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Innovative SAEs

Reimaging SAE: Opportunities for All

by Dr. Laura Hasselquist

> That is the magic of SAEs—when you find new ways to engage all your students, you open new worlds for them.

Change? It's just plain hard. No matter how excited you are or why you're doing it, switching things up is stressful for everyone. And as teachers, we live in a world of constant change—we're practically professional change agents!

As a beginning teacher, I faced many changes. The transition from student to teacher is certainly a process. Like many in this profession, I grew up in a small rural town. My first teaching job—and where I remained for the eight years I spent in the middle and high school classroom—was in a larger suburban district. This district served over 5,000 students annually and had a robust career and technical education (CTE) program offering a wide variety of courses, except for agriculture.

In a district that size, I was a department of one. While other CTE programs had multiple teachers at both the middle and high school levels, I was the lone agriculture teacher. To help me feel less isolated, the agriculture program was placed within the science department. I was expected to function like any other member—attending meetings and following department policies and procedures. It was a great experience that helped me become a better teacher, forced me to re-examine my beliefs about agricultural education and its role in schools, and provided me with wonderful colleagues, mentors, and friends. However, there were also challenges my departmental colleagues couldn't fully understand.

One of those challenges was the departmental grading pol-

Photos courtesy of Breanna Pastir.

icy. Not only did it provide clear and direct guidance on grading scales, but it also dictated exactly how to calculate a student's semester grade. Every teacher was required to administer a final exam or experience that accounted for 20% of the semester grade. This gave me pause—one single assessment determining such a large portion of a student's grade felt excessive. When I voiced my concerns, my colleagues all offered the same advice: give a cumulative exam.

That was exactly what I didn't want to do. My students rarely took traditional exams during the semester. I preferred authentic assessments, and I worried that introducing a high-stakes test at the end of the term would cause unnecessary anxiety. I wanted the final experience to help my students grow as individuals and explore their interests. But what would be a good fit? I experimented with different approaches in my first year, but none of them felt right.

Then it hit me—Supervised Agricultural Experience (SAE). Why it took me so long to realize this was the solution, I'll never know. Even in college, I believed in the benefits of the three-circle model but had always struggled with how to integrate SAE into my students' experiences. This was my opportunity!

When I began teaching in the fall of 2006, the concept of SAE for All wasn't yet established. For many of us, SAEs were primarily tied to proficiency award categories. However, most of my students weren't involved in production agriculture. How could I get them to buy in and see the value of this project? It took some reflection and experimentation, but I found my answer.

At the start of each semester, I introduced the project: **Spend 10 hours outside of class exploring a potential career or area of interest.** Students set goals, tracked hours, recorded relevant information, took photos, reflected on their goals, and presented their experiences to the class. I worked with each student to personalize their project based on their interests.

- **You like to fish?** Great! Spend 10 hours fishing the same lake, track the different fish species you catch, and record their sizes.
- **You work at a restaurant?** Awesome! Research the food safety procedures they use and document how you follow them at work.
- **You think you might want to be a vet?** Try a job shadow for a day and write a research report on veterinary schools.

And the list went on and on. I can think of countless students who used their valuable out-of-class time to explore something meaningful. Many of them shared in their final presentations how this project helped them learn and grow in ways they hadn't expected.

That is the magic of SAEs—when you find new ways to engage all your students, you open new worlds for them. This issue explores how teachers are utilizing SAEs to provide opportunities for all students. Spending time exploring these pages is a worthy investment—it just might spark some ideas for change in your program. And while change is hard, reimagining SAEs to provide opportunities for all students is worth it.

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Empowering Educators: Integrating AI in Agricultural Classrooms

Front & Back Cover Photos Courtesy of Breanna Pastir

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Innovating SAE to Reach All Students

by Dr. Misty Lambert & Dr. Candis Scallan

SAE renewal has been a topic of conversation at the highest levels of agricultural education for decades, and in earnest since 2011. The launch of SAE for All moves us closer to an SAE model that will serve all agricultural education students in all programs. Some have seen the roll out of SAE for All as a philosophical shift. While it is a more inclusionary model, we argue that it is still philosophically aligned with the original goals of Supervised Agricultural Experience: experiential learning and career preparation. This issue sought to explore the innovative ways SAE is being implemented across the country and share ideas across our ranks.

We began this issue with an article by the unofficial ag education historian Dr. Gary Moore. You might know Dr. Moore from his Friday Footnote series. We reached out to Dr. Moore to frame the beginnings of the Home Project Methods and how we got to where we are today. Want to understand why we have SAE in the first place? Start with Dr. Moore's "Who Did It?"

Andy VonCanon wakes up thinking about SAE in North Carolina. His article "Opportunities Come To Everyone, But Seldom Return To Anyone" takes us through his journey in discovering the SAE impact in his own life. He then offers an exploration of how one suburban school has made on-campus SAE activities both visible and potentially paid opportunities for students.

Want to be innovative in your implementation of SAE? Breanna Pastir serves as the SAE Program Specialist for the National Council and she has outlined steps you can take to find an SAE that fits your unique community. She takes this one step further by sharing examples of the innovative SAEs that students across the country have developed.

With the launch of SAE for All, placement and internship are differentiated. Same with ownership now being a separate experience than entrepreneurship. Want a crash course in the differences?

Innovative SAEs provide students with hands-on experiences to build a deeper understanding of the world around them and offer them a glimpse of the opportunities available to them in the future.
Photos courtesy of Breanna Pastir.

Read Matt Kriefel's "Elevating SAEs: Making Work-Based Learning More Purposeful".

School-Based Enterprises are a recognized type of SAE in the new model. Matt Harris and Matt Green teach together in a rural community and have found a way to build a school-based enterprise for each of their program's pathways: animal science, ag mechanics, horticulture and natural resources. The real challenge: handing over control to your students. Read about their motivation in "Rethinking the Supervised Agricultural Experience: A Path for Every Student".

One type of immersion project introduced in SAE for All model is Service Learning. Jillian Ford explains how implementing this new SAE type will impact students in your classroom and your FFA chapter, not just your SAE program. That is a win-win-win!

We have two articles exploring the Research-based SAEs and the Agriscience Fair FFA competition where those students can compete. Krysti Kelley does a wonderful job unpacking the benefits of Research SAEs while Jason Dossett offers helpful tips to overcome barriers you might encounter when implementing research SAEs and the Agriscience Fair with middle school students.

Speaking of middle school teachers, they were the subject of research study by Drs. Jason Davis and Chris Eck. See how other middle school teachers perceive the role of SAE, the barriers they are encountering, and the best practices they are implementing of Middle School SAE.

One of the biggest innovations in SAE has been the implementation of Foundational SAEs - focused on career preparation for students. As we look to grow the number of students engaging in this new component of the SAE Model, Nebraska has worked to integrate Foundational SAE portfolios into a CDE. Want to learn more: Read "Enhancing Student Success: The Nebraska Agriscience CDE and the Foundational SAE Portfolio."

Last, but certainly not least, we wanted National FFA to tell you a little bit about how they are changing and updating SAE-related programming to fit with the expanded model of SAE. Will Waidelich and Madeline Young of the National FFA revisions team have shared their insights.

With a focus on both innovation and practical implementation tips, we hope this collection of articles moves SAE forward in your program and state.

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Who Did It?

by Dr. Gary Moore

It is a well known fact that thousands of students were learning about agriculture in schools prior to the passage of the Smith-Hughes Act of 1917. The United States Commissioner of Education reported that in the 1914-15 school year agriculture was taught in 4,390 secondary schools to 85,573 secondary students. Additionally, thousands of students were learning about agriculture in the elementary grades.

However, most of the agriculture instruction in America prior to 1917 could be called "book learning." Students were learning about agriculture from reading books such as *Agriculture for Beginners* – 1904 (Burkett, Stevens and Hill), *Fundamentals of Farming and Farm Life* – 1912 (Kyle & Ellis) and *High School Agriculture* – 1913 (Mayne & Hatch).

The Smith-Hughes Act (also known as the Vocational Education Act of 1917) fundamentally changed agricultural instruction in the schools from "book learning" to "experiential learning."

The Smith-Hughes Act of 1917 - Section 10

Section 10 of the Smith-Hughes Act describes the requirements for schools receiving federal funds for the teaching of vocational agriculture classes. In the legislation we find this phrase "...such schools shall provide for directed or supervised practice in agriculture, either on a farm provided for by the school or other farm, for at least six months per year..."

The Federal Board for Vocational Education (created by the Smith-Hughes Act) called this the Project Method and published several bulletins in 1918 about teaching by home projects. Students were to have farming projects on their home or school farm. In "The Home Project as a Phase of Vocational Agricultural Education." it is stated, "While this work may be done on the school farm or on the home farm, the use of the home farm affords special advantages." A list of advantages of using the home farm then follows.

Today we know the "Home Project" as the "Supervised Agricultural Experience Program" recognizing that it has changed and evolved over time. However, an interesting question might be who came up with the original idea and why? So instead of using the Paul Harvey phrase "the rest of the story" let's change that phrase to "the start of the story."

Where Did the Home Project Idea Come From?

Rufus Stimson was born in 1868 on a farm in Massachusetts. As a teenager he enjoyed training horse teams. After attending the local public schools he went to Harvard University to study philosophy under the renowned scholar William James. After graduating, Stimson accepted a faculty position at the Connecticut Agricultural College (now the University of Connecticut). He taught English, ethics and public speaking from 1897-1901.

> Students will learn agriculture at the school but apply what they have learned to their home farms through the use of home projects.

Rufus Stimson served as the president of the Connecticut Agricultural College from 1901-1908. Photo courtesy of the University of Connecticut.

In 1901 the President of the Connecticut Agricultural Colleges was forced to resign by the Grange and other agricultural groups in the state. The deposed president valued teaching the liberal arts over agriculture. Stimson was appointed as the temporary president and later was chosen to be president. He immediately brought about change and was viewed favorably by the agriculture community.

While President, Stimson wondered about how to best teach agriculture. It was common practice at that time to carry out the farming work of the university by using student labor. Stimson was against this. He believed too many students stood around watching other students work and that forced labor on somebody else's farm was not ideal.

Later Stimson was conducting a demonstration on how to judge Guernsey dairy cattle. After a young farmer had judged an extremely high quality bull, Stimson heard the young farmer state, "He ought to be a good one; the State owns him, and the State feeds him." Stimson noted, "Everywhere there is a tendency to discount college-owned or school-owned livestock and operations."

In 1908 Stimson resigned the presidency of the Connecticut Agricultural College to become the president of the newly created Smith Agricultural School in Northampton, Massachusetts. In 1845, Oliver Smith of Northampton died. In his will he left a fund of $30,000 to establish a farming school where young men could study agriculture. According to the terms of his will the endowment was to be allowed to accumulate.

The endowment matured in 1905. In 1906, the trustees were elected and proceeded to establish the school. They first bought a farm and a herd of dairy cattle in preparation for the opening of the school. Next, the trustees met with the state Commission on Industrial Education and discussed the search for a director. The chairman of the Commission, Paul Hanus of Harvard, recommended the trustees try to hire Rufus Stimson. The trustees were successful in recruiting Stimson.

Stimson saw the opportunity to try out his idea for teaching agriculture at this new school. One of his first actions was to request permission from the trustees to sell the dairy herd they had just bought. He also requested that no dormitories be erected to board the students. The trustees were puzzled but had been told by Hanus to let Stimson have free reign. How could agriculture be taught without school owned livestock and a place for students to stay?

Stimson prepared a brochure about the new school. In the brochure he outlined a new plan for the teaching of agriculture. STUDENTS WILL LEARN AGRICULTURE AT THE SCHOOL BUT APPLY WHAT THEY HAVE LEARNED TO THEIR HOME FARMS THROUGH THE USE OF HOME PROJECTS. Stimson believed this was the way agriculture should be taught.

During the 1908-1909 school year, Stimson worked diligently at developing the new school and installing the project concept. The project method of teaching soon proved to be successful. Students applied modern agricultural practices on their own farms which increased student motivation. This culminated in increased agricultural productivity.

Rufus Stimson as a college student (LEFT), when he was president of the Connecticut Agricultural College (MIDDLE), and in retirement (RIGHT).
Middle photo courtesy of the University of Connecticut.

Charles Prosser and David Snedden Enter the Picture

In 1910 Charles Prosser accepted a position as Deputy Superintendent for Industrial Education in Massachusetts. Prosser had been a school teacher and school superintendent in Indiana, held a law degree and had served as a juvenile court judge. He earned a doctorate from Columbia University. After completing the doctoral program he was offered numerous positions but decided to accept the Massachusetts offer from his doctoral mentor and friend, David Sneeden who had recently been appointed Commissioner of Education in Massachusetts.

The fact that Prosser knew little about Industrial Education was not seen as a problem. When asked what he knew about vocational education, he ". . . replied that he 'didn't know a thing'." Soon after arriving in Massachusetts both Prosser and Snedden were being educated about vocational education from Rufus Stimson. They were impressed with the home project method used by Stimson.

In 1911, Snedden asked Stimson to join the State Board of Education as state supervisor for agriculture. During Stimson's tenure with the Board of Education, he traveled widely promoting the project method. Stimson made numerous presentations about the project method of teaching nationally and there were numerous journal articles about the project method. In one publication the terms improvement project, experimental project, and productive project were described in detail.

Prosser left Massachusetts in 1912 to become executive secretary of the National Society for the Promotion of Industrial Education (NSPIE). The NSPIE was organized in 1906 by a group of labor leaders and manufacturers. Their goal was to educate the public and government officials about the importance of preparing young people for vocational careers. They also advocated for industrial education legislation. As executive secretary Prosser was very active in promoting vocational education and the project method of teaching.

How Did Home Projects Get into the Smith-Hughes Act?

In 1914 Congress created a Commission on National Aid for Vocational Education. The Commission held hearings and explored the desirability of national legislation promoting vocational education. Three of the nine Commission members were Senator Hoke Smith, Representative Dudley Hughes and Charles Prosser.

As part of their final report, the Commission drafted the proposed legislation, which would eventually become the Smith-Hughes National Vocational Education Act. Most of the proposed legislation was written by Prosser. Both Smith (who was a lawyer) and Hughes (who was a farmer) also provided substantial input into the proposed legislation. Since Prosser was the primary author of the proposed legislation it is easy to see how his interaction with Rufus Stimson of Massachusetts about the project method of teaching ended up in the Smith-Hughes legislation. And as they say, "the rest is history."

Final Thoughts

What initially had been "Vocal Education" in agriculture became "Vocational Education" in agriculture because of the home projects promoted by Rufus Stimson. The project method of teaching was duplicated in home economics and in many other academic disciplines over the years. Even though the home project method of teaching agriculture has been modified, evolved and expanded over the years into the Supervised Agricultural Experience Program of today, it is a testimony to the soundness of the original idea.

The reader might be interested in reading Stimson's 1919 book *Vocational Agricultural Education by Home Projects*. It can be accessed at https://babel.hathitrust.org/cgi/pt?id=uc1.$b659557&seq=9.

One might also want to read Chapter 11 in Stimson and Lathrop's 1942 *History of Agricultural Education of Less Than College Grade in the United States*. It describes how the project method came about and is online at https://babel.hathitrust.org/cgi/pt?id=umn.31951000443593t&seq=3.

Gary Moore is a professor emeritus in Agricultural and Extension Education at North Carolina State University.

Opportunities Come to Everyone, But Seldom Return to Anyone

by Andy VonCanon

During my 20 years as a classroom agricultural education teacher and then as a state staff member in North Carolina, I've frequently noticed that the benefits and true value of school-based agricultural education (SBAE) become clear *after* students participate, rather than being understood beforehand. For many students, and their well-intentioned guardians, the benefits of enrolling in courses within a SBAE program can initially be challenging to recognize, especially without existing knowledge or experience with agricultural education. Additionally, a significant number of students enter agricultural education programs not because they actively seek out dynamic instructors or because they have heard about the unique field trips, instead it is because of scheduling conflicts or a lack of other options. In either case, many of these students have not the slimmest idea of what potential experiences may lie ahead; much less the life changing impact and valuable benefits that can be received through active participation in the various facets of agricultural education.

In the Spring of 1996, this happened to be the case for me. One generation removed from a farm; I grew up in a planned housing development with neighbors' homes just a few lawn mower widths away from every property line. A direct connection to production agriculture was not part of my immediate family's daily routine. Fortunately, I had a couple of older cousins that had taken vocational classes and had benefited from active participation in agricultural education. Their suggestion and encouragement to sign up for Introduction to Agriculture cracked the door to a new world for me and changed the direction of my future.

As a 14-year-old rising freshman, I was introduced to the quote that serves as the title of this article, as it was included on the most-recent FFA chapter t-shirt design. At that time, I remember thinking that I understood the meaning of those words and took the message to heart. However, with some hindsight and reflection, it has become clearer to me that even though I was an eager and inter-

> Committed classroom instructors are the integral element in elevating SAE as the premier work-based learning vehicle...

Gray's Creek agriculture students plant and identify spring plant sale items as part of their SAE for All projects on campus.

SAE for All - Projects on Campus

Purpose: The following are projects that our program needs help with during this school year. If you need an idea for your SAE project, or just have a desire to complete a project that will help GCHS Ag. Department, this list has many options for you to choose from. Most projects list a teacher that will serve as the main contact. You will need to coordinate with that teacher throughout your project.
NOTE: You will need to develop a schedule that allows you to complete the set hour requirements.

Horticultural Projects	Livestock/Barn Projects	General Ag Department
• Create a digital **"Plant ID Key"** for all plants on campus (Garcia) • Repair greenhouse tables and assist Mr. Garcia in building replacement tables (Garcia) • Weed, mulch, and add species to the **Plant ID Garden**. Maintenance as needed. (Garcia) • Assist with the **Christmas Greenery Sale** (lasts about 2 weeks total- need volunteers after school. Might be difficult to get a total of 20 hours for this alone. See Garcia or McCullen) • Weed, design, and replant large **Tractor Tire Planters**- fall produce would be ideal. (Garcia) • Dig up dead trees in the **Fruit Orchard** and replace them with new fruit trees. Ideal time to plant is NOW. (Garcia)	• **Livestock Trailer Makeover**-gut, clean, pressure wash, and apply flooring to livestock trailer (King/McCullen) • **Chicken Coop Makeover**- clean, pressure wash, paint, and repair chicken coop (King/McCullen) • Build a **Mobile Chicken Grazer** (King/McCullen) • Create a **nesting box** stand for additional egg laying (McCullen) • Assist with afternoon feedings in the barn (**MUST** complete Barn Orientation led by King or McCullen AND pass barn safety test.) • Weed, mulch, and update flower beds at barn for appearance (McCullen) • **Fence and Pasture Maintenance**- long term (McCullen/King)	• **"Adopt" planters** at the front of school and maintain weekly and update seasonally. (Any teacher) • **"Adopt" Ag/FFA Bulletin Board** outside Mrs. McCullen's classroom and update monthly (McCullen) • Create a **"Virtual Tour"** of the Ag Department Facilities. Must include a worksheet to be used in our classes. (King) • Create a **"SAE Tour Video"** to be used in our classes along with a worksheet for class use. (King/McCullen) • Create an **"FFA Camp Advertising Video"** to be used in our classes to encourage students to attend FFA Camp. (Any teacher)

The Gray's Creek High School - SAE Ideas page is a collective listing of diverse on-campus project opportunities that students with limited resources or prospective projects are able to consider and match to their personal interests.

ested student, I still required the encouragement and advice of my agriculture teachers to step up and take advantage of the available opportunities. I am grateful for that guidance and the nudges that were given, as I would have surely skipped some of those experiences on my own and would have most-likely regretted my missed opportunities once those four short years had elapsed.

In short, by accident or as a deliberate choice, a majority of students may find themselves in an agriculture classroom, unsure of what is to come and often "waiting for someone or something to show (*them*) the way." – Pink Floyd, *The Dark Side of the Moon* (1973). This reference to the lyrics from the song "*Time*" acknowledges the realization that opportunities, time, and ultimately life will seemingly pass by, and that one must often be stirred from passivity and guided into taking responsibility.

"*If not us, then who?*" - unknown

As agricultural educators, we are well-positioned to serve as a steward in this process. Specifically, we should feel empowered to "*show students the way*" by increasing their awareness of potential career paths and post-secondary opportunities, personal financial management skills, workplace safety, and agricultural literacy through Supervised Agricultural Experiences. These are significant building blocks in the maturation of young people and opportunities that may seldom return for these students.

The team of agricultural educators at Gray's Creek High School in NC is doing just that. Through the development of an innovative and collective listing of diverse project opportunities on-campus, students with limited resources or prospective projects at home are able to consider a variety of options and match one to their personal interests. Those that excel by showing consistency in completing the tasks of their on-campus project, are then given the chance to advance these SAEs into paid internships with the county school system. These pending interns complete an employment application, appropriate tax forms, accept a compensation amount, and agree to submit their timesheets via AET records. Through this beneficial collaboration, these creative agriculture teachers have designed an ideal system to match their program needs with the demand for experiential learning opportunities for all students.

As the renewal of SAE advances through agricultural education classrooms across the nation, it is essential that practicing agriculture teachers claim ownership for the success of this component of our model and not expect or wait for accountability instruments or administrative mandates to be made before action is taken to implement quality experiential learning opportunities. Committed classroom instructors are the integral element in elevating SAE as the premier work-based learning vehicle and are the best conduit for advancing its positive impact on students. This is important work and arguably some of the most impactful. I am encouraged by the increasing implementation of the SAE for All framework across my state and the nation, and by the resourceful agriculture teachers that embrace the prospect of presenting these opportunities to those "waiting for someone or something to show (*them*) the way."

Andy VonCanon serves North Carolina Agricultural Education as a regional coordinator for the NW and West Regions, and as the State SAE coordinator.

Developing Innovative SAEs for Students

by Breanna Pastir

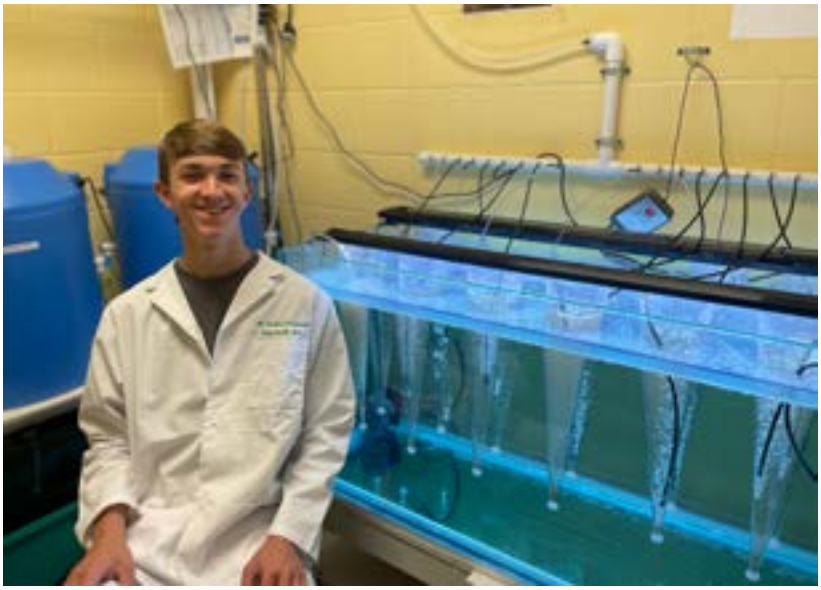
Supervised Agricultural Experiences (SAEs) are a cornerstone of agricultural education, providing students with opportunities to apply classroom knowledge in real-world settings, develop leadership skills, and explore career paths. As agriculture evolves, the development of innovative SAEs becomes increasingly important to ensure students gain relevant and future-focused experiences. This article explores strategies for developing impactful SAEs and highlights examples of innovative practices to inspire educators and students.

Steps to Develop SAEs for Students

1. **Assess Student Interests and Goals**
   - **Conduct one-on-one meetings** to understand each student's passions, career aspirations, and existing skills.
   - **Use tools** like career interest surveys or personality assessments to guide discussions.
   - **Use resources.** National FFA provides valuable resources to help educators suggest SAEs for students, including SAE Idea Cards and SAE Monopoly. Check them out under Educator Resources.
2. **Explore Community Resources**
   - **Look locally.** Identify local businesses, farms, or organizations willing to support student projects through mentorship, internships, or resources.
   - **Leverage relationships** with alumni, advisory boards, and community leaders to open doors for students.
3. **Provide Clear Structure for Documentation**
   - **Project planning templates:** Provide students with structured templates that guide them in outlining their goals, timelines, resources, and evaluation criteria.
   - **Reflection journals:** Have students maintain journals where they document daily or weekly reflections on what they've learned, obstacles encountered, and successes achieved.
   - **Visual documentation:** Encourage students to take photos or videos regularly to visually document their progress and provide evidence for evaluations.

> Developing SAEs that inspire, challenge, and prepare students is both an art and a science.

Thomas is shown checking bee hives (LEFT) and collecting quail eggs (RIGHT) as part of his specialty animal production SAE.



Dalton is seen prepping Artemia (brine shrimp) cones, used to grow Artemia (LEFT) and posing next to one of the Artemia (brine shrimp) tanks he maintains (RIGHT) while working at the University of Arkansas at Pine Bluff.

- **Project portfolios:** Have students compile all their documentation, including plans, reflections, photos, and financial records, into a final portfolio that showcases their SAE journey.

4. **Think outside of the box for supervising students in their SAEs.**
   - **Virtual check-ins:** Use video conferencing tools for regular updates, especially for students with off-site or remote projects.
   - **Community partnerships:** Collaborate with local professionals or alumni to mentor students and provide specialized expertise.
   - **Site visits:** Schedule visits to students' project locations to observe progress, provide feedback, and troubleshoot challenges.
   - **Peer feedback:** Create opportunities for students to present their projects to peers for constructive input and shared learning.
   - **Social media integration:** Encourage students to document and share their SAE journeys through supervised social media accounts, fostering communication and outreach.
   - **Work-based learning journals:** Have students maintain detailed logs or blogs about their experiences, which you can review to track growth and address issues.
   - **School-community events:** Organize showcases or open houses where students present their projects to the community, combining supervision with celebration.
5. **Celebrate Achievements**
   - **SAE showcase night:** Host an event where students present their projects to the community, including displays, presentations, or demonstrations.
   - **FFA banquet recognition:** Dedicate a segment of the annual FFA banquet to highlight outstanding SAE projects, with awards for categories like innovation, impact, and growth.
   - **Media features:** Publish student success stories in local newspapers, school newsletters, or FFA chapter websites to share their accomplishments with a broader audience.
   - **Social Media Spotlights:** Post photos, videos, and testimonials from students about their SAEs on the chapter's social media accounts to engage the community.
   - **Certificates and awards:** Create personalized certificates or trophies for achievements like best entrepreneurial project, most community impact, or best scientific research.
   - **School board presentations:** Invite students to present their projects at a school board meeting to highlight their contributions and showcase the value of agricultural education.
   - **SAE book or video:** Compile a book or highlight video featuring photos, stories, and achievements from all students' SAEs to

Marketing was a huge part of Elsie and Marli's SAE. Through their project, they combined entrepreneurship and agriculture to create and sell handmade sugar scrubs.They worked hard packaging their handcrafted sugar scrubs to make sure they were appealing for their customers. Proper labeling of the four different scents of sugar scrubs was important to ensure customers were getting the correct, high-quality product. When done packaging the sugar scrubs, Elsie and Marli took their finished products out into the school and community to sell to their customers.

distribute at the end of the year.

- **Alumni engagement:** Host a celebration where former SAE students return to share how their projects impacted their careers, providing inspiration to current students.
- **SAE wall of fame:** Create a permanent display in the school or classroom showcasing photos and details of outstanding SAE projects each year.
- **Mentor appreciation:** Include a segment in your celebration to recognize mentors, supervisors, or community partners who supported students.

Innovative SAE Ideas

SAEs provide students with real-world opportunities to explore agriculture and develop hands-on skills through practical, meaningful projects. These experiences bring classroom learning to life by allowing students to apply their knowledge in real-world settings. Example projects from students across the country include:

Willow from Georgia: Willow took part in The Sandwich Project based in Atlanta, Georgia. She made peanut butter and jelly sandwiches using the specifications of the organization. She donated them at one of their Metro Atlanta locations to help with food scarcity needs in the area

Weston from Texas: Weston grew lettuce and spinach, primarily out of tower gardens, and then the project expanded to a raised garden bed. Weston also had laying hens at his school and the eggs, along with the spinach and lettuce, were used in the school cafeteria.

Ally and Raina from Alabama: These two students work with the school farm/garden to build, plant, and raise produce in raised garden beds. They have been able to bless the community with fresh produce and continue to expand their SAE throughout the years by adding new produce each year.

Elsie and Marli from Georgia: Elsie and Marli made sugar scrubs in 4 different scents and packaged them to sell in the community. The project was called Dollars & Scents, and all the money earned from the sale of the scrubs was collected to donate to local community service efforts.

Macy from Alabama: Macy received an SAE grant to start her SAE which is growing fresh cut flowers and vegetables. She built and runs a roadside stand and sells flower arrangements and fresh vegetables to others in the community.

Thomas from Georgia: Thomas has raised over 45,000 quail and sold them to wildlife plantations all over the southeastern United States to replenish populations. He also has had 350 honeybee hives that he rents out for pollination services throughout the southeast.

Dalton from Arkansas: While in high school (and has continued through his first two years of college) Dalton worked as a lab assistant at a local university researching brine shrimp, maintaining the aquaculture ponds, and building new tanks/ponds for research.

Developing SAEs that inspire, challenge, and prepare students is both an art and a science. By leveraging community resources, embracing innovation, and prioritizing student interests, educators can create experiences that transform lives and shape the future of agriculture. The possibilities are endless, limited only by imagination and the willingness to push boundaries. As educators and students collaborate on these endeavors, they not only advance agricultural education but also contribute meaningfully to the broader agricultural industry. Looking for more innovative SAEs? Check out the SAE Video Library on ffa.org to gain inspiration.

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Elevating SAEs: Making Work-Based Learning More Purposeful

by Dr. Matt Kreifels

As a former high school agriculture teacher in Blair, Nebraska, I vividly recall my enthusiasm for "checking the SAE box" when guiding students through their Supervised Agricultural Experiences (SAEs). My approach was often simplistic: "Do you already have a job? Yes? Great—SAE complete!" With this mindset, I moved to the next student, rarely pausing to challenge them to consider more meaningful options for their SAEs—especially for those students with placement enterprises that could propel them toward FFA degrees.

Over time, I began to notice a recurring pattern. Many of my students' placement jobs revolved around routine, repetitive tasks—what some might call "grunt work," where the students simply did as they were told. For instance, students working at one of the vehicle dealerships often found themselves confined to the detailing bays, cleaning cars before customer delivery. They did their jobs well, but their roles offered little in terms of personal or professional growth.

My perspective shifted years later, thanks to one student, Morgan. As one of my FFA officers, Morgan secured an internship at the local Cargill facility. Unlike the static experiences of her peers, Morgan's role empowered her to take ownership of projects, allowed her to make proposals for improvements within the company, and experience diverse aspects of the business. It was transformational for Morgan—and for me. I realized what SAEs could truly achieve when designed with purpose and ambition.

> "I realized what SAEs could truly achieve when designed with purpose and ambition."

This epiphany led me to ask critical questions: What should be the purpose of a placement SAE? What are the mutual goals for the employer and the student? Simply put, for those students who worked at the dealership, the employer's goal was for a task to be completed, while the goal for my students was to be paid. Work for the sake of work.

This was in contrast to Morgan's experience at Cargill, where the employer's goal was to train (and retain) a promising potential future professional. Similarly, Morgan's goal was to learn the business. **In essence, both parties' goals were education and career preparation, offering a far richer and more meaningful experience.**

Reimagining SAEs: Career Exploration and Purpose

The introduction of *SAE for All* offers a fresh lens for this critical component of agricultural education, shifting the focus to career development. The *Foundational SAE* sets the stage for students to consider five elements, with the first (and arguably most important) component being *Career Exploration and Planning*. This framework challenges all students to develop a **Career Plan of Study** tailored to their aspirations (National Council for Agricultural Education, 2015a; National Council for Agricultural Education, 2015b). These Career Plans may look different, but they should include secondary (and possibly post-secondary) coursework, FFA or other activities, and *Immersion SAEs*, creating a cohesive pathway supporting the career goal.

Looking back at my time at Blair, I now see two missed opportunities for my students who worked at the car dealerships:

1. For students uninterested in the auto industry: Finding a job there was easy (the dealerships were always looking for part-time help in the detailing bay), but with a bit of effort, those who were interested in natural resources or agribusiness could have found experiences that better aligned with their interests.
2. For students eyeing a career in the automotive field: Few progressed beyond the detailing bay, and their roles and responsibilities did not change throughout high school. They missed opportunities to explore other facets of the industry.

As teachers, we play a pivotal role in bridging these gaps. By building relationships with local businesses and organizations, we can uncover opportunities students might not find on their own. Historically, teachers often placed students into roles, a

practice rooted in the idea that *placement* involves more than just employment—it involves the intentional matching of students to experiences that prepare them for future success.

From Placement to Internship: A Call to Action

How can we elevate students from a placement experience to an internship—and what exactly are the differences? As described in the SAE for All Teacher Guide:

> The Internship SAE is an advanced level of placement. It entails greater involvement of the student, instructor, and the employer in determining the activities the student performs in the job setting. The internship experience is directed not as much by the business operation but by a Supervised Agricultural Experience (SAE) Training Plan created for the maximum benefit of developing the student's knowledge and skills (National Council for Agricultural Education, 2017, p. 14).

An internship demands more than task completion. In addition to the SAE Internship Training Plan, which focuses on the student's educational goals, the student will document their reflections on their learning and formally share their experience with their teacher and others, similar to how many college internships are organized. And yes, student interns also keep records on key indicators of a regular placement experience (e.g., SAE agreement, hours worked, income received, tasks performed, knowledge and skill development).

The challenge for teachers is coordinating with employers—especially those who have not considered this approach to working with the students they hire. In today's labor market, especially in agriculture, businesses are eager to attract and retain talent. High school internships can serve as a primary (and local) pipeline for developing the next generation of professionals. This is not to say that the sole goal of internships is to hire students full-time upon graduating from high school—but it is also to help students see a future for themselves *after* post-secondary education. Essentially,

The SAE for All Roadmap illustrates the connection between the Foundational SAE and Immersion SAE categories. The Placement/Internship and Ownership/Entrepreneurship SAEs offer students opportunities to enhance their knowledge and skill development while aligning these with future career goals.

agricultural education has the potential to drive economic growth within communities, including sustaining rural America by purposefully connecting students and employers.

From Ownership to Entrepreneurship: Raising the Bar

Similarly, teachers can elevate students with ownership of SAEs to start a true entrepreneurial venture. Ownership SAEs are common in agricultural education and often involve experiences like maintaining a home garden, showing livestock, equine projects, pet care, home lawn care, etc. While these experiences teach responsibility and industry skills, introducing an entrepreneurial element elevates this experience to meet market needs and manage their ventures as real businesses.

In addition to the indicators expected of an ownership SAE, a student with an entrepreneurship SAE would also analyze the business's production and profitability, identify features that are and may not be realistic in the real world (e.g., selling show stock for greater than market value), account for all resources utilized in the business, and create and use a business plan (National Council for Agricultural Education, 2017). For example, a student who manages a family garden might expand to sell produce in their hometown. A livestock show participant could also raise animals for commercial sale. Equine students can offer riding lessons, students who focus on home pet care can start a grooming business, or students with a home lawn care project can expand to serve the neighborhood.

In essence, students who elevate their ownership SAE to an entrepreneurship SAE expand their personal growth beyond knowledge and skill development to identify opportunities and challenges in the world, solving them while making money along the way.

The Teacher's Role: A Guide to the Future

Ultimately, SAEs are an excellent vehicle for students to gain experience within an industry. But we, as teachers, must ask ourselves:

1. To what extent does it align with each student's career goals?
2. How can students elevate an experience to maximize its impact?

By guiding students to elevate their SAEs—whether transitioning from placement to internship or from ownership to entrepreneurship—we help them see their futures more clearly and connect their current work to their long-term goals. Let's embrace our role as mentors and ensure that SAEs remain a powerful tool for shaping the next generation of agricultural professionals.

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Rethinking the Supervised Agricultural Experience (SAE): A Path for Every Student

by Matt Harris & Matthew Greene

It was certainly apparent that an interest had been established standing in the school greenhouse. The discussion was centered around the upcoming FFA plant sale and the price that was intended for each item. One young student insisted that the discussion continue by reviewing the cost for each plant and how much money that would generate for the program. It was clear that he was well on his way to trying to figure out how he was going to build his own greenhouse.

The discussion that day had evolved from that of previous years. In the past it was simple, the teacher determined the price, set the plan, and told the student how to execute the project. This was how many of the past sales were conducted, and they were always successful in generating some extra funds to keep the experience going. This year it was different, it was time to let the students have more input and that day the discussion moved to a more student-centered approach rather than always what the teacher thought was the best idea. Now, students were beginning to make more decisions and the project was evolving from a production enterprise led by the teacher into more of a true enterprise conducted by the students.

The Beginning of a Movement: An effort to create a better path for student development

While the concept in the horticulture classroom that day was not perfect, it was the beginning of a movement. Career and Technical Education (CTE) and Agriculture Education are always evolving in an effort to better serve students. One example is the movement to better serve students by developing pathways that more effectively point students to future success.

> Career and Technical Education (CTE) and Agriculture Education are always evolving in an effort to better serve students.

Hans Meeder (2016) made the case that "pathways" are essential to the modern development of student engagement in meaningful careers held in stark contrast to the monolithic approach in the 1960's and 1970's that offered a limited option of either college or vocation-bound. One might also make a similar connection with the evolution of Supervised Agriculture Experience (SAE) projects in recent years with that of career "pathways."

While in earlier times, SAE was more simplified in that it provided students with a home project tailored to meet a student's need for operating a successful farming operation. Today, "SAE For All" takes the concept to a more diverse model that is designed to serve multiple needs in preparing students for a globalized economy.

The Path of the School-Based Enterprise

The SAE for All model now includes additional avenues for student success just like the evolution of CTE Pathways. SAE now has multiple avenues to better serve students and the needs of society. One of those new areas is a School-Based Enterprise.

The movement that began by involving students in the decision-making process of the school greenhouse, captures the essence of the School-Based Enterprise model and now is incorporated as much as possible into the school's agriculture program. The program also has a significant animal science, agriculture mechanics, and natural resources focus along with horticulture. With the integration of the School-Based Enterprise into horticulture, it was also important that it spill over into other areas, a School-based Enterprise approach is being implemented with all of the program's courses.

School-Based Enterprise: An Enterprise for Animal Science

To become a true School-Based Enterprise, a business plan and a board of directors are required to fully conform to the model. With this requirement,

the existing animal science livestock committee became the board of directors with a new task. The new task was to find a way to make the animal science program more sustainable instead of just consuming funding with no tangible product in return. To do this the activities of the state fair and local country shows became part of the business model. Moreover, the program began looking for products that were needed by local customers. The milk from the school's dairy goats was not practical to process for selling to the public, however, making soap from the milk was a possibility and desired by local consumers within the school and at the farmer's market. With the need to generate funding, like all good businesses, the product line under the direction of students continues to develop today.

School-Based Enterprise: The Future Enterprise for Agriculture Mechanics

As the program evolves the School-Based Enterprise will continue being a backbone of SAE activities for the program. Agriculture mechanics courses have been introduced and a new group of students serving as the company board will have to be established and a business plan developed. While there are options for integrating this new School-Based Enterprise into the total program it will be necessary to give that job to the future student board to make the ultimate decision and the question will be the same as all small businesses and corporations. How do I make a profit with the needs of those that we plan to serve?

The School-Based Enterprise is not the only Pathway for Immersion

While the School-Based Enterprise approach is relatively new in comparison to the historical concept of SAE, it is only a portion of the SAE for All model. To begin, there is a foundational focus for all of our students even before the deeper areas of SAE (Immersion SAEs) appear. The foundational approach is applied to all of our program's students, all of the time. The School-Based Enterprise works for us, but is not the only option for immersion into a deeper level of SAE.. We still offer students the opportunity for an immersion SAE that is best suited to their needs.

Crest High School students working with dairy goats in their School Based Enterprise SAE.

Nevertheless, all of the programs students at our school will be involved in the School-Based Enterprises to some extent.

A Cornerstone for Agriculture Education

The Supervised Agricultural Experience program is a cornerstone of agricultural education, offering all students an opportunity to engage actively in their communities through hands-on learning. Whether a student's interests lie in traditional farming or a non-traditional agricultural path, there is a place for them in SAE. It's a flexible, dynamic component of agricultural education that goes far beyond the boundaries of the farm.

The most commonly accepted perception of SAE, however, is that it's only for students working directly on a farm outside of school. While these traditional farm-based projects often receive the most attention, the School-Based SAE model and other non-traditional SAE projects are equally valuable, yet sometimes overlooked. As an agricultural education community, we must celebrate all forms of SAE equally, acknowledging that agriculture is a vast and diverse field that extends into many industries beyond farming.

Striking the Right Balance: Reimagining the Three-Circle Model

We are all familiar with the three-circle model of agricultural education—classroom instruction, FFA involvement, and SAE. Traditionally, these three components are expected to be equally balanced in time and focus, but in practice, achieving that balance can be challenging. Instead of striving for an equal balance in the traditional sense, we should aim for an equitable approach.

Ensuring that each student's experience with SAE extends beyond the classroom environment, providing them with real-world, work-based learning opportunities that suit their unique interests, talents, and communities.

We often talk about SAE in terms of proficiency awards—recognizing students who excel in traditional agricultural practices. These awards are important, but they represent just one aspect of what SAE can be. The value of SAE lies not only in the recognition of high-achieving students, but in the opportunity it gives all students to explore, learn, and grow in agriculture, in whatever form that may take.

Breaking Free from Tradition: Embracing Change in SAE

While the traditional SAE model is important, we cannot let it constrain its innovation. SAE is meant to be adaptable—it should reflect the realities and needs of the communities it serves. There are still those who resist this change, perhaps fearing that a "different" SAE model will disrupt the program's integrity. As educators, we must evolve with the times. The agricultural industry and the world at large have changed significantly since the 20th century, and it is essential that we adjust our approach to reflect that progress. Our program has moved toward a more inclusive, flexible definition of SAE. One that doesn't merely fit the traditional mold but challenges the profession to improve and adapt.

A Bright Future with SAE for All

We are in the midst of an exciting shift with the SAE for All philosophy. This updated approach ensures that every student, regardless of their background or interests, can participate in meaningful, work-based agricultural learning. It's an essential step toward making agricultural education more inclusive and reflective of the diverse careers available. The School-Based Enterprise model holds the potential to engage 100% of students in SAE nationwide.

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Hitting the Sweet Spot: How Service Learning SAEs Engage Students in Classroom Instruction, FFA, and SAE

by Dr. Jillian Ford

Annually, my teaching partner and I sat down to set goals and discuss the mission, philosophy, and vision for our agriculture program. It seemed like two goals kept being set, but were always just out of reach. First, to make SAE impactful for each of our students. Second, to serve the community more. Two areas that are arguably important, but not necessarily required. No one was chiding our program for only having a handful of state proficiency award applications and a couple community service activities annually, but we kept having the nagging feeling that we were not doing *enough*.

It seemed like we updated our SAE expectations every year, some years we even revised our requirements mid-year for the new semester. These requirements ranged from a set amount of time in something agriculturally-related outside of class to developing a Foundational SAE. However, we never could shake the feeling that how we were doing SAEs *just wasn't quite right*. How were we supposed to have time outside of class and FFA activities to help every student in our program set up, maintain, and grow an individualized and valuable SAE...especially for those students that lacked pre-existing resources or the motivation to find opportunities on their own? Similarly, the time investment for developing and coordinating a community service activity often fell to my teaching partner and I, with our FFA members only showing up the day of the activity.

An answer to achieve both goals can be found in SAE for All's Service Learning Immersion SAE. According to the SAE for All Teacher Guide, a Service Learning Immersion SAE "is conducted by one or more students in which they plan, conduct and evaluate a project designed to provide a service to the school, public entities or the community. It must provide benefits to an organization, group or individuals other than the FFA chapter" (The National Council for Agricultural Education, 2017, p. 22). Through Service Learning SAEs, SAE for All is handing agriculture teachers a convenient way to not only provide SAE opportunities to students, but one that meets a need for the community and engages multiple students all at once. Service Learning SAEs *can hit the sweet spot* in the three-component model of agricultural education where SAE, classroom instruction, and FFA intersect. It is important to note the main difference between service learning and community service activities is the input of work. Service learning activities involve planning and implementation and a significant input of time, while community service activities are typically the day-of input by others in a pre-planned service activity.

While there have been SAEs in which students found a way to serve their community in the past, Service Learning is one of the SAE categories introduced through SAE for All. One, or a

Students could create a nature trail in your community, including educational signs, activities for children, and a safe space for community members to exercise.

group of students, can formally identify a need in the community and take action to help meet that need. Students are not only identifying an issue and planning for service but taking action to make a difference in their community and engaging others in the process. Students should be maintaining records about their Service Learning SAE just like they would in any other SAE category. Service Learning SAEs can involve students maintaining records of time, materials, finances, and skills. Students can use the Agricultural Experience Tracker (AET) or another designated recordbook to maintain their records like they would do for other categories of SAE. If you have multiple students engaged in a Service Learning SAE, you can supervise the group of students at one time, saving you time while still giving every student valuable feedback on their SAE.

Requiring students to complete an SAE for a grade encourages higher levels of participation in SAE (Lewis et al., 2012). Allowing students to complete a Service Learning SAE for a class grade gives students, especially those that don't have *built-in* resources at home or those that may not have a solid idea of their interests in agriculture yet, a starting point with an Immersion SAE. After all, doesn't communicating with community members, developing a plan of action for a service activity, and executing the planned activity not directly connect to the many Agriculture, Food, and Natural Resources (AFNR) Standards in Career Ready Practices (The National Council for Agricultural Education, 2024)? A Service Learning SAE could be created, maintained, and supervised during class time, allowing students and teachers time together to ensure the service activity is progressing.

> Service Learning SAEs can hit the sweet spot in the three-component model of agricultural education where SAE, classroom instruction, and FFA intersect.

Service Learning SAEs also help students earn awards in FFA. Chapter, State, and American FFA Degrees can count SAE hours from a Service Learning SAE. For any student that helps with the activity, but not the planning, the service activity can count as community service hours, also necessary for Chapter, State, and American FFA Degrees. Some state FFA associations have created a Service Learning Proficiency Award, allowing students to more specifically highlight their learning and accomplishments related to their service activity. The National Chapter Award for your FFA chapter can even include an activity that is a Service Learning SAE, as long as it is not a copy of an activity previously used in a National Chapter Award application from your FFA chapter (The National Council for Agricultural Education, 2017).

National FFA offers grants that could provide financial support for a Service Learning SAE. FFA chapters can apply for Living to Serve Grants, which can be yearlong, semester-long, or day of service mini grants (FFA, n.d.-a). Students can also apply for individual SAE Grants, receiving funds to utilize in an SAE, including Service Learning. Receiving funding for a Service Learning SAE can allow students to make a bigger impact in your community.

Students with Service Learning SAEs can develop service events that are FFA community service activities for your FFA chapter. Maybe your FFA chapter's officers have a goal of five community service events each year; why not let students learn how to organize the community service events through their

Do members of your community struggle with food insecurity? A Service Learning SAE could involve raising fish on campus, harvesting, and donating the meat to your local food bank.

Service Learning SAE? FFA is supposed to be a student-led organization after all.

Now that you see how Service Learning SAEs *can hit the sweet spot* in an agricultural education program, it is important to consider what you as the agriculture teacher need to do to set your students up for success. First, familiarize yourself with the *Teacher Edition – SAE for All Service Learning Immersion SAE Independent Learning Guide* (2018a). In the teacher guide, you will find instructional resources, student planning ideas, rubrics, and more. Use the resources like the teacher guide to help you set supervision deadlines to ensure your students are following through with their Service Learning SAE. Second, provide students with guided resources for planning from the *Student Edition – SAE for All Service Learning Immersion SAE Independent Learning Guide* (2018b). In the student guide, you'll find prepared worksheets, activities, and next steps for students to set up a Service Learning SAE. Third, consider what documentation or records you want submitted from your students and how the resources from the student guide can be submitted to you for supervision. Fourth, students will need ideas and connections to funding for their Service Learning SAEs. Consider sharing the National Days of Service Interactive Toolkit (FFA, n.d.-b) with your students. In the toolkit you'll find examples of prior FFA National Days of Service planning activities as well as resources to develop new service activities. For funding, connect students to the SAE Grants and Living to Serve Grants through National FFA, offer an application for start-up funding from your FFA Alumni and Supporters chapter, or guide students in asking local businesses or organizations for funding. Finally, be prepared to advise students through their Service Learning SAE instead of doing the planning for a community service activity yourself.

Even though SAE for All is relatively new, a recent study found that almost 59% of agriculture teachers in the study had students in their program with Service Learning SAEs (Ford, 2024). It seems like agriculture teachers are seeing how Service Learning SAEs can fit into their programs and be appropriate SAEs for their students. Have you considered how you can encourage more students in your program to work together, reach your community, and *hit the sweet spot* through Service Learning SAEs?

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Five Game-Changing Reasons to Engage Students in Research SAEs

by Krysti Kelley

Explaining a research SAE to an unfamiliar student or parent is like describing the rules of American football to an international soccer player. At first, the terminology can feel foreign—terms like "hypothesis," "variables," "data analysis," and "methodology" might seem intimidating, much like explaining "touchdowns," "field goals," or "line of scrimmage" to someone familiar with corner kicks and penalty shots. However, the core idea of conducting research, just like the basic concept of playing a game with a goal, is something we all instinctively understand.

To make the concept relatable, I often draw parallels to experiences they already know, such as participating in an elementary science fair. A research SAE is essentially a science fair project taken to the next level. Instead of simple experiments like building a baking soda volcano, students are diving deeper into real-world agricultural problems. They're asking complex questions, designing experiments, collecting data, and analyzing results to find meaningful solutions. Just as a soccer player can appreciate the strategy, teamwork, and skill involved in football, even if the specifics are new, a student or parent unfamiliar with agriscience research can grasp the value of the process when framed in familiar terms. The goal is to help them see how this type of experience is transferable to many areas of life.

Getting buy-in from students to participate in research SAEs, especially those with the intention of using this SAE to compete in the agriscience fair competition, can be challenging for a high school agriculture teacher. We are asking high school students to complete a college-level research project by reading and analyzing existing academic literature, designing and completing an experiment, writing a high-level report, and communicating those results with their intended audience. This can be a hard sell initially. However, through years of experience both supervising research SAEs and now serving as a judge for the agriscience fair competition, highlighting the benefits is the best way to get students, parents, administrators, and community members to buy in. As I reflect on the best reasons to include research SAEs in your program, many benefits arose; however, due to limited space, this article will highlight my top five.

Students with a research SAE engage in the entire scientific process including data collection in the agricultural field of their choice and on a topic they are passionate about. This student chose to explore the effects of water level usage in a plasma table on metal distortion.

Reason #1: Develops essential scientific inquiry and problem-solving skills.

Research SAEs provide students with the opportunity to develop essential research skills, including hypothesis development, data collection, analysis, and interpretation. These are concepts they are taught in their science courses but that are not as applicable to them until they apply them to a relevant context. Students can garner these skills in an area of inquiry that interests them through

> These hands-on experiences teach students how to think critically and systematically solve problems.

their research SAE. I have students explore topics ranging from small animal nutrition, food science packaging, improving safety in agricultural mechanics, and a variety of social issues that are important to them. These hands-on experiences teach students how to think critically and systematically solve problems. One of my favorite aspects of supervising research SAEs is the growth that a student experiences after just one project. As first-year students are completing a project, I usually have to guide them throughout the process. However, by participating in research projects, students gain a deeper understanding of the scientific method and its practical applications in agriculture. This fosters their curiosity and innovation. They become self-sufficient and desire to deepen their inquiry by improving the rigor of their design and the complexity of their projects. What usually starts as extrinsic motivations to win awards often shifts to an intrinsic desire to answer their questions and grow their research skills.

Reason #2: Fosters interdisciplinary learning and teamwork across academic subjects.

Research SAEs promote interdisciplinary learning by integrating knowledge and skills from multiple subject areas. Students often combine principles of science, mathematics, English, and technology to conduct their research. As agricultural science teachers, we do not have to be an expert in all of these subjects to have successful research SAEs. This is a great opportunity to collaborate with teachers from various disciplines to create a richer and more cohesive educational experience. Science teachers might have the knowledge, expertise, and equipment to conduct an experiment that would otherwise not be possible. Our science teacher always had great ideas for our methodology and often had access to the tools for experiments. I had one student who wanted to study the effects of soil pH on wildflower color. It was an excellent question that I had no idea how to explore. However, our science teacher knew the proper methods and had access to the spectrophotometer to conduct their experiment. They also loved the opportunity to tie it into their course, so it was a win-win. English teachers are excellent proofreaders. Our English teachers were always happy to serve in this role and were so impressed by the writing skills students gained from their research SAE. These collaboration opportunities allowed other subject teachers to see the

(LEFT) Collaborating with local businesses and community leaders can provide access to equipment and industry expertise that can enhance the rigor of your research SAE projects. This student partnered with a local veterinary clinic to explore the effectiveness of various sanitation procedures on microbial levels. Veterinarians provided guidance on methods used to conduct the study, allowed for data to be collected at their clinic, and oversaw data collection to ensure consistency.
(RIGHT) Students with research SAEs can continue their line of inquiry through undergraduate and graduate-level research. This student continued their SAE by submitting research to a professional conference and presenting their findings as a research poster.

relevance of what students were learning in their agriscience courses and helped students see how subjects are interconnected in real-world contexts.

Reason #3: Builds meaningful connections with local professionals, organizations, and stakeholders.

Research projects often involve partnerships with local businesses, organizations, and community members. These collaborations allow students to connect with professionals in the field, access resources, and gain insights into industry practices. Again, we as agricultural science teachers do not have to be the end-all, be-all. We can rely on the expertise of our community members to provide rich learning experiences for our students. Students can develop connections within the community that can translate to internships or jobs. One of my students wanted to research sanitation practices within veterinary science clinics and partnered with local veterinarians to explore this topic. This partnership led to an internship and an eventual job. It also fostered a positive relationship with that clinic that opened doors for students to intern and work there in future years. This can not only benefit the student but can also shed light on the value of our programs in preparing future employees for careers in the community. Community buy-in can be crucial to the growth and success of our programs, and I have found research SAEs can be great promoters.

Reason #4: Enhances students' ability to articulate ideas effectively through written and verbal communication

Participating in research SAEs enhances students' abilities to articulate their ideas effectively through writing and verbal communication. Critical writing is a skill that most students need additional support in and research SAEs provide relevant opportunities for this development. From preparing research manuscripts to maintaining detailed records, students will grow in their current writing skills while also learning new skills associated with academic writing such as utilizing APA style and interpreting data through narrative description. Parents and other teachers alike will notice the growth of their student's writing. It was always my favorite compliment to hear that they told their English teacher they learned to write a research paper through their agriscience course and research SAE. Verbal communication skills will also be developed by presenting findings at events like FFA agriscience fairs. This initial hesitation can hinder some students' participation, but the confidence they gain by sharing their projects is invaluable. At one point while I was teaching, I had a 3rd grader who had a research SAE. He competed at livestock show competitions throughout the state. When he started, he barely would tell his mom and me about his project. By the end of his competitions, he was proud to share his project with all who would listen and placed with his project at his final show.

Reason #5: Prepares students for higher education and career opportunities in STEM and agriculture.

Agriscience research SAEs can help students explore potential career paths and build portfolios of work that can be used for college applications, scholarships, and internships. Engaging in research also prepares students for the rigor of post-secondary education by developing critical thinking, problem-solving, and self-management skills. Many of my former students have gone on to engage in undergraduate and graduate-level research. Their passion for inquiry that started through their research SAE earned them scholarships and fellowships that have helped pay for their college education. A few of these students have chosen research as their future career and attest that this choice started with their research SAE.

In conclusion, much like explaining the game of American football to a soccer player, engaging in agriscience research SAEs takes students into a new and sometimes unfamiliar arena. At first, the terminology and process might feel daunting. Through these research projects, students develop critical scientific skills, collaborate across disciplines, and gain real-world experience that applies to future careers. Ultimately, the research SAE becomes a game where the goal isn't just winning awards. Instead, they will aim to develop the tools and mindset necessary to succeed long after they leave our programs.

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Building a Pipeline for Success: Agriscience Fair in Middle School Agricultural Education

by Jason Dossett

Bright posters, interactive exhibits, and enthusiastic students line the Indianapolis Convention Center each October for the National FFA Agriscience Fair. The projects range from testing the tensile strength of fishing lines to analyzing bacteria in packaged foods, showcasing the work of 7th to 12th-grade students presenting their research findings to expert judges. For many, this event represents the culmination of months of preparation and a cornerstone of their Supervised Agricultural Experience (SAE).

Traditionally, high school-level SAEs have been viewed as pathways for students to gain work experience, earn money, and enter agriculture-related careers. Over time, SAEs have evolved from focusing on entrepreneurship and placement projects to encompass agriscience research, school-based enterprises, and service learning. By incorporating agriscience fair projects into middle school agricultural education programs, educators can spark an early interest in agriculture and research, foster hands-on learning, and create a pipeline of well-prepared learners for advanced agricultural education at the secondary level.

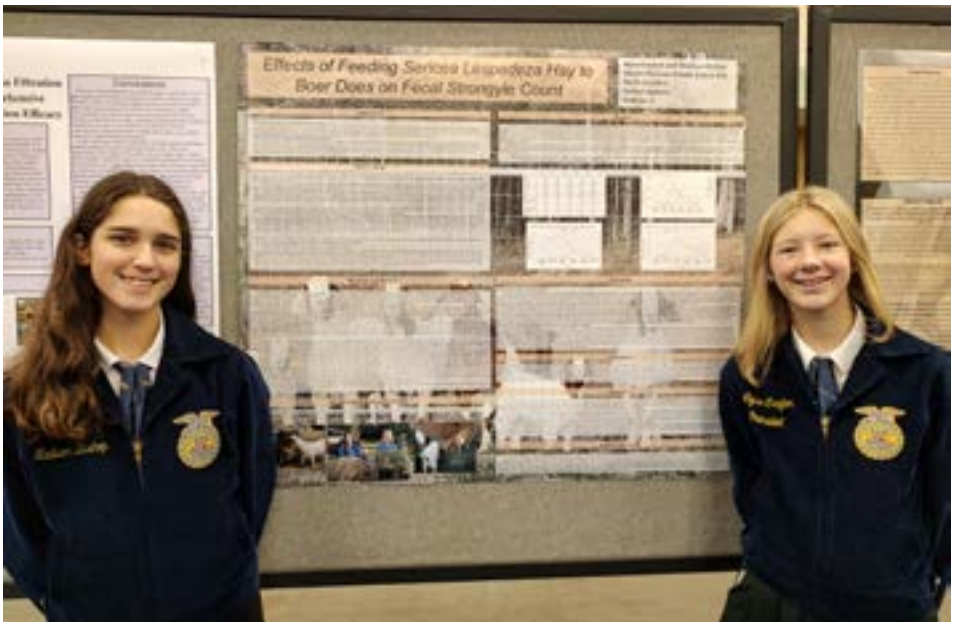
The Value of Middle School Agriscience Fair Projects

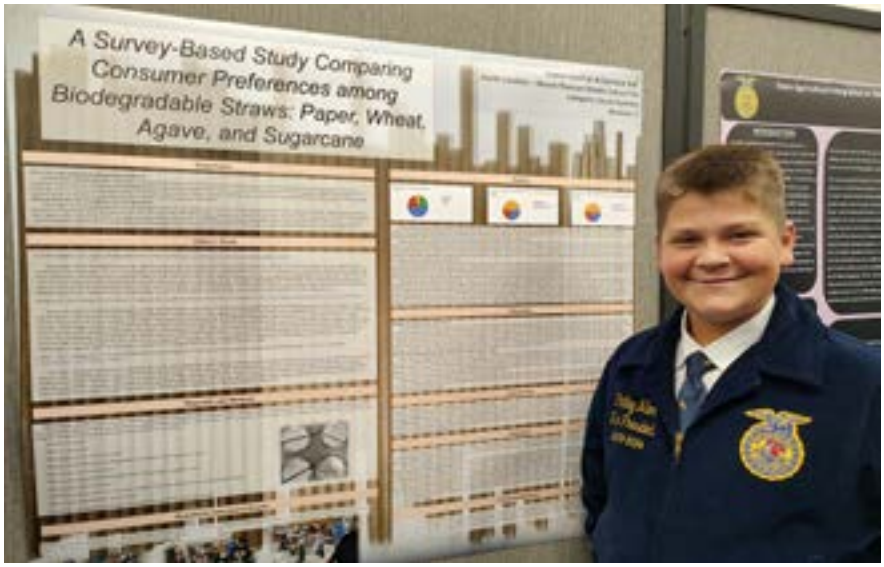
Middle school agriscience fair projects offer a unique opportunity to ignite curiosity and solidify students' long-term interest in agriculture, FFA, and STEM-related careers. The agriscience fair also serves as a foundation for developing essential academic and career skills (Thiel & Marx, 2021). Teachers who implement agriscience fair projects frequently report transformative outcomes for their students. Many teachers note that students gain proficiency in technical writing, develop confidence in presenting their ideas, and engage with diverse audiences.

Agriscience fair projects also create valuable connections between students and the broader community. Students build relationships with industry professionals, local organizations, university faculty and researchers, and mentors by working on projects that align with real-world agricultural challenges. These interactions inspire career exploration and provide tangible networking opportunities that benefit students beyond the classroom.

Moreover, students participating in agriscience fair SAEs develop a practical understanding of the scientific method. They learn to design experiments, collect and analyze data, and draw evidence-based conclusions—all while observing the tangible im-

> For educators, agriscience fair is more than just projects—they are opportunities to elevate their programs.





Through agriscience SAEs, middle school students cultivate essential lifelong skills, setting them up for future success.

pact of their work. For example, a student investigating soil pH levels might discover its effects on plant growth, linking classroom lessons to real-world agricultural practices. By engaging with local industry partners, students see how their projects address current challenges in agriculture, creating a sense of purpose and connection to their community.

Elevating Programs Through Agriscience Fair

For educators, agriscience fair is more than just projects—they are opportunities to elevate their programs. Many teachers see the agriscience fair as a way to align agricultural education with broader educational goals, bridging classroom content, FFA activities, and SAEs into a cohesive experience.

One teacher shared, "Our school didn't have a science fair, and I saw an opportunity to fill that gap through agriscience research projects." For others, agriscience fair projects provide a platform for students who may not excel in traditional settings. "The fair gives students a way to connect their personal interests to science and agriculture," another teacher explained.

Educators cite several motivations for implementing agriscience fair projects, including:

1. Bridging Classroom and Career Preparation: Agriscience fair projects integrate classroom learning with SAE and FFA components, helping students connect theory to practice.
2. Challenging Diverse Learners: Agriscience fair projects offer differentiated learning opportunities, allowing high-achieving students to tackle complex projects while supporting those who may benefit from more straightforward, scaffolded experiments.
3. Addressing Community Needs: Agriscience fair projects align with priorities such as preparing students for careers, fostering academic rigor, and meeting local workforce demands.

Overcoming Barriers to Implementation

Despite their many benefits, the agriscience fair comes with challenges. Teachers mention limited time, resources, and student buy-in as significant barriers. Without careful planning, these projects can feel overwhelming for educators and students. One teacher noted, "If you don't have a timeline and clear expectations, it's easy for projects to get off track."

To overcome these challenges, experienced educators recommend the following strategies:

1. Start Small: Begin with a pilot program involving a single class or a few students to test the process and build confidence.
2. Integrate into the Curriculum: Embed agriscience fair projects as part of regular coursework to ensure all students benefit from the experience. One teacher shared, "I use agriscience fair as a graded component of my class so that all students can participate."
3. Leverage Partnerships: Collaborate with local businesses, universities, and agricultural organizations to access resources, funding, and mentorship opportunities.
4. Scaffold Learning: Break projects into manageable steps, such as selecting a topic, designing experiments, collecting data, and

presenting results. Clear deadlines and incremental goals keep students focused and reduce stress.

By implementing these strategies, educators can create a structured, supportive environment that empowers students to succeed.

Building the Pipeline for Future Leaders

Middle school agriscience fair projects foster academic success and create a pipeline for lifelong engagement in agriculture. The agriscience fair prepares students for the challenges of high school agricultural education, postsecondary studies, and careers in agriculture and STEM fields by cultivating curiosity and providing meaningful learning opportunities.

For practitioners, the message is clear: start small, leverage available resources, and focus on creating a supportive, student-centered environment. One educator observed, “It only takes one success to fuel your fire—and it’s worth it.”

Through middle school agriscience fair projects, teachers can transform not only their programs but also the lives of their students, building the pipeline for success in agriculture.

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Identifying Perceptions, Barriers, & Implementation of Middle School SAE

by Dr. R. Jason Davis & Dr. Christopher J. Eck

School-based agricultural education (SBAE) teachers are inundated with various responsibilities in and out of the classroom as they provide a comprehensive program. Supervised Agricultural Experiences (SAEs) are considered an intracurricular component where students receive, develop, and enhance industry and career-based competencies through experiential learning (NCAE, 2012). To facilitate SAE in SBAE, instructors employ experiential learning as teaching strategies (Baker et al., 2012). Unfortunately, teachers have often reported lacking the ability to plan and implement SAE in their programs (Hanna, 1992). Looking specifically at middle school programs rather than their high school counterparts, we encounter a vastly different scenario and demands on instructors to deliver a comprehensive program (Talbert et al., 2013). Growth in middle school programs will only increase as states utilize Perkins V funds to expand CTE programs (Hanover Research, 2020).

Supervised Agricultural Experiences have been an integral component of SBAE for over a century (Rubenstein et al., 2014). These experiences have been documented as increasing the employability skills of students (Haddad & Marx, 2018; Ramsey & Edwards, 2012; Thiel & Marx, 2012). As part of middle school Career and Technical Education (CTE), SBAE provides opportunities for students to develop skills and explore potential careers (Ireland, 2022). Nationally, many middle school CTE programs integrate science, technology, engineering, and math (STEM) to engage and prepare students for future careers (Godbey & Gordon, 2019). Middle school also prepares for high school and career success, with grades, attendance, and engagement as predictors of future success (Balfanze, 2009; Godbey & Gordon, 2019; Hoff et al., 2015).

A recent research study reached consensus on the perceptions, barriers, and best practices for integrating SAE into middle school SBAE programs by experienced middle school teachers. Table 1 identifies the current SAE perceptions, Table 2 provides a list of SAE barriers, and Table 3 outlines best practices.

> "SAE is shown to increase the economic impact of middle school students through higher productivity, social stability, and healthier lifestyles."

Table 1. SAE Perceptions

Supporting the Three-Component Model
Providing hands on experiences for students
Getting students involved
Developing real-life experiences for students
Building on classroom content knowledge
Providing personal growth opportunities for students
Teacher responsibility
Teaching students to maintain records
Helping students set goals
Stimulating student's interest in agriculture

An apparent observation is that middle school teachers are implementing SAE as a part of their comprehensive agricultural education program. However, there is little consensus on the selected states' depth, breadth, or level of exposure. Future efforts must first account for middle school students' age, maturity, and exposure to strategies to address or integrate SAEs and meet the students where they are. Therefore, efforts to develop future middle school SAE curriculum and implementation strategies should focus on exploratory experiences that allow students to see the potential in educational investment (Ross, 2021).

Furthermore, the implications of middle school teachers' inputs should also be considered an educational investment. In addition to managing numerous responsibilities, middle school instructors typically coordinate these duties for more students than their high school counterparts, depending on their scheduling system. Sixty percent of respondents reported single-teacher programs with over 100 students. It is time to consider a specific middle school SAE that accounts for the unique needs of middle school teachers.

By reviewing the most persistent barriers, it is apparent that future efforts to address SAE in middle school programs must meet the students where they are in terms of age, maturity, exposure, and access to resources. This speaks to the need for teacher preparation to implement experiential learning opportunities as a pedagogical approach.

To fully engage the agricultural education three-component model, particular focus should be placed on using the FFA student organization to enforce student achievements in SAE through awards, degrees, and leadership opportunities. Many states in the southeast have created or increased opportunities for middle school students to be recognized for their success in SAE, which is also evident in best management practices.

SAE is shown to increase the economic impact of middle school students through higher productivity, social stability, and healthier lifestyles. Efforts to increase instructor effectiveness must also respect the number of students each teacher is responsible for. Therefore, it is recommended that middle school SBAE teachers and supporters seek purposeful professional development opportunities specific to their needs to further the implementation of middle school SAEs. Professional development should engage teacher leaders, teacher educators, state staff, school administrators, and guidance/counseling professionals, as each group has a shared interest in the success of middle school programs, focusing on identified perceptions, barriers, and best management strategies. While the potential list is extensive, a topic for professional development could include the best management practices and coping strategies to address barriers for middle school SAE adoption. As stated before, it may also be

Table 2. SAE Barriers

A lack of student motivation
Student transportation
Student financial limitations
Student maturity
Student lack of planning
Overwhelming teacher responsibility
Competition for student time
Student living situations
Agriculture being an elective course
Teacher stress

Table 3. Best Practices

Dedicating class time for SAE implementation
Starting with Foundational SAE's
Dedicating class time to teach SAE's
Using SAE to teach soft skills
Utilizing existing school facilities (i.e., land lab, greenhouse, shop, garden, etc.)
Teaching students accurate record keeping
Developing student buy-in
Connecting existing student projects to SAE areas
SAE as part of your class grade
Developing community relevant SAE projects

Students from the Asheboro Middle FFA Chapter showcase their research findings through their SAE project "How Does Food Coloring Affect Taste?"

an opportunity for national policy leaders and partners to collaborate with state leaders and middle school instructors to develop specific middle grades curricula for SAE, focusing on exploratory-type opportunities to prepare students for immersive opportunities in secondary programs. Differences exist between middle school and high school students, thus SAEs should be tailored as a part of the comprehensive SBAE program.

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Enhancing Student Success: The Nebraska Agriscience CDE and the Foundational SAE Portfolio

by Dr. Stacie Turnbull, Monty Larsen, & Dr. Nathan W. Conner

As agricultural educators, one of our primary goals is to equip students with the skills and knowledge they need to succeed in both the classroom and beyond. As a part of this goal, educators utilize a variety of strategies to motivate students to enhance learning outcomes. These strategies include leadership activities within FFA, work-based learning experiences through Supervised Agricultural Experience (SAE) and training for Career Development Events (CDEs).

SAEs allow FFA members to apply classroom learning in real-world settings. Despite a strong history in agricultural education and the fact that agricultural educators report valuing the role of the SAE, this circle within the Agricultural Education three-circle model is often underutilized (Retallick, 2010). Teachers report time constraints and juggling of many projects as barriers to high quality SAE implementation.

This implementation of high quality SAE, under the SAE for All model, extends to the inclusion of Foundational SAE. A Foundational SAE is designed to be a cornerstone for every student throughout their agricultural education experience, deepening "their expertise in Agriculture, Food and Natural Resources technical knowledge but also hone essential career readiness skills" (The Council, 2024, Foundational SAE section).

A significant effort is being undertaken by The Council to develop resources and training opportunities, to encourage the implementation of SAE for All for every agricultural education classroom. This implementation effort brought about the idea of connecting SAE for All and a state level CDE to motivate both teachers and students to increase their use of Foundational SAEs through the submission of a Foundational SAE portfolio being incorporated into the Nebraska Agriscience CDE. The idea was borne during the creation of the Nebraska SAE for All implementation plan. The Agriscience CDE, coordinated by the University of Nebraska-Lincoln (UNL) Agricultural Leadership, Education and Communication (ALEC) Department, with Dr. Nathan Conner serving as Agriscience CDE Superintendent. The Agriscience CDE aligns with the Introduction to Agriculture, Food, and Natural Resources (AFNR) course state standards, which is an entry level AFNR course.

> Bringing the Foundational SAE into the Agriscience CDE provides an excellent platform for students to demonstrate their learning and awareness of agricultural careers.

The Foundational SAE, within the Agricultural Education program, is to be delivered to all students alongside classroom instruction. Bringing the Foundational SAE into the Agriscience CDE provides an excellent platform for students to demonstrate their learning and awareness of agricultural careers, while also encouraging and empowering teachers to better utilize SAE for All strategies. A recent revamp of the Agriscience CDE created this opportunity to motivate teachers and students to focus on the Foundational SAE experiences, while also providing a more meaningful experience for students.

The Agriscience CDE

The Agriscience CDE, is a state-only CDE, held during the Nebraska State FFA Convention. The stated goal of the CDE is to "develop a foundation of knowledge and skills that will prepare first year students (9th or 10th grade) to continue in agricultural education coursework and enter agricultural careers within the natural resources, animal science, and/or plant science systems career fields" (ALEC Department, 2024, Purpose section). The Foundational SAE Portfolio submission serves as a critical component of the Agriscience CDE.

Each student on the team submits a Foundational SAE Port-

folio prior to the in-person CDE event. Additional components, held during the Nebraska State FFA Convention, include an individual written test of agricultural content knowledge and a team dissection, where students identify and label the external and internal anatomical features of a fetal pig and perch as well as describing the function of the internal organs. The written exam includes knowledge of animal nutritional requirements, animal health management practices, genetics and breeding, small companion, dairy and livestock animal management practices, and elements and trends in the food science industry.

By taking a strategic and thoughtful approach, educators can help students maximize their success in the Agriscience CDE, which will also set the stage for future growth and achievement in agricultural education. The inclusion of the Foundational SAE Portfolio, as a part of the Agriscience CDE, helps students in increasing their awareness of agricultural career opportunities.

What Is the Foundational SAE Portfolio Submission?

The Foundational SAE Portfolio Submission challenges students to research potential agricultural careers, within the Foundational SAE. The Portfolio offers the opportunity to showcase individual students' research on and understanding of:

- Career Exploration
- Educational Plan
- Employability Skills
- Finance
- Workplace Safety
- Agricultural Literacy

Specific details of the CDE can be found at https://agedcde.unl.edu/cde-information/events/agriscience/ (ALEC Department, 2024).

The portfolio serves as a documentation tool that allows students to track their progress, reflect on their learning experiences, and present their findings. It emphasizes not only the student's research process but also their ability to think critically, solve problems, and communicate their ideas effectively.

Key Components of the Foundational SAE Portfolio

A template provides a structure for students to explore careers in agriculture, plan their educational needs and goals, evaluate employability skills, understand financing for education and beyond, prioritize workplace safety, and reflect on their agricultural literacy through six specific sections, with a rubric guiding students and encouraging full reflection throughout each section.

The Career Exploration section encourages students to complete two interest inventories such as AgExplorer, Get My Future, and My Next Move, and then list top career options in Agriculture, Food, and Natural Resources (AFNR). This section includes reflective questions about career compatibility and alignment with FFA activities and CDEs opportunities connecting to their career interest area.

Component	Criteria	Completion Status	Suggestions	Points Earned:
Part A: Career Exploration - Completion	Completed 2 career interest surveys.	Comple...		_____ / 4 pts
Part A: Career Exploration - Completion	Completed 4 summaries on AFNR careers.	Comple...		_____ / 4 pts
Part A: Career Exploration - Reflection	Reflected on the interest surveys.	Reflecti...		_____ / 8 pts
Part A: Career Exploration - Completion	Completed the list of career focus areas and connection to CDE/LDE's.	Comple...		_____ / 4 pts
Part A: Career Exploration - Reflection	Reflected on list and activities connected to career focus area.	Reflecti...		_____ / 8 pts
Part B: Educational Plan - Completion	Planned Ag & academic core classes schedule.	Comple...		_____ / 4 pts
Part B: Educational Plan - Reflection	Reflected on the creation of your educational plan.	Reflecti...		_____ / 8 pts
Part C: Employability Skills - Completion	Completed 3 current employability skills.	Comple...		_____ / 4 pts
Part C: Employability Skills - Reflection	Reflected on 3 current employability skills and identified an additional 1 skill they needed to improve upon and how they would do so.	Reflecti...		_____ / 10 pts
Part D: Finances - Completion	Completed the finance table.	Comple...		_____ / 4 pts
Part D: Finances - Reflection	Reflected on plans to finance their education/training.	Reflecti...		_____ / 8 pts
Part E: Workplace Safety - Completion	Complete the google slide template with description of PPE equipment and source of picture.	Comple...		_____ / 4 pts
Part E: Workplace Safety - Reflection	Reflected to explain how the safety precautions would benefit them in your future career.	Reflecti...		_____ / 8 pts
Part F: Agricultural Literacy - Reflection	Completed reflection on the classroom lesson/project and how it aligns to future career goals.	Comple...		_____ / 10 pts
Grammar and spelling accuracy.	Document submitted was spelling and grammar error free.	Gramm...		_____ / 12 pts
			Total	____ /100 pts.

Foundational SAE Portfolio Rubric

The Educational Plan guides students in outlining their high school coursework (both agriculture-focused and core academic) based on their career choice, and prompts reflection on how creating an educational plan contributes to career readiness.

Employability Skills connects students to Nebraska's 11 career readiness standards, which indicate skills that a career ready student should have. Within this section, students highlight three skills they possess and reflect on how these skills align with workplace success. They also identify one skill to improve and strategize for its development.

Within the Finances section, students explore the costs associated with their career choice, including tuition and potential earnings. Students use a table to calculate salary percentages for training repayment and total educational costs, followed by reflections on managing these finances, and then reflect on how to save or gain funds needed for educational expenses.

The Workplace Safety section emphasizes youth agricultural employment rules and personal protective equipment (PPE). Students identify safety precautions, certifications, and PPE relevant to their career and reflect on the importance of safety considerations.

The Agricultural Literacy section focuses on lessons or projects completed in agricultural education classes which improved their agricultural literacy. Here, students describe their project, its relevance to their career goals, and insights gained.

The rubric details the scoring system for each section, including completion and reflection quality, and grammar/spelling accuracy, with a total potential score of 100 points. This template, including the rubric, serves as a comprehensive career planning tool, combining self-assessment, educational preparation, and practical skills evaluation. It emphasizes the role of reflection to prepare students for real-world agricultural careers.

Conclusion

The Nebraska Agriscience CDE Foundational SAE Portfolio submission offers students a unique opportunity to dive deeply into agricultural careers and showcase their research and personal reflection. As secondary agricultural educators, we have the responsibility and the privilege to guide our students through this process, helping them develop skills that will serve them well in both their academic careers and the workforce.

(LEFT) SAE for All aims to provide career exploration opportunities for all students through the foundational SAE. The next step is taking that classroom instruction and building upon it for their immersion SAE.
(RIGHT) Taking career exploration beyond a web search is beneficial to students as well as future employers as students have the opportunity to ask pertinent questions about careers, their interests, and how they may have skills highly suited to a career.

By encouraging thoughtful planning, providing continuous feedback, and emphasizing the importance of reflection, we can help students create portfolios that not only meet the requirements of the CDE but also foster personal and professional growth. This addition to the Agriscience CDE, during the April 2025 Nebraska State FFA Convention, could be a powerful tool for building the next generation of agricultural leaders—leaders who are ready to tackle the challenges of tomorrow's agricultural industry with creativity, critical thinking, and a commitment to excellence.

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Expanding National FFA Recognition Opportunities for Students with Outstanding Supervised Agricultural Experience (SAE) Programs

by Will Waidelich & Madeline Young

The Challenge

As FFA membership grows in size and diversity, the National FFA Organization is committed to creating more student engagement and recognition opportunities for more than one million members. The goal is to provide opportunities for every FFA member to participate in FFA programs that fit their needs and interests. Revisions to National FFA awards and recognition programs are necessary to ensure the organization provides diverse and relevant opportunities to our members. To succeed, the organization needs to find new, innovative ways for more members to participate and be recognized at the national level.

The National FFA Organization can deliver diverse awards and recognition opportunities that will serve all FFA members by doing the following:

1. Continually revising National FFA programs and events to remain relevant to the industry and our members.
2. Working with other organizations to create National FFA-designated events. These events will be vetted by national staff and will include National FFA winners who will be recognized at the National FFA Convention & Expo.
3. Creating agreements with other organizations to create a variety of FFA-endorsed activities that members can participate in. These events will not be limited to FFA members; no national FFA winners will be selected.

Without a dramatic increase in national-level opportunities, the organization may limit the number of FFA members it can serve. This limit could stall the organization's momentum in recent years and lead to FFA losing relevance in education and agriculture.

The National FFA Organization understands changes to fundamental aspects of FFA membership and participation, like our awards and recognition programs, can cause concern, especially regarding preparation time for states and chapters. National FFA and its partners will provide timely information on each change and ensure states and advisors have ample time to prepare for these new opportunities. And remember, agriculture educators don't have to adopt every FFA opportunity at the state or chapter level. They choose what works for their members.

Aligning with *SAE for All*

The National FFA Organization is excited to share a new SAE Award program that recognizes the five types of SAEs found in *SAE for All*. Historically, the National Organization has offered only placement/internship, entrepreneurship/ownership, and research SAE award types. While change is hard, FFA members are evolving and stepping up to the challenge of thinking critically and looking for career opportunities.

Following *SAE for All*, once membership begins, students should start with a foundational SAE. A foundational SAE helps students answer which career path to explore. It allows students to explore careers in agriculture to see where their interests lie. This is the part of the class that takes learning outside of the concrete walls of the classroom.

A foundational SAE consists of five components:

1. Career Exploration and Planning
2. Employability Skills for College and Career Readiness
3. Persona Financial Management and Planning
4. Workplace Safety
5. Agricultural Literacy

It is envisioned that a foundational SAE will be project-based, with the student selecting or proposing their own activities that lead to learning outcomes for each component. The foundational SAE will continue throughout the student's enrollment in agricultural education and will continue alongside Immersion SAEs implemented by a student. These components lead to selecting and implementing one or more of the five immersion SAE categories.

Immersion SAEs allow students to build upon their foun-

dational SAE activities by gaining real-world, hands-on learning experience within their chosen career path. A student can have an immersion SAE in any of the five immersion SAEs: placement/internship, entrepreneurship/ownership, research, school-based enterprise, or service-learning. The research type of immersion SAE has three areas: experimental, analytical, and invention research.

New National FFA SAE Award Program for 2027

In 2027, the National FFA Organization will, for the first time, recognize all five types of SAEs as part of the National FFA SAE Award Program. The organization will increase the number of recognition opportunities, open the types of projects students can be recognized for, and increase participation across all award programs. Students keeping SAE records for two or more calendar years are encouraged to explore opportunities to be recognized in the new National FFA SAE Awards in 2027. Students who work in agriculturally related fields, who own or make an agricultural product, students who research and solve problems, students who are part of a school-based enterprise like a student-run greenhouse, or students who have created service-learning opportunities for their communities are all encouraged to explore recognition through the new SAE Awards program. Students who are national finalists will have an opportunity to share and display their SAE as part of an SAE Showcase during the National FFA Convention & Expo.

In 2027, it is anticipated that up to 101 FFA members will be recognized as National FFA SAE Award winners, including up to 34 FFA members will be recognized in the Entrepreneurship SAE Award Program, up to 34 FFA members will be recognized in the Placement SAE Award Program, up to 21 FFA members will be recognized in the Research SAE Award Program (includes seven Experimental Research winners, seven Analytical Research winners, and seven Invention Research winners), up to eight FFA members will be recognized in the School-Based Enterprise SAE Award Program, and up to four FFA members will be recognized in the Service-Learning SAE Award Program. Students in the School-Based Enterprise SAE Award Program will be recognized in eight pathways: Agribusiness Systems, Animal Systems, Biotechnology Systems, Environmental Service Systems, Food Products and Processing Systems, Natural Resource Systems, Plant Systems, and Power, Structural and Technical Systems. Additionally, students in the Service-Learning SAE Award Program will be recognized in four areas: Community Safety; Hunger, Health and Nutrition; Environmental Responsibility; and Community Engagement.

> The National FFA Organization is excited to share a new SAE Award program that recognizes the five types of SAEs found in SAE for All.

Revised National FFA Agriscience Fair for 2027

In addition to these SAE recognition opportunities, students interested in research who have short-term (less than 12 months in length) or smaller-scale projects are encouraged to participate in the 2027 National FFA Agriscience Fair. The Agriscience Fair is for students in 7th-12th grade and can compete individually or in teams of up to 3 members. Separate divisions will be available for students in grades 7-8. 9-10, and 11-12. For each grade level, Division students will be recognized in six pathways: Animal Systems, Environmental Service/Natural Resource Systems, Food Products and Processing Systems, Plant Systems, Power, Structural and Technical Systems, and Social Science.

New Opportunities for FFA Members

The National FFA Organization has created another way to address the challenge of creating new opportunities to showcase the skills members have learned in the classroom, through their SAE, and from their involvement in FFA. This is being accomplished by offering three event types, including two new types of events:

Official National FFA Events: These are our traditional national events. The national final events are held at the National FFA Convention & Expo, and the national winners are announced. The organization will update these events to ensure they remain relevant to the industry, our members, and the agricultural education classroom.

National FFA Endorsed Activities: The organization is partnering with other organizations to create a variety of National FFA Endorsed Activities. National FFA staff will vet these opportunities to ensure relevance and quality. These activities are not limited to FFA members. Recognition will not occur at the National FFA Convention & Expo and will be at the discretion of the partner organization.

National FFA Designated Events: Working with other organizations, the National FFA Organization may create National FFA Designated

Events. These events will be vetted by national FFA staff and will include National FFA winners who will be recognized at the National FFA Convention & Expo. However, the final event will not occur at the National FFA Convention & Expo.

For 2024, the National FFA Endorsed Activities included the Plant the Moon Challenge, Turfgrass Science Invitational, Make48, Spanish Creed Invitational, and FFA Quiz Bowl Invitational. Students can participate in multiple facets of agriculture and perhaps be part of a team that helps NASA explore agriculture in Space through the Plant the Moon Challenge. Students engaged with Make48 work in teams to tackle real-world challenges, creating prototypes and pitching ideas that meet specific criteria provided by industry partners. The turfgrass science competition is a collaboration with the national conferences of the Golf Course Superintendents Association of America and the Sports Field Management Association. Information regarding designated and endorsed activities and events can be found at www.ffa.org/designated-events-and-endorsed-activities/.

Conclusion

When every FFA member can find opportunities to showcase the skills learned in the classroom through their SAE and involvement in FFA, the National FFA Organization will fulfill its mission to grow premier leadership, personal growth and career success.

Updates to the National FFA awards and recognition programs will help the organization better serve FFA members by providing diverse and relevant opportunities, regardless of their interests or abilities. Information regarding program updates and changes can be found at www.ffa.org/awards-recognition-updates/.

Will Waidelich has over 30 years of educational experience as an agricultural education teacher, state FFA Executive Secretary, middle school association executive, and agricultural curriculum development director, and currently serves as a Strategic Program Specialist for the National FFA Organization. He guides the revision process for National FFA Awards and Recognition Programs.

Madeline Young is an experienced professional in agricultural education with 12 years of dedicated service. She has taught as an agricultural education teacher and currently holds the position of Implementation Program Specialist for the National FFA Organization. In this role, Madeline oversees the implementation of updates and changes to the National FFA Awards and Recognition Programs. She works closely with program staff and committees to guide them through the process, ensuring that revisions are effectively integrated.

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