KENTUCKY 4-H HORTICULTURE AND PLANT SCIENCE PROJECT

ANNUAL CONTAINER GARDEN



The Annual Container Garden Contest is a perfect opportunity to showcase a container garden that you have created and cared for. Remember that this contest is specific to annual*, non-vegetable plants.

*Annuals are plants that survive for only one growing season. Kentucky's cold winter temperatures kill outdoor annuals. Annual plants are grown for their unique foliage or colorful flowers.

Container. Almost any container can be used to grow annuals. When selecting a container, choose one that has (1) *proper growing room* for plants selected and (2) *drainage holes*.

- Choose a container that is large enough for plants as they grow and get larger. For each annual plant you include in your container garden, research the size of the plant.
- Plant roots need water, but most do not need to stand in water continuously. Too much water can harm plants because roots need air as well as water to grow properly. If you choose a container that does not have holes, talk to your parent or guardian about the possibility of creating several holes that are evenly spaced in the bottom of your container.

Potting Mix. Container plants need a potting mix that is lightweight, drains easily while retaining moisture, and does not become compacted and hard. Look for a potting mix that contains most or all of these components: peat moss, perlite, vermiculite, compost, and/or pasteurized soil. Purchase enough potting mix to fill your container within an inch of the top. Most businesses that sell annual plants will also have potting mixes available for purchase. Do not use regular garden soil in containers. Soil from your yard or garden can make your container very heavy, can compact very easily so that roots have a hard time growing, and may include pests that can harm your plants.

Sunlight and Placement. Research each plant you plan to include in your container garden before you purchase the plant. How much sunlight does that plant need? How much water? Different plants require different amounts of sunlight and water. Choose annual plants for your container garden that need similar amounts of sunlight and water. Determine where you will place your container garden so that it receives the proper amount of sunlight and is easy for you to water.



4H is a community of young people who are learning leadership citizenship and life skills.

Container gardening is growing plants in containers instead of in the ground. Container gardens can be grown outside, on patios, porches, or balconies.

Materials Needed

- Container
- Potting mix
- Annual plants
- Gardening trowel
- Watering can

State Fair Information

- Division 6015: 4-H Horticulture and Plant Science
- Class 568: Annual
 Container Gardens
 (non-vegetable)

Visit the 4-H Horticulture webpage at <u>https://4-h.ca.uky.edu/content/horticulture</u> for additional information.

Annuals. Annual plants can be found at garden or home centers, and perhaps grocery stores. The University of Kentucky has an Annual Flowers publication (see Resource List) that has a list of annuals with information on each. Wherever you find your plants, look for plants that are healthy, and free from disease, insects and insect damage, yellowish brown/black spots on leaves, and signs of wilting.

Refer to the store tag that is on the plant container for information about:

- Mature plant size (how big the plant will be when grown)
- Plant spacing (how far apart each plant needs to be away from the other)
- Sunlight needed per day (make sure the amount of sunlight needed matches the conditions where you will place your container; if the tag says the plant needs partial shade and your container will get 8 hours of direct sun, this plant is not for your container)

Also consider:

- Plant design (consider what type of planting layout you want and choose plants that will fit within the layout of your container)
- Additional plant requirements (plants that need staking, have common pest problems, or need daily watering are more time consuming and require more effort)

Design.

Thrill/Fill/Spill is tried and true design that is used often.

- The Thrill is a single upright (tall) annual plant (usually foliage) placed in the middle of the container.
- The Fill is the mid-level of the planting and includes colorful, bushy, flowering annuals that are approximately half the size of the Thrill. The Fill "fill" the gaps between your Thrill and Spill.
- The Spill are the annuals that have low growth and vine or trail over the container edge. They can be either flowering or foliage.

Blender has two or three plant varieties that are:

- Compact (more like the Fill plants mentioned above)
- Compatible in their growth habit
- Similar in texture

For the Blender design, not all plants have to be bloomers; one might be a foliage plant such as coleus or sweet potato vine.

Singles design includes one starring plant in a pot that is dramatic in its growth habit. Examples include unusual foliage or texture, vertical and sculptural, or horizontal and cascading. Basically any annual plant that strikes you as unusual.

Planting. Once you are home with your plants and you have filled your container with potting mix, place your plants, while still in their store pots, around the top of the container to find the best display combination. Plant each annual no deeper than they were in the store pot (planting deeper will cause your planting to fail). Make sure the soil is firmly filled against the roots for a healthy planting.

Watering. Your container garden needs consistent water checks. All sides of the container are exposed to sun, wind, and heat, which causes the soil to lose water quickly.

- Make sure the soil is not so dry that your plants wilt. Dry soil hurts small roots that work for the plant.
- Do not overwater your container garden. Very wet soil decreases the amount of air to the roots. Roots need air to do their job properly.
- Do a Water Test. Stick your index finger into the soil. If your fingertip is dry, the plants need water, if it is moist, do not water at that time.
- Remember moisture levels will change quickly in hot temperatures so a container feeling moist in the morning, may need watering by the afternoon.

Food. Plant nutrients can be used by the plants in a container quickly. Plants may need added food (fertilizer) to do well. Some potting mixes have fertilizer added into the mix. If you have this type of potting mix, read the potting mix label before you consider an additional fertilizer. If your mix does not have added fertilizer, use a water-soluble fertilizer (this means you mix it with water). Look for a water-soluble fertilizer that has a balanced nitrogen, phosphorus, and potassium analysis, such as 20-20-20 or 15-30-15. <u>Always follow label directions for application and ask your parent/guardian before using fertilizers.</u>

Getting your annual container garden ready for entry into the fair.

- Check plants for insects or signs of insect damage.
- Remove yellowing or dead leaves.
- Water your container garden well, but do not leave the container dripping water or have standing water in the plant saucer.
- Deadhead your flowering plants. Deadheading means removing dead or declining blooms to promote production of new flower buds.
- Prune your plants if needed to make them look neater.
- Clean the outside of your container removing dead leaves, dirt, or dried mud.
- Pack your container garden for transport, securing any loose parts, tags, or paperwork.

Contact your county Extension agent for information about exhibiting your container garden in your county's fair.

Visit the 4-H Horticulture webpage, <u>https://4-h.ca.uky.edu/content/horticulture</u> for the Kentucky State Fair guidelines and scoresheet for this project.

Resources for more Information from University of Kentucky:

- Annual Flowers (HO-65) http://www2.ca.uky.edu/agcomm/pubs/ho/ho65/ho65.pdf
- Houseplant Insect Control (ENTFACT-406) <u>https://entomology.ca.uky.edu/ef406</u>
- Starting Plants from Seed at Home (HO-56) http://www2.ca.uky.edu/agcomm/pubs/ho/ho56/ho56.htm

References:

Bale, Sharon and Durham, Richard. 2002. Annual Flowers (HO-65). University of Kentucky Cooperative Extension Service.

Fagerholt, Sue, and Knutson, Carrie. n.d. 4-H Container Gardening (GCC01). North Dakota State University Cooperative Extension Service. Available online https://www.ndsu.edu/fileadmin/4h/GCC01_4-H_Container_Gardening.pdf.

Vegetable Container Garden prepared by Sharon Flynt, Horticulture Extension Agent for Scott County, and Ashley Osborne, Extension Specialist for 4-H Youth Development, 2020.

4-H Annual Container Garden Project: Let's Think About It

(Use a separate sheet of paper if needed to answer these questions.)

- 1. What type of container did you chose? Why?
- 2. What type of annual plants worked best in your container?
- 3. How much water did your container garden need in the spring? In the summer? In the fall?
- 4. What did you learn about plants?
- 5. Did you have any challenges growing your annual container garden?

Apply It

- 1. How are plants like people?
- 2. Will you use what you have learned to complete another gardening project?

Growing Up (grow your knowledge in horticulture)

- Try vegetable gardening in containers.
- Learn how to start your own seeds at home, and grow into transplants.
- Research what 'fertilizer analysis' means and make a poster to explain it.
- Try growing indoor container plants.

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