainage and aeration as well as nutrition and beneficial microorganisms. Other amendments, such as gypsum, should only be added based on a soil test. Use a 2:1 ratio if you are incorporating decomposed organic matter like compost. Prior to adding compost, till the soil 12 inches deep. If you are amending the soil 8 inches deep, spread a 3 to 4 inch layer over the surface of the bed and incorporate it.

When should perennials be planted?

In spring: Plant greenhouse grown container plants after the danger of frost. Dormant plant stock, bare root stock, and divisions can be planted as soon as the soil can be worked.

In fall: Plant divisions and container grown plants in September to allow roots to establish before the soil freezes. After the soil freezes, place a coarse mulch over the plant to protect plant roots from soil heave caused by alternating winter temperatures. It is important to wait until November to apply winter mulch or you increase the chance of winter injury.

How deep should perennials be planted?

The crown of the plant, the point where stems meet roots, should be at ground level. Too deep of planting can lead to crown rots, weak roots, weak plants, and poor blooming. Gently spread the roots of bare root perennials when planting. Sift soil in around the roots and firm by gently pressing soil with your hands or watering to remove air pockets.

Watering:

How much and how often should perennial flowers be watered?

Amount and frequency of irrigation will depend on soil type, flower species, and climate. Overwatering is just as harmful as underwatering. Here's a checklist of best management irrigation practices:

- ✓ Newly planted perennials, even drought tolerant ones, must have adequate soil moisture until their roots are established.
- ✓ Monitor soil moisture and rainfall. Do not irrigate unless it's needed. Inserting a screwdriver or piece of rebar into your soil will help determine how deep you have moistened the soil. It will slide in fairly easily to the moistened depth and stop when it hits dry soil.
- ✓ Water deeply and infrequently. Moisten the soil 8 inches deep. Allow the soil to dry moderately before irrigating again. Don't overwater drought tolerant plants.
- ✓ Water slowly and gently to reduce soil compaction and allow water to soak in rather than run-off.
- ✓ Select an efficient irrigation method such as a soaker hose or drip irrigation.
- ✓ Avoid overhead irrigation. This promotes foliar diseases, lowers blossom quality, and increases evaporative water loss.
- ✓ Group plants based on their water needs. Do not combine high water using perennials with low water users. One plant will be overwatered or one will be underwatered.
- ✓ Use a coarse mulch to help conserve soil moisture and reduce weed competition for moisture.
- ✓ Don't irrigate perennial beds with the lawn irrigation system. This will lead to overwatering.

Mulching:

What is a good mulch to use during summer for perennial flower gardens?

A coarse textured organic mulch, such as shredded bark or wood. Coarse mulches do not become compacted and they allow oxygen to enter soil. Soil oxygen is critical for healthy root growth. Fine textured mulches, such as dried grass clippings, tend to mat down and can repel moisture and reduce soil oxygen levels. Organic mulch is better than inorganic mulch as these decompose and add organic matter to soil over time. Best management practices for mulch are:

- ✓ Use a coarse textured organic mulch
- ✓ The mulch layer should be no deeper than two to three inches
- ✓ Keep mulch 6 to 12 inches away from plant stems
- ✓ Replenish organic mulch as it decomposes



Fertilizing:

How often should perennials be fertilized and what's the best type of fertilizer?

With proper soil preparation before planting, many perennials require little additional fertilization. Application of a starter fertilizer, one high in phosphorous, prior to planting may aid in more rapid root establishment. For established plants, an application of a balanced, slow release nitrogen fertilizer in May, and one month later if needed, can be beneficial. Fertilizers high in nitrogen should not be used as nitrogen promotes excess foliage at the expense of flowers and roots, causes floppy stems, and can increase disease susceptibility. Perennials grown in wood mulched beds may require more nitrogen as soil nitrogen is used to decompose the mulch and may not be as available for plants to use. Fertilizer best management practices are:

- ✓ Base type of fertilizer used and amount applied on a soil test
- ✓ Use slow release nitrogen sources
- ✓ Avoid contact with leaves when using granular forms
- ✓ Water in fertilizer
- ✓ Apply fertilizer when the soil is moist.
- ✓ Stop fertilizer after August 1
- ✓ Do not leave granular fertilizers on paved surfaces as these will be washed into water resources

Staking:

How can you prevent plants from flopping over?

Flopping, or lodging, detracts from a plants appearance. Also, bent stems do not function as well and injury to stems caused by lodging are openings for disease infection. To reduce lodging, avoid high nitrogen or fast release nitrogen sources when fertilizing. Avoid overwatering. Stake tall plants. Put staking materials in place in early spring just before or as new growth begins. If tying stems to stakes, do so loosely with double loops to avoid wind whipping causing ties to damage stems.

Pinching/Deadheading:

What is the difference between pinching and deadheading flowers?

Pinching is done early in the season and removes the stem tips to promote bushier, more compact plants and increase the number of blooms. Pinching is most beneficial on late summer blooming perennials like asters and Chrysanthemum. Stop pinching plants by late June to allow flower buds to develop and bloom before frost.

Deadheading is the removal of spent blossoms to avoid seed production. Deadheading prevents plants from using energy for seed production, can lengthen the bloom season, and improves the plants appearance. Remove spent blossoms by cutting their stems back to a healthy leaf or stem.

Dividing Perennials:

When do you divide perennials?

Most perennials require division every 3 to 5 years or they become overcrowded, causing a decrease in blooming and plant centers to die. Divide perennials when they are dormant. As a rule of thumb, divide spring blooming perennials in fall and late summer/fall blooming perennials in spring. Iris are best divided in August.

Are there any perennials you should not divide?

It is often recommended not to divide butterfly milkweed, Euphorbias, oriental poppies, baby's breath, gas plant, blue false indigo, and columbines.

Cutting Back Dead Tops:

When is the best time to cut back the tops of herbaceous perennials and how far back?

The tops of herbaceous perennials die to the ground each fall and new growth comes from the crown or roots. Dead tops need to be removed to make room for new growth in spring and improve the plants appearance. Cut dead tops to three to four inches tall after the foliage naturally dies or freezes. If the plant has winter interest, such as purple coneflower or showy sedum, the tops can be left over winter and cut back in late winter before new growth begins. If the plant had a disease or insect problem, remove the tops in late fall to reduce overwintering of pests and pathogens.

Winter Protection:

Which perennials need to be protected during winter?

Nonhardy perennials or recently planted perennials should be protected. In northern Nebraska, provide protection for plants hardy to cold hardiness zones 5 or higher. In southern Nebraska, protect plants hardy to cold hardiness zones 6 or higher. Winter protection protects plants from soils alternately freezing and thawing which damages roots, and from temperature extremes.

How and when do you add winter protection?

Use an 8 to 12 inch layer of a coarse textured mulch that will not pack down over winter, such as straw or evergreen branches. Do not put the mulch in place until the soil has frozen, sometime in November, or crown rots and delayed dormancy can occur. Remove winter mulch in spring just before or as soon as new growth begins.

For additional information, refer to the Nebguide 'Growing Perennials' at:

<http://ianrpubs.unl.edu/horticulture/g828.htm#d>