

Craven Family Farm: Teacher Information Page



Curriculum Connections

Understanding the operation of a modern cash crop and livestock farm addresses various specific and overall expectations within the Ontario Curriculum.

- Elementary Science & Technology Curriculum (2022)
 - A new area of learning in the Science and Technology curriculum is Food Literacy. The curriculum “builds understanding of food literacy by considering various food systems, connections with physical and mental health, the role of the environment plays in how our food grows, and the importance of locally sourced food.”
 - The Craven Family Farm videos show examples relevant to the fundamental concept of “Automation”, explaining how various technologies on the farm allow processes to be accomplished with minimal human intervention.
 - These videos can be used as a resource to address various specific expectations within the Life System strand, throughout all elementary grades.
 - Additional connections can be made to the Structures and Mechanisms strand in Gr. 4 (Machines and Their Mechanisms) and Gr. 8 (Systems in Action).

- Additional links to other Ontario Curricula to be added at a later date.

Title	Length	Summary	Words, Wonderings, and Further Explorations	
Introduction – A Farmer is More than a Farmer	03.21	Welcome to the Craven Family Farm. Farmer Neal gives you an overview of his combined cash crop and livestock operation, highlighting the skills and knowledge that are required to successfully manage the farm.	Cash crop Corn Design Environmentally friendly Ethanol Fabricate Gasoline	Bedding Bulls Concrete Feed Humane Maintenance Market weight Shelter

			Hay Head rail Livestock Soybeans Wheat	Steel Weld Wiring Yearlings
From the Farm to Me: Corn	10.04	Farmer Neal describes the technology on the planting machine used to sow corn. Discover what “refuge” corn seeds are, why they use a helicopter on the farm, and how the harvested corn ends up in car gas tanks.	Bunker silo Ethanol industry Fuel grade Gasoline Herbicides Moisture Notched seed closing Nutrients Pesticides Seed firmer Seed treatment Seed trench Seed-to-soil-contact Soil test Yield	% Moisture Auger Combine Concave Cylinder Flak jacket Fungicide Furrow High boy Immunity Nitrogen Phosphorus Plant Starter Potassium Refuge seed Shells Tassel
Steward of the Land	06:47	<i>“Soil health will feed our family and feed your family”</i> . Discover the farming practices used on the Craven Family Farm to conserve soil and keep it healthy.	Compaction Conservation measure Decompose Diversified Earthworms Fertilizer	“Eating Carbon” Accurate Conventional tillage Erosion Grain drill

			Filtrate Organic matter Patience Soil aggregates Soil structures Strip till Till	Heat units Sprayer Tram lines
Technology on the Farm	05:44	Farmer Neal credits the modern technology on his planter for consistent crop yields. He describes this technology that allow seeds to be planted evenly and at the optimal depth, and explains what data is collected as he plants.	Acre Depth Down pressure Evaporation Fertilizer Furrow Hydraulics Metering Unit Moisture Planter Seed plate Seed-to-soil-contact Successful yield Suction Weigh pin	Autosteer Head lands Negative pressure Organic matter Satellite Seed knocker Smart firmer Soil temperature
The Ultimate Farm Recycle	06:40	“I’d like to leave this to my grandkids in better shape than I received it”. Farmer Neal explains how different materials are recycled on the farm, and other methods they use to reduce waste and increase efficiency.	Bunker silo Corn stalks Efficient Fermentation process Forage harvester	Bedding Bulk containers Grass filter strip Mangers Manure

			Oxygen Silage Straw	Settling pit Solar pane
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Follow-up Discussion & Research

- Create an infographic to describe the Craven’s beef farming operation.
- Explain the basic function of the planter and describe its mechanisms.
- What role do earthworms play in soil health?
- Explain why it is important to have the seeds planted at the same depth and uniformly spaced apart.
- Another term used for the “smart” seed firmer is the “electronic eye”. Explain why this is a good descriptor.
- The planter collects data as the seeds are being planted. How might the farmer make use of this information in the future?
- There are lots of examples of cycles on the farm. Describe an example of a cycle.

Additional Background Information & Links

- Food and Farm Care Ontario Resource Page <https://www.farmfoodcareon.org/resources/> where you can find:
 - FarmFood360 – immersive virtual tours of working farms and food processing plants.
 - The Real Dirt on Farming – a guide to food and farming in Canada
 - Farm Glossary
 - Additional Links on the Resources page to take you to:
 - Agriculture in the Classroom Canada
 - AgScape (Ontario Agri-Food Education)
 - Agriculture More than Ever