SUSTAINABILITY

Objective:

Students will use a set of case studies to investigate the sustainability of a fictitious farm operation. This project will encourage students to apply the three-legged stool model of sustainability and make recommendations to improve an operation. By critically evaluating these cases, students will gain an understanding of the prioritization of sustainability in agriculture.

Advance Preparation:

Students will need an understanding of the three-legged stool model of sustainability and be able to think critically about its application.

Materials:

Sustainability Case Studies and Questions

Estimated Time:

30-45 minutes

Activity:

The activity can be done by evaluating the case studies with individual students or in small groups.

Procedure:

- Ask students to think about how the three factors of sustainability are connected in a farm operation. How does only one jeopardize the future of a business?
- Instruct the students on how they should evaluate their case study and to keep in mind all three factors of sustainability while reading.
- Hand out one of the three case studies to each student or group.
- Provide time in class for students to read and analyze the case study.
- Hand out associated questions for the studies.
- Conclude with a brief class discussion and recap.
    - What was your case study?
    - What were the factors that signaled a long-term problem?
    - How did one “leg” cause the farm to be unsustainable?
    - Is this applicable in today's farming and business world?
    - What are other examples of other areas where this model could be used?

SUSTAINABILITY CASE STUDIES

Below are scenarios of farmers who have questions about the long-term sustainability of their farms. Please read their cases and answer the following questions.

With which of the three "legs" of sustainability is this farmer having trouble? Does the farmer appear to be environmentally unstable? Economically? Socially? What makes you think this?

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In this scenario, how might these troubles begin to affect the other two aspects of the farmer's long-term sustainability? Do these troubles undermine other parts of the business?

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What recommendations would you make? How would you explain that not having a long-term plan for the environmental, economic, and social aspects of the operation could be a problem in the future?

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Give a non-farming example in which this sustainability model could be used and how.

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SUSTAINABILITY CASE STUDY A

James Smith runs a row cropping operation in southwest Iowa. His family has owned and operated the farm for generations, and it has survived as one of the few generational farms left in the area. As long-standing members of the community, James has even been active with many of the newer farmers to help teach them some tips for farming in the area. The Smiths have always had very high standards for their farm, and through the years they have continually attempted to improve their farm practices. James' father focused on their environmental footprint and made significant contributions by switching to no-tillage planting and establishing a full water management plan, including waterways and buffer strips.

James has maintained these changes in his tenure as farm manager and had set goals to increase the farm's profitability. While they have always had fairly consistent profits, James feels that the farm would be in a better long-term position if it had higher profit margins. In an attempt to achieve this, James has begun to purchase all of his inputs from a large company outside of his community. This allows him to buy in bulk and save some money. He also has delayed any repairs to his buildings or machinery. These things have always seemed to hold things up on the farm, and he feels that the repairs would simply be an unnecessary expense.

James's oldest son, who plans to take over the farm after his father, is worried about what effect the changes his father is making may have on the long-term state of the farm.

SUSTAINABILITY CASE STUDY B

Katie Muller is the proprietor of a beef cow-calf operation. She began farming directly out of college and has been very successful growing her business from a few cows to a very large operation. She has seen a steady profit almost every year. Along the way, though, she has hit some bumps in the road.

In the first year of farming, Katie almost had an incident with a manure spill nearly reaching the local river. She immediately set a strict manure management plan along with a wildlife rehabilitation program, and she has not since had problems.

Through all the years of hard work, Katie has mastered the ins and outs of her operation. Because of this, she insists on micromanaging almost every aspect of it. Katie feels even minor chores, like the upkeep of fences and machinery, are only done properly by herself. Her three children have all worked on the farm growing up and have often made suggestions to help improve the farm with new innovations. These, however, fall on deaf ears as Katie insists, “What we have been doing has always worked,” and that the changes are unnecessary.

With no room for the kids to continue working on the farm, they pursued work elsewhere. The business is continually growing, and while Katie refuses the help of others, she often finds herself extremely stressed out. She often complains about a lack of time for social outings due to her busy work schedule. With recent news from her doctor that the stress may be negatively affecting her health, Katie is beginning to wonder about how much longer she will be able to run the farm.

SUSTAINABILITY CASE STUDY C

Adam Rankin owns and operates a moderate produce farm. Several years ago, he turned a small plot of land just outside of town into a multi-crop fruit and vegetable farm. He started selling his products to individuals in town and at a small farmers market. After a few years of success, he began to invest some of his profits into the community and was able to expand the farmers market where he sold his produce. With his help, fellow local farmers thrived and enjoyed the benefits of his investments.

Adam recently began investing again, this time in additional lots to expand his operation. He found that with the growth of small local farmers in his area, he didn't need to grow as many types of crops and could focus on just the most profitable—primarily strawberries. Adam has greatly improved his productivity with an extensive tillage and irrigation system, and he is able to produce a huge strawberry crop every year.

Adam's strawberry farm has been a big hit with most of the community, especially since he offers at-cost strawberries to high school fundraisers and holds community events onsite at his new facility. Some members of the community, however, are worried with the change. With his large need for water and heavy application of nutrients, there are some concerns about the town's very limited water management system. While most see this as a minor concern compared to the benefits of the local business, it could have major effects on the town and the local lake. After the town mayor reached out to Adam voicing these concerns, he is now beginning to wonder if his current operation is a long-erm benefit to the community or not.