

# FLORICULTURE

## **Purpose**

The State Floriculture Contest is designed to stimulate student interest in production and retailing of flowers, plants, and foliage in the secondary agriculture curricula.

## **Objectives**

Students participating in the State Floriculture Contest should be able to:

- I. Identify floriculture and bedding plants commonly grown in Missouri.
- II. Identify unhealthy plants due to pest, nutritional, mechanical, or chemical injury.
- III. Understand principles of and develop skills underlying propagation, growth requirements, growing techniques, harvesting, marketing, and maintenance of established floriculture plants

### Crosswalk with Show Me Standards

| Objectives – Students participating in the Career Development Event should be able to: |   | Show-Me Standards                      |                                  |
|--|---|--|----------------------------------|
|  |   | Knowledge Standards<br>(Content Areas) | Performance Standards<br>(Goals) |
| 1.   | Identify floriculture and bedding plants commonly grown in Missouri.  | MA.1, MA.2                             | 1.9                              |
| 2.   | Identify unhealthy plants due to pest, nutritional, mechanical, or chemical injury.   | SC.3, SC.5                             | 3.4, 3.6, 3.8                    |
| 3.   | Understand principles of and develop skills underlying propagation, growth requirements, growing techniques, harvesting, marketing, and maintenance of established floriculture plants. | FA.1, FA.2                             | 4.3, 4.4, 4.5, 4.7, 4.8          |

| CORRESPONDING SECONDARY AGRICULTURE CURRICULUM |                                     |                 |           |
|--|-------------------------------------|-----------------|-----------|
| <b>Course and/or Curriculum:</b>               | Greenhouse Operation and Management | <b>Unit(s):</b> | All Units |
|  | Floriculture                        |                 | All Units |

## Event Format

The contest will consist of three components: General Knowledge, Identification, and Practicum.

1. General Knowledge Examination
  - a. This portion of the contest will test the contestants' knowledge and understanding of production and retailing of floriculture crops and the selection, use, care, and culture of these plants in the home environment.
  - b. It will consist of 75 questions (25 from *Floristry* and 50 from *Greenhouse Management*) covering the following general topics:
    - (1) Greenhouse design and equipment
    - (2) Basic plant growth and function
    - (3) Plant propagation
    - (4) Plant production technique
    - (5) Diseases and insects
    - (6) Basic business management.
3. Identification
  - a. Each contestant will be required to identify 60 specimens from the Floriculture Plant Identification List.
  - b. Each specimen will be identified by number.
  - c. Contestants will need to match the specimen with the correct name on the answer sheet.
  - d. Students will be allowed 50 seconds per plant as well as 5 minutes at the end of the rotation to go back and review any plant(s) and bubble their scansheet.
  - e. **Duplicate samples may not be used in any identification portion of the event.**
4. Disorders
  - a. Plant Disorders and Diagnosis - Each contestant will complete this practicum of five stations including diagnosing disorders and selecting the most correct remedy. Students will be allowed 2 minutes per plant disorder, as well as 5 minutes at the end of the rotation to go back and review and bubble their scansheet.
5. Tool Identification
  - a. Floriculture Tool and Product Identification – Each contestant will identify 25 items selected from the Floriculture/Greenhouse Items list (Form 64). Students will be allowed 50 seconds per tool as well as 5 minutes at the end of the rotation to go back and review any tool(s) and bubble their scansheets. **Duplicate samples may not be used in any identification portion of the event.**
6. Practicums
  - a. Pricing a Floral Arrangement-Each contestant will answer 10 multiple choice questions on the pricing of a floral arrangement. Each question will be worth 5 points each. All parts of the cost, including containers, must be given to the contestant. Questions may be asked on floral concepts, cost of parts of the arrangement, or cost of the arrangement as a whole.
    - I. A live arrangement may be used, but each flower to be used in the live arrangement must be on the floriculture identification list.
    - II. A picture of an arrangement may be used, (such as the FTD Book) with or without flowers used in the contest identification list.

- b. Chemical Problem Solving-Each contestant will answer 10 multiple choice questions at five (5) points each. Questions will be based on examples found in the National Pesticide Applicator Certification Core Manual (MX328), Chapter 12 “Calculating Dilutions and Site Size. Questions may be stand alone or progressive in nature. \* “None of the Above” should not be used as a possible multiple choice answer. Questions should reflect the greenhouse or floriculture industry.

### Event Scoring

| <b>Event</b>  | <b>Points</b> |
|---|---------------|
| General Knowledge (75 questions@ 4 pts each)                | 300           |
| Identification (60 specimens @ 5 pts each)                  | 300           |
| Practicum (2 @ 50 pts each)                                 | 100           |
| Pricing a Floral Arrangement Practicum (10 @ 5 points each) | 50            |
| Chemical Problem Solving (10 @ 5 points each)               | 50            |
| <b>TOTAL</b>  | <b>800</b>    |

1. Tie scores among teams in all events should be broken using the high individual team member's score. In case the scores are tied, the scores of the second high individual on each team should be used.

### Event Rules and Regulations

1. Each team may consist of three or four members. The top three individual scores will make up the team score.
2. Contestants will not be allowed to communicate with anyone other than contest officials while the contest is in progress. Failure to observe this rule may result in elimination from the contest.
3. Calculators may be used. In all events, only six-function, (nonprogrammable and non-graphing) models may be used. See page 3, rule #8 of the General CDE Guidelines for an example.

## References

Catalogs from mail order seed companies are good sources for information. They can be obtained free of charge from most companies. Farm and garden magazines are full of addresses for these companies in the late winter of every year. Supply catalogs such as: Hummert, Stuppy or similar catalogs can be obtained free of charge or for a minimal fee from most supply companies. Additionally, the National FFA CDE Handbook for Floriculture provides several references that could be utilized in the training of teams.

Greenhouse Operation and Management (Instructor and Student Reference) (2002). Available <http://dese.mo.gov/college-career-readiness/career-education/agricultural-education/agricultural-education>

Riley & Shry (8<sup>th</sup> Edition). Introductory Horticulture. Albany, New York:  
<http://www.cengage.com/us/>

Floristry (Instructor and Student Reference) (1996). IML, Available <http://dese.mo.gov/college-career-readiness/career-education/agricultural-education/agricultural-education>

National FFA Floriculture CDE Classroom Guide. Available at: <https://www.ffa.org/cde-lde-classroom-resources>

National Pesticide Applicator Certification Core Manual (MX328), *Appendix C – Conversions & Calculations AND pages 169-171 – Calculating Areas & Calculating Application Rates.*

Floriculture Appendix – DESE CDE Website <https://dese.mo.gov/college-career-readiness/career-education/agricultural-education/cde-handbook>

## Forms

See following: Form 60A, Form 60B, Form 64, List 61, Form 65.

## FLORICULTURE PLANT IDENTIFICATION LIST

|    |                          |                                |
|----|--------------------------|--------------------------------|
| 1  | African Violet           | Saintpaulia ionantha cv.       |
| 2  | Ageratum                 | Ageratum houstonianum          |
| 3  | Aglaonema                | Aglaonema commutatum           |
| 4  | Aluminum Plant           | Pilea cadierei                 |
| 5  | Alyssum                  | Lobularia maritima             |
| 6  | Amaryllis                | Hippeastrum hybrid cv.         |
| 7  | Annual Vinca             | Catharanthus roseus            |
| 8  | Artillery Plant          | Pilea microphylla              |
| 9  | Asiatic or Oriental Lily | Lilium hybrid cv.              |
| 10 | Asparagus "Fern"         | Asparagus setaceus             |
| 11 | Astilbe                  | Astilbe hybrid cv.             |
| 12 | Azalea                   | Rhododendron hybrids           |
| 13 | Baby's Breath            | Gypsophila elegans cv.         |
| 14 | Barrel Cactus            | Echinocactus cv.               |
| 15 | Benjamin Fig             | Ficus benjamina cv             |
| 16 | Big Leaf Hydrangea       | Hydrangea macrophylla          |
| 17 | Bird of Paradise         | Strelitzia reginae             |
| 18 | Blushing Bromeliad       | Neoreglia carolinae 'Tricolor' |
| 19 | Boston Fern              | Nephrolepis exaltata cv.       |
| 20 | Cactus                   | Opuntia cv.                    |
| 21 | Caladium                 | Caladium x hortulanum cv.      |
| 22 | Calla Lily               | Zantedeschia hybrid cv.        |
| 23 | Campanula                | Campanula hybrid cv.           |
| 24 | Carnation                | Dianthus caryophyllus cv.      |
| 25 | China Aster              | Callistephus chinensis cv.     |
| 26 | Christmas Cactus         | Schlumbergera bridgesii        |
| 27 | Cineraria                | Senecio x hybridus cv.         |
| 28 | Clematis                 | Clematis hybrid cv.            |
| 29 | Cockscomb                | Celosia argentea cv.           |
| 30 | Coleus                   | Solenostemon scutellarioides   |
| 31 | Corn Plant               | Dracena fragrans               |
| 32 | Creeping fig             | Ficus pumila                   |
| 33 | Croton                   | Codiaeum variegatum pictum     |
| 34 | Crown of Thorns          | Euphorbia splendens            |
| 35 | Cymbidium Orchid         | Cymbidium cv.                  |
| 36 | Daffodil or Narcissus    | Narcissus hybrid cv.           |
| 37 | Dahlia                   | Dahlia hybrid cv.              |
| 38 | Daylily                  | Hemerocallis cv.               |
| 39 | Dendrobium Orchid        | Dendrobium cv.                 |
| 40 | Dusty Miller             | Senecio cineraria              |

|    |                          |                                     |
|----|--------------------------|-------------------------------------|
| 41 | Dutch Iris               | Iris x xiphium cv.                  |
| 42 | Emerald Ripple Peperomia | Peperomia caperata                  |
| 43 | English Ivy              | Hedera helix cv.                    |
| 44 | Flamingo Plant           | Anthurium x andraeanum cv.          |
| 45 | Florist's Chrysanthemum  | Chrysanthemum x morifolium          |
| 46 | Florist's Cyclamen       | Cyclamen x persicum cv.             |
| 47 | Freesia                  | Freesia x hybrida                   |
| 48 | Garden Canna             | Canna x generalis cv.               |
| 49 | Garden Gladiolus         | Gladiolus x hortulanus cv.          |
| 50 | Gardenia                 | Gardenia jasminoides                |
| 51 | Gerbera Daisy            | Gerbera jamesonii                   |
| 52 | Globe Amaranths          | Gomphrena hybrid cv.                |
| 53 | Golden Pothos            | Epipremnum aureum cv.               |
| 54 | Heartleaf Philodendron   | Philodendron scandens oxycardium    |
| 55 | Hens and Chicks          | Sempervivum hybrid cv.              |
| 56 | Hosta                    | Hosta cv.                           |
| 57 | Hyacinth                 | Hyacinthus orientalis cv.           |
| 58 | Hybrid Tea Rose          | Rosa hybrid cv                      |
| 59 | Impatiens                | Impatiens hybrid cv.                |
| 60 | Ivy Geranium             | Pelargonium peltatum cv.            |
| 61 | Jade Plant               | Crassula argentea                   |
| 62 | Kalanchoe                | Kalanchoe x blossfeldiana cv.       |
| 63 | Ladyslipper Orchid       | Paphiopedilum hybrid cv.            |
| 64 | Lantana                  | Lantana camara                      |
| 65 | Larkspur                 | Delphinium consolida cv.            |
| 66 | Leatherleaf Fern         | Rumohra adiantiformis               |
| 67 | Lemongrass (herb)        | Cymbopogon cv.                      |
| 68 | Liatis                   | Liatis spicata                      |
| 69 | Marguerite Daisy         | Argyranthemum frutescens            |
| 70 | Marigold                 | Tagetes species cv.                 |
| 71 | Million Bells            | Calibrachoa hybrid cv.              |
| 72 | Monte Cassino Aster      | Aster pringlei                      |
| 73 | Moth Orchid              | Phalaenopsis cv.                    |
| 74 | Nepthytis                | Syngonium podophyllum               |
| 75 | Nerve Plant              | Fittonia verschaffeltii argyroneura |
| 76 | Norfolk Island Pine      | Araucaria heterophylla              |
| 77 | Octopus Plant            | Schefflera arboricola               |
| 78 | Ornamental Pepper Plant  | Capsicum annuum                     |
| 79 | Ornamental Sweet Potato  | Impomoea batatas cv.                |
| 80 | Pansy                    | Viola x wittrockiana cv.            |

|     |                                    |                                       |
|-----|------------------------------------|---------------------------------------|
| 81  | Parlor Palm                        | <i>Chamaedorea elegans</i>            |
| 82  | Peace Lily                         | <i>Spathiphyllum</i>                  |
| 83  | Perennial Vinca (Periwinkle)       | <i>Vinca minor</i>                    |
| 84  | Pentas                             | <i>Pentas hybrid cv.</i>              |
| 85  | Peony                              | <i>Paeonia cv.</i>                    |
| 86  | Peruvian Lily                      | <i>Alstroemeria hybrid cv.</i>        |
| 87  | Petunia                            | <i>Petunia x hybrida cv.</i>          |
| 88  | Pin Cushion Protea                 | <i>Leucospermum hybrid cv.</i>        |
| 89  | Poinsettia                         | <i>Euphorbia pulcherrima cv.</i>      |
| 90  | Polka Dot Plant (Pink Splash)      | <i>Hypoestes phyllostachya</i>        |
| 91  | Portulaca                          | <i>Portulaca oleracea cv.</i>         |
| 92  | Prayer Plant                       | <i>Maranta leuconeura</i>             |
| 93  | Primrose                           | <i>Primula malacoides cv.</i>         |
| 94  | "Purple Passion", Velvet Plant     | <i>Gynura aurantiaca 'Sarmentosa'</i> |
| 95  | Ranunculus                         | <i>Ranunculus hybrid cv.</i>          |
| 96  | Red Edge Dracaena                  | <i>Dracaena cincta</i>                |
| 97  | Regal (Martha Washington) Geranium | <i>Pelargonium x domesticum</i>       |
| 98  | Rubber Plant                       | <i>Ficus elastica cv</i>              |
| 99  | Salvia                             | <i>Salvia splendens cv.</i>           |
| 100 | Shasta Daisy                       | <i>Leucanthemum x superbum</i>        |
| 101 | Shrimp Plant                       | <i>Justica brandegeana</i>            |
| 102 | Silver Dollar Eucalyptus           | <i>Eucalyptus polyanthemos</i>        |
| 103 | Silver Vase Bromeliad              | <i>Aechmea fasciata cv.</i>           |
| 104 | Snake Plant                        | <i>Sansevieria trifasciata cv.</i>    |
| 105 | Snapdragon                         | <i>Antirrhinum majus cv.</i>          |
| 106 | Solidago                           | <i>Solidago hybrid cv</i>             |
| 107 | Spider Plant                       | <i>Cholorophytum comosum cv.</i>      |
| 108 | Split Leaf Philodendron            | <i>Monstera deliciosa</i>             |
| 109 | Spotted Dumbcane                   | <i>Dieffenbachia</i>                  |
| 110 | Sprengeri Fern                     | <i>Asparagus densiflorus</i>          |
| 111 | Spring Heather                     | <i>Erica carnea cv.</i>               |
| 112 | Statice                            | <i>Limonium sinuatum</i>              |
| 113 | Stephanotis                        | <i>Stephanotis floribunda</i>         |
| 114 | Stock                              | <i>Matthiola incana cv.</i>           |
| 115 | Strawberry Begonia                 | <i>Saxifraga stolonifera</i>          |
| 116 | Sunflower                          | <i>Helianthus annuus</i>              |
| 117 | Swedish Ivy                        | <i>Plectranthus australis</i>         |
| 118 | Thanksgiving Cactus, Crab Cactus   | <i>Schulmbergera truncata</i>         |
| 119 | Trumpet (Easter) Lily              | <i>Lilium longiflorum</i>             |



|     |                      |                                   |
|-----|----------------------|-----------------------------------|
| 120 | Tuberous Begonia     | Begonia x tuberhybrida cv.        |
| 121 | Tulip                | Tulipa cv.                        |
| 122 | Variegated Peperomia | Peperomia obtusifolia 'Variegata' |
| 123 | Verbena              | Verbena hybrid cv.                |
| 124 | Wandering Jew        | Tradescantia zebrine              |
| 125 | Watermelon Peperomia | Peperomia sandersii               |
| 126 | Wax Begonia          | Begonia x semperflorens –cultorum |
| 127 | Wax Plant            | Hoya carnosa                      |
| 128 | Waxflower            | Chamelaucium uncinatum            |
| 129 | Zebra Plant          | Aphelandra squarrosa cv.          |
| 130 | Zinnia               | Zinnia cv.                        |
| 131 | Zonal Geranium       | Pelargonium x hortorum cv.        |

## IDENTIFYING AND CONTROLLING PLANT DISORDERS PRACTICUM

This practicum is aimed at developing in students the ability to recognize and recommend remedial measures for various types of plant disorders and/or pests. Included among these are environmental, nutritional, pest-related, and disease-related disorders.

Five different stations depicting plant disorders will be included. The participant must identify the item and its classification (disease, insect/pest/mites, nutritional/environmental). The participant then must determine the chemical and/or cultural controls for the disorder. Each participant will identify 5 specimens valued at 10 points each. Identifying the disorder correctly will be worth five points.

Pest and disorder items may be presented as an intact specimen, photograph or preserved specimen (herbarium sheet, insect mount, etc.). Each specimen will be designated by a station number. No specimens or items may be touched or handled in any way. Refer to the Disorder Practicum Scorecard (Form 65) for additional details.

| <b>Classification</b>       | <b>Identification</b>  | <b>Chemical Control</b> | <b>Cultural Control</b>             |                           |
|-----------------------------|------------------------|-------------------------|-------------------------------------|---------------------------|
| Disease                     | Black Leaf Spot        | Fungicide               | None                                |                           |
|                             | Botrytis-Grey Mold     | Fungicide               | Reduce Relative Humidity            |                           |
|                             | Damping Off            | None                    | None                                |                           |
|                             | Down Mildew            | Fungicide               | Reduce Relative Humidity            |                           |
|                             | Powdery Mildew         | Fungicide               | Reduce Relative Humidity            |                           |
|                             | Root Rot               | Fungicide               | Correct/Adjust Watering             |                           |
|                             | Rust                   | Fungicide               | None                                |                           |
|                             | Stem Rot               | Fungicide               | Correct/Adjust Watering             |                           |
|                             | Insects / Pests/ Mites | Aphids                  | Insecticide                         | Parasitic Wasps           |
| Fungus Gnats                |                        | Insecticide             | Nematodes                           |                           |
| Leaf Miner                  |                        | Insecticide             | Predatory Mites                     |                           |
| Leafhopper                  |                        | Insecticide             | Ladybird Beetles or Parasitic Wasps |                           |
| Mealybugs                   |                        | Insecticide             | Parasitic Wasps                     |                           |
| Scale                       |                        | Insecticide             | Ladybird Beetles                    |                           |
| Snails/Slugs                |                        | Molluscicide            | None                                |                           |
| Spider Mites                |                        | Miticide                | Predatory Mites                     |                           |
| Thrips                      |                        | Insecticide             | Parasitic Wasps                     |                           |
| Whiteflies                  |                        | Insecticide             | Ladybird Beetles                    |                           |
| Nutritional / Environmental |                        | Ethylene Damage         | None                                | Reduce Relative Humidity  |
|                             |                        | Insufficient Watering   | None                                | Correct / Adjust Watering |
|                             | Iron Deficiency        | None                    | Apply a fertilizer containing iron  |                           |
|                             | Nitrogen Deficiency    | None                    | Apply a fertilizer containing N     |                           |
|                             | Phosphorus Deficiency  | None                    | Apply a fertilizer containing P     |                           |

**FLORICULTURE IDENTIFICATION SCORECARD**

Name: \_\_\_\_\_ Contestant No: \_\_\_\_\_

School: \_\_\_\_\_ School No: \_\_\_\_\_

**Plant Number**

- |           |           |           |
|-----------|-----------|-----------|
| 1. _____  | 21. _____ | 41. _____ |
| 2. _____  | 22. _____ | 42. _____ |
| 3. _____  | 23. _____ | 43. _____ |
| 4. _____  | 24. _____ | 44. _____ |
| 5. _____  | 25. _____ | 45. _____ |
| 6. _____  | 26. _____ | 46. _____ |
| 7. _____  | 27. _____ | 47. _____ |
| 8. _____  | 28. _____ | 48. _____ |
| 9. _____  | 29. _____ | 49. _____ |
| 10. _____ | 30. _____ | 50. _____ |
| 11. _____ | 31. _____ | 51. _____ |
| 12. _____ | 32. _____ | 52. _____ |
| 13. _____ | 33. _____ | 53. _____ |
| 14. _____ | 34. _____ | 54. _____ |
| 15. _____ | 35. _____ | 55. _____ |
| 16. _____ | 36. _____ | 56. _____ |
| 17. _____ | 37. _____ | 57. _____ |
| 18. _____ | 38. _____ | 58. _____ |
| 19. _____ | 39. _____ | 59. _____ |
| 20. _____ | 40. _____ | 60. _____ |

# FLORICULTURE IDENTIFICATION LIST

## Student Copy 1

|    |                          |                                  |     |                                    |                                     |
|----|--------------------------|----------------------------------|-----|------------------------------------|-------------------------------------|
| 1  | African Violet           | Saintpaulia ionantha cv.         | 66  | Leatherleaf Fern                   | Rumohra adiantiformis               |
| 2  | Ageratum                 | Ageratum houstonianum            | 67  | Lemongrass (herb)                  | Cymbopogon cv.                      |
| 3  | Aglaonema                | Aglaonema commutatum             | 68  | Liatriis                           | Liatriis spicata                    |
| 4  | Aluminum Plant           | Pilea cadierei                   | 69  | Marguerite Daisy                   | Argyranthemum frutescens            |
| 5  | Alyssum                  | Lobularia maritima               | 70  | Marigold                           | Tagetes species cv.                 |
| 6  | Amaryllis                | Hippeastrum hybrid cv.           | 71  | Million Bells                      | Calibrachoa hybrid cv.              |
| 7  | Annual Vinca             | Catharanthus roseus              | 72  | Monte Cassino Aster                | Aster pringlei                      |
| 8  | Artillery Plant          | Pilea microphylla                | 73  | Moth Orchid                        | Phalaenopsis cv.                    |
| 9  | Asiatic or Oriental Lily | Lilium hybrid cv.                | 74  | Nepththytis                        | Syngonium podophyllum               |
| 10 | Asparagus "Fern"         | Asparagus setaceus               | 75  | Nerve Plant                        | Fittonia verschaffeltii argyroneura |
| 11 | Astilbe                  | Astilbe hybrid cv.               | 76  | Norfolk Island Pine                | Araucaria heterophylla              |
| 12 | Azalea                   | Rhododendron hybrids             | 77  | Octopus Plant                      | Schefflera arboricola               |
| 13 | Baby's Breath            | Gypsophila elegans cv.           | 78  | Ornamental Pepper Plant            | Capsicum annuum                     |
| 14 | Barrel Cactus            | Echinocactus cv.                 | 79  | Ornamental Sweet Potato            | Impomoea batatas cv.                |
| 15 | Benjamin Fig             | Ficus benjamina cv               | 80  | Pansy                              | Viola x wittrockiana cv.            |
| 16 | Big Leaf Hydrangea       | Hydrangea macrophylla            | 81  | Parlor Palm                        | Chamaedorea elegans                 |
| 17 | Bird of Paradise         | Strelitzia reginae               | 82  | Peace Lily                         | Spathiphyllum                       |
| 18 | Blushing Bromeliad       | Neoreglia carolinae 'Tricolor'   | 83  | Perennial Vinca (Periwinkle)       | Vinca minor                         |
| 19 | Boston Fern              | Nephrolepis exaltata cv.         | 84  | Pentas                             | Pentas hybrid cv.                   |
| 20 | Cactus                   | Opuntia cv.                      | 85  | Peony                              | Paeonia cv.                         |
| 21 | Caladium                 | Caladium x hortulanum cv.        | 86  | Peruvian Lily                      | Alstroemeria hybrid cv.             |
| 22 | Calla Lily               | Zantedeschia hybrid cv.          | 87  | Petunia                            | Petunia x hybrida cv.               |
| 23 | Campanula                | Campanula hybrid cv.             | 88  | Pin Cushion Protea                 | Leucospermum hybrid cv.             |
| 24 | Carnation                | Dianthus caryophyllus cv.        | 89  | Poinsettia                         | Euphorbia pulcherrima cv.           |
| 25 | China Aster              | Callistephus chinensis cv.       | 90  | Polka Dot Plant (Pink Splash)      | Hypoestes phyllostachya             |
| 26 | Christmas Cactus         | Schlumbergera bridgesii          | 91  | Portulaca                          | Portulaca oleracea cv.              |
| 27 | Cineraria                | Senecio x hybridus cv.           | 92  | Prayer Plant                       | Maranta leuconeura                  |
| 28 | Clematis                 | Clematis hybrid cv.              | 93  | Primrose                           | Primula malacoides cv.              |
| 29 | Cockscomb                | Celosia argentea cv.             | 94  | "Purple Passion", Velvet Plant     | Gynura aurantiaca 'Sarmentosa'      |
| 30 | Coleus                   | Solenostemon scutellarioides     | 95  | Ranunculus                         | Ranunculus hybrid cv.               |
| 31 | Corn Plant               | Dracena fragrans                 | 96  | Red Edge Dracaena                  | Dracaena cincta                     |
| 32 | Creeping fig             | Ficus pumila                     | 97  | Regal (Martha Washington) Geranium | Pelargonium x domesticum            |
| 33 | Croton                   | Codiaeum variegatum pictum       | 98  | Rubber Plant                       | Ficus elastica cv                   |
| 34 | Crown of Thorns          | Euphorbia splendens              | 99  | Salvia                             | Salvia splendens cv.                |
| 35 | Cymbidium Orchid         | Cymbidium cv.                    | 100 | Shasta Daisy                       | Leucanthemum x superbum             |
| 36 | Daffodil or Narcissus    | Narcissus hybrid cv.             | 101 | Shrimp Plant                       | Justica brandegeana                 |
| 37 | Dahlia                   | Dahlia hybrid cv.                | 102 | Silver Dollar Eucalyptus           | Eucalyptus polyanthemos             |
| 38 | Daylily                  | Hemerocallis cv.                 | 103 | Silver Vase Bromeliad              | Aechmea fasciata cv.                |
| 39 | Dendrobium Orchid        | Dendrobium cv.                   | 104 | Snake Plant                        | Sansevieria trifasciata cv.         |
| 40 | Dusty Miller             | Senecio cineraria                | 105 | Snapdragon                         | Antirrhinum majus cv.               |
| 41 | Dutch Iris               | Iris x xiphium cv.               | 106 | Solidago                           | Solidago hybrid cv                  |
| 42 | Emerald Ripple Peperomia | Peperomia caperata               | 107 | Spider Plant                       | Chlorophyllum comosum cv.           |
| 43 | English Ivy              | Hedera helix cv.                 | 108 | Split Leaf Philodendron            | Monstera deliciosa                  |
| 44 | Flamingo Plant           | Anthurium x andraeanum cv.       | 109 | Spotted Dumbcane                   | Dieffenbachia                       |
| 45 | Florist's Chrysanthemum  | Chrysanthemum x morifolium       | 110 | Sprenger Fern                      | Asparagus densiflorus               |
| 46 | Florist's Cyclamen       | Cyclamen x persicum cv.          | 111 | Spring Heather                     | Erica carnea cv.                    |
| 47 | Freesia                  | Freesia x hybrida                | 112 | Stative                            | Limonium sinuatum                   |
| 48 | Garden Canna             | Canna x generalis cv.            | 113 | Stephanotis                        | Stephanotis floribunda              |
| 49 | Garden Gladiolus         | Gladiolus x hortulanus cv.       | 114 | Stock                              | Matthiola incana cv.                |
| 50 | Gardenia                 | Gardenia jasminoides             | 115 | Strawberry Begonia                 | Saxifraga stolonifera               |
| 51 | Gerbera Daisy            | Gerbera jamesonii                | 116 | Sunflower                          | Helianthus annuus                   |
| 52 | Globe Amaranths          | Gomphrena hybrid cv.             | 117 | Swedish Ivy                        | Plectranthus australis              |
| 53 | Golden Pothos            | Epipremnum aureum cv.            | 118 | Thanksgiving Cactus, Crab Cactus   | Schlumbergera truncata              |
| 54 | Heartleaf Philodendron   | Philodendron scandens oxycardium | 119 | Trumpet (Easter) Lily              | Lilium longiflorum                  |
| 55 | Hens and Chicks          | Sempervivum hybrid cv.           | 120 | Tuberous Begonia                   | Begonia x tuberhybrida cv.          |
| 56 | Hosta                    | Hosta cv.                        | 121 | Tulip                              | Tulipa cv.                          |
| 57 | Hyacinth                 | Hyacinthus orientalis cv.        | 122 | Variiegated Peperomia              | Peperomia obtusifolia 'Variegata'   |
| 58 | Hybrid Tea Rose          | Rosa hybrid cv                   | 123 | Verbena                            | Verbena hybrid cv.                  |
| 59 | Impatiens                | Impatiens hybrid cv.             | 124 | Wandering Jew                      | Tradescantia zebrine                |
| 60 | Ivy Geranium             | Pelargonium peltatum cv.         | 125 | Watermelon Peperomia               | Peperomia sandersii                 |
| 61 | Jade Plant               | Crassula argentea                | 126 | Wax Begonia                        | Begonia x semperlorens –cultorum    |
| 62 | Kalanchoe                | Kalanchoe x blossfeldiana cv.    | 127 | Wax Plant                          | Hoya carnosa                        |
| 63 | Ladyslipper Orchid       | Paphiopedilum hybrid cv.         | 128 | Waxflower                          | Chamaelaudium uncinatum             |
| 64 | Lantana                  | Lantana camara                   | 129 | Zebra Plant                        | Aphelandra squarrosa cv.            |
| 65 | Larkspur                 | Delphinium consolida cv.         | 130 | Zinnia                             | Zinnia cv.                          |
|    |                          |                                  | 131 | Zonal Geranium                     | Pelargonium x hortorum cv.          |

## FLORICULTURE/GREENHOUSE ITEMS

Name: \_\_\_\_\_ Contestant No: \_\_\_\_\_

School: \_\_\_\_\_ School No. \_\_\_\_\_

- |           |                                  |  |  |
|-----------|----------------------------------|--|--|
| 1. _____  | 00. # 3 Ribbon                   | 36. Floral knife                               | 67. Propagation Mat                                |
| 2. _____  | 01. # 9 Ribbon                   | 37. Floral preservative                        | 68. Propagation trays                              |
| 3. _____  | 02. #40 Ribbon                   | 38. Floral stem tape                           | 69. PVC pipe                                       |
| 4. _____  | 03. #100 Ribbon                  | 39. Fogger                                     | 70. PVC pipe cutter                                |
| 5. _____  | 04. 18 Gauge floral wire         | 40. Gas mask                                   | 71. Resin-coated<br>fertilizer                     |
| 6. _____  | 05. 28 Gauge floral wire         | 41. Glass vase                                 | 72. Respirator                                     |
| 7. _____  | 06. 606 Cell Pack                | 42. Glue gun                                   | 73. Ribbons shears                                 |
| 8. _____  | 07. 804 Cell Pack                | 43. Glue sticks                                | 74. Rice hulls                                     |
| 9. _____  | 08. 806 Cell Pack                | 44. Goggles                                    | 75. Rockwool<br>propagation cubes                  |
| 10. _____ | 09. 1204 Cell Pack               | 45. Granular fertilizer                        | 76. Rose and stem<br>flower stripper               |
| 11. _____ | 10. 1206 Cell Pack               | 46. Greenhouse<br>thermostat                   | 77. Shade fabric                                   |
| 12. _____ | 11. 1801 Cell Pack               | 47. Hanging basket                             | 78. Sharpening stone                               |
| 13. _____ | 12. 1803 Cell Pack               | 48. Hearing protection                         | 79. Sheet moss                                     |
| 14. _____ | 13. Anvil-&Blade Pruner          | 49. Hook-&Blade<br>pruners (bypass<br>pruners) | 80. Siphon injector                                |
| 15. _____ | 14. Backflow preventer           | 50. Hose punch                                 | 81. Soil moisture meter                            |
| 16. _____ | 15. Bouquet sleeve               | 51. Hose repair coupling                       | 82. Solenoid valve                                 |
| 17. _____ | 16. Bulb planter                 | 52. Hose-end repair<br>fitting                 | 83. Spanish moss                                   |
| 18. _____ | 17. Cardette                     | 53. Hose-end sprayer                           | 84. Spaghetti tubing<br>(1/4" diameter or<br>less) |
| 19. _____ | 18. Ceramic container            | 54. Hose-end washer                            | 85. Sphagnum moss                                  |
| 20. _____ | 19. Chemical resistant<br>gloves | 55. Impulse sprinkler                          | 86. Spray suit                                     |
| 21. _____ | 20. Chenille stem                | 56. Irrigation tape                            | 87. Square point (flat)<br>shovel                  |
| 22. _____ | 21. Coconut COIR                 | 57. Irrigation timer                           | 88. Styrofoam                                      |
| 23. _____ | 22. Compressed air<br>sprayer    | 58. Mist Nozzle (mist<br>bed)                  | 89. Surestik cling                                 |
| 24. _____ | 23. Corsage box                  | 59. Oscillating<br>sprinkler                   | 90. Tulle  |
| 25. _____ | 24. Corsage pins                 | 60. Peat moss                                  | 91. Vermiculite                                    |
|           | 25. Corsage snips                | 61. Peat pots                                  | 92. Water breaker                                  |
|           | 26. Drip emitter,<br>irrigation  | 62. Pest strips                                | 93. Water picks                                    |
|           | 27. Dry foam                     | 63. pH testing meter                           | 94. Water soluble<br>fertilizer                    |
|           | 28. Dust mask                    | 64. Polyethylene film                          | 95. Water tubes                                    |
|           | 29. Duster                       | 65. Polyethylene pipe                          | 96. Waterproof<br>container tape                   |
|           | 30. Ellepot propagation<br>cubes | 66. Pot covers                                 | 97. Wire cutter                                    |
|           | 31. Enclosure card               |  | 98. Wooden pick                                    |
|           | 32. Fern greening pins           |  | 99. Wrist corsage<br>holder                        |
|           | 33. Fertilizer injectors         |  |  |
|           | 34. Floral adhesive              |  |  |
|           | 35. Floral foam                  |  |  |

## DISORDER PRACTICUM SCORECARD

Name: \_\_\_\_\_ Contestant No: \_\_\_\_\_

School: \_\_\_\_\_ School No. \_\_\_\_\_

|    |                                 | Member<br>Answer | Possible<br>Points | Member<br>Score |
|----|---------------------------------|------------------|--------------------|-----------------|
| 1. | Classification #:               |                  | 2                  |                 |
|    | Identification #:               |                  | 4                  |                 |
|    | Chemical Control #:             |                  | 2                  |                 |
|    | Cultural/ Biological Control #: |                  | 2                  |                 |
| 2. | Classification #:               |                  | 2                  |                 |
|    | Identification #:               |                  | 4                  |                 |
|    | Chemical Control #:             |                  | 2                  |                 |
|    | Cultural/ Biological Control #: |                  | 2                  |                 |
| 3. | Classification #:               |                  | 2                  |                 |
|    | Identification #:               |                  | 4                  |                 |
|    | Chemical Control #:             |                  | 2                  |                 |
|    | Cultural/ Biological Control #: |                  | 2                  |                 |
| 4. | Classification #:               |                  | 2                  |                 |
|    | Identification #:               |                  | 4                  |                 |
|    | Chemical Control #:             |                  | 2                  |                 |
|    | Cultural/ Biological Control #: |                  | 2                  |                 |
| 5. | Classification #:               |                  | 2                  |                 |
|    | Identification #:               |                  | 4                  |                 |
|    | Chemical Control #:             |                  | 2                  |                 |
|    | Cultural/ Biological Control #: |                  | 2                  |                 |

**CLASSIFICATION:**

- 01. Diseases
- 02. Insects / Pest / Mites
- 03. Nutritional / Environmental

**IDENTIFICATION:**

- 20. Aphids
- 21. Black Leaf Spot
- 22. Botrytis – Grey Mold
- 23. Damping-off
- 24. Downy Mildew
- 25. Ethylene Damage
- 26. Fungus Gnats
- 27. Insufficient Watering
- 28. Iron Deficiency
- 29. Leaf Miner
- 30. Leafhopper
- 31. Mealybugs
- 32. Nitrogen Deficiency
- 33. Phosphorus Deficiency
- 34. Powdery Mildew
- 35. Root Rot
- 36. Rust
- 37. Scale
- 38. Snails/Slugs
- 39. Spider Mites
- 40. Stem Rot
- 41. Thrips
- 42. whiteflies

**CHEMICAL CONTROL:**

- 1. Fungicide
- 2. Insecticide
- 3. Miticide
- 4. Mulluscicide
- 5. No Treatment Listed

**CULTURAL CONTROL:**

- 1. Apply a fertilizer containing iron
- 2. Apply a fertilizer high in nitrogen
- 3. Apply a fertilizer high in phosphorous
- 4. Correct / Adjust Temperature
- 5. Correct / Adjust Watering
- 6. Ladybird Beetles
- 7. Nematodes
- 8. Parasitic Wasps
- 9. Predatory Mites
- 10. Reduce Relative Humidity
- 11. No Treatment Listed