Plant Systems Interest In A Supervised Agricultural Experience (SAE)

Ideas for developing a plant science-related SAE
Plant Systems Overview

• According to the National Council for Agricultural Education, Plant Systems (PS) is described as:

  …competence in the application of scientific principles and techniques to the production and management of plants.

• Your interest in this area represents a wide range of opportunities related to the production, management and research related to plant/crops.
Areas Of Interest In Plant Systems

- Landscaping, turf grass and floriculture… which includes:
  1. Production of products for the industry
  2. Sales of products in the industry
  3. Other areas including management, safety and other areas

- Forage… which could include:
  1. Forage production such as hay or other forage crops in the field
  2. Sales of products in the industry
  3. Other areas including management, safety and other areas

- Forestry… which could include:
  1. Forestry production such as lumber or other
  2. Sales of products in the industry
  3. Other areas including management, safety and other areas
Areas Of Interest In Plant Systems (Cont.)

• Vegetable/Fruit Crops… which could include:
  1. Production of plants or products for the industry
  2. Sales of plants or products in the industry
  3. Other areas including management, safety and other areas

• Grain crops such as corn, milo, wheat or sorghum… which could include:
  1. Production of seed, plants or products for the industry
  2. Sales of seed, plants or products in the industry
  3. Other areas including management, safety and other areas
Summary Of Skills Associated With Plant Systems

The ability to:

- Classify plants according to taxonomy systems
- Apply knowledge of plant anatomy and the functions of plant structures to activities associated with plant systems
- Apply knowledge of plant physiology and energy conversion to plant systems
- Determine the influence of environmental factors on plant growth
- Develop and implement a fertilization plan for specific plants or crops
- Demonstrate plant propagation techniques
- Develop and implement a plant management plan for crop production.
Summary Of Skills Associated With Plant Systems

- Develop and implement a plan for integrated pest management
- Apply principles and practices of sustainable agriculture to plant production
- Harvest, handle and store crops
- Create designs using plants
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 plant-related business or for-profit venture</td>
<td>An plant-related work experience</td>
<td>A research project related to a plant issues</td>
<td>A plant industry learning experience for careers or an increase knowledge</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>
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<tr>
<td>Money is invested &amp; at risk; Provides opportunity to learn and possibly earn a profit in the plant industry</td>
<td>Provides opportunity to learn &amp; possibly earn a paycheck within a plant industry work experience</td>
<td>Provides opportunity to learn about plant science research</td>
<td>Provides opportunity to learn through exploring areas of the plant industry</td>
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### Plant Systems-Related Projects Ideas:

<table>
<thead>
<tr>
<th>Entrepreneurship Examples</th>
<th>Placement Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farming grain crops</td>
<td>Working for hay production business</td>
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<tr>
<td>Growing and or selling forage crops</td>
<td>Working for a crop services business</td>
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<tr>
<td>Crop services business</td>
<td>Working for a seed company</td>
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<tr>
<td>Fertilizer or chemical sales business</td>
<td>Working for a crop consulting business</td>
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</table>

…”other ideas where your project is related to a plant industry situation

…”other ideas where your project is working in an area that is related to the plant system
# Plant Systems-Related Projects Ideas:

<table>
<thead>
<tr>
<th>Research Examples</th>
<th>Foundational Examples</th>
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<tr>
<td>Hay yield research project - temperature</td>
<td>Chemical applicators license</td>
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<td>Master Gardener Program (USDA)</td>
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<td>Flower growth research - varying measures of light</td>
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<tr>
<td>Crop production research - irrigation techniques</td>
<td>Job shadowing - grain crop producer</td>
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<tr>
<td>Plant pest control research - low impact techniques</td>
<td>Plant identification and management experiences</td>
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<td></td>
<td>...other ideas where your project is related to a research project in the plant system</td>
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<tr>
<td>Flowering techniques research - varying temperature</td>
<td>Community garden project</td>
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<td>...other ideas where your project is related to learning about the plant system through an educational activity</td>
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Does Plant Systems Align To Your Interest?

• Your project should be:
  1. Based upon your interests
  2. Connected to your agricultural education courses

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!