



Willie and the Salad Bonanza Contest

Willie and the Salad Bonanza is a contest open to middle and high school teams interested in the scientific principles surrounding plant growth. The challenge is to grow the largest amount of three designated and provided varieties of leafy greens in a communal container using no more than 18.927.1 liters (approx. 5-gallon bucket) growing medium over a 47-day time span, documenting this effort. Seeds can be picked up by sponsor or designee at the Johnson County Extension office (11811 S. Sunset Drive, Suite 1500, Olathe, Ks) September 9th, 10th, or 11th from 8:30am to 5:00pm.

Beginning on September 12th, contestants will cultivate the three different types of salad greens within the same growing container for 47 days, documenting all activities. The number of seeds planted of each type (at least one of each type) will be up to each team to decide. The volume of the container cannot exceed 18,927cm³, or 18.9271 liters liquid solution if grown hydroponically. The Cultural Practices Document, which is required for the entry's consideration, is due with the entry on October 28th. Assessment of this document may be used to determine the winner in the case of a tie.

Once judging is complete on October 28th, a plaque for the school or organization with all team member names (limit of four) awarded for the top entries in each of the three levels: 6-8, 9-12, and Mixed Ages.

Note the **NGSS standards** inherently supported by this contest:

K-ESS3-1, K-ESS3-3, 2-LS2-1, 3-LS3-2, 3-LS4-3, 3-5-ETS1-3,
5-LS1-1, MS-LS2-1, MS-LS2-3, HS-LS2-1, HS-ESS3-3, HS-ESS3-4, HS-ETS1-3

Contest Rules

I. Complete Registration and waiver online at: <https://lp.constantcontactpages.com/ev/reg/4j4qdk8>

The contest is open to 4-person teams of 6-12 students living in Kansas. **The contest will have three non-elementary divisions, 6-8, and 9-12 grades, and Mixed Age.** Each team should select a name for their group of no more than four members, and prominently display that name and hometown on their entry. Students may only participate on one team. Sponsors will receive materials after completed registration. Seed pick-up is September 9-11 from 8:30am to 5:00pm at the Johnson County Extension office (11811 S. Sunset Drive, Suite 1500, Olathe, Ks). Hydroponic registrations will also retrieve their setups at this time. It will be up to the teams to decide which potting medium and other growing conditions to employ.

II. Growing Period

1. Planting Date: Seeds planted no sooner than Sept. 12, 2025 (i.e., 47 days preceding the judging date of Oct. 28). Contestants and a team sponsor must attest to planting date on the entry form. Note: Transplantation of seeds is allowed after germination to the rooting medium, but the **germination/soaking process cannot start prior to Sept. 12, 2025.**
2. Seeds: Provided free to sponsors when the online registration form is completed. Each team decides how many of the seeds to plant, but the container must include at least one surviving plant of the three kinds of plants/seeds on day of judging.
3. Hydroponic sets: Loaned for free to sponsors upon online registration. Contact information will be recorded. Up to (20) hydroponic setups are available between elementary and high school entries on a first-come-first-serve basis. Sets must be returned within 14 days of judging day.

4. Pots used for growing plants may have a maximum volume of 18.927.1 liters. Pots can be of any material. If groups decide to grow their entry hydroponically, they must agree that the recycled solution volume may be re-supplied as needed, never exceeding the 18.927.1 liter maximum. A ratio for each entry is determined by dividing the total biomass above ground by the volume of the growing medium. The highest resulting density is the winner in each division.
5. Select your soil/rooting medium/liquid solution (if hydroponically grown) carefully as the root environment has a large impact on plant growth. The physical and chemical composition description of the media is required in the Cultural Practices Documentation Form.
6. Select amendments to the soil/rooting medium (fertilizers, etc.) that will optimize plant growth. Note: Materials classed as growth hormones disqualify the entry in this competition. Types, amounts, and dates of amendment descriptions are required in the Cultural Practices Documentation Form.
7. Select a lighting and temperature environment to maximize growth. Do not underestimate the effects of lighting and temperature. Lighting and temperature conditions description is required in the Cultural Practices Form.
8. Maintain a watering regimen designed for maximum growth. Describe this regimen in the Cultural Practices Form.
9. Please feel free to use the resources page on the contest page website.

III. Cultural Practices Documentation Form

1. Keep a record of all cultural practices used in the contest. Records should be **very** detailed.
2. A copy of your Cultural Practices Documentation Form must accompany your entry on Oct. 28, 2025, or will result in disqualification from the contest. This document will be provided upon registration.

IV. Contest Judging-Oct. 28, 2025

Students and their entries must arrive at the Johnson County Extension Office, 11811 S. Sunset Dr., in room 1075 on Oct. 28 between 9AM and 12 PM for biomass and volume judging. All entries, still in their original growing container, will be judged upon receipt and must contain at least one surviving plant of each of the three required leafy greens. Students are required to be present for judging and be available for questions. They will observe the methods used by judges and are encouraged to assist with the plant evaluations. During the judging session, Extension-related educational booths will be available for perusal.

1. Entries will be judged based on:
 - A. Plant biomass (total weight of plants in grams cut off at the soil line on Oct.28 by K-State and Extension staff), divided by volume (in cm^3) of growth medium used. Liquid growth medium will be measured using graduated cylinders, and recorded in ml, converted to cm^3 . (1 ml = 1 cm^3) Entry with the highest number wins [Ex: $380 \text{ grams} / 16020 \text{ cm}^3 = .0237 \text{ g/cm}^3$ Any ties will be decided by assessment of the Cultural Practices Document.
2. After determining biomass, participants are encouraged to take their containers/harvested salad material home for reuse/personal consumption.
3. Judging of plants and written material accomplished by K-State Extension staff and volunteers.

Results are determined in four divisions (K-5, 6-8, 9-12, and Mixed Age). Entries within each division ranked based on the above criteria. The top-ranked salad biomass per volume (of the container) in each division receive a plaque with team members' names listed that can be displayed in the winning school or organization's office area (time must be allowed for engraving after results are final). All team members listed on the registration form, who complete the contest, and verified by sponsor at judging will receive a certificate of participation.

Sponsored by: Johnson County K-State Extension and Compass Minerals Plant Nutrition

