4-H Sustainable Agriculture Project

Sustainable agriculture projects emphasize the need to feed a growing world population while still caring for the scarce resources necessary in agriculture. Sustainability has aspects of environmental sustainability, food safety, economics, and ethical or philosophical concerns. In this project, members may:

- Explore different perspectives in sustainable agriculture.
- Discover major challenges in the future of agriculture.
- Form their own opinions of agricultural methods.
- Learn how their decisions can affect the future of agriculture.

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- Learn about the water cycle.
- Know the different types of soils.
- Explore concepts of ecosystems and how different species of animals and plants work together.
- Study the causes behind global climate change and effects on agriculture.

- Learn how to improve soil quality by adding organic matter and its potential effects on the environment.
- Design a crop or grazing rotation plan.
- Research intercropping/cooperative enterprises and is application in both livestock and produce.
- Be able to discuss

- Formulate a drought preparedness plan.
- Design a business plan for an agriculture business including costs and benefits of sustainable practices.
- Know the major niche types of agriculture, focusing on each of their perspectives to sustainability.
- Research the causes of malnutrition and

The activities above are ideas to inspire further project development. This is not a complete list.

4-H THRIVE

Help Youth:

**Light Their Spark**

A spark is something youth are passionate about; it really fires them up and gives them joy and energy. Help youth find how this project excites them.

**Flex Their Brain**

The brain grows stronger when we try new things and master new skills. Encourage youth effort and persistence to

**Reach Their Goals**

Help youth use the GPS system to achieve their goals.

**Goal Selection:** Choose one meaningful, realistic and demanding goal.

**Pursue Strategies:** Create a step-by-step plan to make daily choices that support your goal.

**Shift Gears:** Change strategies if you’re having difficulties reaching your

**Reflect**

Ask project members how they can use their passion for this project to be more confident, competent and caring. Discuss ways they can use their skills to make a contribution in the
Expand Your Experiences!

Science, Technology, Engineering, and Mathematics
- Create a map of the major agricultural environments on Earth (grasslands for forage, Mediterranean climates for produce, fisheries, etc.).
- Design an ecosystem web for a small family farm showing how all the different

Healthy Living
- Explore the health concerns associated with climate change.
- Find out if there are any differences between conventional style food and organically grown food for human health and environmental health, and if so, what

Citizenship
- Share with your community what they can do to be more sustainable in their day to day life.
- Arrange to clean up a local natural area to preserve its ecosystem integrity.

Leadership
- Become a Jr. or Teen Leader.
- Encourage others to join the sustainable agriculture project.
- Make a a presentation on one current event or topic in sustainability.

Resources
- UC ANR SAREP
  http://www.sarep.ucdavis.edu/about-sarep/def
- National Sustainable Agricultures Coalition
  sustainableagriculture.net/
- USDA
- Sustainable Agriculture Research and Education
  http://www.sare.org/
- University of California Cooperative Extension
  Food for Thought
  http://ucanr.edu/sites/Grown_in_Marin/All_Resources/Resources_for_Educators/Curriculum/Resources/Photos_of_Marin_Agriculture/Food_for_Thought

Connections & Events
Presentation Days – Share what you’ve learned with others through a sustainable agriculture related presentation.
Field Days – At these events, 4-H members may participate in a variety of contests related to their project area.
Contact your county 4-H office to determine additional opportunities

Curriculum
- LiFE: Growing Food
  http://www.tc.columbia.edu/tisch/resources-overview/curricula/life-pages/growing-food/
- Junior Master gardener Teacher/Leader Guide:
  http://jmgkids.us/curriculum/jmg-teacher-guide-youth-handbook/
- National 4-H There’s No New Water
  http://www.4

4-H Record Book
4-H Record Books give members an opportunity to record events and reflect on their experiences. For each project, members document their experiences, learning and development.
4-H Record Books also teach members record management skills and encourage them to set goals and develop a plan to meet those goals.

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