



**THE RAW TRUTH
ABOUT BEEF**



AN ONLINE EDUCATIONAL EXPERIENCE

PROVIDED BY THE TEXAS BEEF COUNCIL

Platform description:

This educational experience was designed for you to bring the beef industry to life for your students! It utilizes elements of the Raw Truth About Beef platform. Your students will get a behind-the-scenes look at the beef industry and explore the beef production process from pasture to plate. The program follows a registered dietitian nutritionist and an executive chef on a tour through the beef lifecycle. To learn how cattle are raised, they visit a purebred ranch, a cow/calf ranch, and tour a feedyard. Stops at a processing facility, a distributor, a retail store, and a restaurant explore how beef becomes a safe, nutrient-dense protein source.

This program will provide an excellent way for agriculture students to gain an understanding of how the pasture to plate experience will play a role in their careers. This dynamic program can allow learners to make immediate connections to the various areas of study in the diversified beef industry.

Your students will navigate through the experience in the following ways:

- **Experience videos:** These videos range from seven to eight minutes and are a synthesis of the facility tour. The cast meets with experts and learns about what happens at each step in the process.
- **Reflection videos:** These videos are between four and five minutes each and include the host debriefs during the tour with the dietitian and chef.
- **360-degree videos:** These videos explore different aspects of each stop and allow learners to dig deeper into content that interests them through interactive hot spots.
- **Additional resources:** Students can download or print materials related to topics such as antibiotic use in cattle, food labels, nutritional value, and beef preparation.
- **Connect session interviews:** Recorded interviews allow users to dig deeper with experts in the industry. Participants can submit their questions to be addressed in future interviews.



How do I preview the Raw Truth About Beef platform?

Users register to gain access to the entire suite of resources and experiences at www.rawtruthaboutbeef.com.

How will the Raw Truth About Beef Experience help my students?

As consumers become further removed from agriculture, it is increasingly important that students studying agriculture are equipped to share accurate information about the food system. Learning about how food is raised will help students confidently provide evidence-based information about beef production, labeling claims, and the nutritional value of beef. This guided experience will provide a holistic view of the beef production process. Regardless of their future career, this platform will add to your students' knowledge base and allow for them to apply this information to their future career.

How do I use Raw Truth About Beef in an online learning setting?

Online/Self-paced: Use the Raw Truth About Beef platform as a completely self-paced instructional activity for your students. Have them watch the videos on the platform, answer reflection questions for each segment, and complete the summative application assignment(s). Your students can submit the assignments to you through the platform. You can also easily view which students have watched or completed the elements of the platform. View the Quick Start Guide and video to learn specifics on how to utilize the platform.

Host three online discussions for the students. These can be held with face-to-face using an application like Zoom, or can be discussions on your class discussion board.

- **Discussion 1:** This discussion should take place after students have completed the first three segments (Purebred, Cow/Calf, and Feedyard). Use the reflection questions (page 5) to have an in-class discussion on what they have learned. Instruct the group to complete the questions prior to coming to the class.
- **Discussion 2:** This discussion should take place after the students have completed the final three segments (Processor/Distributor, Retail, and Restaurant). Use the reflection questions (page 5) to have an in-class discussion on what they have learned. Instruct the group to complete the questions prior to coming to the class.
- **Discussion 3:** Have students present or discuss their summative assignment during a class session.



Potential timelines for instruction

Below are two sample timelines to utilize The Raw Truth About Beef Experience in the program.

Two-Week Timeline:

Week 1: Raw Truth About Beef Experience

- Watch all the videos on the platform, including: the "Meet the Dietitian and Chef" videos, insight, reflection, and 360 video experiences. Have students complete the respective reflection questions below and submit and/or discuss or via discussion board.

Week 2: Application Assignment

- Have students complete the summative assignment(s).

Ten-Week Timeline:

Week 1: Purebred

- Watch the "Meet the Dietitian and Chef" videos. Watch insights and reflection videos. Have students complete the respective reflection questions below in class and discuss or via discussion board.

Week 2: Cow/Calf

- Watch insights and reflection videos. Have students complete the respective reflection questions below and submit and/or discuss or via discussion board.

Week 3: Feedyard

- Watch insights and reflection videos. Have students complete the respective reflection questions below and submit and/or discuss or via discussion board.

Week 4: Processor/Distributor

- Watch insights and reflection videos. Have students complete the respective reflection questions below and submit and/or discuss or via discussion board.

Week 5: Retail

- Watch insights and reflection videos. Have students complete the respective reflection questions below and submit and/or discuss or via discussion board.

Week 6: Restaurant

- Watch insights and reflection videos. Have students complete the respective reflection questions below and submit and/or discuss or via discussion board.

Week 7 & 8:

- Share insights of the event in the class discussion board.

Week 9 & 10:

- Introduce summative assignment to the class. Allow the class one week to complete the assignment. Have the group share their presentations via the class discussion board or Zoom. Allot two weeks for presentations or discussion depending on the class size.



Reflection questions:

Assign the following reflection questions to your students to help them process and draw meaning from the experience. You can structure these assignments in several different ways.

Purebred:

- What made you curious as you explored the purebred ranch?
- How is beef quality and consistency influenced by cattle genetics?
- What role does technology play in purebred ranchers' ability to improve the genetic potential of their herds?
- Of the information covered in this segment, what do you see as most important to understand for your future career?

Cow/Calf:

- What surprised you about what you learned?
- Describe how beef cattle upcycle grass and convert it into animal protein.
- Why are animal identification systems important for tracking animal health?
- What best practices do beef producers employ when using antibiotics and giving vaccines?
- How can you apply the learning from this segment into your interactions with peers or others curious about beef production?

Feedyard:

- What were the most important elements or significant ideas presented at the feedyard?
- How do different feed rations affect the tenderness and flavor of beef?
- List a few common ingredients in feed rations and identify the nutrients they provide the animal. Consider how feed rations are similar to the diets of humans.
- What information learned in this segment do you see yourself actively applying in your future career?

Processing/Distribution Facility:

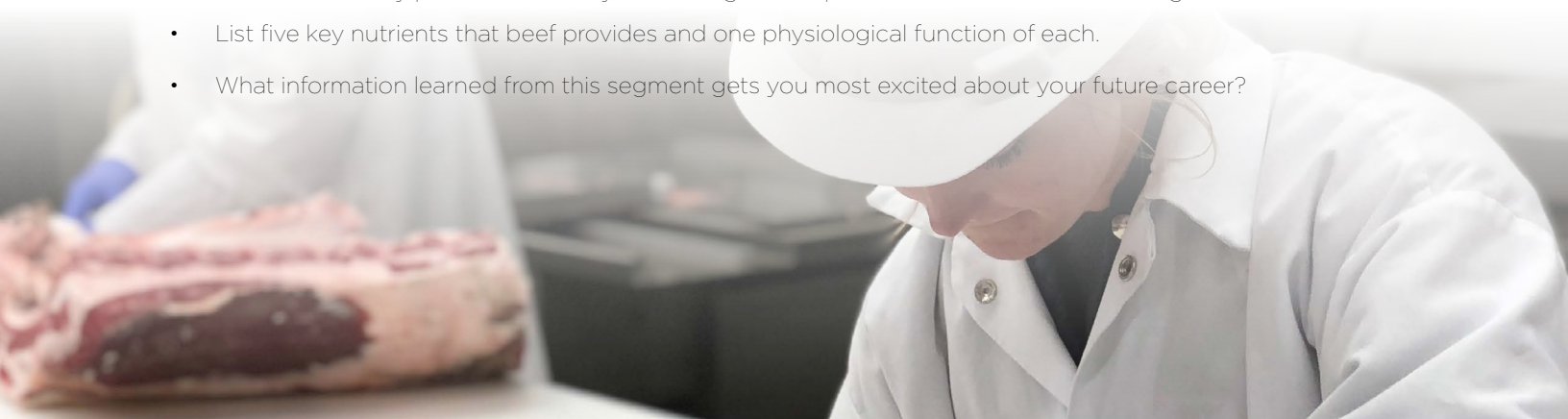
- What protocols in a processing facility ensure food safety?
- How have trimming practices changed and how have these changes influenced the fat content of beef?
- List three to five lean cuts of beef.
- How do you see yourself applying the information learned in this segment into your career?

Retail:

- What information from this segment would you share with your peers or community?
- What meat handling tips and food safety practices are important for people to understand?
- What information would you share with your peers about labeling claims on beef products in the meat case?
- What information learned in this segment do you see yourself using to perform your job well in the future?

Restaurant:

- What information surprised you most from this segment?
- What are two key pieces of advice you would give to a patient or client related to dining out?
- List five key nutrients that beef provides and one physiological function of each.
- What information learned from this segment gets you most excited about your future career?



SUMMATIVE APPLICATION ASSIGNMENTS

After your students have completed the Raw Truth About Beef Experience, assign one or more of the following summative application assignments to help them apply what they learned. Student handouts are included for each assignment at the end of this document. There is one application assignment for each step in the beef production process, as well as one focused on food safety and one on beef's nutritional value.

Purebred Assignment: Consumer Message

Objective:

- Learners will develop a message to share with a consumer that describes the beef lifecycle.

Prompt for Students:

- Write a paragraph message of what you think is important to share with consumers about the beef lifecycle.
- Write three follow up questions they might have and create bullet points for what your response would be.

Additional Resources to Consult:

- [Beef Lifecycle](#)
- [Beef Lifecycle and History](#)

Assessment:

- Evaluate assignment based on relevance and critical thinking.



Cow/Calf Assignment: Antibiotic Use in Cattle Graphic

Objective:

- Learners will create a graphic that conveys an element of a cow/calf ranch.

Prompt for Students:

- Create a graphic that represents the answer to the questions below. Do further research as necessary to add details to their graphic.
 - How do producers utilize antibiotics in cattle production? How does that impact the consumer?

Additional Resources to Consult:

- [Antibiotic Use In Cattle](#)

Assessment:

- Evaluate assignment based on accuracy and creativity.



Feedyard Assignment: Sustainability Concept Map

Objective:

- Learners will create a concept map that illustrates concepts associated with a feedyard.

Prompt for Students:

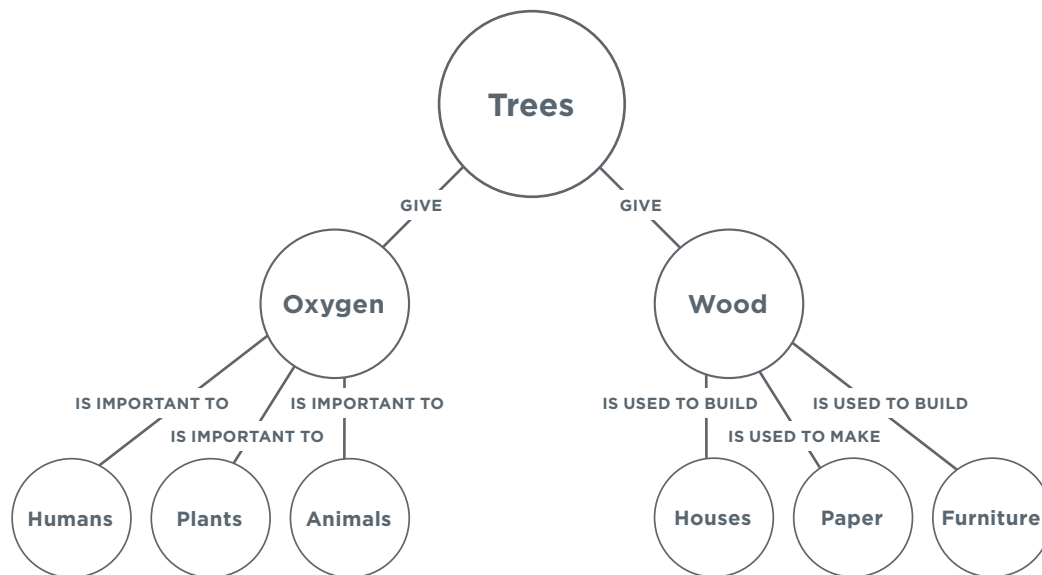
- Create a concept map (see example below) that illustrates the answer to the following question. Use the resources below to do further research.
- Question: How does cattle production interact with the environmental sustainability and natural resources?

Additional Resources to Consult:

- [Beef Sustainability Fact Sheet](#)
- [Beef Sustainability Research Book](#)

Assessment:

- Evaluate assignment based on accuracy and critical thinking.



Processor/Distributor: Quality & Yield Grades Fact Sheet

Objective:

- Learners will create a fact sheet that will educate the public about quality and yield grades.

Prompt for Students:

- Develop a one-page fact sheet that describes the following to a consumer audience:
 - What are quality and yield grades?
 - Why are they important?
 - How should they influence my purchasing decisions?
 - What are key differences between grass-finished and grain-finished beef?

Additional Resources to Consult:

- [Understanding Marbling and Quality Grades](#)
- [Introduction to Beef Grading](#)
- [Retail Beef Cuts Chart](#)
- [Grass Finished vs. Grain Finished Beef](#)

Assessment:

- Evaluate assignment based on accuracy and critical thinking.



Retail Assignment: Cut Selection

Objective:

- Learners will select a particular cut of beef and research it.

Prompt for Students:

- Select a retail cut, identify the sub-primal and primal cut it came from.
- Describe the characteristics of the cut. Visit beeflovingtexans.com and find a recipe to prepare that cut.
- Identify the sub-primal and primal cut it came from.
- What would you tell a customer about how that cut fits into a healthy diet? What recipe could they utilize?

Additional Resources to Consult:

- [Retail Beef Cuts Chart](#)
- [Beef Loving Texans: Beef Cuts](#)
- [Beef Loving Texans: Beef Recipes](#)
- [Beef Loving Texans: Beef Cooking Methods](#)
- [Stock Your Protein Pantry](#)

Assessment:

- Evaluate assignment based on accuracy and completeness.



Restaurant Assignment: Menu Development

Objective:

- Learners will develop single meal menu incorporating nutritional information of various lean beef cuts.

Prompt for Students:

- Develop a one-page food menu incorporating various cuts of beef into the scenario below. Be sure to describe why you have chosen each cut and the nutritional value it has.
- Visit a grocery store to find and compare at least three cuts of beef (i.e., sirloin steak, flat iron steak, tenderloin steak, top round roast, sirloin tip roast).
 - Look up the cuts you chose [here](#) and with the "Beef Retail Cuts" chart to learn more about characteristics, appropriate cooking methods, and recipes.
 - Develop a single meal menu for each of the cuts you selected and write two to three sentences about a scenario or location (i.e., quick at-home meal, hospital kitchen, restaurant) for which you would recommend each menu.

Additional Resources to Consult:

- [Retail Beef Cuts Chart](#)
- [Beef Loving Texans: Beef Cuts](#)
- [Beef Loving Texans: Beef Recipes](#)
- [Beef Loving Texans: Beef Cooking Methods](#)
- [AHA Certified Recipes](#)
- [Stock Your Protein Pantry](#)

Assessment:

- Evaluate assignment based on accuracy, creativity, and critical thinking.



Beef Nutrition Assignment: Educational Materials

Objective:

- Learners will identify and develop appropriate educational materials for the audience types below to address the need of building beef into a sustainable and healthy dietary pattern.

Prompt for Students:

- As part of your role as a pediatric dietitian, you have decided to create and manage a Facebook group for parents who are looking for a way to learn more about how to provide a balanced diet for their infants and toddlers. The page will serve as a place for parents to interact and support one other, and for you to give evidence-based information. How would you drive engagement on the group? What information would you share? Brainstorm the ways you would optimize Facebook group features (videos, blogs, pictures, events) and identify which modalities would help educate parents on incorporating nutrient-rich beef into their children's diet.
- You have recently been asked to host an educational booth at a farmer's market in Austin, TX. Your goal will be to share information related to food labeling claims targeting young professionals between the ages of 26-38.
- You have been asked to give a 15-minute presentation at a local town's harvest festival on the benefits of incorporating lean protein into one's diet. Your audience will be a group of high school students who are visiting from a nearby city. Many are athletes and would benefit from hearing about the importance of properly fueling your body for optimal performance.

Additional Resources to Consult:

- [Beef as a First Food](#)
- [Feeding Tips for Infants](#)
- [Feeding Tips for Toddlers](#)
- [Smart Starts for Infants](#)
- [Decoding the Label](#)
- [Surprising Facts about Lean Beef](#)
- [Grain-Finished vs. Grass-Finished Beef](#)
- [Powerful Protein](#)
- [Stock Your Protein Pantry](#)
- [Leidy et al., 2015](#)

Assessment:

- Evaluate assignment based on originality of presentation, professionalism, accuracy of information, and audience-centric approach in messaging.



Food Safety Assignment: Educational Materials

Objective:

- Learners will create an eye-appealing and scientifically accurate employee training presentation covering various food safety topics.

Prompt for Students:

- You are training a team of employees that will be working with a variety of foods, including meat products. Create an eye-appealing and scientifically accurate training presentation that covers the following elements:
 - Responsibilities of various governmental organizations in ensuring a safe food supply
 - Relevant Laws related to food safety and their implications (i.e.: Food, Drug, and Cosmetic Act; Food Modernization Act)
 - Beef Quality and Yield Grades
 - Food Safety Techniques for Handling Meat
 - Appropriate Internal Cooking Temperatures for Protein Foods

Additional Resources to Consult:

- [FSIS: Food Safety Fact Sheets](#)
- [FSIS: Governmental Agencies and Partnerships](#)
- [Understanding Beef Quality Grades](#)
- [USDA: Beef Yield and Quality Grading](#)
- [FSIS: Safe Food Handling](#)
- [FSIS: Color of Cooked Ground Beef](#)
- [FSIS: Safe Internal Cooking Temperatures](#)

Assessment:

- Evaluate assignment based on originality of presentation, professionalism, accuracy of information, and audience-centric approach in messaging.

