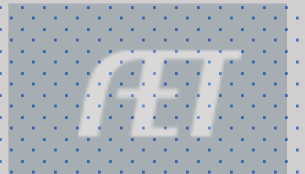# Navigating the Research SAE and Proficiency Award

AET Office Hours – Week 5

Topics to Consider

- ➢ How Research Records Contribute to the Award
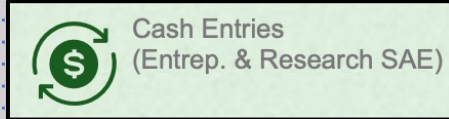 - • SAE Name   **Project Name:** | The Efficacy of Wool in Soll Erosion
  - • Plan
    - • Finance Tab & Learning Outcomes
  - • Financials   Cash Entries (Entrep. & Research SAE)

- ➢ 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

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

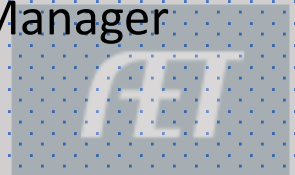| #	Pathway	Research Title	Years	Hours	Funding	Expenses
1	ESS	Evaluating Wool as a Sustainable Solution for Soil	2022 - 2023	43	$500	$455

App Manager

Evaluating Wool as a Sustainable Solution for Soil
Environmental Service Systems
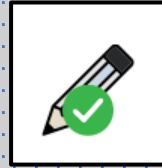
Application PDF

Project Name: The Efficacy of Wool in Soil Erosion

SAE Manager

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

SAE Plan ✏️✅ DESCRIPTION

- 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).
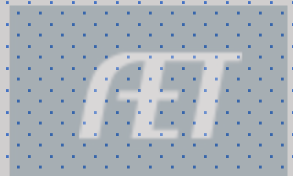3.3 Data Collection:
- Measure baseline erosion rates using erosion pins or other appropriate techniques.

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

SAE Plan ✏️ TIME

- 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.

SAE Plan ✏️✅ FINANCIAL INVESTMENT

- Application asks for how the resources are secured in the project

- Also will pull financial transactions

- Can easily pull from the records rather than a re-create

Financial Investment

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:
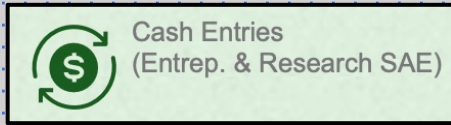Who receive funds when capital items are sold: _____

SAE Plan – In the Application

LOADS FOR EACH SAE Selected

FINANCES:

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

Cash Entries
(Entrep. & Research SAE)

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/Print Your App

<-- Chapter Account
Go to FFA.org
Go to AET
Student Help
Teacher Help
AET Classroom
Ask FFA a Question
Ask AET a Question
Sign Off

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. Evaluating Wool as a Sustainable Solution for Soil

SAE SELECTION Dropdown

Research Expenses

Year	Expense Item	Memo/Description	Cost
2022	Supplies - NASCO	Soil Probe	$15
2022	Supplies - Mid-States Wool Growers	3 fleeces	$10
2022	Supplies - McClish Nursery	3 bags pine mulch	$35
2022	Supplies - Ace Hardware	1 role black garden plastic	$50
2022	Contract - Richland Labs	Soil plot grid and layout	$60
2023	Supplies - The Print Shop	Print Research Board	$35
2023	Contract - OSU Soils Adept	Rent OSU Rain Simulator	$250
			$455

Financial Transaction Ledger

Research Funding/Income

Year	Income Source	Memo/Description	Amount
2022	ABC Soil And Water Agency	2023 funding	$500
			$500

Please give a detailed explanation of how you obtained your project materials.
maximum 750 characters - 135 remaining

Student Responsibility Cash Expenses:
I will furnish and assume 100% of ALL the CASH costs and be responsible for 100% of any labor.

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

Load from AET

Check Spelling

SAE Plan – 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

Evaluating Wool as a Sustainable Solution for Soil
Environmental Service Systems

Years
2022 - 2023

Hours
43

Research Expenses

Year	Expense Item	Memo/Description	Cost
2022	Contract - Richland Labs	Soil plot grid and layout	$60
2022	Supplies - Ace Hardware	1 role black garden plastic	$50
2022	Supplies - McClish Nursery	3 bags pine mulch	$35
2022	Supplies - Mid-States Wool Growers	3 fleeces	$10
2022	Supplies - NASCO	Soil Probe	$15
2023	Contract - OSU Soils Adept	Rent OSU Rain Simulator	$250
2023	Supplies - The Print Shop	Print Research Board	$35
			$455

Research Funding/Income

Year	Income Source	Memo/Description	Cost
2022	ABC Soil And Water Agency	2023 funding	$500
			$500

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

Student Responsibility Cash Expenses:
I will furnish and assume 100% of ALL the CASH costs and be responsible for 100% of any labor.

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

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

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.

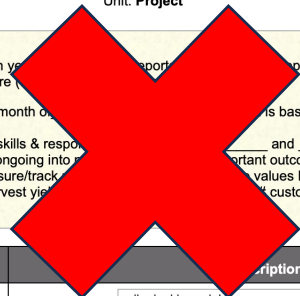| Include?	Project Name	SAE Description	Years
☑	2022 Beg.- Evaluating Wool as a Sustainable Solution for Soil	Research / Environmental Science / Natural Resource Mgmt	2022 - 2023

(AET calculates that your checkmarked projects include records in 7 months.)

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

This summary of your project for each ye[...]port[...]plications. Space it limited, so be concise! Three main areas to cover are [...]

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

Year	[...]ription
2022	vlksdnsklamndg'po
2023	kvmcsa;lmvpowefjkpoaw

Clipboard DOES NOT transfer
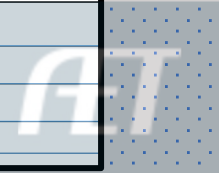
Pulls from Set Up

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.

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)

<u>NOTE:</u> 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.

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

Learning Objectives – in the Records

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

Learning Objectives (Skills)

**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.**

Save All & Return   Cancel

| 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.

➕ Add/Explore Skill Areas

Skill	Planned Activities maximum 500 characters - 453 remaining	Delete
CRP.07.01 Select and implement reliable research processes and methods to generate data for decision-making in the workplace and community.		✕
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	✕
ESS.01.01 Analyze and interpret laboratory and field samples in environmental service systems.	Take soil samples to evaluate nutrient contents	✕
ESS.03.02 Apply soil science and hydrology principles to environmental service systems.	Create simulated run-off utilizing rain simulator equipment	✕
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	✕
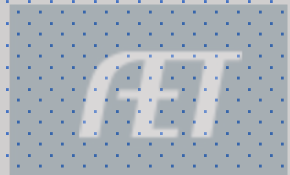
Skills- in the Records

Reflection (#3)

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

SAE Reflection when project is complete
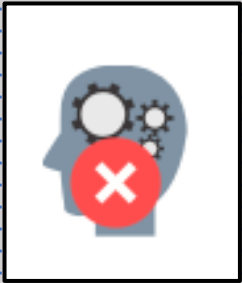
Populates the box to describe the activity performed that shows learning or demonstrating the Performance Indicator
Character Count = 500

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
CRP.07.01 Select and implement reliable research processes and methods to generate data for decision-making in the workplace and community.			✕
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		✕
ESS.01.01 Analyze and interpret laboratory and field samples in environmental service systems.	Take soil samples to evaluate nutrient contents		✕
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	✕
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		✕

916144 | 6814 | Wednesday, February 7, 2024

Skills, Competencies – in the App

If the student completed the [icon] 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

Left navigation menu:
- 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

<-- 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

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

maximum 500 characters

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

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
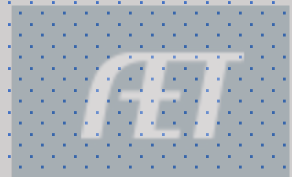
Skills, Competencies- in the App

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/indictor selected
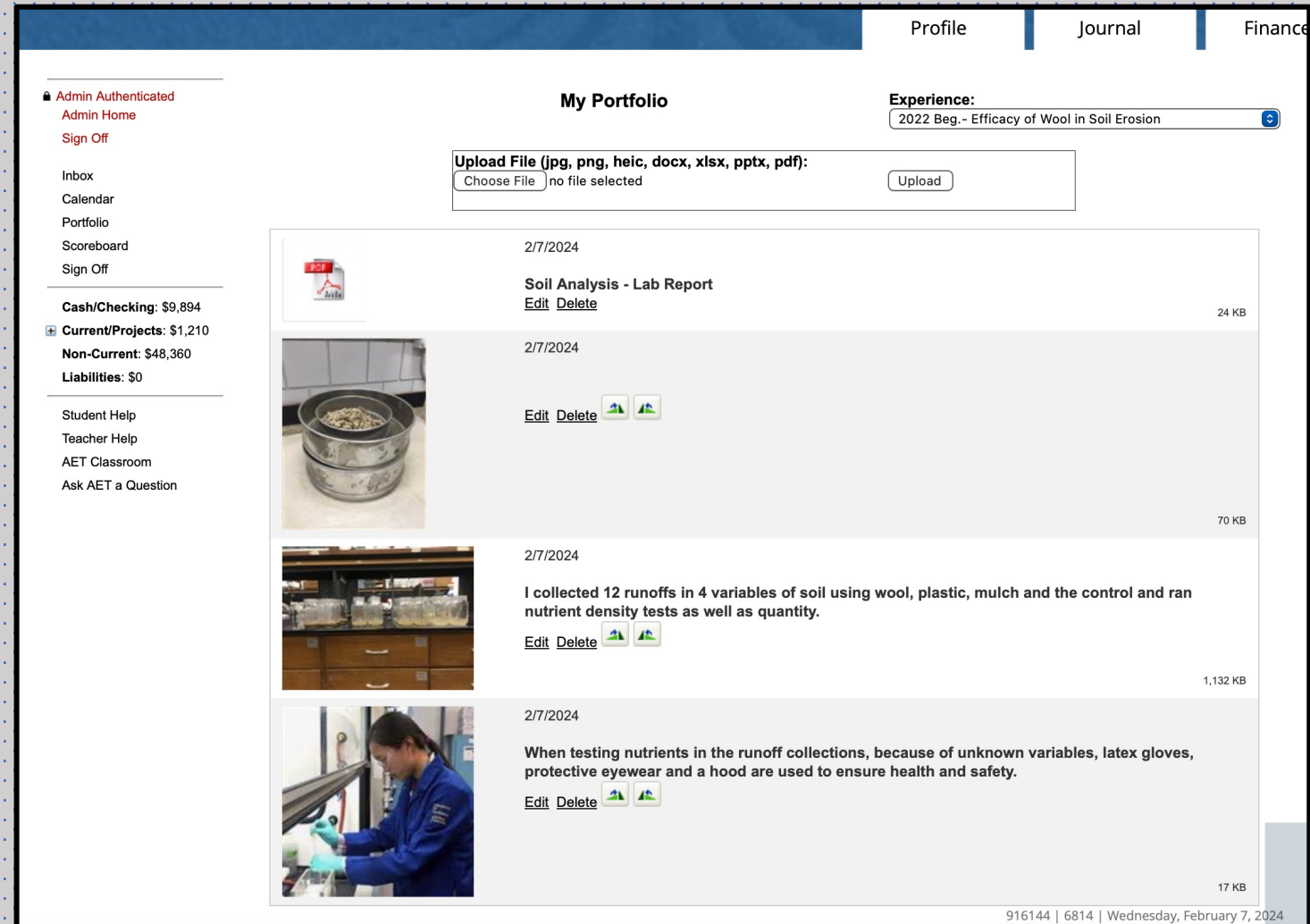
SKILLS, COMPETENCIES, AND KNOWLEDGE

(Click to Choose)

ESS.01.01 Analyze and interpret laboratory and field samples in environmental service systems.

ESS.01.02 Properly utilize scientific instruments in environmental monitoring situations (e.g., laboratory equipment, environmental monitoring instruments, etc.).

ESS.02.01 Interpret and evaluate the impact of laws, agencies, policies and practices affecting environmental service systems.

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.).

ESS.02.03 Examine and summarize the impact of public perceptions and social movements on the regulation of environmental service systems.

ESS.03.01 Apply meteorology principles to environmental service systems.

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

ESS.03.03 Apply chemistry principles to environmental service systems.

ESS.03.04 Apply microbiology principles to environmental service systems.

ESS.03.05 Apply ecology principles to environmental service systems.

(Click to Choose)

Select From AET

...for this page: 🎗

...s.

...t activities, can be found [here].

...you have gained skills, competencies, or knowledge in through your SAE ...roje

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

maximum 500 characters

maximum 500 characters

AET

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

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

Records – Supplemental Information

Supporting Recordbook
CLICK

- Load From AET

- Brings the Single SAE Report

Single SAE Report

Left Page (Page 6 of 12)

| 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	klcvnsAPIOJ
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

Budget - Efficacy of Wool in Soil Erosion

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

Pictures - Efficacy of Wool in Soil Erosion

Soil Analysis - Lab Report

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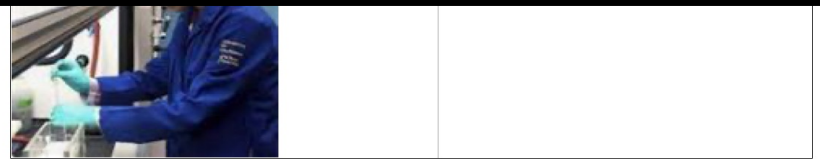
Journal - Experience-related Activity - Efficacy of Wool in Soil Erosion

Journaled 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**	

Operating Expense - Efficacy of Wool in Soil Erosion

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

Operating Income - Efficacy of Wool in Soil Erosion

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

Profit/Loss Report - Efficacy of Wool in Soil Erosion

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	$330	($285)	$45
Journaled time (hours)	34.0	8.5	42.5
Net Current/Operating Income per Hour	$10		