















Welcome

Get ready to explore how science, technology and creativity are transforming agriculture every day. In this series, you'll learn how Helena Agri-Enterprises helps farmers grow healthier crops, protect the environment and feed the world using tools and ideas that are always evolving. In Episode 2, join us in Louisiana as we learn about sugarcane, weed control and Helena's herbicide Trycera® that has brought innovation to the industry.

Whether you're curious about ag careers, new farming techniques or how innovation impacts your community, this series will show you that in agriculture, innovation never stops—and neither do the people behind it.

Let's dive in and discover the future of farming together!







Objectives

- **1.** Students will **understand** the role of innovation and scientific research in sugarcane production.
- **2.** Students will be able to **identify** the challenges of growing sugarcane and the strategies used to overcome them.
- **3.** Students will **explore** Helena's role in managing invasive weeds in sugarcane farming using the herbicide Trycera[®].

Did You know?

- 1. In 1752, a Jesuit priest in New Orleans successfully cultivated sugarcane.
- 2. The sugar crystallization process was perfected by planter Etienne DeBoré (pronounced DEB-OR-RAY) in 1795 at his New Orleans plantation. https://www.amscl.org/industry-info/sugar-trivia/
- 3. Louisiana is the most northern part of the world where sugarcane is grown.
- **4**. Louisiana sugarcane growers provide the sugar needs for more than 53 million Americans. https://www.amscl.org/industry-info/sugar-trivia/
- **5**. Sugarcane is the most lucrative crop in the state of Louisiana.
- **6.** Sugarcane has many byproducts. It's not just for white sugar—raw sugar, brown sugar, molasses and refined sugar all come from this crop.
- **7.** Trycera, a herbicide from Helena, provides over 99% control of divine nightshade in sugarcane fields.





Vocabulary

American Sugar Cane League- A non-profit organization of Louisiana sugarcane growers and processors dedicated to supporting the Louisiana sugar industry through research, legislation, product promotion, education and public relations. See American Sugar Cane League in Recommended Resources for more.

Broadleaf Weed- A dicotyledonous plant with broad leaves and a net-like vein pattern, usually producing two seed leaves (cotyledons) during germination. These plants are easily distinguished from grasses and often develop deep taproots or spreading root systems.

Crop Advisor- Crop advisors use their expertise in plants and soil to monitor fields and identify potential issues throughout the growing season. They maintain strong client relationships while providing recommendations on seeds, fertilizers, pest control and disease management. See Ag Careers in Recommended Resources for more.

Divine Nightshade- Scientific name is <u>Solanum nigrescens M. Martens & Galeotti</u>. A member of the nightshade (Solanaceae) family that is a hardy perennial that grows like a shrub that has glossy, green leaves with small berries.

EPA (United States Environmental Protection Agency)- Government agency dedicated to protecting human health and the environment. Our Mission and What We Do | US EPA

Latigo®- Herbicide pre-mix that provides growers with strength and speed during burndown by utilizing an enhanced co-formulation system and Moveo® Formulation Technology. In can also be used to control weeds and brush with improved activity in range and pasture and other non-ag uses. See Helena Corporate (Latigo Bold) in Recommended Resources for more.

LSU AgCenter- The LSU AgCenter at Louisiana State University provides individuals, families, businesses, schools, industries and local governments with valuable information aimed at improving economic conditions, general wellness and quality of life. See LSU AgCenter in Recommended Resources for more.





Vocabulary

Moveo Formulation Technology- A Helena formulation technology specifically designed to optimize the performance and handling of herbicides. It enhances absorption and uptake for more efficient weed control, reduces odor for use around sensitive areas and improves compatibility and performance with tank mix partners. See Helena Corporate (Formulation Technology) in Recommended Resources for more.

Perennial Crop- Crop species that live longer than two years without the need for replanting each year. Perennial agriculture | Benefits, Practices & Challenges | Britannica

Post-emergence Weed Control- Herbicides applied to the crop after the weeds have appeared. These herbicides target pesky weeds without harming the crop.

Product Manager- A Product Manager oversees the planning, organization and execution of business objectives for Helena's branded products. This role ensures alignment with the division's short- and long-term goals while supporting the company's overall strategic direction. Please see Helena Careers in Recommended Resources for more.

Product Specialist- A Product Specialist helps promote and support Helena's products by organizing training, marketing plans and technical services to boost sales and business growth. This role also works with research teams and company leaders to find new opportunities, test products and create strategies for success. Please see Helena Careers in Recommended Resources for more.

Sugarcane- A stout tall perennial grass (Saccharum officinarum) native to tropical southeast Asia that has a large terminal panicle and is widely grown in warm regions as a source of sugar. SUGARCANE Definition & Meaning - Merriam-Webster

Triclopyr- A human-made herbicide used to control both broadleaf and woody plants. It was first registered in 1979 for use in forestry and it is used in both agricultural and non-agricultural settings. <u>Triclopyr General Fact Sheet</u>





Vocabulary

Trycera- Selective broadleaf herbicide with a patented triclopyr formulation containing Moveo Formulation Technology that improves efficacy by enhancing herbicide coverage and penetration while preventing mixing problems. See Helena Corporate (Trycera) in Recommended Resources for more.

Variety- A variety is a taxonomic rank below species. In agriculture, it refers to a population of plants within a species that has been selectively cultivated over time to develop traits desirable for human use.

Yield- Amount of crop produced per acre, usually measured in volume or weight.





Discussion Questions

time?
2. What challenges do Louisiana sugarcane farmers face, and how do they adapt to face these challenges?
3. What makes divine nightshade such a problematic weed, and why was Trycera an important solution?
4. How do partnerships between growers, scientists and companies like Helena contribute to agricultural innovation?
5. How does Helena's approach to innovation and problem-solving impact the sustainability of sugarcane farming?





Recommended Resources

Careers in Agriculture https://www.agcareers.com/

American Sugar Cane League https://www.amscl.org/

Helena Careers

Helena Agri-Enterprises | Powerhouse of Agronomic Solutions

Helena Corporate

Helena Agri-Enterprises

Formulation Technology

Formulation Technologies - Helena Agri-Enterprises

Latigo Bold

Latigo Bold - Helena Agri-Enterprises

Trycera

<u>Trycera - Helena Agri-Enterprises</u>

Innovation Never Stops Series
Innovation Never Stops - Helena Agri-Enterprises

LSU AgCenter
LSU AgCenter
Sugarcane
Sugarcane

Scan to view the Innovation Never Stops Webpage!





Notes





Notes



