## Bulbs - Fall Planted for Spring Bloom

Bulbs are the first sign of spring in the garden and sometimes the earliest ones can be seen peeking through snow. Most familiar bulbs are planted in the fall so now is the time to select and plant them. Bulbs are plants which have modified parts that are used for the storage of energy to help them survive adverse conditions. Typically when the adverse condition occurs, like winter, the bulb goes dormant.

Types of Bulbs. There are four different types of bulbs: 1) true bulbs which have layers or scales include onions, artichokes, tulips, Narcissus, and lilies, 2) corms which look like a flattened bulb with an enlarged stem base include crocus and gladiolus, 3) tubers and tuberous roots with underground storage parts include potatoes, dahlias, sweet potatoes, and anemones, and 4) rhizomes with swollen stems that grow underground and sideways include iris and ginger.

Bulb Life Cycle. Bulbs have a life cycle that includes birth, root growth, foliage, bloom, foliage browning, and dormancy. You want to fertilize them with compost during the root growth stage. You want to fertilize them again during the foliage browning stage when the plant is reabsorbing the energy from the foliage back into the storage part for use next year. This is the time to fertilize with phosphate. Don't pull off the foliage until it's completely brown or you'll lose next year's bloom.

Selecting Bulbs. Since bulbs are storage devices it makes sense to select the biggest, firmest, plumpest one for its size that you can find. Thinking of garlic cloves, you don't want them to be dry and dehydrated nor do you want them to be mushy or have a moldy rotting smell. Choose quality sources for the best bulbs. You don't save money on the cheap ones. High Country Gardens is a good source of bulbs that do well locally. The McClure and Zimmerman catalog is a good source if you know what bulbs you want already or are looking for unusual ones.

Design Considerations. Bulbs have more impact if you cluster them, so a group of 5-7 bulbs of the same color is good place to start. Typically you want continuous bloom so you should choose early season bulbs, mid-season bulbs, and some late season bulbs. The groupings of bulbs should have complimentary colors. If you want fragrance, choose some fragrant bulbs and plant them near a walkway. If you want multiple years of bulbs, choose perennializing ones. Consider the height and bloom size you'd like. Tall ones look better at the back of a bed. And think about how to hide the browning foliage - with annuals, perennials, groundcovers, taller plants, native grasses, or later blooming bulbs. Also choose shorter blooms if wind is an issue. Choose daffodils and jonquils if rabbits and deer are present - these bulbs are poisonous to animals and so they avoid them.

Bulb Choices. There are an amazing number of choices available in the bulb world. Some fall planted varieties that you might try are: wildflower tulips (clusianas, bakeri, batalini), Kaufamannia , Darwin, and Greggii tulips, spring or fall blooming crocus, daffodils and jonquils (not Poeticus), galanthus, iris reticulata, frittilaria, leucojum, alliums, scilla, camassia, chionodoxa, and if you don't mind ones that can become invasive some muscari (grape hyacinth). Check out highcountrygardens.com to see what these look like.

Planting Them. For spring blooming bulbs and some fall blooming crocus you need to get them in the ground about 6 weeks before the ground is hard frozen so they have time to grow some roots. In New Mexico choose a morning sun location if you can. You can plant under deciduous trees or shrubs or in a native grass lawn. Prepare the soil by mixing in some compost. The easiest way to plant them is to create a bed, but if you're planting in an existing area like a meadow you'll need to dig individual holes. The depth of the hole (or bed) should be about 3 times the widest diameter of the bulb. Leave a little extra for the fertilizer. I like to toss 5-7 of the same bulb in the air and then dig holes where they land to get a more natural look. You can dig the hole with a special bulb planting tool or just use a trowel. Watering the soil first makes it easier to dig. Put a handful of phosphate in the hole, cover lightly with soil, add up to 3 bulbs pointy side up/root side down, fill with soil, add a little compost on top, then some bark mulch, and water it in. If you're planting a bed, you can layer the bulbs with the biggest ones on the bottom and the smallest ones near the top. No individual holes required!

Care. You'll need to water your bulbs regularly over the winter on a warm day, but don't waterlog them. Snow really helps with this because it provides a gradual "time release" of moisture. You can fertilize them in the spring with more compost. You can remove the spent blooms, but don't remove the dead foliage until it's completely brown. Divide them (dig them up and share the extras with friends) when the middle of the clump stops blooming. Some late summer blooming bulbs like dahlias or cannas need to be dug before the ground freezes and stored in a cool dry place like your garage over the winter. Storing them in vermiculite in an open plastic grocery bag keeps them separate, but also retains a little of the moisture.

Layered Pot. A fun way to start with bulbs is to plant them in a large pot (at least 12 inches in diameter). Mark the inside of the pot with "ground level" and then every two inches down from that. To be sure the pot drains have a least three holes or more in the bottom. I usually cover the bottom with wadded newspaper just to keep the potting soil from coming out the hole. Determine which bulb needs the deepest " hole" and fill the pot from the bottom to near that level. Add in a handful of phosphate, cover lightly with potting soil, plant the bulbs on that layer, and fill with potting soil to just below the next layer. Repeat for each set of bulbs. You can put the tallest blooms to the center and move out toward the edge. In the spring you'll have a bounty of color. A good combination would be three layers with daffodils on the lowest layer, tulips in the center, and crocus on top.

