# 4-H and FFA Crops Judging Contest

**Superintendents:**

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## Sponsored by James River Equipment

**Registration Deadline: September 15, 2021**

**Participants must register through the online registration:**

**Junior Team Registration: Click** Here

**Senior Team Registration: Click** Here

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**2021 Official Schedule**

**Date: Thursday, September 30, 2021**
**Location: Blue Ribbon Tent**
**Judging Contest Begins: 10:30 AM**
**Awards Presentations: following event**

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*Participants must have a $5 Student Competition Ticket to enter the Fairgrounds unless they are already at the Fair for another competition. Agricultural Education instructors are responsible for ordering tickets directly from the State Fair Ticket Office (link can be found at vaffa.org)*

## Contest Information

1. Information can be found on the Virginia FFA website http://www.vaffa.org.
2. This contest is open to 4-H and FFA members in the state of Virginia. 4-H or FFA members who have won previous state or national contests and college students are not eligible to compete, chapters/clubs may have multi teams in the event.
3. There will be two divisions: **Junior division** will be students in 9th grade and under and **Senior division** will be students in grades 10-12.
4. A chapter/club entry will consist of a team of three or four members. If four members participate, only the three high scores will be counted. All work needs to be completed on an individual basis.
5. The contest will be operated according to the guidelines outlined on the vaffa.org website. Classes to be judged will consist of placing eight of the following classes (1-12) and identify 25 crop or weed samples (#13).

   1. Marketable Shelled Corn or Soybeans
   2. Soybeans for Seed
   3. Barley for Seed
   4. Wheat for Seed
   5. Corn Silage
   6. Alfalfa Seed
   7. Red Clover Seed
   8. Orchard Grass Seed
   9. Tall Fescue Seed
   10. Alfalfa Hay
   11. Mixed Hay
   12. Pasture Sod
   13. Crop or Weed Identification

# Awards

***The State Fair of Virginia will award ribbons to the eight high teams and the ten high individuals.***

| Placing | Team Award | Placing | Team Award |
|---|---|---|---|
| **1st** | **$65** | **5th** | **$20** |
| **2nd** | **$50** | **6th** | **$10** |
| **3rd** | **$40** | **7th** | **$10** |
| **4th** | **$30** | **8th** | **$10** |

**State Fair Scholarship Program**

Contestants will be eligible to participate in the State Fair Scholarship Program. Please see the **State Fair website, www.statefairva.org, for more information regarding the State Fair of Virginia Scholarship Program and eligibility requirements for other available scholarships.** The following scholarships will be awarded to the top three individuals in the Junior and Senior contests:

| Level | 1st | 2nd | 3rd |
|---|---|---|---|
| Junior | $300.00 | $200.00 | $100.00 |
| Senior | $400.00 | $300.00 | $200.00 |

# State Fair FFA/4H Crops Judging

I. PURPOSE

*To create interest and promote understanding in agronomy by providing opportunities for recognition through the demonstration of skills and proficiencies.*

II. OBJECTIVES

1. To demonstrate basic knowledge of agronomic sciences.

2. To explore career opportunities, skills and proficiencies in the agronomy industry.

3. To determine the ability to identify agronomic:
   - Crops
   - Weeds
   - Seeds
   - Insects
   - Diseases
   - Plant Nutrient Deficiencies
   - Plant Disorders
   - Crop Grading and Pricing
   -

4. To evaluate a scenario and develop a crop management plan including crop selection, production and marketing.

5. To demonstrate understanding of sustainable agriculture and environmental stewardship through the use of Integrated Pest Management and Best Management Practices.

III. EVENT RULES

1. **Team Make-up**- Team size shall be four members. The top three scores will count towards the team total.

2. It is highly recommended that participants be in official FFA dress in each event.

3. All participants will be given an identification number by which they will be designated throughout the event.

4. Under no circumstance will any participant be allowed to handle any of the items in the identification portion of the practicum. Any infractions of this rule will be sufficient to eliminate a team from the event.

5. Participants will be assigned to group leaders who will escort them to various event-staging sites. Each participant is to stay with his or her assigned group leader throughout the event or until told to change leaders by the event superintendent.

6. Written Material: All written material will be furnished for the event. No written materials such as tests, problems and worksheets shall be removed from the site.

7. All general rules will apply to this event.

8. The State FFA Staff and Virginia Advisory Board will be in charge of this event.

IV. EVENT FORMAT

## A. EQUIPMENT

**Materials students must provide**- Each participant must have a clean, free of notes clipboard, two sharpened No.2 pencils and an electronic calculator. The calculators used with the event are to be battery operated, non- programmable, silent with large keys and large displays. The calculators should only have these functions- addition, subtraction, multiplication, division, equals, percent, square root, +/- key, and one memory register. No other calculators are allowed to be used during the event.

See end of document for sample score cards and other even materials

V. PROCEDURE

1. Participants evaluate samples of eight classes of crops. (See Training Guide following this section for evaluation information.)

2. Event Format:

   a. Classes to be judged will consist of placing eight of the following classes:

| **Class** | **Number of Samples** |
|---|---|
| Marketable Grain Corn or Soybeans | 4 plates |
| Corn Silage | 4 plates |
| Soybeans (for seed) | 4 plates |
| Barley (for seed) | 4 plates |
| Wheat (for seed) | 4 plates |
| Pasture Sod | 4 trays |
| Alfalfa Seed | 4 trays |
| Red Clover | 4 plates |
| Seed | 4 plates |
| Orchard Grass Seed | |
| Tall Fescue | 4 plates |
| Seed Alfalfa Hay | 4 bale sections |
| Mixed Hay | 4 bale sections |

Other contest sections:

| | |
|---|---|
| **Crop and Weed Identification** | **25 specimens** |
| Verbal Reasons on one class | |

3. Participants have 15 minutes per class to evaluate the samples.

4. Participants record their answers on the score sheet provided.

5. Verbal Reasons- An oral presentation about the rankings of class. The format for this presentation is as follows:
   a. Chapter name, year in school, number of years in FFA
   b. State placing of samples
   c. Give reasons
   d. Make concluding statement.

6. Participants should be neatly groomed and should follow general guidelines for public speaking (see Public Speaking section in this guide and refer to the section “Extemporaneous Public Speaking” in the FFA Career Development Handbook). Note cards are allowed but should not be read.

**Sponsored by:**

# Crops Training Guide

## Marketable Grain Corn

Factors to consider in judging the market quality of corn:

1. **Odor (30 points)** — High quality market corn is not musty, moldy, or sour. Often these problems can be seen as well as smelled. Moldy, sour grain has little market value because it is not suitable for human consumption and does not make good animal feed. Also, it may contain toxic substances.

2. **Foreign material (25 points)** — High quality corn does not contain rodent excreta, metals, stones, or petroleum products. The presence of such material causes severe problems when the corn is used for feed, and the metals or other foreign material could damage expensive processing machinery.

3. **Moisture percentage of the grain (20 points)** — When selling corn directly from the field, high moisture percentage is the most common price discount. However, as the corn is dried, handled, and stored, other factors may become more important in determining the quality of marketable corn. For this reason, in this event other factors have been listed first. Moisture percentage of the grain is given on the sample to be judged. The moisture percentage is very important in determining the storability of corn. Corn can be stored at 15.5% moisture for a short time. For long-term storage, corn should not exceed 14% moisture. Point values for the percentage of moisture are assigned as follows:

   a. Subtract 1 point for each percent of moisture above 15.5%. Do not exceed a total of 20 points.
   b. Any sample with a moisture content above 35.5% loses 20 points.

4. **Damaged kernels (15 points)** — damaged kernels include kernels that have sprouted and/or have been damaged by frost, insects, or heat. Heat-damaged corn is brown or black from external heating, such as improper drying, or from heating as a result of excess moisture and spoilage.

5. **Broken corn, weed seed, other crop seed, plant residue, other classes of corn (such as white corn in yellow corn) (10 points)** — More than 5% of any or all of these items result in price discounts. The percentages of these materials are generally determined by passing the corn over a screen with holes of a specific size.

## Marketable Soybeans

The soybean crop is one of the major crops in Virginia, and soybeans are an important ingredient in many foods and animal feeds. Soybean seeds contain about 20% oil and 40% protein.
Factors to consider in judging the market quality of soybeans:

1. **Test weight (30 points)** — a bushel of soybeans should weigh about 60 pounds, and if the weight per bushel is less than 56 pounds, it is not graded as U.S. #1. The test weight is given in this event. Point values for the test weight are assigned as follows:

| Test Weight | Points to Deduct |
|---|---|
| 56 pounds or higher | 0 |
| 54-55.9 pounds | 10 |
| 52-53.9 pounds | 20 |
| Below 51.9 pounds | 30 |

2. **Moisture percentage (25 points)** — Soybeans need to have a lower moisture percentage than corn, or they will spoil. The moisture percentage of the grain samples is given. Point values for the percentage of moisture are assigned as follows:

| Moisture | Points to Deduct |
|---|---|
| 13% or less | 0 |
| 13.1%-14% | 5 |
| 14.1%-16% | 15 |
| 16.1%-18% | 25 |

3. **Damage (20 points)** — Soybeans should not be weather- or heat-damaged as evidenced by wrinkled and discolored seed coats. Heat-damaged seeds are brown or nearly chocolate colored.

4. **Foreign material (15 points)** — Foreign material includes stems, very small or broken pieces of soybeans, weed seeds, and other grains such as corn.

5. **Splits (10 points)** — Splits are whole halves of the seed. Small, broken pieces of soybeans are considered foreign material.

## Corn Silage

Factors to consider in judging corn silage (listed in general order of importance):

1. **Stage of growth when cut** — Corn should be cut for silage when the grain on the ear is in the hard dough stage. At this stage, kernels are well dented on the entire ear. They are firm to hard, but can be punctured with the thumb nail. Husks are brown, as are lower leaves on the plant. At this stage, 35% to 42% of the plant is dry matter. This means it contains about the right level of dry matter and water for excellent packing and ensiling. Cutting corn before the hard-dough stage results in decreased grain content and greater seepage losses from the silo because of the corn's high water content. Corn cut for silage after the hard-dough stage results in greater spoilage during storage because the dry silage is difficult to pack in the silo. Field losses are also generally greater when the corn is harvested later due to more grain shattering and to losses when blowing the lighter material.

2. **Percent dry matter** — This figure indicates the amount of water in the silage (for example, 100 pounds of 35%-dry matter silage would contain 35 pounds of dry feed and 65 pounds of water). Silage in the desirable 35% to 42% dry matter range feels moist when squeezed out in the hands; if it is too wet, it will probably lose some of its nutrients through seepage when ensiled. Silage that feels dry when squeezed is too dry and will not pack. Dry matter percentage of the samples is given.

3. **Grain content** — High-quality corn silage has a high grain content. Grain is low in fiber and high in energy; this makes it very digestible and high in feed value. High-grain silage will probably be less than 25% crude fiber on a dry basis compared to a crude-fiber percentage of more than 30% for low- grain silage.

4. **Silage cut characteristics** — Silage should be cleanly cut into pieces from 1/4" to 3/8" long. Clean- cut silage will pack tightly so that oxygen is excluded and silo capacity is increased. In contrast, long pieces of stalk and various lengths of shredded leaves will not pack well; this often results in moldy silage. Silage-handling equipment is also more effective when the silage is cut properly.

5. **Color** — A light brown color with some green present is most desirable. Deep brown or black indicates excessive heating.

6. **Odor** —Odor is a good indicator of the type of fermentation that occurred in the silo. A clean, sharp odor, similar to partly cured hay or mild cheeses, indicates high-quality silage. Odors similar to wet leather, manure, or a sharp vinegar smell are not desirable. Putrid, musty-smelling silage is not likely to be eaten very well by animals. Extremely bad-smelling silage is usually the result of ensiling corn that is too wet or too dry and/or not packing the silage tightly enough to keep oxygen out. Rotten silage should be judged as unacceptable even though factors 1 through 5 are adequate.

## Alfalfa Silage

Factors to consider in judging alfalfa silage (listed in general order of importance):

1. **Stage of maturity** – The same guidelines for time of harvest of hay (see class 7) apply to alfalfa, with one difference: alfalfa for silage is not allowed to dry as much after being cut. Plants should not be in full flower, as noted in guidelines for alfalfa hay (class 7).

2. **Percent dry matter** – This figure indicates the amount of water in the silage. For example, 100 pounds of 35%-dry matter contains 35 pounds of dry matter and 65 pounds of water. Hay crops such as alfalfa are too wet (too low in dry matter percentage) to place directly into the silo when cut. They must be partly dried (wilted) before ensiling. The desirable range for alfalfa silage is 30% to 45%. This means it is dry enough to prevent seepage losses and to favor proper fermentation. It is also wet enough to pack well in the silo, which excludes air. Alfalfa silage in the proper dry-matter range can be squeezed hard in the fist and not have water drip from it. When the grip is released, the material should slowly expand and not spring out and fall apart. Dry matter percentage of the samples is given.

3. **Silage cut characteristics** – Alfalfa silage should be cleanly cut into pieces about 1/2" long. Long, stringy pieces do not pack as well in the silo and are more difficult for equipment to handle.

4. **Color** – A bright green color is desirable. Brown silage may indicate that the crop was rained on before ensiling. A black, burned appearance indicates that excessive heating occurred after ensiling. The silage is then of little value to the animals, because much of the protein is no longer digestible.

5. **Odor** – The odor should be like that described under corn silage (class 2, number 6). Rotten silage should be judged as unacceptable even if factors 1 through 4 above are adequate.

## Soybeans for Seed

Factors to consider in judging soybean seed*:

1. **Harmful weeds (30 points)** include cocklebur, jimson weed, balloon vine, and sickle pod.

2. **Other crops (20 points)** include corn and cowpeas.

3. **Mixture of varieties (15 points)** is determined by inspecting the color, shape, and hilum markings. Seeds of a particular variety are the same for these characteristics.

4. **Common weed seeds (10 points)** include morning glory.

5. **Weather or insect damage (10 points)** includes weevil injury, wrinkled seed coats, ground damage, and weathering. Seed that is damaged by weather or insects is lower in germination and vigor.

6. **Uniformity or mechanical damage (10 points)** include uniformity of size and shape within the variety. Such seed drops from the planter more uniformly. Mechanical damage includes cracked seed coats and crushed beans, indicating damage during handling.

7. **Inert material or disease (5 points)** stems, dirt, fragments of pods, and cracked seed are undesirable because they interfere with the planting. Purple seed stain indicates disease.

## Wheat or Barley for Seed

Factors to consider in judging wheat or barley seed*:

1. **Noxious weed seeds (25 points)** include wild garlic, wild mustard, wild radish, and quackgrass.

2. **Semi-harmful weeds (20 points)** include corn cockle, dock, vetch, and chess (cheat).

3. **Other crops** - rye and rye grass (15 points)
   - oats (10 points)
   - barley in wheat or wheat in barley (10 points)

4. **Insect damage (10 points).**

5. **Disease (10 points)** includes black point (in wheat only) or scab. Black point is a blackish discoloration around the germ area. Scab is recognizable as a whitish or pink coloration on the seed.

6. **Sprouting and weather damage (10 points)** include weather damage, sprouting or bleaching of color, low test weight, and lack of plumpness.

7. **Inert material (5 points)** includes stems, dirt, chaff, and cracked seeds.

8. **Common weeds (5 points)** include pepperweed and others.

## Pasture Sod

Factors to consider in judging pasture sod:

1. Good grass legume mixture – Since clover is higher in protein and is more digestible than grasses, a mixture of clover and grass is more desirable than grass alone. The clover provides nitrogen for the grass, which keeps it green and growing. More than 50% clover in the mixture is not desirable, because it can cause grazing animals to bloat.

2. Weeds rob productive, high quality pasture plants of water, nutrients, and sunlight. They are of lower feed value and usually produce less growth than desirable plants. Some weeds are not eaten at all by livestock, and others are poisonous.

3. Thick stand of plants – To be productive and to crowd out weeds, a pasture sod should be dense. A thin stand with bare soil indicates that, for some reason, the pasture is not as productive as it should be.

4. Vigor and color – High-quality pasture grows rapidly and has a dark green color. In this condition, it is high in protein and other nutrients and produces large amounts of feed. Light green or yellow plants that do not appear to be growing well are low in quality and productivity.

5. Disease and insect injury may cause problems resulting in low ratings for the four factors above. Stands attacked by insects and/or diseases are limited in their ability to be high quality, productive, and longlived. Class 5 (second day): Oral Presentation – See event procedures.

## Alfalfa or Red Clover Seed

Factors to consider in judging forage seed:

1. **Noxious weed seeds (36 points)** include johnsongrass, giant foxtail, dodder, and plumeless thistle.

2. **Semi-harmful weeds (25 points)** include dock, sheep sorrell, buckhorn plantain, and blue vervain.

3. **Common weeds (15 points)** include broadleaf plantain, pepperweed, pigweed, and lamb's quarters.

4. **Other crop seeds (10 points)** include other forage crop seed in this group, such as sweet clover or red clover in alfalfa.

5. **Weather damaged seeds (10 points)** are lower in germination and vigor; seed color and plumpness are affected.

6. **Inert material (5 points)** includes chaff, stems, dirt, and broken seeds.

## Seed Orchardgrass or Tall Fescue Seed

Factors to consider in judging forage seed*:

1. **Noxious weed seeds (35 points)** include johnsongrass, giant foxtail, plumeless thistle, and quackgrass.

2. **Harmful weeds (25 points)** include dock, sheep sorrell, buckhorn plantain, and wild garlic.

3. **Common weeds (15 points)** include broadleaf plantain, pepperweed, pigweed, lamb's quarters, and chess (cheat).

4. **Other crop seeds (10 points)** include other forage crop seed in this group, such as tall fescue seed in orchardgrass or ryegrass.

5. **Weather damaged seeds (10 points)** are lower in germination and vigor; seed color and plumpness are affected.

6. **Inert material (5 points)** includes chaff, stems, dirt, and broken seeds.

## Alfalfa or Mixed Hay

Factors to consider in judging alfalfa and orchardgrass hay (listed in general order of importance):

1. Stages of maturity
   a. alfalfa hay – No seed pods should be present, and plants should not be in full flower. As legumes advance from the young growing stage to the reproductive stage in which they produce flowers, they become lower in protein content, digestibility, and acceptability to livestock. As they grow older, they become higher in fiber and produce more stem and fewer leaves. Red clover and alfalfa should be harvested when the flowers are just beginning to show.

   b. orchardgrass hay – No mature seed should be present, and plants should not be in full head. Like alfalfa, orchard grass is less desirable once the plant enters the reproductive stage. Grasses should be cut in the spring when the seed heads are beginning to appear. Since orchardgrass heads only in the spring, no heads will be present in later cuttings.

2. Weeds – Only desirable hay plants should be present in the hay. Determine what plants were harvested and included in the hay, and the relative amount of each plant. Weeds such as thistles and briars make animals less likely to eat the hay. Most weeds are lower in feed value than desirable hay plants. Their presence also indicates a weedy stand that is probably not high-yielding.

3. Leaf/stem ratio – Leaves are the part of the plant containing the highest feed value, so high quality hay should contain a high ratio of leaves to stems. Large and numerous stems result in hay that is low in feed value and not eaten well. Insect or disease injury may cause a loss of leaves with the resulting increase in stem.

4. Color – A bright green color indicates a minimum of bleaching and leaching losses of vitamins and nutrients during the curing process. Harvesting when the plants are too old often results in a brown color. Hay that has been rained on is usually brown or dull green because of the action of the rain and the long period in the sun before it dries.

5. Smell – Properly cured hay has a fragrant, clean odor. Hay that was too wet when stored has a moldy or dusty odor. If the hay was rained on before harvesting or was very mature when harvested, it often has almost no odor.

6. Insect or disease injury
   a. alfalfa hay – Feeding by insects such as the alfalfa weevil or the potato leafhopper usually results in leaf losses or injury. The alfalfa weevil actually eats much of the leaf; the leafhopper sucks juices from the leaves and injects a toxin that turns the leaves yellow and/or purple and kills them. The damage done by insects causes leaf death

and reduced growth. Disease such as leafspot can cause leaf losses.

b. orchardgrass – As with alfalfa, insects can cause great damage that results in leaf loss. Diseases such as rust and leafspot can cause yellowing and death of the leaves.

7. Foreign material – Dirt, sticks, old stubble, and other such material lower the quality of hay.

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## Crop and Weed Identification

Samples used in the event are selected from the list below. The actual plants (in some cases growing plants) and seed are used. Symbols indicate (S) seed only, (P) plant only, (E) either.

**Grasses**

| | |
|---|---|
| 101. Kentucky bluegrass | (E) |
| 102. Tall fescue | (E) |
| 103. Red top | (E) |
| 104. Bromegrass | (E) |
| 105. Timothy | (E) |
| 106. Orchardgrass | (E) |
| 107. Ryegrass | (E) |
| 108. Sorghum | (E) |
| 109. Red fescue | (E) |
| 110. Sundan grass | (E) |
| 111. Foxtail millet | (E) |
| 112. Pearl millet | (E) |
| 113. Wheat | (E) |
| 114. Oats | (E) |
| 115. Barley | (E) |
| 116. Rye | (E) |
| 117. Corn | (E) |

**Legumes**

| | |
|---|---|
| 118. Soybeans | (E) |
| 119. Cowpeas | (E) |
| 120. Red clover | (E) |
| 121. Crimson clover | (E) |
| 122. Alsike clover | (E) |
| 123. White clover | (E) |
| 124. Sweet clover | (E) |
| 125. Birdsfoot trefoil | (E) |
| 126. Korean lespedeza | (E) |
| 127. Crown vetch | (E) |
| 128. Sericea lespedeza | (E) |
| 129. Kudzu | (P) |
| 130. Alfalfa | (E) |

**Other Crops**

| | |
|---|---|
| 131. Cotton | (E) |
| 132. Tobacco | (E) |
| 133. Buckwheat | (E) |
| 134. Rape | (S) |
| 135. Peanuts | (S) |
| 136. Sunflower | (E) |

**Weeds**

| | |
|---|---|
| 137. Buckhorn plantain | (E) |
| 138. Dock | (E) |
| 139. Sheep sorrel | (E) |
| 140. Dodder | (E) |
| 141. Johnsongrass | (E) |
| 142. Quackgrass | (E) |
| 143. Wild garlic | (E) |
| 144. Burdock | (E) |
| 145. Corn cockle | (E) |
| 146. Chess (cheat) | (E) |
| 147. Wild carrot | (E) |
| 148. Morning glory | (E) |
| 149. Barnyardgrass | (E) |
| 150. Cockleburr | (E) |
| 151. Horsenettle | (E) |
| 152. Chicory | (P) |
| 153. Broomsedge | (P) |
| 154. Pepperweed | (P) |
| 155. Ragweed | (E) |
| 156. Giant foxtail | (E) |
| 157. Lamb's quarters | (E) |
| 152. Chicory | (P) |
| 153. Broomsedge | (P) |
| 154. Pepperweed | (P) |
| 155. Ragweed | (E) |
| 156. Giant foxtail | (E) |
| 157. Lamb's quarters | (E) |
| 158. Smartweek | (E) |
| 159. Pigweed | (E) |
| 160. Crabgrass | (E) |
| 161. Wild mustard | (E) |
| 162. Bermudagrass | (E) |
| 163. Jimsonweed | (E) |
| 164. Broadleaf plantain | (E) |
| 165. Spanish needles | (E) |
| 166. Beggarticks | (E) |
| 167. Dandelion | (E) |
| 168. Bindweed | (P) |
| 169. Bull thistle | (P) |
| 170. Wild radish | (S) |
| 171. Vetch | (E) |
| 172. White cockle | (S) |

| | |
|---|---|
| 173. Plumeless (musk or curled) thistle | (E) |
| 174. Balloon vine | (S) |
| 175. Sickle pod | (E) |

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**TIEBREAKERS**

If ties occur, the following events will be used in order to determine award recipients:

1. Crop and Weed Identification
2. Team /Individual score of placing class 1.
3. Team /Individual score of placing class 2.

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## Seed-Judging Terminology

Weed seeds are undesirable in any seed to be planted. Weed seeds shown in the event are those often found in the particular crop seed.

1. **Weed Seed**: Only weed seed listed within each crop is used as a judging factor in that class.

2. **Noxious Weeds:** These weeds are more objectionable than others and are considered noxious because they produce seeds that are difficult to separate from the grain and are difficult to control in the field.

3. **Harmful Weeds**: Seeds of these weeds are objectionable, but generally they are not as hard to control in crop fields as noxious weeds.

4. **Common Weeds:** Seeds of common weeds are found on most farms and often are easily cleaned from the crop seed.

5. **Other Crop Seed:** Seeds of other crops, such as corn in soybeans or rye in wheat, are objectionable because they may result in a lower market value and can interfere with harvesting. Rye is more objectionable than other small-grain seeds because rye seed will live over on the soil longer than the other small grains.

6. **Other Varieties:** Many varieties are difficult to distinguish by seed characteristics, and for this reason they are only a factor in soybeans. Other varieties of soybeans may be distinguished by different color, shape of seed, seed size, or hilum color.

7. **Insect Damage:** Insects may damage seeds of most crops and can be recognized by holes in the seed or by the germ area having been removed.

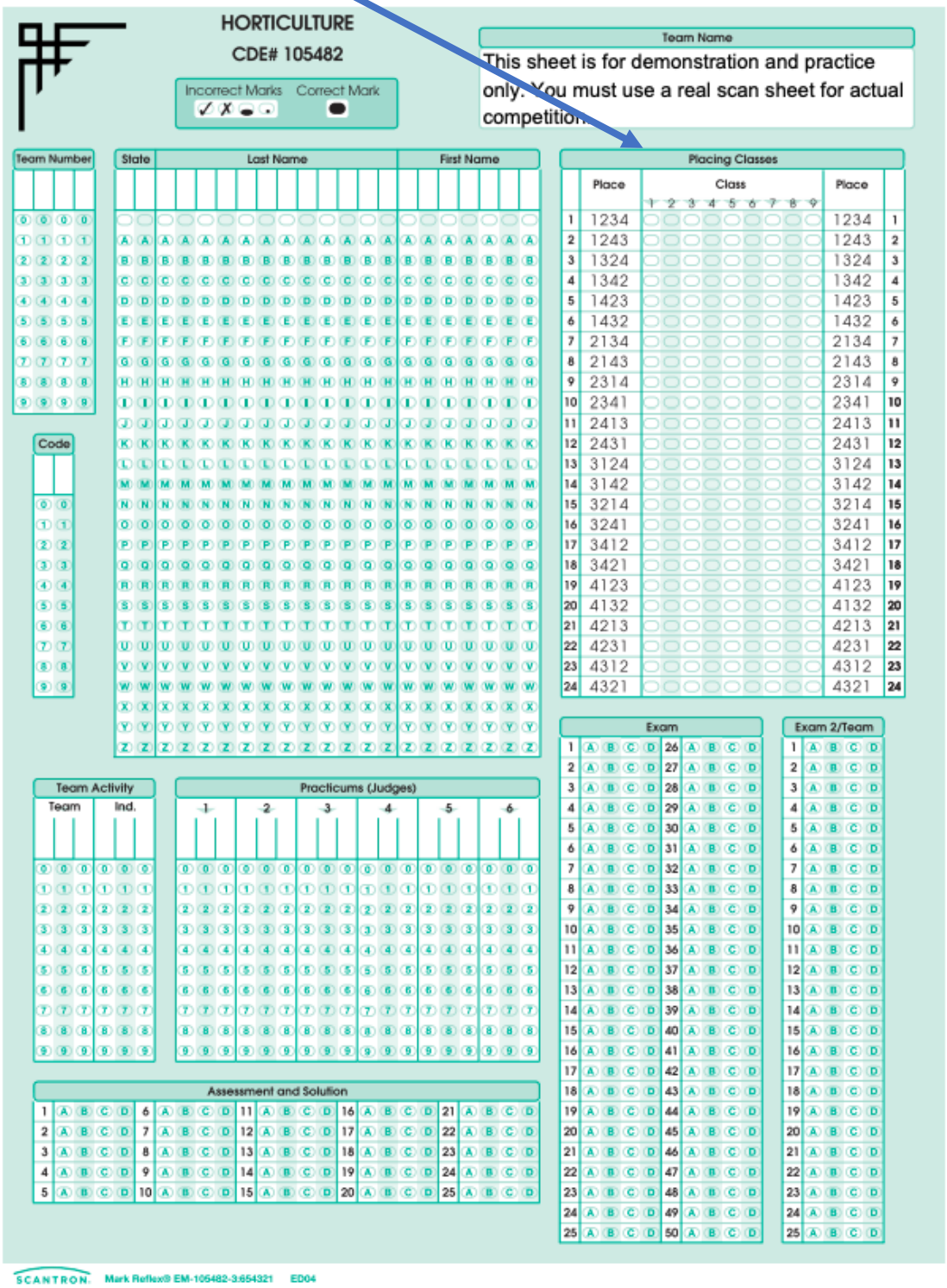
8. **Disease**: Several diseases can cause a reduction in germination and for this reason are important in judging seed.

9. **Sprouting or Weather Damage:** Seeds that are prematurely sprouted or have been exposed to excessive moisture in the field after maturity have a lower germination rate. Often weather damage can be recognized by low test weight, bleaching, or loss of natural color.

10. **Inert Material:** This includes stems, dirt, chaff, and cracked kernels.

IV. EVENT FORMAT (Continued)- Sample Score Cards/Even Materials

1. Placing Classes Score Card



HORTICULTURE

CDE# 105482

Incorrect Marks ✓ ✗ ● •  Correct Mark ●

Team Name

This sheet is for demonstration and practice only. You must use a real scan sheet for actual competition.

Team Number

Code

State | Last Name | First Name

Placing Classes

| | Place | Class 1 2 3 4 5 6 7 8 9 | Place | |
|---|---|---|---|---|
| 1 | 1234 | | 1234 | 1 |
| 2 | 1243 | | 1243 | 2 |
| 3 | 1324 | | 1324 | 3 |
| 4 | 1342 | | 1342 | 4 |
| 5 | 1423 | | 1423 | 5 |
| 6 | 1432 | | 1432 | 6 |
| 7 | 2134 | | 2134 | 7 |
| 8 | 2143 | | 2143 | 8 |
| 9 | 2314 | | 2314 | 9 |
| 10 | 2341 | | 2341 | 10 |
| 11 | 2413 | | 2413 | 11 |
| 12 | 2431 | | 2431 | 12 |
| 13 | 3124 | | 3124 | 13 |
| 14 | 3142 | | 3142 | 14 |
| 15 | 3214 | | 3214 | 15 |
| 16 | 3241 | | 3241 | 16 |
| 17 | 3412 | | 3412 | 17 |
| 18 | 3421 | | 3421 | 18 |
| 19 | 4123 | | 4123 | 19 |
| 20 | 4132 | | 4132 | 20 |
| 21 | 4213 | | 4213 | 21 |
| 22 | 4231 | | 4231 | 22 |
| 23 | 4312 | | 4312 | 23 |
| 24 | 4321 | | 4321 | 24 |

Exam

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | A B C D | 26 | A B C D | 1 | A B C D | 26 | A B C D |
| 2 | A B C D | 27 | A B C D | 2 | A B C D | 27 | A B C D |
| 3 | A B C D | 28 | A B C D | 3 | A B C D | 28 | A B C D |
| 4 | A B C D | 29 | A B C D | 4 | A B C D | 29 | A B C D |
| 5 | A B C D | 30 | A B C D | 5 | A B C D | 30 | A B C D |
| 6 | A B C D | 31 | A B C D | 6 | A B C D | 31 | A B C D |
| 7 | A B C D | 32 | A B C D | 7 | A B C D | 32 | A B C D |
| 8 | A B C D | 33 | A B C D | 8 | A B C D | 33 | A B C D |
| 9 | A B C D | 34 | A B C D | 9 | A B C D | 34 | A B C D |
| 10 | A B C D | 35 | A B C D | 10 | A B C D | 35 | A B C D |
| 11 | A B C D | 36 | A B C D | 11 | A B C D | 36 | A B C D |
| 12 | A B C D | 37 | A B C D | 12 | A B C D | 37 | A B C D |
| 13 | A B C D | 38 | A B C D | 13 | A B C D | 38 | A B C D |
| 14 | A B C D | 39 | A B C D | 14 | A B C D | 39 | A B C D |
| 15 | A B C D | 40 | A B C D | 15 | A B C D | 40 | A B C D |
| 16 | A B C D | 41 | A B C D | 16 | A B C D | 41 | A B C D |
| 17 | A B C D | 42 | A B C D | 17 | A B C D | 42 | A B C D |
| 18 | A B C D | 43 | A B C D | 18 | A B C D | 43 | A B C D |
| 19 | A B C D | 44 | A B C D | 19 | A B C D | 44 | A B C D |
| 20 | A B C D | 45 | A B C D | 20 | A B C D | 45 | A B C D |
| 21 | A B C D | 46 | A B C D | 21 | A B C D | 46 | A B C D |
| 22 | A B C D | 47 | A B C D | 22 | A B C D | 47 | A B C D |
| 23 | A B C D | 48 | A B C D | 23 | A B C D | 48 | A B C D |
| 24 | A B C D | 49 | A B C D | 24 | A B C D | 49 | A B C D |
| 25 | A B C D | 50 | A B C D | 25 | A B C D | 50 | A B C D |

Exam 2/Team

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | A B C D | 26 | A B C D | 1 | A B C D | 26 | A B C D |
| 2 | A B C D | 27 | A B C D | 2 | A B C D | 27 | A B C D |
| 3 | A B C D | 28 | A B C D | 3 | A B C D | 28 | A B C D |
| 4 | A B C D | 29 | A B C D | 4 | A B C D | 29 | A B C D |
| 5 | A B C D | 30 | A B C D | 5 | A B C D | 30 | A B C D |
| 6 | A B C D | 31 | A B C D | 6 | A B C D | 31 | A B C D |
| 7 | A B C D | 32 | A B C D | 7 | A B C D | 32 | A B C D |
| 8 | A B C D | 33 | A B C D | 8 | A B C D | 33 | A B C D |
| 9 | A B C D | 34 | A B C D | 9 | A B C D | 34 | A B C D |
| 10 | A B C D | 35 | A B C D | 10 | A B C D | 35 | A B C D |
| 11 | A B C D | 36 | A B C D | 11 | A B C D | 36 | A B C D |
| 12 | A B C D | 37 | A B C D | 12 | A B C D | 37 | A B C D |
| 13 | A B C D | 38 | A B C D | 13 | A B C D | 38 | A B C D |
| 14 | A B C D | 39 | A B C D | 14 | A B C D | 39 | A B C D |
| 15 | A B C D | 40 | A B C D | 15 | A B C D | 40 | A B C D |
| 16 | A B C D | 41 | A B C D | 16 | A B C D | 41 | A B C D |
| 17 | A B C D | 42 | A B C D | 17 | A B C D | 42 | A B C D |
| 18 | A B C D | 43 | A B C D | 18 | A B C D | 43 | A B C D |
| 19 | A B C D | 44 | A B C D | 19 | A B C D | 44 | A B C D |
| 20 | A B C D | 45 | A B C D | 20 | A B C D | 45 | A B C D |
| 21 | A B C D | 46 | A B C D | 21 | A B C D | 46 | A B C D |
| 22 | A B C D | 47 | A B C D | 22 | A B C D | 47 | A B C D |
| 23 | A B C D | 48 | A B C D | 23 | A B C D | 48 | A B C D |
| 24 | A B C D | 49 | A B C D | 24 | A B C D | 49 | A B C D |
| 25 | A B C D | 50 | A B C D | 25 | A B C D | 50 | A B C D |

Team Activity

| Team | Ind. |
|---|---|
| | |

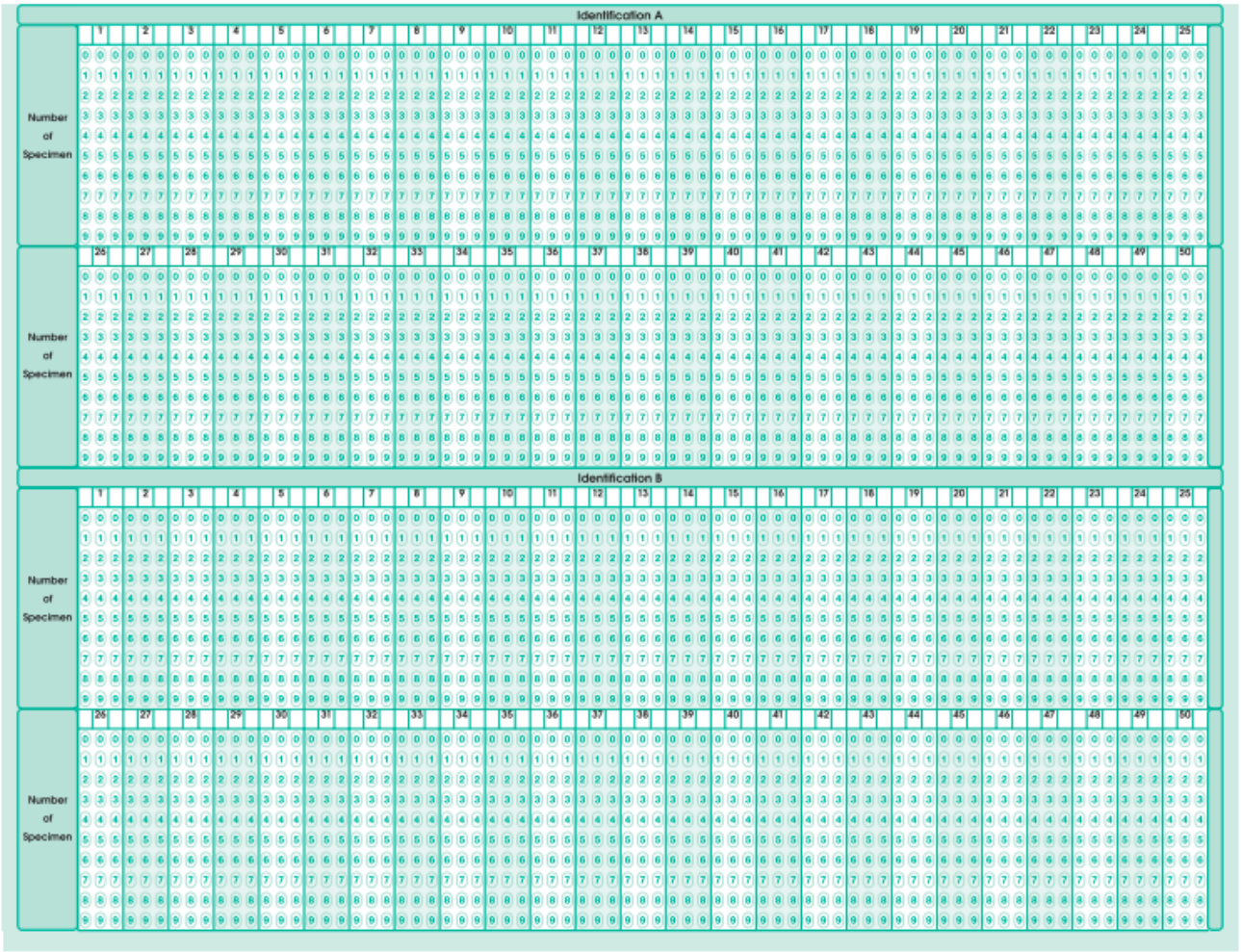
Practicums (Judges)

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| | | | | | |

Assessment and Solution

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | A B C D | 6 | A B C D | 11 | A B C D | 16 | A B C D | 21 | A B C D |
| 2 | A B C D | 7 | A B C D | 12 | A B C D | 17 | A B C D | 22 | A B C D |
| 3 | A B C D | 8 | A B C D | 13 | A B C D | 18 | A B C D | 23 | A B C D |
| 4 | A B C D | 9 | A B C D | 14 | A B C D | 19 | A B C D | 24 | A B C D |
| 5 | A B C D | 10 | A B C D | 15 | A B C D | 20 | A B C D | 25 | A B C D |

SCANTRON. Mark Reflex® EM-105482-3:654321 ED04

**Identification Sheet – 25 Specimen X 2 points each = 50 points (Max Score)**

- The bank of possible answers will have a three-digit number and will be bubbled in the form as seen below. *See the specimen list in the contest description.*