

AUTUMN

time to prepare spring flowers

Autumn is the time to get a head start on next spring by cleaning and preparing flower gardens and planting for a beautiful spring.

CLEANUP

Remove annual plants and cut back perennials as soon as frost has browned them. Hardier annuals and perennials, such as calendula, annual mallow (*Malva sylvestris*), chrysanthemum etc. can be dealt with later. You can also wait until spring to cut back perennial flowers and ornamental grasses that have winter interest, such as Sedums and asters.

FLOWER BED SOIL PREPARATION

annual

To determine what soil amendments may need to be added, have a soil test done. Rough-till in compost and organic matter, including any amendments needed such as phosphate and potassium. Composted manure is usually applied in the fall, as the time over winter allows the manure to continue breaking down before spring planting.

perennial

Perennial flower beds can benefit from some top dressing of needed soil amendments, with care not to damage shallow roots. Fall is also a great time to add mulch to existing perennial beds.

DIVIDING PERENNIALS

Fall is a great time to divide, thin, transplant and re-plant spring and summer flowering perennials. To divide clump forming plants such as peonies and day lilies, lift with a spading fork. Use a sharp knife to cut the fleshy roots into smaller pieces, being sure peonies contain at least three eyes each and day lilies about 3-4 leaf bases in each section. Avoid using older plant parts, since these are not as vigorous as younger parts of the clump. Set divisions as deeply as the mother plant grew, taking care not to plant peonies too deep or they won't flower, and then water well.

Once ground freezes for winter, apply thick mulch such as shredded bark, straw, pine needles or non-matting leaves to prevent frost heaving, which can damage young roots.

NEW BULB BEDS

When starting a new spring flowering bed for bulbs, take advantage of well drained locations or sloping sites, which are ideal for bulbs.

The best results are obtained if bulbs are planted early enough to have at least three weeks to root before the ground freezes, so plant during September through early October...the earlier the better. Water well after planting.

If you're late for the three-week window before frost, mulch the bulb bed after planting with a 12-inch layer of straw. This slows the soil from freezing, giving bulbs a bit more time to root.

bulb soil preparation

Bulbs like slightly acidic soils, which is hard to come by in most parts of Montana. Adding an inch or two of peat moss will improve the soil texture, add nutrients and some acidity to the soil. Elemental sulfur can also be applied at a rate of ½ pound per 100 square feet to help reduce soil pH. Adding fertilizer at a rate of 10 pounds of 5-10-5 grade fertilizer per 100 square feet will provide bulbs with food for fall. Spade soil with all additions to a depth of six inches.

planting depth and spacing

Bulbs are planted to a depth of about two to three times their diameter. Planting depth can be used to affect bloom time...the deeper planted, the later the plant will emerge and bloom in spring. It also helps to plant bulbs slightly less deep in heavy, wet soils and slightly more deep in dry, light, soils.



planting bulbs

After the bed is prepared, arrange bulbs on top of the soil to be sure they fit into the design. Dig a hole for each one, or dig out the whole area instead of individual holes, then space bulbs and fill. (Check planting directions to be sure of depth and spacing.) Plant bulbs with the pointy end facing up. Usually the bulb bottom is flattened. Cluster bulbs in groups of a dozen or more together. This makes a bigger color statement rather than planting a long single row.

THINNING ESTABLISHED BULBS

In established beds of bulbs, prevent them from becoming crowded and less vigorous by respacing them every 3-4 years. By early fall, the bulb foliage has yellowed, meaning they've stored food for next year's bloom, and are ready to dig. Excess bulbs should be removed and only the larger ones replanted at the right spacing. Dividing bulbs reduces competition for nutrients and restores plants to full-blooming capacity.

HARVEST AND STORAGE OF NON-WINTER-HARDY BULBS

Tender gladiolus, dahlias, cannas or tuberous begonias are bulbs that usually don't survive our winters and need to be dug and stored indoors.

gladiolus

Dig after first frost, cutting the tops off just above the corm. Cure corms by spreading them out in a dry, frost-free location for about three weeks. After curing, new corms should have developed on top of the old corms, which will be withered and shrunk. Snap off the old shriveled corms, discard any unhealthy corms, and dust with an all-purpose rose dust. Store corms loosely in open trays or mesh bags in a dark place with temperatures of 40 to 50 degrees.

dahlias, cannas and tuberous begonias

Lift the clump of roots or tubers with a spading fork after killing frost. Avoid damaging the necks of these, since this holds vital growth buds. Shake off loose soil and cut tops above ground level. Wait to divide these until spring. Dry clumps, then store in plastic bags containing barely dampened peat moss to prevent shriveling. Store in a cool, frost-free area with temperatures of about 40 degrees. Check occasionally for mold, indicating too much moisture. Open bag temporarily to allow drying. ■

Bulb planting guidelines:

Flower	depth	spacing
Allium, large (<i>A. giganteum</i>)	6 inches	12-18 inches
Allium, small (<i>A. moly</i> , <i>A. unifolium</i>)	3-5 inches	6-8 inches
Glory-of-the-Snow (<i>Chionodoxa luciliae</i>)	3-4 inches	3 inches
Crocus and Common snowdrops (<i>Galanthus nivalis</i>)	3-4 inches	3 inches
Daffodil (<i>Narcissus</i>) Trumpet, large-cupped	6-8 inches	6-8 inches
Daffodil Miniature	3-5 inches	4-6 inches
Grape Hyacinth (<i>Muscari armeniacum</i>)	3-4 inches	3-4 inches
Hyacinth (<i>Hyacinthus orientalis</i>)	6 inches	6-8 inches
Iris, dwarf and miniature	½ -1 inch	4-5 inches
Iris, full Size	½ -1 inch	6-8 inches
Tulips (<i>Tulipa</i>), Darwin Hybrid or triumph	6-8 inches	4-6 inches
Tulip, species or botanical	3-5 inches	3-4 inches

