

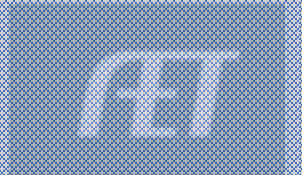
# *Research SAEs and the Awards*

February 19, 2025



# *Topics to Consider*

- How Research Records Contribute to the Award
  - SAE Name
  - Plan
    - Finance Tab & Learning Outcomes
  - Financials
- Selecting Research SAE's for the Award
- Validating the Research SAE with the Written Paper Components
- How the SAE Journal Logs and Photos can be used as Supplemental Info



# Research SAE Records – SAE NAME

1. SAE Name is character counted

\*Long over detailed research names will not all appear in the name when moving to the award app


ORIGINAL TITLE: **The Use of Wool to Control Sediment and Phosphorus Loss for an Ohio Soil**

#	Pathway	Research Title	Years
1	ESS	The Efficacy of Wool in Soil Erosion	2024

App Manager

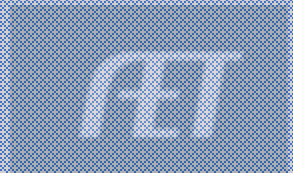
**The Efficacy of Wool in Soil Erosion**  
Environmental Service Systems

Application PDF

Project Name: 	<div>The Efficacy of Wool in Soil Erosion</div>
---	---

SAE Manager

\*\* NAME has been SIMPLIFIED, and will now appear as such throughout the award application



# Research SAE Plan



## DESCRIPTION TAB

- Lays out the research plan, methods, data collection, etc

### Kind, Size, Duration:

For the school year 2022-2023, my SAE will consist of a research project titled: Investigating the Efficacy of Wool as a Natural Soil Erosion Control Measure: A Field Study that will begin on September 1, 2022 and terminate on April 1, 2023.

Purpose of Research: To determine a sustainable and natural means to impact soil erosion

Project Hypothesis: The use of wool as a soil erosion control measure will result in significantly lower erosion rates compared to traditional erosion control methods and untreated control plots. Additionally, we hypothesize that the application of wool will lead to improved soil moisture retention and vegetation growth, contributing to enhanced soil stability and ecological resilience

### Project Methods:

#### 3.1 Site Selection:

- Select multiple sites with varying degrees of erosion vulnerability and soil types to ensure a representative sample.

#### 3.2 Experimental Design:

- Implement a randomized block design with different erosion control treatments, including wool, traditional methods (e.g., mulching, terracing), and control plots (no treatment).

#### 3.3 Data Collection:

- Measure baseline erosion rates using erosion pins or other appropriate techniques.

## Plans:

Tabs can always use the template in AET

OR Teachers can create their own template and load in the chapter portfolio for all students to access

# Research SAE Plan



## TIME TAB

- Identifies the time the student has to complete the project
- Allows the student to identify timelines for the work
- Identifies mentors and resources

Project Hours: I will work in my project and compile hours of experience on the approximate schedule throughout the duration of the project.

- A. During School Week: \_1-2\_ hrs./day
- B. Weekends: \_1-2\_ hrs./day
- C. Summer Hours: \_NA\_ hrs./day

Additional People Involved: In my SAE, there are additional individuals who assist in carrying out the care and management of my project. They include:

- A. \_Ms Lyda\_ (Science Teacher)
- B. \_Dr Nall Moon\_ (Soil Science PhD, Ohio State University)
- C. \_Mrs. Keck\_ (Ag Teacher)

Plans for additional learning: I may need additional assistance and information in order to conduct my project successfully. During the project, I may seek the following for assistance (LIST individuals, seminars, workshops, internet and printed resources)

- A. National FFA Agri-Science Handbook
- B. ABC County Soil and Water Conference

Potential schedule conflicts include: While this project is ongoing, I am involved in the following activities or events that may conflict with the care, management and success of this project. Because of these commitments, I will have to learn to manage my time and resources to complete this project.

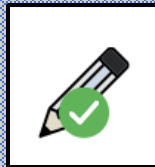
- A. January - Sheep project lambing
- B. Dec-Feb - HS Basketball
- C.

Peak Times in the SAE:

- A. February and March - completing research, writing the paper and completing data analysis
- B.

NOTE: Can use AET template or create your own template for your program

# Research SAE Plan



## FINANCIAL TAB

- Proficiency application asks for how the resources are secured in the project
- Research projects are supported by funding
  - Local Agency
  - FFA Chapter
  - University
- Can use AET template or your own program templates for finances

### Student Responsibility Cash Expenses:

I will furnish and assume 100% of the CASH costs of the supplies, 100% of CASH equipment use, 100% of CASH operating costs, and be responsible for 100% of any labor involved in this project.

I have received \$500 as an award grant to fund this project from the following source(s): List below  
ABC County Soil and Water Agency - \$500

Student Returns: Not applicable in this SAE  
Potential Cash Awards in Science Fair Competitions

### Capital Investments:

A. In my SAE, I OWN the following or have investments in the following capital investments: (Use numbers where applicable)

1.) Equipment Directly related to my SAE program

List all:

Mac Book Pro - 15" Laptop Computer

Financed by: \_\_\_T. Dendinger\_\_\_\_\_

Cash: \_\_\_X\_\_\_ Non-Cash Exchange: \_\_\_\_\_

2) Sale of Capital Items:

Who receive funds when capital items are sold: \_\_\_\_\_

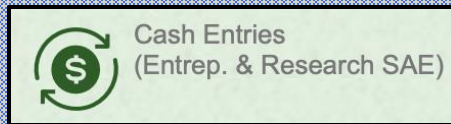




# SAE Financials – In the Application

## LOADS FOR EACH SAE Selected FINANCES:

- Automatically imports the income/expenses from the Financial Transaction Ledger



## PROJECT MATERIALS:

How resources are financially secured is required in the application

This can be easily brought from AET by clicking:

Click LOAD FROM AET

Financial Investment

Pulls from Plan

Sign Off

<-- Return to App Mgr

Instructions

Cover

Membership Check

Basic Setup

Choose AET Experiences

Performance Review A

Performance Review B

Performance Review C

Research Projects

**Research Finances**

Research Paper

Outcomes/Efficiencies

Skills, Comp., Knowledge

Safety Photos

Project Photos

Supplemental Info

Checklist

Supporting Recordbook

Electronic Signatures

Save a New Version #

<-- Chapter Account

Go to FFA.org

Go to AET

Student Help

Teacher Help

AET Classroom

Ask FFA a Question

Ask AET a Question

Special Notes before you begin this page:

- Entries are saved as you add/edit each row.
- No Decimals or Cents. Use whole numbers.
- Set up your list of Research Projects on the "Research Projects" page.

Select a Project:

1. The Efficacy of Wool in Soil Erosion

**SAE SELECTION Dropdown**

Research Expenses

Year	Expense Item	Memo/Description	Cost
2024	Supplies - Qualii-Tee	Research Board	\$29
2024	Supplies - Lowes	Samples 1 gal buckets (8)	\$22
2024	Rent - OSU Agronomy Dept	Rain Simulator	\$100
2024	Contract - Premier Labs	5 tests water runoff	\$350
			<b>\$501</b>

Research Funding/Income

Year	Income Source	Memo/Description	Amount
2024	ABC County Soil & Water	Soil and Water Grant	\$500
			<b>\$500</b>

Please give a detailed explanation of how you obtained your project materials. maximum 750 characters - 206 remaining

Student Responsibility Cash Expenses:

I will furnish and assume 100% of the CASH costs of the supplies, 100% of CASH equipment use, 100% of CASH operating costs, and be responsible for 100% of any labor involved

I have received \$100 of an award grant to fund this project from the following source(s): List below  
ABC County Soil And Water

Student Returns: Not applicable in this SAE

Check Spelling

Load from AET

# SAE Financials – In the PDF

- Pulls from the records for EACH SAE selected
- Improves the time and research needed to locate this information
- Fluid transition from students' efforts in keeping records



## National Research Proficiency

Supervised Agricultural Experience - Research Projects

### The Efficacy of Wool in Soil Erosion

Environmental Service Systems

Years  
2024 - 2024

Hours  
19

#### Research Expenses

Year	Expense Item	Memo/Description	Cost
2024	Contract - Premier Labs	5 tests water runoff	\$350
2024	Rent - OSU Agronomy Dept	Rain Simulator	\$100
2024	Supplies - Lowes	Samples 1 gal buckets (8)	\$22
2024	Supplies - Qualii-Tee	Research Board	\$29
			<b>\$501</b>

#### Research Funding/Income

Year	Income Source	Memo/Description	Cost
2024	ABC County Soil & Water	Soil and Water Grant	\$500
			<b>\$500</b>

**Please give a detailed explanation of how you obtained your project materials.**

Student Responsibility Cash Expenses:

I will furnish and assume 100% of the CASH costs of the supplies, 100% of CASH equipment use, 100% of CASH operating costs, and be responsible for 100% of any labor involved

I have received \$100 of an award grant to fund this project from the following source(s): List below  
ABC County Soil And Water

Student Returns: Not applicable in this SAE  
Capital Investments:

Equipment directly related to my SAE program  
List all:  
Mac Book Pro

Financed by: Student  
Cash: ☒ Non-Cash Exchange: ☐



# Research Proficiency App – BASIC SET UP

## Select Dates:

- 1st Day in Ag or SAE Start
- Application End Date

## Select Type:

Ag Research – Animal Systems

Ag Research – Integrated

(See [National FFA Proficiency Descriptions](#))

Ag Research – Plant Systems

## Select Primary Pathway:

Pulls in AFNR Performance Indicators for Skills Page

National FFA/SAE Test Account w/AET  
Tracy Dendinger  
Admin Authenticated  
Admin Home  
Sign Off

[← Return to App Mgr](#)  
[Instructions](#)  
[Cover](#)  
[Membership Check](#)  
**Basic Setup**  
[Choose AET Experiences](#)  
[Performance Review A](#)  
[Performance Review B](#)  
[Performance Review C](#)  
[Research Projects](#)  
[Research Finances](#)  
[Research Paper](#)  
[Outcomes/Efficiencies](#)  
[Skills, Comp., Knowledge](#)  
[Safety Photos](#)  
[Project Photos](#)  
[Supplemental Info](#)  
[Checklist](#)  
[Supporting Recordbook](#)  
[Electronic Signatures](#)  
[Save/Print Your App](#)

BASIC SETUP

Special Notes before you begin this page:

- When considering applying for proficiency award recognition, the focus of the enterprise, activities and/or skills developed determine the correct proficiency award area in which to apply.
- If uncertain as to the appropriate area, contact your state staff or national FFA staff with a detailed description of the SAE for a determination. National FFA staff can be reached at [proficiency@ffa.org](mailto:proficiency@ffa.org).
- [Click here](#) for the latest proficiency area descriptions from ffa.org.

I. DATES FOR THIS APPLICATION ?	Date you started Ag	Ending date for this application
Establish the starting and ending dates for this application. ?	<input type="text" value="11/1/2022"/> (Enter as mm/dd/yyyy)	<input type="text" value="12/31/2023"/>

II. PROFICIENCY TYPE ?

Choose a proficiency type for this application ?

Please choose the primary pathway of your SAE. Even if your SAE spanned multiple pathways, choose the one that fits best.

(Please Choose)

☐ Agriscience Research - Animal Systems

☒ Agriscience Research - Integrated Systems

☐ Agriscience Research - Plant Systems

☐ Agribusiness Systems

☐ Animal Systems

☐ Biotechnology Systems

☐ Career Ready Practices

☐ Cluster Skills LifeKnowledge

☒ Environmental Service Systems

☐ Food Products and Processing Systems

☐ Foundational

☐ Natural Resource Systems

☐ Plant Systems

☐ Power, Structural and Technical Systems



# Research Proficiency App – SAE Selection

CHOOSE AET EXPERIENCES/SAEs

Review in AET

Save Selections

Special Notes before you begin this page:

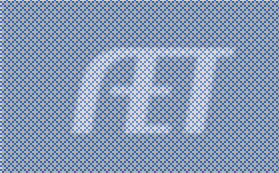
- Choose your AET Experiences to include in this application.
- A National Proficiency application must include project records from at least two calendar years.
- At least 18 months of records are recommended for national level applications.
- After making your selections, click the "Save" button to update this application.

Include?	Project Name	SAE Description	Years
<input checked="" type="checkbox"/>	2024 Beg.- The Efficacy of Wool in Soil Erosion	Research / Environmental Science / Natural Resource Mgmt	2024 - 2024

(AET calculates that your checkmarked projects include records in 3 months.)

Check the BOX for each SAE to be included in the Proficiency

SAVE Selections!



# Research Proficiency App – Projects

Choose AET Experiences	
Performance Review A	
Performance Review B	
Performance Review C	
<b>Research Projects</b>	

#	Pathway	Research Title	Years	Hours	Funding	Expenses
1	ESS	The Efficacy of Wool in Soil Erosion	2024	19	\$500	\$501
Total Projects: 1				19	\$500	\$501

NOTE: Only pulls the name and summary of the journal and financial entries



Clipboard  
DOES NOT  
transfer

Annual Review of Scope  
**Evaluating Wool as a Sustainable Solution for Soil**  
Unit: Project

This summary of your project for each year is used in your reports and applications. Space is limited, so be concise! Three main areas to cover are:

1. My SAE project started in the month of \_\_\_\_\_, and is based on \_\_\_\_\_ (try and describe using # head, acres, lbs, hours, etc.)
2. In this year, I learned specific skills & responsibilities \_\_\_\_\_ and \_\_\_\_\_.
3. My project is (Completed / or ongoing into \_\_\_\_\_) important outcomes such as \_\_\_\_\_, and \_\_\_\_\_ were used to measure/track \_\_\_\_\_, such as # offspring, transferred animals, \$ sales, paychecks, # hours, harvest yield, etc. # customers, responsibilities, or other ways to quantify growth).

Year	Description
2022	vikadnsklamnog
2023	kvmcsa;lmvpowefjkpoaw



Pulls from Set Up

Unique #: 5938185

Project Name: The Efficacy of Wool in Soil Erosion

Experience Focus: ☒ Individual  
☐ School Based  
☐ Service Learning

Tracking Your Experience: Basic: ☐ Foundational  
Agriscience: ☒ Research/Experimental  
Job: ☐ Paid Placement ☐ Unpaid Placement  
Business: ☒ Entrepreneurship/Ownership

Primary Experience Category: Environmental Service Systems

Primary Subcategory: Environmental Science / Natural Resource Mgmt

Delete: [Click Here](#) to start the process of deleting this Experience.

**\*\*THIS COULD CHANGE WITH THE NEW REVISION FOR 2026**

# Written Paper – in the App

## Abstract:

Include each abstract for each SAE in the award (3000 Character Count)

## Procedures:

Include the procedure for each SAE in the award (Unlimited)

## Conclusion:

Include conclusions for each SAE in the award (Unlimited)

**NOTE:** This page will populate for each SAE selected to be included in this proficiency are

### Abstract ?

maximum 3000 characters - 1671 remaining

Title: Evaluating Wool as a Sustainable Solution for Soil Erosion Control: A Field Study

Abstract:

Soil erosion poses a significant threat to agricultural productivity and ecosystem stability, necessitating the development of sustainable erosion control measures. This study investigates the efficacy of wool as a natural alternative for soil erosion control through a field experiment conducted in diverse soil and environmental conditions. The research compares the effectiveness of wool blankets with traditional erosion control methods and untreated control plots. Erosion rates, soil moisture content, infiltration rates, and vegetation metrics were monitored over an extended period to assess treatment impacts. Results indicate that wool blankets significantly reduce erosion rates compared to both traditional methods and untreated plots. Furthermore, wool application enhances soil

### Procedure ?

Site Selection:

Identify and select multiple sites with varying degrees of erosion vulnerability and soil types to ensure representative sampling.

Ensure accessibility and permission for conducting field experiments at selected sites.

Experimental Design:

Implement a randomized block design to account for spatial variability and potential confounding factors.

Divide each site into experimental plots, allocating treatment and control groups randomly within each block.

Treatments include:

Wool blankets: Lay down wool blankets evenly over the soil surface, securing them with stakes or other appropriate

### Conclusion ?

Conclusion:

This research project aimed to evaluate the effectiveness of wool as a sustainable solution for soil erosion control through a comprehensive field study. By comparing wool blankets with traditional erosion control methods and untreated control plots, we sought to assess the potential of wool in mitigating erosion rates, enhancing soil moisture retention, and promoting vegetation growth.

The findings of this study provide compelling evidence supporting the efficacy of wool as an effective soil erosion control measure. Our results demonstrate that wool blankets significantly reduce erosion rates compared to both



# Written Paper – in the PDF

## Abstract

Title: Evaluating Wool as a Sustainable Solution for Soil Erosion Control: A Field Study

### Abstract:

Soil erosion poses a significant threat to agricultural productivity and ecosystem stability, necessitating the development of sustainable erosion control measures. This study investigates the efficacy of wool as a natural alternative for soil erosion control through a field experiment conducted in diverse soil and environmental conditions. The research compares the effectiveness of wool blankets with traditional erosion control methods and untreated control plots. Erosion rates, soil moisture content, infiltration rates, and vegetation metrics were monitored over an extended period to assess treatment impacts. Results indicate that wool blankets significantly reduce erosion rates compared to both traditional methods and untreated plots. Furthermore, wool application enhances soil moisture retention and promotes vegetation growth, contributing to improved soil stability and ecological resilience. Cost-benefit analysis suggests that wool-based erosion control practices offer a financially viable and environmentally sustainable alternative to conventional methods. This study underscores the potential of wool as a promising solution for mitigating soil erosion and advancing sustainable land management practices.

Version # 1635131



2/7/2024 12:27:00 PM

Page 7 of 19

## Written Components Required:

1. Abstract
2. Procedures
3. Conclusions

## When more than 1 SAE:

Each SAE is shown in the PDF

## Procedure

### Procedures for the Research:

**Site Selection:**  
Identify and select multiple sites with varying degrees of erosion vulnerability and soil types to ensure representative sampling. Ensure accessibility and permission for conducting field experiments at selected sites.

**Experimental Design:**  
Implement a randomized block design to account for spatial variability and potential confounding factors. Divide each site into experimental plots, allocating treatment and control groups randomly within each block.

**Treatments include:**  
Wool blankets: Lay down wool blankets evenly over the soil surface, securing them with stakes or other appropriate means.  
Traditional erosion control methods: Implement conventional techniques such as mulching, terracing, or erosion control structures.  
Control plots: Leave plots untreated to serve as a baseline comparison.

**Data Collection:**  
**Baseline Measurements:**  
Measure initial erosion rates using erosion pins or other appropriate erosion monitoring techniques.  
Determine soil characteristics (e.g., texture, organic matter content) at each plot.

**Treatment Application:**  
Apply wool blankets and traditional erosion control methods according to predetermined specifications. Ensure uniformity in treatment application across experimental plots.

**Monitoring:**  
Regularly monitor erosion rates using erosion pins or similar methods at predetermined intervals (e.g., weekly, monthly). Measure soil moisture content using moisture probes or soil sampling techniques. Assess vegetation growth and biodiversity through visual surveys or vegetation sampling.

**Sampling:**  
Collect soil samples from treated and control plots for laboratory analysis of soil properties (e.g., moisture content, nutrient levels). Document any observable changes in soil structure, compaction, or erosion patterns.

**Duration:**  
Conduct monitoring and data collection over an extended period to capture seasonal variations and long-term treatment effects.

**Data Analysis:**  
Analyze erosion rate data using appropriate statistical methods (e.g., ANOVA, regression analysis) to compare treatment effects. Compare soil moisture content, infiltration rates, and vegetation metrics between treatment groups. Interpret findings in the context of site characteristics and treatment application methods.

**Documentation and Reporting:**  
Record all field observations, measurements, and data accurately and comprehensively. Compile data into a structured database for analysis. Prepare a detailed report summarizing the research methodology, results, and conclusions. Present findings at scientific conferences and publish results in peer-reviewed journals to disseminate research outcomes to the broader scientific community.

**Safety Considerations:**  
Adhere to safety protocols during fieldwork, including proper handling of equipment, materials, and potential hazards. Follow local regulations and guidelines for conducting research in outdoor environments. Ensure the safety of research personnel and minimize environmental impacts associated with experimental activities. By following these procedures, the research project can systematically evaluate the efficacy of wool as a soil erosion control measure and contribute valuable insights to sustainable land management practices.

## Conclusion

### Conclusion:

This research project aimed to evaluate the effectiveness of wool as a sustainable solution for soil erosion control through a comprehensive field study. By comparing wool blankets with traditional erosion control methods and untreated control plots, we sought to assess the potential of wool in mitigating erosion rates, enhancing soil moisture retention, and promoting vegetation growth.

The findings of this study provide compelling evidence supporting the efficacy of wool as an effective soil erosion control measure. Our results demonstrate that wool blankets significantly reduce erosion rates compared to both traditional methods and untreated plots. This reduction in erosion can be attributed to the ability of wool to stabilize the soil surface, reduce surface runoff, and enhance soil structure.

Furthermore, our analysis reveals that wool application positively impacts soil moisture dynamics, leading to improved soil moisture retention and infiltration rates. This enhancement in soil moisture content creates favorable conditions for plant growth and establishment, thereby contributing to the overall stability and resilience of the ecosystem.

Cost-benefit analysis indicates that wool-based erosion control practices offer a financially viable and environmentally sustainable alternative to conventional methods. The biodegradability and renewability of wool make it an attractive option for long-term erosion control efforts, with potential benefits for both agricultural productivity and environmental conservation.

In conclusion, this research underscores the potential of wool as a promising solution for mitigating soil erosion and advancing

Version # 1635131



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Page 8 of 19

# Learning Objectives – in the Records



## Learning Objectives (Skills)

Skills are selected in the planning stage of the SAE

Activities are identified as to how the skill will be learned or exposed to the student

**SAE Plan - Efficacy of Wool in Soil Erosion (PDF Agreement)**

SAE planning (SAE Agreement) is an important part of the SAE project and should be completed **before** you begin the project. Complete each planning section in **carefully written and grammatically complete sentences**. A complete plan may include a variety of information, but each section offers a basic set of questions to answer.

Description

Time Investment

Financial Investment

**Learning Objectives (Skills)**

e-Signatures

**Project Learning Outcomes** – Choose "Add/Explore Skill Areas" to identify **major** learning experiences you feel you may gain from your project. A minimum of **three** skills are required for a complete plan (green check mark).

Once added, develop a short description of how you plan to gain these skills.

Skill	Planned Activities  maximum 500 characters - 453 remaining	Delete
<b>CRP.07.01</b> Select and implement reliable research processes and methods to generate data for decision-making in the workplace and community.		
<b>CRP.11.01</b> Research, select and use new technologies, tools and applications to maximize productivity in the workplace and community.	Learn how to ID lab equipment and operate it correctly to its function	
<b>ESS.01.01</b> Analyze and interpret laboratory and field samples in environmental service systems.	Take soil samples to evaluate nutrient contents	
<b>ESS.03.02</b> Apply soil science and hydrology principles to environmental service systems.	Create simulated run-off utilizing rain simulator equipment	
<b>ESS.05.02</b> Perform assessments of environmental conditions using equipment, machinery and technology.	Collect runoff of water and compare data with varying uses of wool, mulch, etc as an erosion preventative	



# Skills— in the Records

Reflection (#3)	
Results	Review & Report
45.0 hrs	(Results, Inventory, Skills, Reporting)

SAE Reflection when project is complete



3<sup>rd</sup> box is used to describe the ACTIVITY performed that shows learning or demonstrating the Performance Indicator  
Character Count = 500

### Reflection - Skills, Competencies, and Knowledge

#### 2022 Beg.- Efficacy of Wool in Soil Erosion

- Learning Objectives are shown below from your SAE Plan. Describe how the skills contributed to your success.
- [Click here](#) to browse a full listing of AFNR Performance Indicators.

[Return to Project Manager](#)
[Project Plan](#)
[Add/Explore Skill Areas](#)

Planned Skill	Planned Activities	Specifically describe the SAE activities performed to learn or demonstrate the performance indicator selected.	Delete
<b>CRP.07.01</b> Select and implement reliable research processes and methods to generate data for decision-making in the workplace and community.			×
<b>CRP.11.01</b> Research, select and use new technologies, tools and applications to maximize productivity in the workplace and community.	Learn how to ID lab equipment and operate it correctly to its function		×
<b>ESS.01.01</b> Analyze and interpret laboratory and field samples in environmental service systems.	Take soil samples to evaluate nutrient contents		×
<b>ESS.03.02</b> Apply soil science and hydrology principles to environmental service systems.	Create simulated run-off utilizing rain simulator equipment	ACTIVITY: Use the rain Simulator to Collect Runoff I learned the components of the rain simulator, including the rainfall generator, distribution system, and experimental setup. I know how these	×
<b>ESS.05.02</b> Perform assessments of environmental conditions using equipment, machinery and technology.	Collect runoff of water and compare data with varying uses of wool, mulch, etc as an erosion preventative		×

# Skills, Competencies – From AET

If the student completed the reflection,



They become available in the skill page of the award

1. Choose SELECT FROM AET to generate indicators with complete skills
2. Can order them by selecting them in the order as you wish them to be numbered

Membership Check

Basic Setup

Choose AET Experiences

Performance Review A

Performance Review B

Performance Review C

Research Projects

Research Finances

Research Paper

Outcomes/Experiences

**Skill Competency, Knowledge**

Safety Photos

Project Photos

Supplemental Info

Checklist

Supporting Recordbook

Electronic Signatures

Save/Print Your App

<-- Chapter Account

Go to FFA.org

Go to AET

Student Help

Teacher Help

AET Classroom

**A. Select up to 5 primary pathway standards/performance indicators you have gained skills, competencies, or knowledge in through your SAE project.**

# AFNR Performance Indicator from Primary Pathway ?

1 ESS.03.02 Apply soil science and hydrology principles to environment: Select From AET

2 (C) Select

3 (C) Select

4 (C) Select

5 (C) Select

Specifically describe the SAE activities performed to learn or demonstrate the performance indicator selected. ?

maximum 500 characters

ACTIVITY: Use the rain Simulator to Collect Runoff I learned the components of the rain simulator, including the rainfall generator, distribution system, and experimental setup. I know how these

**AET Skills, Competencies, and Knowledge**

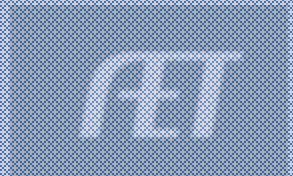
**ESS.03.02 Apply soil science and hydrology principles to environmental service systems.**

**ACTIVITY: Use the rain Simulator to Collect Runoff I learned the components of the rain simulator, including the rainfall generator, distribution system, and experimental setup. I know how these components work together to simulate rainfall and I generated runoff over soil surfaces on 12 samples.**

Choose

## NEW Page:

- 5 Primary Pathway w/BioTech Systems
- 2 Any Pathway w/BioTech Systems
- 3 Career Ready Pathway – NO BioTech Systems





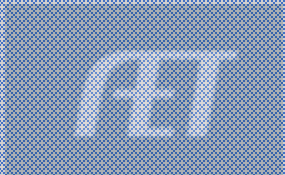
# Skills, Competencies – Manual Entry

OR

## Click to Choose: (dropdown)

- Populates all AFNR Performance indicators for the primary pathway
- Select one
- Then write the activity performed that demonstrates the standard/indicator selected

SKILLS, COMPETENCIES, AND KNOWLEDGE	
<div>(Click to Choose)</div> <div>ESS.01.01 Analyze and interpret laboratory and field samples in environmental service systems.</div> <div>ESS.01.02 Properly utilize scientific instruments in environmental monitoring situations (e.g., laboratory equipment, environmental monitoring instruments, etc.).</div> <div>ESS.02.01 Interpret and evaluate the impact of laws, agencies, policies and practices affecting environmental service systems.</div> <div>ESS.02.02 Compare and contrast the impact of current trends on regulation of environmental service systems (e.g., climate change, population growth, international trade, etc.).</div> <div>ESS.02.03 Examine and summarize the impact of public perceptions and social movements on the regulation of environmental service systems.</div> <div>ESS.03.01 Apply meteorology principles to environmental service systems.</div> <div>ESS.03.02 Apply soil science and hydrology principles to environmental service systems.</div> <div>ESS.03.03 Apply chemistry principles to environmental service systems.</div> <div>ESS.03.04 Apply microbiology principles to environmental service systems.</div> <div>ESS.03.05 Apply ecology principles to environmental service systems.</div> <div>(Click to Choose)</div> <div>Select From AET</div>	
A. Se roje #	<div>for this page: </div> <div>s.</div> <div>t activities, can be found <a href="#">here</a>.</div> <div>ou have gained skills, competencies, or knowledge in through your SAE</div> <div>Specifically describe the SAE activities performed to learn or demonstrate the performance indicator selected. </div> <div>maximum 500 characters</div> <div>ACTIVITY: Use the rain Simulator to Collect Runoff I learned the components of the rain simulator, including the rainfall generator, distribution system, and experimental setup. I know how these</div> <div>maximum 500 characters</div> <div>maximum 500 characters</div>



# Add Photos – in the Records

## USE Student Portfolio

- Upload photos and docs
- Assign photo to research SAE
- Edit to add a caption
- Can pull into the award app
- All photos/docs with captions are accessible in the Interactive Record Book when chosen as Supplemental

**My Portfolio**

**Experience:** 2022 Beg.- Efficacy of Wool in Soil Erosion

**Upload File (jpg, png, heic, docx, xlsx, pptx, pdf):**  
Choose File no file selected Upload

**Admin Authenticated**  
[Admin Home](#)  
[Sign Off](#)

[Inbox](#)  
[Calendar](#)  
[Portfolio](#)  
[Scoreboard](#)  
[Sign Off](#)

**Cash/Checking:** \$9,894  
**Current/Projects:** \$1,210  
**Non-Current:** \$48,360  
**Liabilities:** \$0

[Student Help](#)  
[Teacher Help](#)  
[AET Classroom](#)  
[Ask AET a Question](#)

**Portfolio Items:**

- 2/7/2024**  
**Soil Analysis - Lab Report**  
[Edit](#) [Delete](#) 24 KB
- 2/7/2024**  
[Edit](#) [Delete](#) 70 KB
- 2/7/2024**  
I collected 12 runoffs in 4 variables of soil using wool, plastic, mulch and the control and ran nutrient density tests as well as quantity.  
[Edit](#) [Delete](#) 1,132 KB
- 2/7/2024**  
When testing nutrients in the runoff collections, because of unknown variables, latex gloves, protective eyewear and a hood are used to ensure health and safety.  
[Edit](#) [Delete](#) 17 KB

916144 | 6814 | Wednesday, February 7, 2024



# Photos – in the App

## Photos

- Select from AET
- Populates available pictures
- Click SELECT for the photo
- Check box for captions to transfer to app
- Cuts the work on the application to a minimum

The screenshot displays the 'Degree/Application Manager' web interface. At the top, it shows the user is 'National FFA/SAE Test Account w/AET Tracy Dendinger' and is 'Admin Authenticated'. A sidebar on the left contains a menu with options like 'Return to App Mgr', 'Instructions', 'Cover', 'Membership Check', 'Basic Setup', 'Choose AET Experiences', 'Performance Review A', 'Performance Review B', 'Performance Review C', 'Research Projects', 'Research Finances', 'Research Paper', 'Outcomes/Efficiencies', 'Skills, Comp., Knowledge', 'Safety Photos' (which is highlighted), 'Project Photos', 'Supplemental Info', 'Checklist', and 'Supporting Recordbook'. The main content area is titled 'Workplace Safety Photos # project described in the app'. It features a list of photos with a 'Picture' icon and a 'Select' button. A modal window titled 'AET Portfolio Pictures' is open, showing a grid of photos. The first photo shows three people in a workshop, and the second shows a person in a lab coat working with equipment. Below the photos, there is a checkbox labeled 'Get Caption from AET' which is checked. The background interface also includes a 'Check Spelling' button and a 'Delete' button.

Degree/Application Manager

National FFA/SAE Test Account w/AET  
Tracy Dendinger  
Admin Authenticated  
Admin Home  
Sign Off

<-- Return to App Mgr  
Instructions  
Cover  
Membership Check  
Basic Setup  
Choose AET Experiences  
Performance Review A  
Performance Review B  
Performance Review C  
Research Projects  
Research Finances  
Research Paper  
Outcomes/Efficiencies  
Skills, Comp., Knowledge  
**Safety Photos**  
Project Photos  
Supplemental Info  
Checklist  
Supporting Recordbook

Use the Tab key to  
Adding more than one  
Including photos shown  
from dealer webpage  
Using photos that in  
someone other than  
written permission of  
photo.

Check Spelling

Workplace Safety Photos #  
project described in the app

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# Records – Supplemental Information

## Supporting Record Book CLICK


- Load From AET
- Brings the Single SAE Report

National FFA/SAE Test Account w/AET  
Tracy Dendinger  
Admin Authenticated  
Admin Home  
Sign Off

[<-- Return to App Mgr](#)  
[Instructions](#)  
[Cover](#)  
[Membership Check](#)  
[Basic Setup](#)  
[Choose AET Experiences](#)  
[Performance Review A](#)  
[Performance Review B](#)  
[Performance Review C](#)  
[Research Projects](#)  
[Research Finances](#)  
[Research Paper](#)  
[Outcomes/Efficiencies](#)  
[Skills, Comp., Knowledge](#)  
[Safety Photos](#)  
[Project Photos](#)  
**Supplemental Info**

SUPPLEMENTAL INFORMATION   
(replaces former Personal Page)

- Attach a single document of supplemental information about the SAE project detailed in this application.
- The attachment must be in PDF format and less than 10 megabytes in size.
- To attach a document simply click the "Select" button and choose a file from your computer. When the file is uploaded a notice will appear in the "Current file:" box.

- AET users can attach SAE records as supplemental information to showcase SAEs in this Proficiency application. 
- The report includes the projects checkmarked on the "Choose AET Experiences" page.
- Click [Load from AET](#) to attach your SAE records (planning, records, and reflection).
- If you make changes to your records, please come back to this screen to Load from AET again.

Current file: **FILE UPLOADED** Date Uploaded: 2/7/2024 3:49:00 PM [Download](#) [Delete](#)

Upload a file: (PDF only)  [Select](#)




# Single SAE Report

- Journals  
Lab notebook  
Supports the work  
Contains details
  - Photos  
From the SAE portfolio  
PDFs = no visual  
Photos w/captions  
come in the single report
- Can Include:
- Grant funding check photo
  - Sci Fair premiums
  - Photos of ALL work


Skill Area	Planned Activities	Results or Outcome
CRP.07.01 Select and implement reliable research processes and methods to generate data for decision-making in the workplace and community.		kmZLKSDm
CRP.11.01 Research, select and use new technologies, tools and applications to maximize productivity in the workplace and community.	Learn how to ID lab equipment and operate it correctly to its function	ksdnck
ESS.01.01 Analyze and interpret laboratory and field samples in environmental service systems.	Take soil samples to evaluate nutrient contents	kicvnsAPIOJ
ESS.03.02 Apply soil science and hydrology principles to environmental service systems.	Create simulated run-off utilizing rain simulator equipment	ACTIVITY: Use the rain Simulator to Collect Runoff I learned the components of the rain simulator, including the rainfall generator, distribution system, and experimental setup. I know how these components work together to simulate rainfall and I generated runoff over soil surfaces on 12 samples.
ESS.05.02 Perform assessments of environmental conditions using equipment, machinery and technology.	Collect runoff of water and compare data with varying uses of wool, mulch, etc as an erosion preventative	ncakscjnopi

Income/Expense Type	Amount	Notes
Expense - Contract / Custom Hire	\$25.00	Shearer: Secure fleece for Variable 1
Expense - Entry Fees / Commissions	\$50.00	Science fair entry x 2
Expense - Other	\$75.00	Professional Display board
Expense - Rent	\$200.00	Rain Simulator
Expense - Supplies	\$150.00	Mulch, plastic, buckets and misc supplies
Income - Research Funding	\$500.00	Research grant to be utilized to conduct complete research project on soil erosion utilizing wool as a preventative

	Soil Analysis - Lab Report
--	----------------------------

Tracy Dendinger -- AET Unique #916144 -- 2/7/2024 3:49:06 PM

Page 6 of 12



Journalled Skills	# Entries	# Evals	Avg Eval
CRP.02.01 Use strategic thinking to connect and apply academic learning, knowledge and skills to solve problems in the workplace and community.	1	0	
CRP.07.01 Select and implement reliable research processes and methods to generate data for decision-making in the workplace and community.	5	0	
CRP.07.02 Evaluate the validity of sources and data used when considering the adoption of new technologies, practices and ideas in the workplace and community.	1	0	
CRP.12.01 Contribute to team-oriented projects and builds consensus to accomplish results using cultural global competence in the workplace and community.	1	0	
ESS.01.01 Analyze and interpret laboratory and field samples in environmental service systems.	1	0	
FND.A1.06 Review/reflect on project results and outcomes	2	0	
Total (Evaluation: 1=Limited, 2=Basic; 3=Proficient; 4=Exemplary)	11	0	


Date	Vendor	Memo	Amount
12/14/2022	Supplies McClish Nursery	3 bags pine mulch	\$35.00
12/14/2022	Supplies Ace Hardware	1 role black garden plastic	\$50.00
12/14/2022	Supplies NASCO	Soil Probe	\$15.00
12/14/2022	Contract Richland Labs	Soil plot grid and layout	\$60.00
12/14/2022	Supplies Mid-States Wool Growers	3 fleeces	\$10.00
2/20/2023	Supplies The Print Shop	Print Research Board	\$35.00
12/20/2023	Contract OSU Soils Adept	Rent OSU Rain Simulator	\$250.00

Date	Vendor	Memo	Amount
11/1/2022	Res Fund ABC Soil And Water Agency	2023 funding	\$500.00

Tracy Dendinger -- AET Unique #916144 -- 2/7/2024 3:49:06 PM

Page 7 of 12

Type	2022	2023	Total
1. Revenues from Operations			
Beginning Current Inventory	\$0	\$0	
Market Inventory Adjustments			
Ending Current Inventory			
Change in Current Inventory			
Research Funding	\$500		\$500
Gross Cash Revenues	\$500		\$500
Gross Non-Cash Revenues			
Gross Revenues	\$500		\$500
2. Expenses from Operations			
Supplies	\$110	\$35	\$145
Contract/Custom	\$60	\$250	\$310
Total Cash Expense	\$170	\$285	\$455
Non-Cash Contract/Custom			
Total Non-Cash Expense			
Total Operating Expense	\$170	\$285	\$455
3. Net Income from Operations			
Journalled time (hours)	34.0	8.5	42.5
Net Current/Operating Income per Hour	\$10		



# *Research SAE – Agri-Science Fair*

- No Connection: Records do not flow to the Agri-Science Fair App
  - *This could change in the 2026 revision*
- Agri-Science App will require finances/funding that will need to be manually entered
- Skills in the Agri-Science App are NOT connected to the SAE
  - *This could change in the 2026 revision*