Vegetable Crop Judging

Revised 6/2022

Purpose and Standards

The purpose of the Vegetable Crop Judging Contest is to create interest and promote understanding in the vegetable crop industry by providing opportunities for recognition through the demonstration of skills and proficiencies. It is the intention of the contest to provide a venue for students to explore career opportunities, skills and proficiencies in the vegetable crop industry. The emphasis of this contest is to promote critical thinking, evaluation, oral and identification skills.

Foundation Standards: Academics Science, 1.d, 1.l. Communications Written and Oral Conventions Listening and Speaking 1.1, 2.2, 1.8. Ethics and Legal Responsibilities, 8.4. Leadership and Teamwork 9.1, 9.2, 9.3, 9.6.

Plant and Soil Science Pathway Standards: G1.1-1.6, G5.1, G1.2, G7.1, G.10.1-10.3.

Contestants

Teams shall consist of three or four members. The scores of the three highest team members shall be used for the team score. All team members are eligible for individual awards

Classes

|  |  |  |
| --- | --- | --- |
| **Class** | **Individual Points** | **Team Points** |
| Judging Class 1 | 50 | 150 |
| Judging Class 2 | 50 | 150 |
| Judging Class 3 | 50 | 150 |
| Judging Class 4 | 50 | 150 |
| Reasons Class 1 | 50 | 150 |
| Reasons Class 2 | 50 | 150 |
| Reasons Class 3 | 50 | 150 |
| Reasons Class 4 | 50 | 150 |
| Identification | 400 | 1200 |
| TOTAL | 800 | 2400 |

Tiebreaker

1. The team or individual scoring the highest identification(s) will be the winner.
2. If a tie still exists, the total reasons score will be used to determine the high individual or team.
3. If a tie still exists, the total score of the individual or team will be used to determine the high individual or team.

Sub-contest Awards

Sub-contest awards will be given for high teams and individuals in the following areas: Identification, Judging, and Reasons. (Reasons are **not included** in judging sub-contest score.)

Rules

1. The Vegetable Crop Judging Contest will consist of the following:
2. Judging vegetables and giving oral reasons.
3. Identification of edible portions of vegetables, vegetable seeds, common weeds, common insects and pests and vegetable plants intended for transplanting.
4. Identification of market defects, evidence of diseases and insect or pest damage.
5. There are 800 points possible for each contestant.
6. General Rules
7. The individual(s) responsible for the contest has the authority to determine whether an answer given by a student is correct or not, using the current CATA Curricular Code.
8. Contestants and coaches are invited to ask questions of judges and inspect the judging samples after the close of the contest.
9. The judges will explain the placings at a set time after the close of the contest.

III. Judging

1. Four classes of vegetables will be judged; each class will consist of four plates with each plate containing vegetables according to the following:

2 Specimens

|  |  |
| --- | --- |
| Celery | Cauliflower |
| Cabbage | Lettuce |
| Broccoli (2 bunches) |  |

4 Specimens

|  |  |
| --- | --- |
| Artichokes | Sweet Potatoes or Yams |
| Dry Onions | Irish Potatoes |
| Tomatoes | Peppers |

|  |  |
| --- | --- |
| 6 Specimens Squash Table Beets | 10 Specimens   Carrot |

Classes will be made from the following varieties, types or kinds:

|  |  |
| --- | --- |
| **Kind** | **Varieties or Types** |
| Artichokes | Globe Type |
| Broccoli | No Variety Specified |
| Cabbage | No Variety Specified |
| Carrot | Imperator Type |
| Cauliflower | No Variety Specified |
| Celery | Green Type |
| Dry Onions | Flat or Globe Type |
| Irish Potatoes | Russet, White |
| Lettuce  Pepper | Iceberg type, Butterhead, Redleaf, Greenleaf, and Romaine  Bell type, Jalapeño, Poblano |
| Squash | Zucchini, White Scallop |
| Sweet Potatoes | No Variety Specified |
| Table Beets | No Variety Specified |
| Tomatoes | Large Slicing Market, Roma |
|  |  |

1. Instructions To Contestants -- Rules for Judging
2. The name of the vegetable will be specified by the host institution.
3. The vegetables will be judged on the basis of quality which will bring the best financial return on the retail market.
4. Placings will be submitted on cards supplied to the contestant. Comparative reasons will be given on all classes without notes. (Notes may be used in the preparation of reasons).
5. No contestant will be allowed to touch any vegetable on the judging plates. The judges will place the vegetables in a position so that all qualities and conditions can be seen without turning them over.
6. Twelve (12) minutes will be allowed to judge each of the four classes; two (2) minutes will be allowed for each set of reasons; reasons will be given on each of the four classes.
7. Fifty (50) points will be allowed on each class correctly placed; up to fifty (50) additional points will be allowed for each set of reasons.
8. The total points possible for each contestant in the judging portion of the contest is 400.
9. IDENTIFICATION (Five points each)
10. Eighty (80) specimens will be selected from the identification list. Specimens will be either vegetable (edible portion), vegetable seeds, weeds common to vegetable crop fields, insects and pests common to vegetable crops, market defects, evidences of diseases and insect or pest damage and vegetable plants intended for transplanting.
11. Instructions to Contestants
12. Contestants are not allowed to carry into the contest notes or any materials which may aid the contestant. No identification answer sheets or material indicating answers may leave the identification room. Contestants found in violation of this rule will be immediately disqualified.
13. Contestants are not to take portions of the identification samples nor are they allowed to touch the samples in any way. Contestants found in violation of this rule will be immediately disqualified.
14. Common names as given on the attached list will be used in identifying specimens.
15. Five (5) points will be allowed for each specimen properly identified with a possible total of 400 points for each contestant.
16. Contest site will provide a numerical identification list.
17. Fifty (50) minutes will be allowed for the identification portion of the contest.
    1. Instructions to Judges:
18. Specimens for identification must be of sufficient size and maturity to show identifiable characteristics.
19. As part of the 80 identification specimens a maximum of 40 edible portion (including miscellaneous produce) shall be included. The remaining specimens shall come from vegetable seeds, weeds common to vegetable crop fields, insects and pests common to vegetable crops, market defects, evidences of diseases and insect or pest damage and vegetable plants intended for transplanting.
20. Identification specimens are to be mixed and not separated into sections.
21. Edible portions must be present with all specimens in the Disease, Insect or Pest Damage, and Market Defect section.
22. Judges will indicate the specimens which should be identified for diseases, insect or pest damage, and market defect. The judge will indicate specifically which one of the above should be identified by means of an arrow, yarn and pin, or some easily detected method.
23. The judges will identify the specimens at a set time after the close of the contest.
24. Growers’ Weed Identification Handbook, UC Cooperative Extension will be used to determine the correct spelling of all weed identification.
25. Suggested References:

* Growers’ Weed Identification Handbook - UC Cooperative Extension
* Pierce, L. 1987. Vegetables: Characteristics, production and marketing. John Wiley and Sons, New York
* Whitson, T., L. Burrill, S. Dewey, D. Cudney, B. Nelson, R. Lee and R. Parker. 1991 Weeds of the west. Western Society of Weed Science

Identification of Edible Portion of Vegetables

Buckweat Family **(Polygonaceae)**  
Rhubarb

Cotton Family **(Malvaceae)**Okra

Ginger Family **(Zingerberaceae)**Ginger

Goosefoot Family **(Chenopodiaceae)**Spinach  
Swiss chard  
Table beet

Gourd Family **(Cucurbitaceae)**Acorn squash  
Banana squash  
Butternut squash  
Cantaloupe   
Chayote  
Cucumber   
Delicate squash  
Honeydew  
Pumpkin  
Spaghetti squash  
Watermelon  
White scallop squash  
Yellow crookneck squash  
Yellow straightneck squash  
Zucchini squash

Grass Family **(Gaminaceae)**Sweet Corn

Identification of Edible Portion of Vegetables Cont.

Lily Family **(Liliaceae)**Asparagus

Morning Glory Family **(Convolvulaceae)**Moist flesh sweet potato (syn. Yam)  
Dry flesh sweet potato

Mustard Family **(Brassicaceae)**ArugulaBok Choy (syn. Pak Choy)  
Broccoli   
Brussels sprout   
Cauliflower  
Chinese cabbage (syn. Napa cabbage)  
Collard greens  
Curly leaved kale  
Daikon  
Green cabbage  
Horseradish   
Kohlrabi   
Leaf mustard  
Plain leaved kale  
Radish  
Rapini broccoli (Broccoli rabe)  
Red cabbage  
Rutabaga  
Turnip  
Watercress

Onion Family **(Alliaceae)**Chive  
Garlic  
Green bunching onion (syn. Scallion)  
Leek  
Red onion  
Shallot  
White onion  
Yellow onion

Parsley Family **(Apiaceae)**Carrot  
Celeriac  
Celery  
Cilantro (syn. Coriander; Chinese parsley)  
Parsley  
Parsnip

Pea Family **(Fabaceae)**Jicama  
Lima bean  
Snap bean   
Snow pea (Syn: Edible-podded pea)  
Soybean  
Sugar snap pea  
  
Potato Family **(Solanaceae)**Anaheim pepperBell pepper  
Blue potato (blue skin; blue/white flesh)  
Cayenne pepper  
Cherry tomato  
Eggplant  
Fingerling potato  
Habanero pepper  
Jalapeño pepper  
Poblano pepper  
Red potato  
Roma tomato  
Russet potato  
Tomato  
Tomatillo  
White potato  
Yellow wax pepper

Sunflower Family **(Asteraceae)**Artichoke  
Butterhead lettuce  
Endive  
Belgian endive  
Escarole  
Greenleaf lettuce  
Iceberg lettuce  
Radicchio  
Redleaf lettuce  
Romaine lettuce

Miscellaneous Produce Identification

All items must be placed in a fresh state, not dried or in spice form.

|  |  |
| --- | --- |
| Basil | Portabella mushroom |
| Button mushroom | Rosemary |
| Dill | Sage |
| Fennel | Shitake mushroom |
| Mint | Tarragon |
| Oregano | Thyme |

Vegetable Seed Identification

|  |  |
| --- | --- |
| Artichoke seed | Parsley seed |
| Asparagus seed | Parsnip seed |
| Banana squash seed | Pea seed |
| Carrot seed | Pepper seed |
| Celery seed | Radish seed |
| Coated seed | Snap bean seed |
| Cole crop seed | Spinach seed |
| Cucumber seed | Table beet seed |
| Lettuce seed | Tomato seed |
| Onion seed | Zucchini seed |

Vegetable Crop Weeds Identification

| Common Name | Botanical Name |
| --- | --- |
| Annual bluegrass | *Poa annua* |
| Annual sowthistle | *Sonchus oleracus* |
| Barnyardgrass | *Echinochloa crusgalli* |
| Bermudagrass | *Cynodon dactylon* |
| Black mustard | *Brassica nigra* |
| Black nightshade | *Solanum nigrum* |
| Bristly oxtongue | *Picris echioides* |
| Burning nettle | *Urtica urens* |
| California burclover | *Medicago polymorpha* |
| Chickweed | *Stellaria media* |
| Cocklebur | X*anthium strumarium var.*canadense |
| Common groundsel | *Senecio vulgaris* |
| Common knotweed | *Polygonum aviculare* |
| Common purslane | *Portulaca oleracea* |
| Common sunflower | *Helianthus annuus* |
| Curly dock | *Rumex crispus* |
| Fiddleneck | *Amsinckia spp.* |
| Field bindweed | *Convolvulus arvensis* |
| Filaree | *Erodium sp.* |
| Foxtail barley | *Hordeum jubatum* |
| Johnsongrass | *Sorghum halapense* |
| Large crabgrass | *Digitaria sanguinalis* |
| London rocket | *Sisymbrium irio* |
| Lambsquarter | *Chenopodium album* |
| Malva | *Malva spp*. |
| Miner’s lettuce | *Claytonia perfoliata* |
| Nutgrass | *Cyperus spp.* |
| Pigweed | *Amaranthus retroflexus* |
| Pineappleweed | *Chamomilla suaveolens* |
| Prickly lettuce | *Lactuca serriola* |
| Puncture vine | *Tribulus terrestris* |
| Russian thistle | *Salsola australis* |
| Scarlet pimpernel | *Anagallis arvensis* |
| Shepherds purse | *Capsella bursa-pastoris* |
| Wild radish | *Raphanus sativus* |
| Yellow mustard | *Brassica campestris* |

Evidence of Disease, Insect Damage and Market Defects (See I.D. Section)

Aphid   
Specify Vegetable by name given in Identification Section Edible Portion of Vegetables section

Bacterial Spot  
Tomato  
Pepper

Bolting   
Cabbage  
Carrot  
Cauliflower  
Celery  
Lettuce  
Onion

Edible Portion Sprouting   
Carrot  
Dry flesh sweet potato  
Moist flesh sweet potato (syn. Yam)  
Onion  
Russet potato

Mildew   
Specify Vegetable by name given in the Identification of Edible Portion of Vegetable section.

Mosaic   
Specify Vegetable by name given in the Identification of Edible Portion of Vegetables section.

Overmaturity   
Specify Vegetable name given in the Identification of Edible Portion of Vegetables section.

Rhizoctonia   
Potato

Scab   
Carrot  
Russet potato

Sclerotinia  
Lettuce  
Broccoli  
Cabbage  
Cauliflower  
Brussels sprouts

Smut   
Sweet corn

Soft Rot   
Celery  
Carrot  
Dry flesh sweet potato  
Moist flesh sweet potato (syn. Yam)  
Russet potato  
Tomato  
  
Tipburn   
Lettuce

Veining   
Dry flesh sweet potato  
Moist flesh sweet potato (syn. Yam)

Plants Intended for Transplanting

|  |  |
| --- | --- |
| Artichoke transplant | Iceberg lettuce transplant |
| Butterhead Lettuce transplant | Kale transplant |
| Broccoli transplant | Onion transplant |
| Cauliflower transplant | Parsley transplant |
| Celery transplant | Pepper transplant |
| Cilantro transplant | Redleaf lettuce transplant |
| Cucumber transplant | Romaine lettuce transplant |
| Eggplant transplant | Squash transplant |
| Greenleaf lettuce transplant | Tomato transplant |
|  |  |

Vegetable Crop Insect and Pest Identification

|  |  |
| --- | --- |
| **Common Name** | **Scientific Name** |
| Aphid | *Aphididae (family*) |
| Cabbage looper  Click beetle | *Trichoplusia ni*  *Elateridae (family)* |
| Corn earworm | *Helicoverpa zea* |
| Cutworm | *None specific* |
| Darkling beetle | *Blapstinus spp.* |
| Earwig  Garden symphylan | *None specific*  *Scutegerella immaculata* |
| Grasshopper | *Acrididae (family*) |
| Harlequin bug  Japanese beetle | *Murgantia histrionica*  *Polillia japonica* |
| Leafhopper | *Cicadellidae (family)* |
| Leafminer | *Liriomyza spp*. |
| Lygus bug | *Lygus spp.* |
| Nematode\* | *None specific* |
| Slug | *None specific* |
| Snail | *None specific* |
| Soil grub | *Melolonthinae phyllophaga* |
| Squash bug | *Anasa tristis* |
| Thrip | *None specific* |
| Western spotted cucumber beetle | *Diabrotica undecimpunctata* |
| Western striped cucumber beetle | *Acalymma trivittata* |
| Western yellowstriped armyworm | *Spodoptera praefica* |
| Whitefly | *Aleyrodidae (family)* |
| Wireworm larvae | *Elateridae (family*) |
|  |  |
|  |  |

\*\*Sample of Nematode damage can be used to identify Nematode.

A Suggested Score Card as a Basis for Instruction in Judging Vegetable Exhibits

|  |  |
| --- | --- |
|  | **Possible Points** |
|  |  |
| Condition - (clean, no blemishes, properly trimmed) | 30 |
| Uniformity - (same size, shape, color) | 25 |
| Trueness to type - (typical of variety) | 15 |
| Quality - (edible maturity, crispness, firmness) | 20 |
| Size - (conformity with market demands) | 10 |
| TOTAL | 100 |

**Identification of Edible Portion of Vegetables**

1. Acorn squash
2. Anaheim pepper
3. Artichoke
4. Arugula
5. Asparagus
6. Banana squash
7. Belgian endive
8. Bell pepper
9. Blue Potato (blue skin; blue/white flesh)
10. Bok Choy (syn. Pak Choy)
11. Broccoli
12. Brussels sprout
13. Butterhead lettuce
14. Butternut squash
15. Cantaloupe
16. Carrot
17. Cauliflower
18. Cayenne pepper
19. Celeriac
20. Celery
21. Chayote
22. Cherry tomato
23. Chinese cabbage (syn. Napa cabbage)
24. Chive
25. Cilantro (syn. Coriander; Chinese parsley)
26. Collard greens
27. Cucumber
28. Curly leaved kale
29. Daikon
30. Delicate squash
31. Dry flesh sweet potato
32. Eggplant
33. Endive
34. Escarole
35. Fingerling potato
36. Garlic
37. Ginger
38. Green bunching onion (syn. Scallion)
39. Green cabbage
40. Greenleaf lettuce
41. Habanero pepper
42. Honeydew
43. Horseradish
44. Iceberg lettuce
45. Jalapeño pepper
46. Jicama
47. Kohlrabi
48. Leaf mustard
49. Leek
50. Lima bean
51. Moist flesh sweet potato (syn. Yam)
52. Okra
53. Parsley
54. Parsnip
55. Plain leaved kale
56. Poblano pepper
57. Pumpkin
58. Radicchio
59. Radish
60. Rapini broccoli (Broccoli rabe)
61. Red cabbage
62. Red onion
63. Red potato
64. Redleaf lettuce
65. Rhubarb
66. Roma tomato
67. Romaine lettuce
68. Russet potato
69. Rutabaga
70. Shallot
71. Snap bean
72. Snow pea (Syn: Edible-podded pea)
73. Soybean
74. Spaghetti squash
75. Spinach
76. Sugar snap pea
77. Sweet Corn
78. Swiss chard
79. Table beet
80. Tomatillo
81. Tomato
82. Turnip
83. Watercress
84. Watermelon
85. White onion
86. White potato
87. White scallop squash
88. Yellow crookneck squash
89. Yellow onion
90. Yellow straightneck squash
91. Yellow wax pepper
92. Zucchini squash

**Miscellaneous Produce Identification**

200. Basil

201. Button mushroom

202. Dill

203. Fennel

204. Mint

205. Oregano

206. Portabella mushroom

207. Rosemary

208. Sage

209. Shitake mushroom

210. Tarragon

211. Thyme

**Vegetable Seed Identification**

300. Artichoke seed

301. Asparagus seed

302. Banana squash seed

303. Carrot seed

304. Celery seed

305. Coated seed

306. Cole crop seed

307. Cucumber seed

308. Lettuce seed

309. Onion seed

310. Parsley seed

311. Parsnip seed

312. Pea seed

313. Pepper seed

314. Radish seed

315. Snap bean seed

316. Spinach seed

317. Table beet seed

318. Tomato seed

319. Zucchini seed

**Vegetable Crop Weeds Identification**

400. Annual bluegrass

401. Annual sowthistle

402. Barnyardgrass

403. Bermudagrass

404. Black mustard

405. Black nightshade

406. Bristly oxtongue

407. Burning nettle

408. California burclover

409. Chickweed

410. Cocklebur

411. Common groundsel

412. Common knotweed

413. Common purslane

414. Common sunflower

415. Curly dock

416. Fiddleneck

417. Field bindweed

418. Filaree

419. Foxtail barley

420. Johnsongrass

421. Lambsquarter

422. Large crabgrass

423. London rocket

424. Malva

425. Miner’s lettuce

426. Nutgrass

427. Pigweed

428. Pineappleweed

429. Prickly lettuce

430. Puncture vine

431. Russian thistle

432. Scarlet pimpernel

433. Shepherds purse

435. Wild radish

436. Yellow mustard

**Plants Intended for Transplanting**

500. Artichoke transplant

501. Broccoli transplant

502. Butterhead Lettuce transplant

503. Cauliflower transplant

504. Celery transplant

505. Cilantro transplant

506. Cucumber transplant

507. Eggplant transplant

508. Greenleaf lettuce transplant

509. Iceberg lettuce transplant

510. Kale transplant

511. Onion transplant

512. Parsley transplant

513. Pepper transplant

514. Redleaf lettuce transplant

515. Romaine lettuce transplant

516. Squash transplant

517. Tomato transplant

**Vegetable Crop Insect and Pest Identification**

600. Aphid

601. Cabbage looper

602. Click beetle

603. Corn earworm

604. Cutworm

605. Darkling beetle

606. Earwig

607. Garden symphylan

608. Grasshopper

609. Harlequin bug

610. Japanese beetle

611. Leafhopper

612. Leafminer

613. Lygus bug

614. Nematode

615. Slug

616. Snail

617. Soil grub

618. Squash bug

619. Thrip

620. Western spotted cucumber beetle

621. Western striped cucumber beetle

622. Western yellowstriped armyworm

623. Whitefly

624. Wireworm larvae

**Evidence of Disease, Insect Damage and Market Defects (See I.D. Section)**

700. Aphid

701. Bacterial Spot

702. Bolting

703. Edible Portion Sprouting

704. Mildew

705. Mosaic

706. Overmaturity

707. Rhizoctonia

708. Scab

709. Sclerotinia

710. Smut

711. Soft Rot

712. Tipburn

713. Veining