



How can **sustainable agriculture** meet the needs of the **present** without compromising the **future**?

the sustainability **MATTERS** challenge

The **sustainability MATTERS** project challenge asks you to create a project that focuses on sustainable farming practices or profiles the actions of a local farmer that promote sustainability. Your project should highlight social, economic and environmental factors that influence food systems.

Your project can be developed around a variety of ideas. Consider the following examples or create your own project focus.

- 🔥 Your project can map the food system in a local or global community, making connections between agriculture and local food assets. Identify and map places, facilities and services that are connected to the food production system in order to present conclusions about sustainability.

These food assets can include any places in which food is grown, prepared, shared, sold and bought, received and distributed – farms, markets, stores, manufacturing and processing facilities and food transportation hubs. Reflect on the accessibility and availability of food resources.

- 🔥 Your project could present facts, statistics, examples and evidence about the state of sustainability in agriculture through a format that includes photos, graphs and charts.

Consider evidence related to topics such as the chemicals essential to life, nutrients and nutrient cycles, ecosystems, organic and inorganic materials in agriculture, environmental monitoring, waste and food production capacities, biogeochemical cycles, food chains and food webs.

This **project TOOLS** guide includes graphic organizers, thinking maps, a sustainability **MATTERS Project Planner** and **Project Pages**.



- 🔥 Your project can investigate the connections between sustainable farming and environmental protections. For example, you could focus on practices that monitor substances in the environment, manage nutrient cycles and reduce risks such as eutrophication, water pollution and emissions. Alternatively, develop questions that focus on waste management, habitat and wildlife protection and animal safety and welfare. Profile the practices of a local farmer that promote sustainability, such as the use of Life Cycle Assessments and Environmental Farm Plans. How are farmers balancing the environmental, social and economic aspects of implementing sustainability practices?

You may find a farmer through the profiles on farmer group websites or access a farmer's perspectives through one of the Ask a Farmer features. You may also find a farmer or farm family who works close to your local community. Share information about how this farmer or farming family applies sustainable agriculture practices.

- 🔥 You could also focus on the ecological footprint of any aspect of our food production system, exploring aspects of conventional and organic farming and using examples from Alberta farms and farmers. Make comparisons to food that is locally grown and raised and food that is imported. How do ecological footprints help us continue to implement sustainable agricultural practices? What is the science involved in monitoring and measuring environmental impact? What implications do these measures of sustainability have for our ability to meet the global demand for food?

The tools and templates in this guide as well as on the **project AGRICULTURE** website at www.projectagriculture.ca can help you develop your project. Use the **sustainability MATTERS** information sources, photos, videos, infographics and stories on the **project AGRICULTURE** website to start your research.



Check out the Alberta farm interviews on the **VIEW** webpage of the **project AGRICULTURE** website at www.projectagriculture.ca/view/ for additional perspectives from Alberta farmers on issues and topics connected to sustainability.



project AGRICULTURE Project Planner

spread the word about sustainability

Supporting sustainability involves active participation in the food system. **Active participation** is about:

- Working collaboratively with others to discuss and take action, from informed food buying to understanding what local farmers and producers do to building strong, healthy and food secure communities
- Finding out more and becoming knowledgeable about food and food systems
- Thinking critically about the information and messages in media
- Sharing ideas about the food system

ecosystems
 chemistry **share**
Sustainability
 agroecosystems
 ecological footprints
matters
 food system **spread the word**

Food systems include the way food is produced, processed, distributed, consumed, and disposed of, and they have direct impacts on the lives of Canadians. Food systems are interconnected and are integral to the well-being of communities.



How are you involved with the food system? What more do you think you could do?

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meeting the challenge

You are challenged to become an informed food consumer by creating and sharing a **sustainability MATTERS** project. Your project should spread the word about sustainable farming practices or profile a local farmer. It should consider the social, economic and environmental factors that influence food systems.

Your project can consider what is meant by best practices that make sustainability matter.

It can inform others about current practices used in Alberta farms, promote or demonstrate evidence-based information about the science behind agroecosystems, ecological footprints, biogeochemical cycles, food chains and webs, nutrient cycles, resource management and waste and food production cycles.

Consider the assertions made by a young farmer in southern Alberta. How do her opinions reflect the connections between the environmental, social and economic aspects of sustainability?

Sustainability is environmental.

It's knowing that a profit is imperative to the survival of my family farm, but taking care of our land and soil is even more important....

Sustainability is also financial.

...It's knowing that we have to keep our borrowing costs low in order to avoid dumping our debt on future generations....

Sustainability is technological, too.

...The movement from the horse and plow to the first tractor allowed agriculture to become more sustainable. The first irrigation pivot in southern Alberta did the same, all the while feeding back and contributing to the economy and communities....

Sustainability is our human resources as well.

We need to continue to provide some of the best education in the world to attract and retain our future industry professionals...we need to continue cutting-edge research and to ensure the innovative ideas are communicated.

Finally, sustainability is working together.

It's a whole ecosystem of things working together.



The Alberta Environmental Farm Plan website provides information about sustainable agriculture practices from the perspective of farmers and consumers. Start with the consumer information at www.albertaefp.com/audiences/consumers. Explore other topics on their website, including Species at Risk program at www.albertaefp.com/species-at-risk.

The Environmentally Sustainable Agriculture Tracking Survey measures Alberta producers' adoption of environmental sustainable agriculture practices. Find the 2018 report from the Alberta government at <https://open.alberta.ca/publications/environmentally-sustainable-agriculture-tracking-survey-final-report#summary>.

Sustainability in agriculture is an imperative interconnected system. In order to continue to advance agriculture and keep it moving forward, we as an industry need to continue to work together as one community.

It's not only making our lands and farms viable for future generations – but showing the future generations exactly how important agriculture is and why they may one day want to devote their lives to this exciting and challenging lifestyle.

Oosterhuis, K. (August 14, 2018). Sustainability comes in many forms – all of them important. Alberta Farmer Express: Online. www.albertafarmerexpress.ca/2018/08/14/sustainability-comes-in-many-forms-all-of-them-important/



plan your project

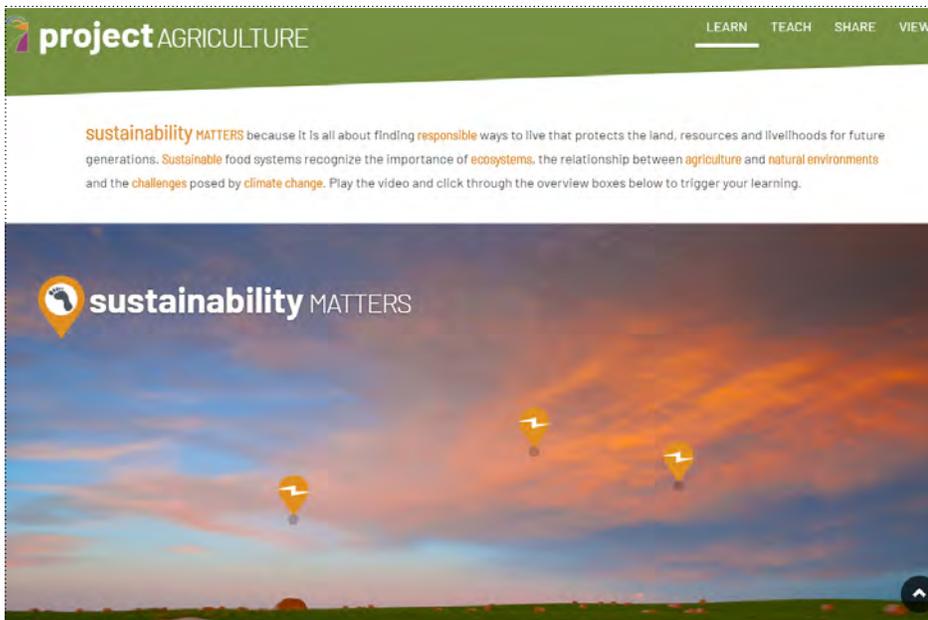
Start to brainstorm ideas for a project that focuses on sustainability in agriculture at the local or global level.

Use the **project AGRICULTURE** resources to help you identify a project question.

Click on the animated map pins on the **sustainability MATTERS** banner on the **project AGRICULTURE** website at **www.projectagriculture.ca** to find and download learning sources that spark thinking and questions.



Examples of project questions are provided throughout the **Spark Questions about sustainability MATTERS** sources. These questions are found in **INVESTIGATE MORE** sidebars.



Map a project concept. Identify what interests you and brainstorm ideas. Describe what your project could look like. Consider who you want to reach with your project and what you'd like them to learn.

Use the **sustainability MATTERS Project Concept Map** or create your own.



Assess your conceptual and procedural knowledge as you develop your project.



I create a project question as focus for a **sustainability MATTERS** project.

I gather and organize information to support my project question.

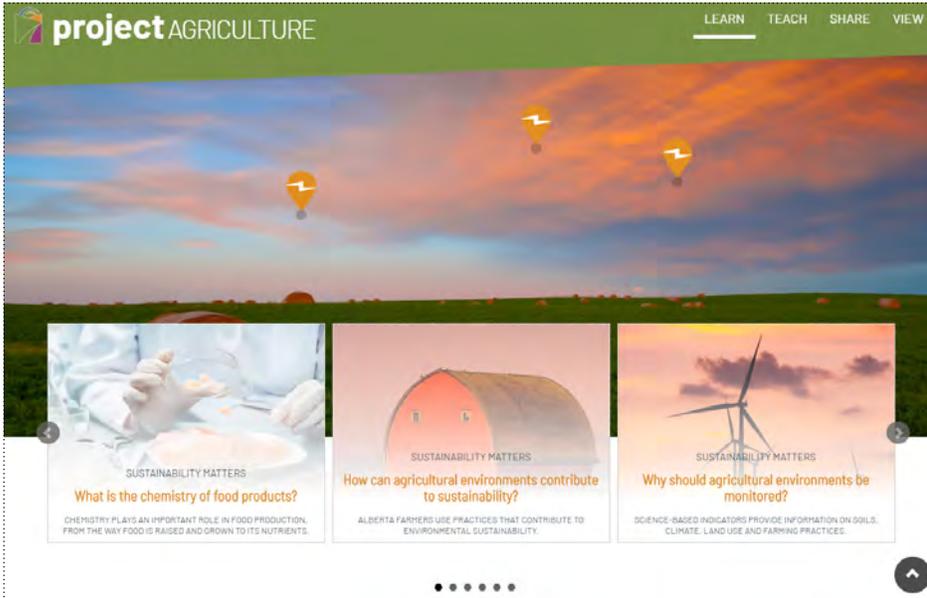


I brainstorm ideas and approaches for my **sustainability MATTERS** project.



Explore the learning sources and information in the **sustainability MATTERS** carousel slides on the **project AGRICULTURE** website.

Each carousel slide focuses on a guiding question. Select from the relevant sources in each carousel slide for your project research.



Use the **sustainability MATTERS Project Planner Template** to plan and create your project. Identify a project design and format.

Shoot a video, build a photo essay, write an op-ed, create an infographic or design your own project format. With your teacher, plan to submit your project to the **project AGRICULTURE** website to share it with other students and Alberta farmers.

Choose from the following formats, with a maximum file size of 50 MG:

- 🔥 PDF document (Word, PowerPoint, Google Docs or Slides to be saved in PDF format)
- 🔥 JPEG, GIF or PNG file
- 🔥 Project URL for videos or webpages (including Google Docs, Slides, Youtube, Vimeo or videos hosted on Google Drive)



Use the **Project Pages** to find design suggestions for different types of projects. **Project Pages** can be found in the **Project Tools** booklet or on the **project GUIDES** webpage at www.projectagriculture.ca/share/project-guides/.



I research background information and perspectives connected to sustainability issues, topics, actions or strategies.



I choose a project design for my **sustainability MATTERS** project.
I develop my **sustainability MATTERS** project.



sustainability MATTERS project concept map

What are your project interests?



For example, food security, consumer issues, buy local, food fraud, globalization, food waste

Choose **one** focus area and brainstorm ideas.



What will your project look like?

What will we need to research?

Do our ideas need to be narrowed down?

What is the goal of our project?

Who is the audience?

Who can help us?

What do we want the audience to learn?



sustainability MATTERS project planner template

What is your project question? Relate this to the "need to know" of your project concept.	ACTION

What are your research questions?	ACTION

What is the significant content for your project?	ACTION

What resources do you need? Which resources will you use?	ACTION

What will your final product look like?	ACTION