

# Annual Bed Preparation and Installation

## VIDEO SCRIPT

The University of Georgia Cooperative Extension in partnership with the professional landscape industry proudly presents, *Annual Bed Preparation and Installation*.

**PANORAMA OF BEAUTIFUL SEASONAL COLOR BEDS.** One of the many marketing tools of landscapers is seasonal color. The vibrant colors brighten the landscape and attract clients to the property. Seasonal color is a high cost item in any landscape. It's also one of the most visible examples of the type of work your firm does. It's important to carefully prepare the soil and plant properly to assure your firm and your client the maximum return on their color investment.

**EXAMINING THE PLANTING SITE.** Before preparing the soil for annual flowers, carefully examine the site. Will the flower bed be close to a water source? Are the plants suitable in terms of sunlight exposure at the site? Before preparing a bed on a new site, take a sample of the native soil and have it tested for pH and nutrient content through your local county Extension office. Check the drainage of the area and determine what amendments will be needed to assure good drainage and optimum plant growth. Planting should begin only after a thorough examination of the site.

**LOADING ANNUALS AND EQUIPMENT.** A safe and productive work day begins at the shop. Before loading the truck, make certain all equipment is in good operating condition. Once you are on the job site, repairs and maintenance are much more difficult.

Load annuals carefully to avoid damaging foliage and flowers. A protective covering may be necessary to prevent wind damage to the plants during transport.

**UNLOADING AT THE JOB SITE.** When you arrive at the job site, place the annuals in a shaded area until they are planted. Water them thoroughly to prevent them from drying out. Avoid placing them on paved areas where they can quickly dry out.

**OUTLINING THE BED.** If you are preparing a new bed in an established landscape, first outline the shape of the bed, to distinguish it from surrounding plants. Next, prune out any nearby plants or turf encroaching into the newly outlined area. Discard the clippings.

**PREPARING A NEW BED.** To prepare new beds, excavate the native soil to a depth of at least 18 inches. This assures good drainage and good soil environment for root growth. Try to avoid cutting large roots of trees and shrubs growing into the bed area. Installing a root barrier will help prevent the roots of nearby trees and shrubs from growing into the bed.

**DIGGING UP OLD BULBS AND REMOVING OLD FLOWERS.** If you are changing flowers in an existing bed, remove and dispose of all the old plants. Hybrid tulips are usually treated like annuals in the South. The bulbs are dug and discarded. Don't incorporate the old plant residue into the bed because it may harbor diseases that could infect a new crop. Some landscapers incorporate old mulch from the bed as an amendment, but poorly decomposed material ties up nitrogen in the soil and is detrimental to plant growth. After you have removed the old flowers, prune out any invading ornamentals, turf, or ground cover.

**ADDING AMENDMENTS.** Amendments like compost, rotted animal manure, composted pine bark, and coarse sand are often added to the native soil to improve nutrient retention, assure good drainage, and

to elevate the bed for better visual impact of the planting. Some firms also add additional amendments to existing beds before each color change. The type and amount of amendments needed will depend on the structure and texture of the existing soil and the history of the site. Avoid using uncomposted organic amendments, such as freshly milled bark, because they will rob plants of nitrogen as they decompose in the soil. Add any lime the soil test recommends at this time.

**DIGGING A TRENCH ALONG THE BED.** A trench approximately eight inches deep, dug along the perimeter of the bed will serve as a baffle, preventing soil within the bed from spilling onto surrounding turf or shrub areas.

**TILLING AMENDMENTS INTO THE BED.** Once amendments are applied to the soil surface, thoroughly till them into the soil to a depth of at least 18 inches. Several passes with the tiller may be necessary to adequately mix the amendments and break the soil clods. Remove large rocks, roots and other debris as they are brought to the surface by the tiller.

**REFUELING THE TILLER.** If refueling of the tiller is necessary, do it over a paved surface to avoid possible gasoline or oil spills on the soil that can kill annuals.

**SMOOTHING THE BED AFTER TILLING.** After incorporating amendments, use a rake to smooth and begin shaping the bed. Next, apply fertilizer to the surface. Slow-release granular fertilizers that release nutrients uniformly throughout the growing season are recommended. A soil test will help you determine the best analysis and application rate to use. Shallow tilling or raking helps incorporate the fertilizer into the top six inches of soil. Then use the rake to slightly mound the soil and to create a smooth finished surface. Mounding assures good drainage and provides greater visibility of the floral display.

**DIGGING A TRENCH.** Finally, leave a small trench, approximately two inches deep along the sides of the bed facing a curb or turf area. This provides a smooth, neat appearance and helps keep mulches within the bed.

**EXAMINING PLANTS.** Planting poor quality plants will result in a disappointing floral display. Before planting, carefully examine the plants for insects, diseases, and overall quality. Also note if they are true to color and uniform in growth habit. Look at the roots to see if they appear white and healthy. If the plants are a little leggy, it may be necessary to pinch back the tops to promote branching. Check with your supervisor to determine if pinching is necessary.

**SETTING PLANTS ON THE BEDS.** To assure uniformity and proper spacing throughout the display, arrange the plants in their pots on the bed according to the planting design, beginning with the outside row. Then arrange the inner plants in an alternating or diagonal pattern using the outside row as the guide. This pattern will result in a better mass effect of color and will appear less rigid than straight rows. If possible, hold a few plants in reserve for possible replacement later on.

**SETTING OUT DIFFERENT PLANTS IN ONE BED.** If different species of plants are used in the same bed, care must be taken to assure that all plants are spaced properly. Ask your supervisor about the spacing required for each species.

**OBSERVING THE PLANTING (PERHAPS FROM A ROOFTOP).** After all the plants are in place and before planting, look at the overall display from a distance to see that it fits the design and that it is uniform. This is particularly important for displays in geometric patterns.

**STARTING TO PLANT.** Now it's time to plant. Carefully remove each plant from its container by holding the base of the plant, turning the container upside down, and gently squeezing the sides of the

container to free the root ball. Do not remove the plant from its container until you are ready to plant. Otherwise the roots may dry out and be damaged.

**PLANTING.** Use the trowel to dig a hole where the plant was setting, set the root ball in the hole, and use your hands to gently firm the soil around the base of the plants. The top of the root ball should be slightly above or level with the soil grade. Planting too deep may result in soil-borne stem diseases. Planting too shallow will cause the plants to dry out. Use your hand to smooth the soil between plants.

**SEVERAL WORKERS INSTALLING FLOWERS.** If several workers are planting the same bed, each should work in a small area to assure proper spacing and uniformity. Stack empty containers as you plant to minimize cleanup time. Keep a tarp or trash can nearby.

**WORKER REACHING INTO THE BED.** Avoid stepping into the bed and compacting the soil. If possible, work from the sides of the bed, reaching inward and planting toward the outside.

**MULCHING A BED WITH PINE STRAW.** When the planting is complete and you check the bed once again for proper spacing, uniformity and design, the next step is to apply mulch. Mulches maintain a uniform moisture level in the soil, prevent soil erosion, and help prevent weeds and certain soil-borne diseases. Pine straw and pine bark mini-nuggets are two commonly used mulches. These fine-textured mulches stay seated better on the bed than coarse-textured mulches. Pine straw is applied to a three to five inch depth by carefully lifting the stems and leaves of the plants and tucking it under the plants.

**MULCHING A BED WITH PINE BARK.** Pine bark mini-nuggets are preferred for flower beds that border shrub beds mulched with pine straw because they provide a visual contrast to the floral display. Pine bark mini-nuggets are applied to a one to three inch depth. Again, lift the stems and leaves of the annuals and carefully spread the bark to avoid injuring the plants. Gently brush bark off the plants.

**PLACING A PINE STRAW ROLL ALONG THE PERIMETER OF THE BED.** To provide a finished touch to the bed and to prevent mulch from washing from the bed, some firms place a roll of pine straw along the edge of the bed facing a curb or turf area. They begin along one end of the bed, rolling the straw using a backhand motion removing sticks and cones. This helps tighten the straw roll and pushes the pine bark around the flowers and away from the edge. The result is a well-defined bed having a professional appearance.

**BLOWING DEBRIS AND CLEANING UP.** When the planting operation is complete, clean the area of all debris.

**WATERING.** Finally, use a water wand or similar type of water breaker to water the plants thoroughly. Check the bed in several areas to make certain the soil has been wet to a four to six inch depth. It's a common practice to apply a liquid fertilizer during the initial watering. In some cases, depending on the type of annual, the history of the site, and the type of irrigation, it may be necessary to drench the plants and soil with a liquid fungicide, such as Benlate or Banrot, after planting to prevent possible soil-borne diseases. Check with your supervisor to determine what supplemental treatments, if any, are needed to assure optimum growth. The first two weeks after planting are a critical time for annuals. Check beds at least twice a week, and water them as needed. If the plants are irrigated, adjust the system according to changes in rainfall patterns and water needs of the plants.

**FOLLOW-UP CHECKING OF THE BED.** Proper soil preparation and planting are critical to the success of seasonal color displays. Follow these steps.

- Analyze the site
- Excavate new beds 18 inches deep
- Remove plant residues
- Add appropriate amendments
- Apply slow-release fertilizers
- Elevate beds
- Plant at the proper spacing
- Mulch to conserve moisture
- Water during establishment

**ANOTHER NICE FLOWER BED.** The result of all your hard work and attention to detail will be beautiful, seasonal color displays that you, your employer, and your client can be proud of.

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