Food Products And Processing Systems Interest In A Supervised Agricultural Experience (SAE)

Ideas for developing a food science-related SAE
Food Products And Processing System Overview

• According to the National Council for Agricultural Education, Food Products and Processing Systems (FPP) is described as:
  … the application of scientific principles, practices and techniques in the processing, storage and development of food products.

• Your interest in this area represents a wide range of opportunities related to science in agricultural education.
Areas Of Interest In Food Products And Processing Systems

• Management…which could include:
  1. Food Products Management and Quality
  2. Food Safety - inspection and management plans
  3. Machinery - items used to manage the system

• Evaluation of Food Products and Processing System… which could include:
  1. Policy and Regulatory Issues - application of state and federal regulations
  2. Scientific Applications - science related to food products and processing services
  3. Other - monitor or research issues
Summary Of Skills Associated With Food Products And Processing Systems

The ability to:

• Evaluate the significance and implications of changes and trends in the food products and processing industry.

• Work effectively with industry organizations, groups and regulatory agencies affecting the food products and processing industry.

• Manage operational procedures and create equipment and facility maintenance plans.

• Implement Hazard Analysis and Critical Control Point (HACCP) procedures to establish operating parameters.

• Apply safety and sanitation procedures in the handling, processing and storing of food products.
Summary Of Skills Associated With Food Products And Processing Systems

• Demonstrate worker safety procedures with food product and processing equipment and facilities.
• Apply principles of science to food processing to provide a safe, wholesome and nutritious food supply.
• Utilize harvesting, selection and inspection techniques to obtain quality food products for processing.
• Evaluate, grade and classify processed food products.
• Process, preserve, package and present food and food products for sale and distribution.
• The application of science, technology, engineering and math.
### Connect Your Interests To Your Project

<table>
<thead>
<tr>
<th>Entrepreneurship</th>
<th>Placement</th>
<th>Research</th>
<th>Foundational</th>
</tr>
</thead>
<tbody>
<tr>
<td>A for-profit venture</td>
<td>A work experience</td>
<td>A research project related</td>
<td>A learning experience or career planning</td>
</tr>
<tr>
<td>Time is invested</td>
<td>Time is invested</td>
<td>Time and money (if applicable) are invested</td>
<td>Time is invested</td>
</tr>
<tr>
<td>Money is invested &amp; at risk; Provides opportunity to learn and possibly profit</td>
<td>Provides opportunity to learn &amp; possibly earn a paycheck</td>
<td>Provides opportunity to learn through a research based question</td>
<td>Provides opportunity to learn through exploring the industry</td>
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## Food Products And Processing Systems - Projects Ideas:

<table>
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<tr>
<th>Entrepreneurship Examples</th>
<th>Placement Examples</th>
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<tbody>
<tr>
<td>Honey Production Business</td>
<td>Working in a food distribution center</td>
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<tr>
<td>Vegetable production</td>
<td>Working in a food testing business</td>
</tr>
<tr>
<td>Animal processing business (poultry products)</td>
<td>Working for Food Safety and Inspection Service (HACCP)</td>
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<tr>
<td>Food inspection and food safety products</td>
<td>Working for food shipping and packing company</td>
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...other ideas where your project is related to a business situation, with a goal to develop a profit

...other ideas where your project is working within the systems area
## Food Products And Processing Systems - Projects Ideas:

<table>
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<th>Research Examples</th>
<th>Foundational Examples</th>
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<tr>
<td>Consumer perceived value of grass fed beef</td>
<td>Review of HACCP in the beef processing industry</td>
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<tr>
<td>Consumers concerns for E-Coli in meat production</td>
<td>Job shadowing at a food processing business</td>
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<tr>
<td>Consumer taste preferences test for organic and non-organic vegetables</td>
<td>Ag issues related to country of origin labeling in the meat industry</td>
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<tr>
<td>Measuring internal temperature of meat products from common cooking procedures</td>
<td>Attending USDA career day and learning about meat inspection employment</td>
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</table>

...other ideas where your project is answering a research question

...other ideas where your project is related to learning
Does Food Products And Processing Systems Align To Your Interest?

- Your project should be:
  1. Based upon your interests
  2. Connected to your agricultural education courses
  3. Aligned to your involvement in FFA activities

If YES, continue to the student examples section. Also, complete the “Explore Your SAE” interactive builder tool and finally, develop an SAE Plan draft based on your results.

If NO, explore another area to determine your interests!