CATA Curricular Code Change Proposal

Make a copy of this document. In order to input information.

Contest:	Agriscience Fair
Proposed by: (Name, School, Email)	Lynn Martindale, UC Davis, lmartindale@ucdavis.edu

Issue: (Describe the reason/rationale for the proposed change.)
Changes are being made at the National level, state changes reflect the national level changes.

Please answer yes or no to ALL the questions below.

This proposal will require a contest to open out of rotation	YES
The change will affect General Rules	NO
The change will affect the awards needed.	NO
Which JudgingCard scorecard will be used for tabulations.	ON LINE
The proposed change will affect contest forms.	NO
The proposed change will affect contest hosting site. (e.g. additional facilities, new sections, additional scoring, etc.)	NO

If you answered yes to any of the above questions, you need to include the following signatures: Click here for link to CDE Contest Advisor and Coordinator list.

CATA Approved Contest Advisor's Signature	Lynn Martindale, State Agriscience Coordinator
CDE Host Site Contest Coordinator's Signature agreeing that changes are able to be accommodated by the host site.	Lynn Martindale State Agriscience Coordinator

If you answered yes to any of the above questions, please explain.

*It is highly recommended that you, or a representative, attend the pre-conference governing board meeting to answer any questions regarding proposed curricular code changes to contests that are requested to be opened out of rotation.

There are several changes that are necessary to be able to compete at the National level in all 6 divisions and 6 pathways. Currently the divisions are all new and the categories are now called pathways. AET recordbooks are now going to be used as part of the scoring.

Description: (Describe what is changing.)

Changes reflect the changes at the National level.
1. Levels of competition are changing, not longer 7-8th, 9-10th, and 11-12th grades, but rather 7-9th and 10-12th grades, 2) Divisions have changed to Experimental Research, Analytical Research, & Invention Research, and categories terminology has changed to pathways, 3) Chapter Group is represented by two areas 7-9, and 10-12 grades, 4) change in scoring, scoring of applications & boards will be based of National FFA rubric, and 5) changing the name to AGRISCIENCE RESEARCH SAE PROGRAM .

Proposed CATA Code Change: (Only include the section that the proposed change pertains to – do not include the entire contest. Reference numbered section. If editing text, show new text with old text in parenthesis. For large changes, set track changes in the Word document and attach the file, with edits, to this document when submitting.)

Attached is the document with tracked changes.

Instructions for Submitting Curricular Code Change

- Make sure the form is complete.
- Download and Submit this document as a PDF
  - Click File → Download → Download as a PDF
- If your proposal requires signatures make sure to contact the contest advisor and contest host. **Tip:** Docusign, Doc Hub are great sources for digital signature requests.
  - Click Here for contest Host and Advisor List
- Email completed Curricular Change Proposal **PDF** to cata@calagteachers.org by June 1st.

Warning: Make sure you add all the topics or concerns you would like to discuss at the Curricular Code CDE meeting. If it's not posted on the CATA Curricular Code Changes website by June 1st, it **cannot** be discussed.

~~AGRISCIENCE FAIR~~ AGRISCIENCE RESEARCH SAE PROGRAM

Revised 6/2022

Purpose and Standards

The ~~FFA Agriscience Fair~~ Agriscience Research SAE Program recognizes middle and high school students who are studying the application of scientific principles and emerging technologies in agricultural enterprises.

Goals

- Provide students with an opportunity to use the scientific process.
- Provide students an opportunity to achieve local, state and national recognition for their accomplishments in agriscience.
- Reinforce skills and principles learned in agriscience courses.
- Provide an opportunity for students to demonstrate and display agriscience projects that are products of their agriscience courses.
- Provide recruiting and promotional opportunities for agriscience programs.

Foundation Standards: 1.0 Academic (1.1 Math, 1.2 Science), 2.0 Communications (2.1-2.4), 4.0 Technology, 5.0 Problem Solving and Critical Thinking, 6.0 Health and Safety, 7.0 Responsibility and Flexibility, 8.0 Ethics and Legal Responsibilities, 9.0 Leadership and Teamwork (Team Projects), 10.0 Technical Skills, 11.0 Demonstration and Application.

Pathway Standards: All pathway standards (A-G) are addressed according to specific agriscience category.

Contestants

Any 7th - 12th grade student enrolled in an agriculture course is eligible to exhibit at the Fair. The student's agricultural education teacher must certify all projects entered.

Classes

Class	Individual Points	Team Points
~~Paper~~Application	~~100~~	~~300 (25%)~~
Exhibit	50	
Interview		360 (75%)
TOTAL	150	660

Application Scores to be determined after National FFA releases Rubrics.
See notes under rules.

Tie Breaker

If a tie exists, the winning projects will be determined by highest paper score. If a tie still exists, the common panel of judges will determine the winner.

~~Agriscience Fair Rules~~ Agriscience Research SAE Program

A complete Research Plan/Project Summary is required for all Agriscience Research SAE Program applications. This Research Plan/Project Summary includes the results of one of the student's research problems or questions concluded in the calendar year before the program year (project concluded between 1/1/24 and 12/31/24 for the 2025 program year).

- Applications may be multi-year or single year
- Category determinations will no longer be done.
  - Students will **select the pathway** in which their research impacts.
  - Students will **select five AFNR Standards** from their Primary Pathways.
    - Students will **need to articulate why their skills align to the standard selected**.
  - ~~Students will select two AFNR Standards from any pathway.~~
  - ~~Students will select three AFNR Standards from Career Ready Practice (CRP) and/or Cluster Skills (CS).~~
- The Agriscience Research SAE Program is individual awards only.
  - Teams of students can conduct research SAEs, but only an individual student's share of the work will be included.
  - Collaboration will be evaluated. The students must share what each additional collaborator contributed to their research SAE as well as understand their own contributions to the program.
- Sections added to the application and rubric that must be completed:
  - Performance Review
  - Hours Invested
  - Collaboration, if any
  - Financial Statements

I. Judging Divisions

~~A. Division I – Individual member in grades 7th & 8th (Discovery)~~
~~B. Division II – Team of two members in grades 7th & 8th (Discovery)~~
~~C. Division III – Individual member in grades 9th & 10th (Novice)~~
~~D. Division IV – Team of two members in grades 9th & 10th (Novice)~~
~~E. Division V – Individual member in grades 11th & 12th (Advanced)~~
~~F. Division VI – Team of two members in grades 11th & 12th (Advanced)~~

A. Experimental Research (7-9 grades)
B. Experimental Research (10-12 grades)
C. Analytical Research (7-9 grades)
D. Analytical Research (10-12 grades)
E. Invention Research (7-9 grades)
F. Invention Research (10-12 grades)

Agriscience Research SAE Award areas:

Experimental Research - Animal Systems (Grades 7-9)
Experimental Research - Animal Systems (Grades 10-12)
Analytical Research – Animal Systems (Grades 7-9)
Analytical Research – Animal Systems (Grades 10-12)
Invention Research – Animal Systems (Grades 7-9)
Invention Research – Animal Systems (Grades 10-12)

Experimental Research – Environmental Services & Natural Resource Systems (Grades 7-9)

Experimental Research - Environmental Services & Natural Resource (Grades 10-12)
Analytical Research – Environmental Services & Natural Resource (Grades 7-9)
Analytical Research – Environmental Services & Natural Resource (Grades 10-12)
Invention Research – Environmental Services & Natural Resource (Grades 7-9)
Invention Research – Environmental Services & Natural Resource (Grades 10-12)

Experimental Research – Food Products & Processing Systems (Grades 7-9)
Experimental Research - Food Products & Processing (Grades 10-12)
Analytical Research – Food Products & Processing (Grades 7-9)
Analytical Research – Food Products & Processing (Grades 10-12)
Invention Research – Food Products & Processing (Grades 7-9)
Invention Research – Food Products & Processing (Grades 10-12)

Experimental Research - Plant Systems (Grades 7-9)
Experimental Research - Plant Systems (Grades 10-12)
Analytical Research – Plant Systems (Grades 7-9)
Analytical Research – Plant Systems (Grades 10-12)
Invention Research – Plant Systems (Grades 7-9)
Invention Research – Plant Systems (Grades 10-12)

Experimental Research – Power, Structural & Technical Systems (Grades 7-9)
Experimental Research - Power, Structural & Technical Systems (Grades 10-12)
Analytical Research – Power, Structural & Technical Systems (Grades 7-9)
Analytical Research – Power, Structural & Technical Systems (Grades 10-12)
Invention Research – Power, Structural & Technical Systems (Grades 7-9)
Invention Research – Power, Structural & Technical Systems (Grades 10-12)

Experimental Research – Social Science (Grades 7-9)
Experimental Research - Social Science (Grades 10-12)
Analytical Research – Social Science (Grades 7-9)
Analytical Research – Social Science (Grades 10-12)
Invention Research – Social Science (Grades 7-9)
Invention Research – Social Science (Grades 10-12)

Judging ~~Categories~~ Pathways

There are six different ~~categories~~. Pathways They are:

Food Products and Processing Systems (FPP)
The study of product development, quality assurance, food safety, production, sales and service, regulation and compliance and food service within the food science industry.
Examples:

- Effects of packaging techniques on food spoilage rates
- Resistance of organic fruits to common diseases
- Determining chemical energy stored in foods
- Control of molds on bakery products

Environmental Services/Natural Resource Systems (ENR)
The study of systems, instruments and technology used in waste management; the

study of the management of soil, water, wildlife, forests and air as natural resources and their influence on the environment.
Examples:

- Effect of agricultural chemicals on water quality
- Effects of cropping practices on wildlife populations
- Compare water movements through different soil types

Animal Systems (AS)
The study of animal systems, including life processes, health, nutrition, genetics, management and processing, through the study of small animals, aquaculture, livestock, dairy, horses and/or poultry.
Examples:

- Compare nutrient levels on animal growth
- Research new disease control mechanisms
- Effects of estrous synchronization on ovulation
- Compare effects of thawing temperatures on livestock semen
- Effects of growth hormone on meat/milk production

Plant Systems (PS)
The study of plant life cycles, classifications, functions, structures, reproduction, media and nutrients, as well as growth and cultural practices, through the study of crops, turf grass, trees and shrubs and/or ornamental plants.
Examples:

- Determine rates of transpiration in plants
- Effects of heavy metals such as cadmium on edible plants
- Compare GMO and conventional seed/plant growth under various conditions
- Effects of lunar climate and soil condition on plant growth
- Compare plant growth of hydroponics and conventional methods

Power, Structural and Technical Systems (PST)
The study of agricultural equipment, power systems, alternative fuel sources and precision technology, as well as woodworking, metalworking, welding and project planning for agricultural structures.
Examples:

- Develop alternate energy source engines
- Create minimum energy use structures
- Compare properties of various alternative insulation products
- Investigation of light/wind/water energy sources

Social Systems (SS)
The study of human behavior and the interaction of individuals in and to society, including agricultural education, agribusiness economic, agricultural communication, agricultural leadership and other social science applications in agriculture, food and natural resources.
Examples:

- Investigate perceptions of community members towards alternative agricultural practices
- Determine the impact of local/state/national safety programs upon accident rates in agricultural/natural resource occupations
- Comparison of profitability of various agricultural/natural resource practices

Investigate the impact of significant historical figures on a local community
Determine the economical effects of local/state/national legislation impacting agricultural/natural resources

If the judges feel the project doesn't match the category it will be disqualified. Teachers should use the National FFA Agriscience website and the National FFA Category Jot Form to clarify the correct category for projects prior to submission.

II. There shall be six ~~categories~~ pathways at the Agriscience Fair.
   A. Individual ~~and team~~ projects will be judged separately within each of the six ~~categories~~ Pathways. There will be winners designated from each of the six divisions in all six ~~categories~~ Pathways.
   B. At the State Finals competition, all projects in each division within each ~~category~~ pathway will be placed through 3rd place and the results will be distributed.
   C. All winners from each Division ~~Divisions I through VI~~ will be selected on ranking from the display board and ~~paper~~ application. Each division will produce a winner which will represent California in National FFA Competition.
   D. Projects selected to represent a Chapter Group will still be judged in the traditional manner to compete for category honors and the chance in the National FFA Competition.
   ~~E.~~ Chapters will be allowed to enter ~~as many~~ up to three (3) exhibits per division & ~~category~~ pathway ~~as they choose.~~
   F. Individual ~~and team~~ projects that receive first place or represent California at the National Agriscience Fair are indefinitely banned from competing in the same category and division.

III. Selection of the State Champion Chapter Group.
   A. For the selection of the overall top five State Champion Chapter Group, ~~in each division~~ divided ~~Discovery (7th & 8th grade), Novice (9th & 10th grade), and Advanced (11th & 12th grade)~~ by Novice (7th – 9th grade) and Advanced (10th-12th grades). Each chapter in the ~~Agriscience Fair~~ Agriscience Research SAE Program, will select three projects to be considered for the Chapter Group competition. ~~The three projects may be composed of individual or team projects. Discovery Chapter groups will consist of projects from Divisions I and/or II any category. Novice Chapter groups will consist of projects from Division III and/or IV any category. Advanced Chapter groups will consist of projects from Division V and/or VI any category.~~
   B. ~~Teams~~ Chapter Groups will be identified when ~~papers~~ applications are submitted and any substitutions must be made with the contest coordinator 30 days prior to competition by 8 a.m.
   C. A maximum of five Chapter Groups per division (as defined in part A of this section) as determined by a screening panel using the appropriate prequalifying rubric to score ~~written reports~~ applications and display boards, will be interviewed for the Chapter Group competition at the California State FFA Conference. All remaining teams will be placed using ~~written report screening score~~ application score only. Chapter Groups will be notified seven days prior to competition.
   D. Judging and scoring of projects will be modeled after the National FFA ~~Agriscience Fair~~ Agriscience Research SAE Program. The student ~~or students~~ from each project must be in attendance for a ten (10) minute presentation and interviewed on the day of the competition. A common panel of judges will interview the student or students making up each ~~team~~ Chapter group. Interviews will take place in front of the students' display board.

E. Scoring the ~~projects~~ Chapter Group will be based on ~~the~~ three projects per chapter -There with a ten (10) minute per student interview and five (5) minutes for the judges to review the ~~paper~~ application and display board. The judges will use the National Agriscience scorecard for judging the projects and score sheets from the judges will be added up from each project to compose the chapter's overall Chapter Group score.

F. The Chapter Group will be placed first through fifth based on overall Chapter Group points and there shall be awarded a team championship at the ~~Discovery,~~ Novice~~,~~ and Advanced levels.

IV. Exhibit Requirements

~~A.~~ Each student ~~and/or team of students~~ may enter only one project. ~~Projects entered by a team of two students are allowed.~~

B. Exhibited projects and research papers shall be the result of the student(s) own efforts.

C. Judges will request at least the top three to top six ~~manuscript scored papers~~ Agriscience Fair Applications for scoring of display boards in each ~~category~~ pathway and division in a virtual format through AET.

D. Only the requested display boards will be on display at the California FFA Leadership Conference.

E. The official maximum size for an Agriscience Fair project is ~~48 36~~ 42 inches wide by ~~39~~ 36 inches in length.

F. The official Agriscience Fair Project display board may only be presented on a poster, no props are allowed.

G. If an exhibit becomes unsafe or unsuitable for display during the Fair, it will be removed and deemed ineligible for any awards.

H. Projects, which involve vertebrate animals, must conform to the **California State Education Code Section 514540**. In general, this code section says that you must not do an experiment that would in any way cause pain, harm or death to the animal. Experiments on live animals involving surgery, the removal of parts, injection of harmful chemicals, exposure to harmful environments, etc., are not acceptable at the FFA Agriscience Fair.

I. Live vertebrates are not permitted at the Fair.

J. Lasers may not be used in any exhibit.

~~K. No exhibit shall have open flames. Any part of an exhibit that can get hotter than 100 degrees Celsius (boiling water temperature) must be adequately protected from its surroundings.~~

~~L. If your exhibit includes electrical wiring or devices, they must be safe. For voltages above 20 volts you must take some special precautions. Even if you do not use higher voltages, make all your connections secure and provide suitable protection against short circuits, etc.~~

~~M. All wiring carrying more than 20 volts must be well insulated. Also the connections must either be soldered or secured by UL approved fasteners. The wire used must be insulated adequately for the maximum voltage that will be present and the wire must be of sufficient size to carry the maximum current you anticipate. You may not use open knife switches or doorbell-type push buttons in circuits using more than 20 volts.~~

~~N. If your exhibit will be connected to 120-volt AC power (plugged into a wall outlet), you must provide fuses or circuit breakers to protect not only your exhibit but also any others that may share the same source of power. The power cord you use must be UL approved for the voltage and current it will be carrying, and it must be at least 1.8 meters (6 feet) long.~~

~~O. Exhibits requiring voltage in excess of 120 volts AC are not allowed.~~

~~P. Dangerous and combustible materials are prohibited.~~

~~Q. Toxic and hazardous chemicals are prohibited.~~

~~R. Each exhibit may consist of one or more continuous panels of information and any objects the student wishes to display within the guidelines. The exhibit panels must be constructed so that they are stable and free standing. The exhibit panels may be of poster board construction.~~

S. All ~~Agriscience~~ Agriscience Research SAE Program projects **must** have a board tag containing the following information attached to the **front** upper right hand corner of the exhibit and on each research paper cover/title page or board will be disqualified:
- Name of person~~(s)~~ responsible for developing project
- Chapter Name
- ~~Category~~ Pathway Name Entered
- Division Entered (Division ~~I, II, III, IV, V, VI~~ Experimental Research (7-9 grades), Experimental Research (10-12 grades), Analytical Research (7-9 grades), Analytical Research (10-12 grades), Invention Research (7-9 grades), Invention Research (10-12 grades)

V. Exhibited projects ~~and research papers~~ shall be the result of the student~~(s)~~ own efforts. The elextronic signatures on the Agriscience Fair Applications will serve as the statement of originality. ~~must be submitted as the first page of the field book. Failure to submit the complete statement of originality with the field book will disqualify the research project~~

~~Sample Statements of Originality (Student and Instructor)~~

~~I _____ have defined, researched, and written my own paper and am responsible for the preparation of this exhibit during the _____ _____ school year.~~

~~_____ _____~~
~~Signature Date~~

~~I, _____as the _____FFA chapter advisor, verify that this statement of originality is true.~~

~~_____ _____~~
~~Signature Date~~

~~If this statement is found to be untrue, the research project will be disqualified.~~

VI. **Each exhibit must present original field data uploaded through AET using the journal and finance entries along with the submission of the display board in AET or the project will be disqualified.**

~~A.~~ Data in the field book will be collected ~~from June 1 of the current academic year unless it is identified as an extension project as defined by the National FFA~~. in the calendar year before the program year (project concluded between 1/1/24 and 12/31/24 for the 2025 program year). Applications may be multi-year or single-year.

VII. Set-up Requirements

A. The State Agriscience Fair will be held in conjunction with the California FFA Leadership Conference.

B. Exhibitors identified by the judges must have their projects set up on the date and time specified by the State FFA Advisor.

C. Judging will occur prior to the California FFA Leadership Conference, with only the top display boards invited to display on the date and time specified by the State FFA Advisor.

VIII. Scoring of Boards

A. Each ~~category~~ pathway and division may have a minimum of the top three to top six scored based on the ~~paper~~ application score and consensus of the judges in that ~~category~~ pathway and division. Finalists will be notified seven days prior to competition.

Exhibit Score Sheet

Project # _____ Project Category: _____ Division (circle one): **Novice** **Advanced**

Author: _____ Chapter: _____

Project Title: _____

Criteria **Pts. Poss. Score**

Creative Ability (15 points)	Possible	Earned
Display captures the attention with appropriate colors, graphics, props etc. (Penalty for live animals or hazardous substances = 20 points)	5	
Display components are legible and well written, with no errors in spelling, punctuation, or grammar.	5	
A field book is present and raw data is recorded in an appropriate manner.	5	
Scientific Thought / Goal (15 points)	-	-
The research questions or hypothesis are explicitly stated.	4	
Materials and methods describe the design of the study or experiment including information on treatments and replication.	5	
The findings are clearly presented using tables and graphs to summarize data as appropriate.	3	
The conclusions explain the significance of the findings.	3	
Thoroughness / Clarity (15 points)	-	-
All the sections of the paper are reflected in the display board: introduction, purpose and objectives, methods and materials, findings, and conclusions.	5	
Overall impact of display: unity, completeness.	10	
Skill (5 points)	-	-
Points for exceptional: idea, difficulty, complexity, quality of execution, significance of findings.	5	
Total Score Exhibit	**50**	

IX. Research Paper
(https://ffa.app.box.com/s/cf4o9ys85ieer7z5xqcjn17raji0tvgp/file/289991270987)

A. Research papers are to be typed, double spaced and recommended 3 – 12 pages in length but not to exceed 15 pages, no smaller than a 12-point font and not less than a 1-inch margin. The 15-page research paper will include Parts 1-6.
B. After page 15 the score will discontinue scoring.
C. A "Statement of Originality" signed by the student(s) and ag teacher(s) responsible must be submitted along with the research paper as ~~an addendum.~~ The electronic signatures on the application.
D. It is recommended that at least two judges be provided for each category to judge the exhibits in a timely fashion.
E. It is suggested that qualifying contests be conducted in each Region, however, all interested participants may compete at the State FFA Agriscience Fair competition.
F. An electronic copy must be received by the contest coordinator 30 days prior to the fair or the project will be disqualified. No exceptions.
G. Cover page should include the following in the bottom right corner:
- Name of person(s) responsible for developing project
- Chapter Name
- ~~Category~~ Pathway Name Entered
- Division Entered ~~(Division I, II, III, IV, V, VI)~~ Experimental Research (7-9 grades), Experimental Research (10-12 grades), Analytical Research (7-9 grades), Analytical Research (10-12 grades), Invention Research (7-9 grades), Invention Research (10-12 grades)

Failure to include the above will result in disqualification.
H. The research paper must be arranged using the American Psychological Association (APA) citation and format style using the Online Writing Lab (OWL) at Purdue University as a reference. (~~This portion including parts 1-7 applies to divisions 3-6 only)~~

Part 1 - <u>Introduction</u>

- Why is the topic important to the agriculture industry?
- What problem does the investigation solve for agriculture?
- Literature review – clearly details what information currently exists concerning the research project. References support information and are properly cited.

Part 2 - <u>Materials and Methods</u>

- Written in third person.
- Encompasses all material required.
- Statistical procedures are included in this section.

Part 3 - <u>Hypotheses/Anticipated Results</u>

- Clearly states the hypothesis and/or anticipated results

Part 4 - <u>Results</u>

- Trends and relationships are clearly addressed; no conclusions are stated in this area.
- Data that can stand alone in the form of tables and/or figures are included.

Part 5 - Discussion

- How did your results relate to the literature review (other's work) section?

Part 6 - References

- List of references cited in the research paper.
- The research paper must be arranged using the American Psychological Association (APA) citation and format style using the Online Writing Lab (OWL) at Purdue University as a reference.

Part 7 - Acknowledgements

- Detailed list or paragraph is included acknowledging anyone who assisted with ANY aspect of the project and how they helped.

I. Plagiarism - An agriscience fair project must be the result of a student's own effort and ability. However, in securing information such as direct quotes or phrases, specific dates, figures or other materials, that information must be marked and identified appropriately. Non-compliance represents plagiarism and will automatically disqualify a participant.

Student researcher~~(s)~~ may not:

- In any way falsify a permission form, scientific paper or display.
- Use another person's results or thoughts as their own even with the permission of this person. This includes work done by a family member or a mentor.
- Use information or data obtained from the internet without proper citation.
- Re-enter a project with only minor changes.

California FFA Agriscience Research Paper Score Sheet

~~Division 1-2~~ Division 7-9 *-(The new score sheets released Fall 2024)*

Project # _____ Author: _____

Project Title: _____

Area	High Point 15-11 points	Medium Point 10-6 points	Low Points 5-1 points	Points Possible	Points Earned
Importance	The importance includes a one paragraph answer for each question that clearly answers: Why is the topic important to the agriculture industry? What problem does the investigation solve for agriculture?	The importance includes a one paragraph answer for each question that vaguely answers: Why is the topic important to the agriculture industry? What problem does the investigation solve for agriculture?	The importance includes a one paragraph answer for each question that poorly answers: Why is the topic important to the agriculture industry? What problem does the investigation solve for agriculture?	**15**	
Area	**High Point 15-11 points**	**Medium Point 10-6 points**	**Low Points 5-1 points**	**Points Possible**	**Points Earned**
Other's Work	Clearly details what information currently exists concerning the research project. Reference where the information was found (website, book, article, etc.,) is listed, then a paragraph written by the student researcher(s) clearly describing the reference and information it provided for each publication used.	Poorly details what information currently exists concerning the research project. Reference where the information was found (website, book, article, etc.,) is listed, then a paragraph written by the student researcher(s) vaguely describes the reference and information it provided for each publication used.	Does not detail what information currently exists concerning the research project. Reference where the information was found (website, book, article, etc.,) is listed, then a paragraph written by the student researcher(s) poorly describes or is not included on what the reference says for each publication used.	**15**	
Area	**High Point 10-8 points**	**Medium Point 7-5 points**	**Low Points 4-1 points**	**Points Possible**	**Points Earned**
Materials & Methods	Clearly written to enable others to replicate the study and results. Section is written in first person and encompasses all materials required. If used, the statistical procedures are included. A narration of the steps taken to complete the experiment is included.	Not written clearly to enable others to replicate the study and results. Section may or may not be written in first person and encompasses all materials required. The statistical procedures are included but are unclear. A narration of the steps taken to complete the experiment is included.	Written poorly so that others cannot replicate the study and results. Section is not written in first person and does not encompass all materials required. The statistical procedures are not included. Steps taken to complete the experiment are listed.	**10**	
Area	**High Point 5-4 points**	**Medium Point 3-2 points**	**Low Points 1-0 points**	**Points Possible**	**Points Earned**

Hypothesis/ Anticipated Results	Student researcher(s) clearly state the hypothesis and/or anticipated results.	Student researcher(s) vaguely state the hypothesis and/or anticipated results.	Student researcher(s) do not state or poorly state the hypothesis and/or anticipated results.	**5**	
Area	**High Point 20-14 points**	**Medium Point 13-7 points**	**Low Points 6-0 points**	**Points Possible**	**Points Earned**
Results	Written results of the project are summarized. Trends and relationships are clearly addressed. No conclusions are made in this section. Data that can stand alone in the form of tables and/or figures are included.	Written results of the project are incompletely summarized. Trends and relationships are vague. No conclusions are made in this section. Data that can stand alone in the form of the table and/or figures are sometimes included.	Written results of the project are poorly summarized. Trends and relationships are not addressed. Data is not appropriately included as tables and figures.	**20**	
Area	**High Point 10-8 points**	**Medium Point 7-5 points**	**Low Points 4-1 points**	**Points Possible**	**Points Earned**
Discussion	**The discussion includes clear, detailed answers for each question: What do the results of the study mean? How are they related to what others found in the "Other's Work" section.**	**The discussion includes vague answers for each question: What do the results of the study mean? How are they related to what others found in the "Other's Work" section?**	The discussion poorly answers each question: What do the results of the study mean? How are they related to what others found in the "Other's Work" section?	**10**	
Area	**High Point 10-8 points**	**Medium Point 7-5 points**	**Low Points 4-1 points**	**Points Possible**	**Points Earned**
Conclusion	The conclusion clearly states what should be done and/or changed as a result of the research. Clearly states what the next steps are to continue the research.	The conclusion vaguely states what should be done and/or changed as a result of the research. The next steps for research are unclear.	The conclusion poorly states what should be done and/or changed as a result of the research. The next steps for research are not included.	**10**	
Area	**High Point 10-8 points**	**Medium Point 7-5 points**	**Low Points 4-1 points**	**Points Possible**	**Points Earned**
Summary	The summary is two to three paragraphs describing the study conducted. Describes why the student researcher(s) chose to conduct the study, why the study is important to the agriculture industry, how the study was conducted, what was found by conducting the study and how the results apply within the agriculture industry.	The summary is two to three paragraphs vaguely describing the study conducted. Vaguely describes why the student researcher(s) chose to conduct the study, why the study is important to the agriculture industry, how the study was conducted, what was found by conducting the study and how the results apply within the agriculture industry.	The summary is two to three paragraphs that poorly describes the study conducted. Why the student researcher(s) chose to conduct the study, why the study is important to the agriculture industry, how the study was conducted, what was found by conducting the study and how the results apply within the agriculture industry is unclear.	**10**	
Area	**High Point 3 points**	**Medium Point 2 points**	**Low Points 1 points**	**Points Possible**	**Points Earned**
Acknowledgements	Detailed list or paragraph is included acknowledging anyone who assisted with	A list or paragraph is included acknowledging anyone who assisted with any aspect of the project.	A list or paragraph is not included acknowledging anyone who assisted with	**3**	

	any aspect of the project and how they helped.		any aspect of the project and how they helped.		
Area	**High Point 2 points**	**Medium Point 1 points**	**Low Points 0 points**	**Points Possible**	**Points Earned**
Spelling/Grammar	APA or MLA citation style writing is used throughout the report. Student researcher(s) use complete sentences; no spelling or grammar errors present.	APA or MLA citation style writing is used. Student researcher(s) use complete sentences; minor spelling or grammar errors present.	APA or MLA citation style writing is not used. Student researcher(s) do not use complete sentences; excessive spelling or grammar errors are present.	**2**	
Total Score				**100**	

California FFA Agriscience Research Paper Score Sheet

Division 10-12 *(The new score sheets released Fall 2024)*

Project # _____ Author: _____
Project Title: _____

Area	**High Point 3 points**	**Medium Point 2 points**	**Low Points 1 points**	**Points Possible**	**Points Earned**
Abstract	Abstract is brief and concisely describes the purpose, methods, results and conclusions. Abstract does not include cited references. Abstract is no longer than one page. Arrangement makes the purpose, procedure, results and conclusions clear.	Abstract describes the purpose, methods, results and conclusions. Abstract does not include cited references. Abstract is longer than one page. Arrangement makes the purpose, procedure, results and conclusions vague.	Abstract poorly describes the purpose, methods, results and conclusions. Abstract includes cited references. Abstract is longer than one page. Arrangement makes the purpose, procedure, results and conclusions unclear	**3**	
Area	**High Point 10-8 points**	**Medium Point 7-5 points**	**Low Points 4-1 points**	**Points Possible**	**Points Earned**
Introduction	Introduction answers the question "Why was the work done?" It clearly states the problem that justifies conducting the research, the purpose of the research, its impact on agriculture, the findings of earlier work and the general approach and objectives.	Introduction answers the question "Why was the work done?" It vaguely states the problem that justifies conducting the research, the purpose of the research, its impact on agriculture, the findings of earlier work and the general approach and objectives.	Introduction does not answer the question "Why was the work done?" It does not state the problem that justifies conducting the research, the purpose of the research, its impact on agriculture, the findings of earlier work and the general approach and objectives.	**10**	
Literature Review	The literature review details what information currently exists concerning the research project. The	The literature review poorly details what information currently exists concerning the	The Literature review does not detail what information currently exists concerning the	**10**	

	information includes materials used in the research and material cited such as articles about similar studies, similar research methods, history of the research area and other items that support the current knowledge base for the topic and how the project might complement existing information.	research project. The information may or may not include materials used in the research. Some materials cited includes articles about similar studies, similar research methods and history of the research area. How the project might complement existing information is not clear.	research project. There is no information included or it does not reference materials used in the research. No information cited such as articles about similar studies, similar research methods, or history of the research area. How the project might complement existing information is not clear.		
Area	**High Point 15-11 points**	**Medium Point 10-6 points**	**Low Points 5-1 points**	**Points Possible**	**Points Earned**
Materials & Methods	Clearly written to enable others to replicate the study and results. Section is written in third person, encompasses all materials required, states the hypothesis/research questions and explains the study design. If used, the statistical procedures are included.	Not written clearly to enable others to replicate the study and results. Section may or may not be written in third person, encompasses all materials required, states the hypothesis/research questions and explains the study design. The statistical procedures are included but are unclear	Written poorly so others cannot replicate the study and results. Section is not written in third person, does not encompass all materials required for the research and hypothesis/research questions is not stated. The statistical procedures are not included.	**15**	
Area	**High Point 20-14 points**	**Medium Point 13-7 points**	**Low Points 6-0 points**	**Points Possible**	**Points Earned**
Results	Written results of the project are summarized. Trends and relationships are clearly addressed. No conclusions are made in this section. Data that can stand alone in the form of tables and/or figures are included.	Written results of the project are incompletely summarized. Trends and relationships are vague. No conclusions are made in this section. Data that can stand alone in the form of tables and/or figures are sometimes included.	Written results of the project are poorly summarized. Trends and relationships are not addressed. Data is not appropriately included as tables and figures.	**20**	
Area	**High Point 20-14 points**	**Medium Point 13-7 points**	**Low Points 6-0 points**	**Points Possible**	**Points Earned**
Discussion & Conclusions	Brief recap of the results is included and shows how they were the foundation of the study. Sound reasoning is shown that conclusions are based on results, incorporates previous literature and relates directly to the hypothesis. Discussion refers/references to facts and figures in results section and provides recommendations for practice, future research and the impact on the agriculture industry	Brief recap of the results is included and shows how they were the foundation of the study. Unsound reasoning is shown that conclusions are based on results, vaguely incorporates previous literature and partially relates to the hypothesis. Discussion refers/references to facts and figures in results section and provides recommendations for practice, future research	No recap of the results is included or poorly shows how they were the foundation for the study. Conclusions are not based on results, previous literature and do not relate directly to the hypothesis. Discussion poorly refers/references to facts and figures in the results section and does not provide recommendations for practice, future research and does not illustrate the	**20**	

		and the impact on the agriculture industry	impact on the agriculture industry.		
Area	**High Point 2 points**	**Medium Point 1 points**	**Low Points 0 points**	**Points Possible**	**Points Earned**
Acknowledgements	Detailed list or paragraph is included acknowledging anyone who assisted with any aspect of the project and how they helped.	A list or paragraph is included acknowledging anyone who assisted with any aspect of the project.	A list or paragraph is not included acknowledging anyone who assisted with any aspect of the project and how they helped.	**2**	
Area	**High Point 10-8 points**	**Medium Point 7-5 points**	**Low Points 4-1 points**	**Points Possible**	**Points Earned**
References	References contain significant, published and relevant sources.	References listed are somewhat significant, published and relevant sources.	References listed are not significant, published and relevant sources.	**10**	
APA Style/Spelling	APA citation style writing is used throughout the report. No spelling or grammar errors are present.	APA citation style writing is used. Minor spelling or grammar errors are present.	APA citation style writing is not used. Excessive spelling or grammar errors are present.	**10**	
Total Score				**100**	