U.S. ROUNDTABLE FOR SUSTAINABLE BEEF

FRAMEWORK OUTREACH | **MODULE TOOLKIT**

FEEDYARD

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U.S. ROUNDTABLE FOR SUSTAINABLE BEEF: INTRODUCTION

Welcome to the U.S. Roundtable for Sustainable Beef (USRSB) Feedyard Toolkit. In this resource, you'll find a collection of external sources to support the material of the online training. Templates are available for in-the-moment application and active links will allow you to visit websites instantly, expanding your knowledge of each topic.

OUR FRAMEWORK

The U.S. Beef Industry Sustainability Framework is a voluntary resource developed to identify opportunities for continuous improvement in all types of operations and companies across the beef industry. The ability to establish benchmarks for current conditions and assess progress toward goals is critical to the U.S. beef industry's sustainability efforts. Read the complete Framework here.

This Toolkit Addresses Four High-Priority Indicators:

- Profitability and Efficiencies
- Environmental Strategies
- Employee Safety & Well-Being
- Animal Health & Well-Being

Get started with the Beef Quality Assurance Feedyard Assessment Tool

EFFICIENCY AND YIELD: TRACKING DATA

Many tools are available to support feedyard operators in evaluating efficiency and yield. Tracking important data takes time, organization, and consistency, regardless of feedyard size.

Common financial statements and measures you should have and regularly update:

- BALANCE SHEET - The balance sheet financial statement is a snapshot of what your feedyard looks like TODAY. At this point in time, what do you own and what do you owe?
- INCOME STATEMENT - The income statement shows the revenues and expenses of the feedyard over the course of a year. The difference in revenues and expenses is the net income.
- CASH FLOW STATEMENT - A series of cash flow statements will allow you to see or project your ability to meet cash payment obligations, and when you might have excess cash available to pay ahead on existing liabilities. Cash flow statements can be completed on intervals tailored for the feedyard, such as monthly or quarterly.
- BUDGETS BY MONTH, QUARTER, YEAR – Budgets are estimates of income and expenses within a given time frame. Preparing and adjusting budgets monthly, quarterly, and annually can help you be aware of the timing of financial obligations and how to meet them. They can be based off previous budgets or started from scratch each time.
- PROFITABILITY PER HEAD – Find your profitability per head by taking your annual or seasonal profit and dividing by total head. Use your breakeven price to establish the minimum you must make to cover all expenses, then establish a profitability goal.
- INVENTORY – In addition to animal identification records, maintain inventory records of consumables like feed, medication, tags, supplies, and more durable equipment like handling aids, Personal Protection Equipment (PPE), and digital hardware and software.

Depending on your feedyard, consider tracking measurements like feed shrink and storage losses, transportation efficiency, and staff ratios.

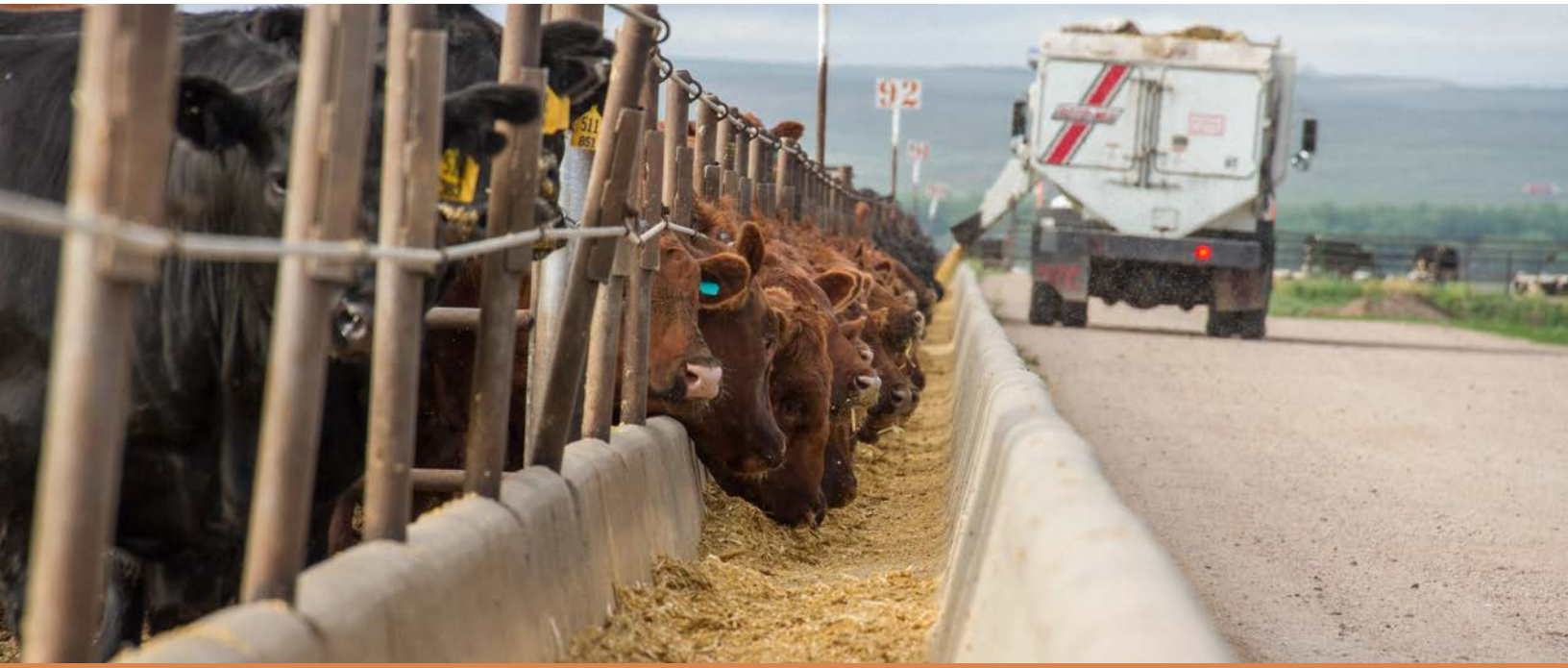
EFFICIENCY AND YIELD: FEED EFFICIENCY

According to the article "Feeding Strategies to Improve Feed Efficiency" from the University of Wisconsin Extension, "The top five factors that affect feedlot profitability are purchase price of cattle, sale price of the cattle, cost of feed, feed efficiency of cattle, and average daily gain of cattle. Of these five factors, feed efficiency can be most easily controlled by feeders."

> *"The primary goal of a feedlot operation is to efficiently convert pounds of feed into pounds of carcass weight."*

Here are some basic calculations which can help you evaluate feed efficiency of your animals:

Average Daily Gain	Feed Efficiency	Cost Per lb of Gain
Ending Weight – Starting Weight --- Days on Feed	Pounds of Feed per day --- Average Daily Gain	Total Feed Cost --- Ending Weight – Starting Weight



EFFICIENCY AND YIELD: CATTLE FEEDING BUDGET

Many university extension services have spreadsheets and other tools available for tracking, measuring, and comparing efficiency and yield data for your feedyard. The following template is adapted from the Iowa Beef Center, where you can find many calculators and formula-based spreadsheets. Use the table below for a quick tool to estimate your feed-per-head budget.

Animal Info	
Date	
Purchase Weight	
Finished Weight	
Days on Feed	
Projected Marketing Date	

TIP: *Your total cost to finish an animal is also your break-even price – this is the minimum you must sell the animal for to not lose money. Visit the Break-Even Calculator at the Iowa Beef Center to adjust additional production factors.*

Variable Costs per head		
Animal Purchase Cost		
Feeder calf price/cwt * Calf cwt	$_____ per cwt x _____ cwt	$
Feed Cost		
Corn price/bu * bu fed to animal	$_____ per bu x _____ bu fed	$
Alfalfa-Brome Hay Price/ton * hay as fed tons	$_____ per ton x _____as fed tons	$
Supplement price/lb * used supplement lbs	$_____ per lb x _____ lbs used	$
Non-Feed Costs		
Vet medical & operating costs		$
Interest		$
Labor Costs		$
Death Loss (% of purchase price)	% Loss x $_____ purchase price	$
Transportation/Marketing Cost		$
Total Variable Cost per head		$
Fixed Cost - Facility Cost per head	$_____ facility cost / # of head	$
Total Cost to Finish Animal:	Variable Cost + Fixed Cost	$

Adapted from Iowa Beef Center, Iowa State University Extension and Outreach

EFFICIENCY AND YIELD: CHOOSING A STRATEGY

The USRSB Framework lays out eight strategies for improving efficiency and yield. As you consider your current standing and future goals, which areas are you most likely to focus on at your feedyard? Once you have identified your desired strategy, complete this chart with more specifics about the pathway that will allow you to reach your goal.

Question:	Your Response:
Strategy:	*(reference Feedyard Profitability and Efficiencies online module for full list – strategies include areas for closeout performance, rations, energy consumption, feedstuff management, manure management, financials, staffing, etc.)*
WHAT will you measure?	
WHEN is your deadline/checkpoint?	
WHY will this benefit your feedyard?	
WHO will you engage for guidance, advice, or resources?	
HOW will you overcome obstacles preventing you from reaching efficiency now?	

MORE RESOURCES

This is not an exhaustive list, continue exploring resources specific to your state or region.

ACCOUNTING

- Accounting firms like Lewis, Harper, and Dick offer financial planning calculators to help with standard financial management. Others like KCOE-ISOM specialize in food and agricultural finance and accounting and can offer resources unique to the industry.
- The Iowa Beef Center provides 10-year summaries of monthly cattle feeding returns to compare your data with the industry average.
- The University of Nebraska – Lincoln delivers monthly articles for feedyard operators.

NUTRITION

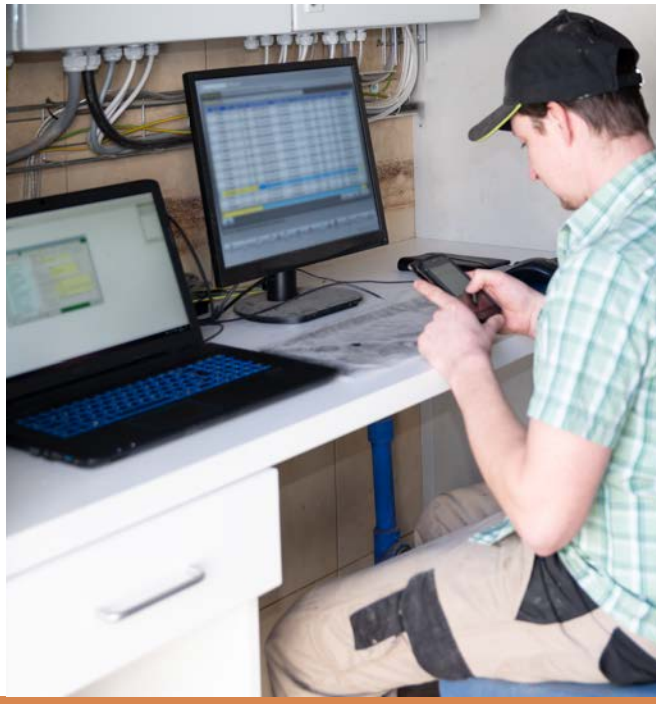
- Nutritionists such as those from the Nutrition Services Associates can help consult with feedyard operations
- Production Animal Consultation can also consult on strategic planning and industry data for beef producers
- The Beef Improvement Federation provides information on feed intake and feed efficiency testing for beef cattle

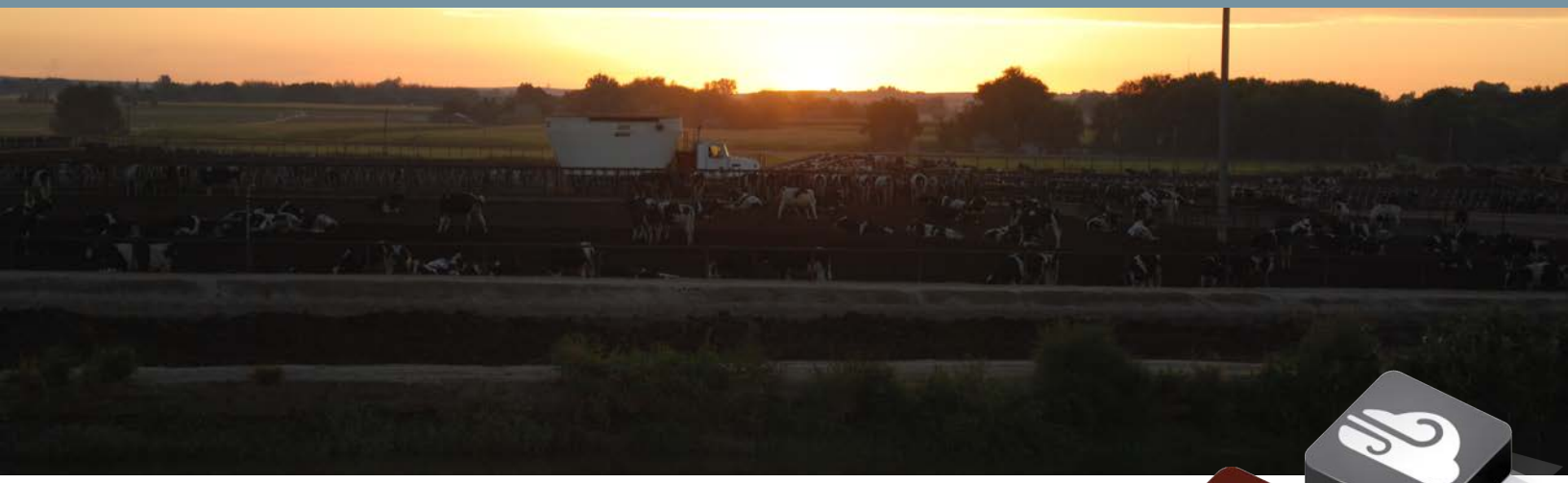
SOFTWARE

- The following software tools can help feedyard operators manage profitability and efficiency data ranging from financial to inventory to herd data. This is not a complete list of software tools but can offer a starting point when finding the right program for your feedyard.

- ISU Beef Feedlot Monitor Software
- Animal Health International
- Micro Technologies
- Performance Livestock Analytics
- Benchmark
- FY3000
- Hi-Plains
- Turnkey
- Ag Strata
- Beef Basics

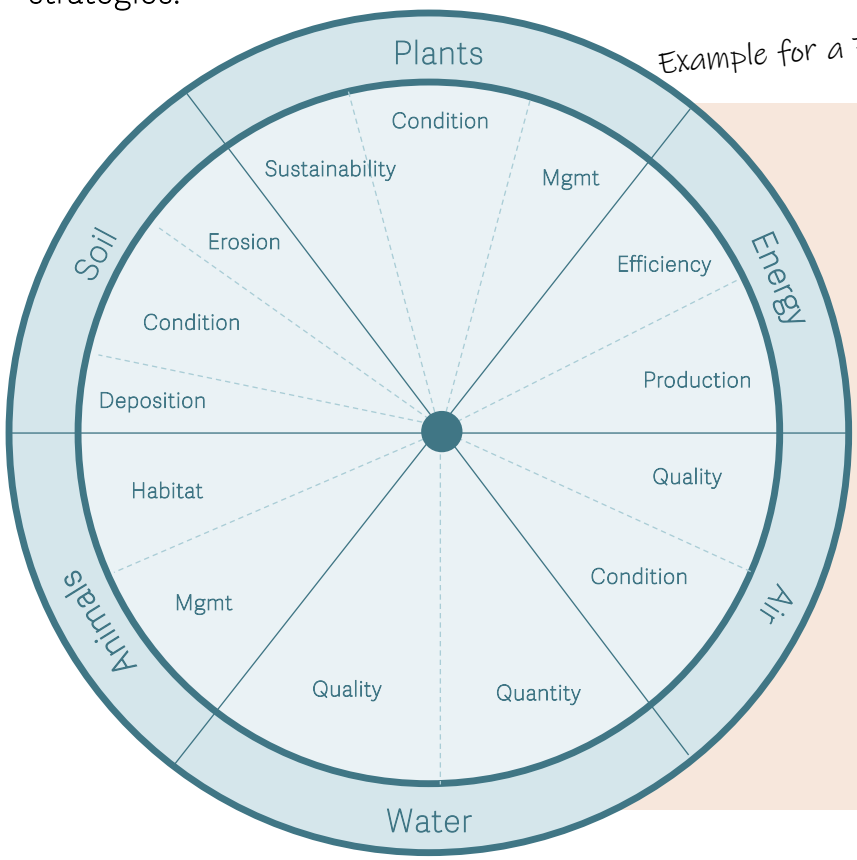
CHECK IN: *What technology or programs are you currently using to track your profitability and efficiencies? Does the system meet your needs? If not, what needs to change?*





WATER, LAND, AIR: MANAGEMENT STRATEGIES

Continuous improvement in the areas of water management, land management, and air quality is important for the longevity and safety of a feedyard. These natural resources are dependent on and act upon each other, so a comprehensive program that address each is vital. The USDA Natural Resource Conservation Service offers this helpful visual to depict how each aspect of an agricultural operation – plants and soil, air, water, energy, and animals - impacts environmental management strategies.



Example for a Feedyard:

Water Quantity

- ✓ Process to assess annual water quantity used
- ✓ Conservation measures to minimize waste
- ✓ Storm runoff system for dust management

Water Quality

- ✓ Enrolled in voluntary water quality program
- ✓ Nutrient Management Plan (NMP) in place
- ✓ Potential pollutant points identified and prevention measures used

Adapted from Figure 2-2 of the USDA NRCS Agricultural Waste Management Field Handbook, 2011

ENVIRONMENTAL MANAGEMENT: MAKING IMPROVEMENTS

Which areas are you most likely to focus on at your feedyard to improve the environmental management? Read the example focus areas below and find more on page 54 of the U.S. Beef Industry Sustainability Framework.

	Improving Environmental Impact	Improving Air Quality
EXAMPLES	• Manure Treatment • Nutrient management plans (NMP) • Evaluate manure storage areas to prevent runoff • Incorporate plans for 25-year, 24-hour rainfall events and/or 100-year floodplain	• Create a plan for higher risk characteristics on land application sites • Maintain a written list of "high priority" changes in facility design or management practices for future planning
YOUR IDEAS		

	Improving Land Management	Improving Water Management
EXAMPLES	• Develop a USDA-approved conservation plan • Train employees on nutrient planning SOPs • Obtain a federal or state water quality permit • Document your NMP and/or have a certified nutrient management specialist or certified crop advisor review the NMP • Conduct a Whole Farm Phosphorus Balance • Create an SOP for soil/manure sampling and analysis, crop yield goals, crop rotation, manure/effluent application, application equipment inspection, site inspection, manure spill containment, or irrigation equipment	• Put a process in place to annually assess the quantity of water utilized by the operation • Implement water conservation measures to minimize water waste • Identify all potential pollutant sources and established measures to prevent water quality impacts • Install measures to fully reuse and/or recycle water (e.g., collect precipitation runoff for use in crops or possibly access roads and feedlot surface dust control)
YOUR IDEAS		

ENVIRONMENTAL MANAGEMENT: GROUNDWATER DISTRICTS

It is important for feedyards to know if they are located within a groundwater district so they can be compliant with any guidelines or regulations. If your state is listed, find it below for links to the state's groundwater management agency and water quality permits for AFOs. For other states or a national view, visit the National Groundwater and Streamflow information Program from United States Geological Survey. Links are not all-inclusive, but a great starting point for more information.

ARIZONA

Groundwater: Arizona Department of Water Resources

Permits: Arizona Department of Environmental Quality

CALIFORNIA

Groundwater: California Department of Water Resources

Permits: California Water Boards

KANSAS

Groundwater: Kansas Department of Agriculture

Permits: Kansas Department of Health and Environment

NEBRASKA

Groundwater: Nebraska's Natural Resources Districts

Permits: NDEE Water Quality Division

NEW MEXICO

Groundwater: New Mexico Environment Department

Permits: NPDES Surface Water Quality

OKLAHOMA

Groundwater: Oklahoma Water Resources Board

Permits: OWRB Water Use Permitting

TEXAS

Groundwater: Texas Water Development Board

Permits: Texas Commission on Environmental Quality

IOWA

Permits: Department of Natural Resources

COLORADO

Permits: Colorado CDPHE

MORE RESOURCES

This is not an exhaustive list, continue exploring resources specific to your state or region.

- The USDA NRCS has multiple resources for water conservation and use, including the Conservation Planning Workbook and the Agricultural Waste Management Field Handbook.
- The Livestock & Poultry Environmental Learning Community offers resources and advice for manure management including the topic of managing manure in winter.

ENVIRONMENTAL MANAGEMENT: SITE REVIEW

When reviewing how the land, water, and air quality are managed at your feedyard, use the following checklist to conduct your site review:

- ❑ Are runoff holding ponds designed, built, and managed to contain required storm event?
- ❑ If runoff holding ponds are not used, has an alternative technology been employed to manage the stormwater runoff?
- ❑ Do any of the following higher risk characteristics exist for planned land application sites?
    - ❑ Designated by NRCS as highly erodible land?
    - ❑ Karst topography, sinkholes, or other connection to ground water?
    - ❑ Shallow high-water table (less than four feet)?
    - ❑ Flooding potential (one in five years or more)?
    - ❑ Soils with soil test P levels identified as very high or excessive?
    - ❑ Unused or abandoned wells not properly sealed?
    - ❑ Tile drained fields draining directly to surface water?
    - ❑ Less than 30-foot permanent (e.g., grass) vegetative buffer between manure application and surface water or well? Note that a wider no manure application buffer may be necessary for cropland.

ENVIRONMENTAL MANAGEMENT: FACILITY PRIORITIES

When considering facility changes and which items to prioritize, answer and compare these questions for each initiative. This can make it easier to determine which initiative should be given attention first given.

- Scope/Cost – how large is this project? What is the estimated cost?
- Contractors or Consultants – who is needed to make this initiative happen? This may include an environmental consultant or building contractors
- Timeframe – how long will it take to complete this project? How will seasonality impact timing?
- Sustainability – how will this initiative be maintained over the years? How will it contribute to a sustainable environment?
- Environmental Impact – what is the impact of this initiative during and after implementation?

Adapted from section 48 of "Beef cattle feedlots: design and construction" (Watts, et al. 2016)

FEEDYARD SAFETY: HIGHLIGHTING THE HAZARDS

The University of Nebraska Medical Center's Central States Center for Ag Safety and Health (CS-CASH) is working to develop feedyard specific safety and health resources for feedyard operators. Their preliminary study issued surveys to identify the top employee safety topics at the feedyard, which will be used to further develop the CS-CASH safety programs. Consider if these same issues are at the top of your safety list at your feedyard operation.

"THE FEEDYARD 15"

1. Feed mill safety
2. Mobile equipment
3. Tractors and loaders
4. Cattle handling/stockmanship
5. Processing cattle
6. Horsemanship
7. Slips, trips, and falls
8. ATVs/UTVs
9. Emergency response
10. Extreme response
11. Chemical storage
12. Machine shop hazards
13. Electrical hazards
14. Bunker silos
15. Manure storages

SUCCESSFUL SAFETY & HEALTH PROGRAMS

How do you currently implement or want to start implementing these components in your employee safety programs?

Evaluate
How do you determine the effectiveness and outcomes of safety methods?

Train
How often do you offer, participate in, and document trainings?

Eliminate, Prevent or Control
How are you managing or mitigating hazards and risks?

Establish
Have you established written safety policies and procedures?

SAFETY MATTERS: CREATING A SAFETY PROGRAM

USRSB recommends discussions outside expertise and consultants who can develop or aid in the development of an employee safety and well-being training program. Public and private agencies and institutions who can help develop or evaluate a safety and health program include:

- Agricultural Safety and Health eXtension – find resources, training events, and expert advice
- American Farm Bureau Safety & Health Network – provides leadership and assistance to local and state Farm Bureaus promoting safety and health in agricultural and rural communities.
- University of Minnesota Extension Farm Safety – find a collection of resources on risk management and farm safety.
- USDA National Institute of Food and Agriculture Farm Safety – browse resources and external links in partnership with USDA NIFA on farm safety and employee well-being.
- Ohio State University Extension Ag Safety & Health Program – browse employee safety resources including videos and print materials.
- USDA Preparedness Fact Sheet – do you have a plan should disaster strike? Use this guide from the USDA to develop a plan in case of an emergency.
- Department of Homeland Security – visit Ready.gov to see what you can do to prepare for disasters if you have livestock or other animals.
- North Carolina State University Agricultural Safety for Farmers and Workers – find a collection of resources from pesticide safety to OSHA trainings.

TRAININGS

- The Animal Care Training (ACT) is an online training for producers, transportation, and livestock marketers to gain information for the American Association of Bovine Practitioners (AABP).
- The Beef Cattle Institute at Kansas State University provides innovative solutions to veterinarian and beef producers for success in the beef industry.
- The Southwest Center for Agricultural Health, Injury Prevention, and Education is a part of the National Institute for Occupational Safety and Health (NIOSH) and conducts programs designed to reduce occupational injuries and diseases among agricultural workers and their families.

SAFETY MATTERS: PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment (PPE) includes a variety of clothing and external wear to keep cattle handlers and feedyard employees safe. Learn more at the National Ag Safety Database.

- Steel-toed or hard-toed shoes can help prevent injury from being stepped on by cattle.
- Dust masks should be worn in areas with inadequate or improper ventilation when working in dusty environments such as moving and handling feed.
- Rubber gloves and splash goggles should be worn when mixing and spraying chemicals such as pesticides and insecticides.
- Eye protection and gloves should be worn when working with a sick animal or giving a shot, as some livestock diseases can be introduced to humans through open wounds.

Note: loose, ripped, or baggy clothing should never be worn around machinery as it can easily be caught in equipment with moving parts.

EYE AND FACE PROTECTION

When is eye and face protection needed? When there is a reasonable probability of injury from hazardous chemicals or flying particles, such as:

- Pipetting
- Opening centrifuge tubes
- Using syringes
- Mixing/vortexing
- Preparing solutions
- Titrations
- Pouring
- Operating a saw
- Grinding/cutting
- Trimming grass or shrubs
- Spraying
- Vehicle/equipment maintenance
- Plowing
- Cutting/mowing brush

NOISE EXPOSURE

Workplace noise can cause hearing loss, create physical and psychological stress and contribute to accidents by making it difficult to communicate. All employees working in high exposure areas or jobs should be trained before initial assignment and at least annually on the following topics:

- Effects of noise on hearing
- Purpose of hearing protectors
- Advantage and disadvantages of various types of hearing protectors
- Proper use, selection, fit, and care of hearing protectors

Adapted from Noble Research Institute, LLC

SAFETY MATTERS: EMPLOYEE TRAINING

Use the checklist below to help develop your worker safety and well-being training. As you read through each section, consider if your feedyard is currently implementing these in your training, or if they could improve.

Safety Training Components

- ❑ Identifying hazards and implementing control measures.
- ❑ Learning the proper safe work practices.
- ❑ Learning when and how to use personal protective equipment.
- ❑ Learning to perform basic first aid, CPR and emergency training.

Training Tips

- Be specific
- Give examples
- Provide feedback
- Schedule regular practice, interactive components, and hands-on activities
- Provide feedback to participants
- Give positive reinforcement
- Keep it short
- Encourage employee involvement
- Mix it up – keep trainings fresh and engaging

Advice for the Trainer:

- ✓ The trainer should know the job well and should be prepared ahead of time for training
- ✓ Explain the purpose of the training
- ✓ Treat the worker as an equal or a friend
- ✓ Demonstrate the process step by step
- ✓ Instruct the worker to perform the job one step at a time and repeat the process as needed
- ✓ Monitor performance and evaluate the training

Adapted from Noble Research Institute, LLC. Special thanks to Megan Kelley, Sharon Bard, the Beef Quality Assurance (BQA), and the Integrity Beef Alliance.

SAFETY MATTERS: EMPLOYEE TRAINING

In addition to the checklist, consider these suggestions to make your trainings more impactful.

Tailgate Training

Tailgate training is an effective, informal way to communicate safety information to workers. It is usually conducted in 15- to 20-minute time periods covering a specific safety topic to a small group of workers. Given by managers, the tailgate sessions usually happen at the beginning of the week, in the morning before work has begun. It is usually conducted weekly and directly related to the work assigned for that time frame.

Near misses are a good topic to cover. This is a good, proactive approach to help reduce injuries and incidents. Make sure the training is directed at learning and understanding rather than alienating the people involved in the near miss.

Evaluation

Evaluation is a key part of training. You can use informal evaluation to find out what the worker learned from the training experience. You can ask questions and have them perform the job while you are observing to make sure the job is done correctly and in the safest manner possible. You can use formal evaluation to get a more thorough, objective understanding of the training process. Training pre-tests and post-tests can be used to measure whether the training was effective. You can also use follow up assessments to measure if the information learned was retained. Document all trainings, including attendance.

Youth Regulations

The Federal child labor provisions were enacted to ensure that young workers are protected from unsafe and hazardous jobs. The Federal child labor provisions, authorized by the Fair Labor Standards Act (FLSA) of 1938, were enacted to ensure that when young people work, the work is safe and does not jeopardize their health, well-being, or educational opportunities. By knowing minimum wage, overtime, discrimination protections and ages and conditions guidelines and complying with these provisions, agricultural employers, parents, and teachers can help working teens enjoy those safe, positive, early work experiences that can be so important to their development. For more information regarding child labor laws in the U.S. you can visit this.

Adapted from Noble Research Institute, LLC. Special thanks to Megan Kelley, Sharon Bard, the Beef Quality Assurance (BQA) and the Integrity Beef Alliance.

SAFETY MATTERS: SAFETY & HEALTH POLICY

Use the sample Safety & Health Policy below as a starting point for your own policy. Adapt as needed for your feedyard and remember to include authorizing signatures. Fill in the name of your feedyard in the blanks below.

_____ Safety and Health Policy

The safety and health of workers and cattle is very important. Our feedyard will comply with all applicable workplace safety and health regulations and support and enforce occupational safety and health regulations. Everyone, including management will be involved with the safety program.

Based on everyone's involvement, our safety and health goals are:

1. Strive to achieve a "zero incidents" goal.
2. Train staff to perform all work tasks safely.
3. Provide personal protective equipment (PPE) appropriate for all job activities.
4. Improve and maintain equipment and environmental conditions on the feedyard.
5. Perform regularly-scheduled work inspections, document and remediate all hazards.
6. Prepare and train all employees to react appropriately under emergency conditions.
7. Establish a continual reporting system for "close call" and "near miss" incidents.
8. Reward workers appropriately for their safety and health workplace achievements.

Owners and managers are responsible for training workers in specific safe work practices. Owners and managers must enforce company policies and make sure everyone is following proper safety procedures. Everyone working at _____ is responsible for safety and everyone is required to participate in reporting of accidents, recognizing hazards and unsafe acts, and wearing proper personal protective equipment.

The following workplace safety rules apply to everyone employed at this feedyard:

1. No employee is required to do a job that they consider to be unsafe.
2. No horseplay will be tolerated at our feedyard.
3. No illicit drug or alcohol use is permitted on the feedyard.
4. Injuries and/or unsafe work practices should be reported to management immediately.
5. Employees are not permitted to operate machines for which they have not received training.
6. Failure to follow these safety rules can result in verbal or written warnings, job re-assignment or retraining, or employment termination.

As a worker of _____, I have read, understand and will abide by the safety and health policies stated above.

_____ _____

Signature of Employee Signature of Owner or Manager

Adapted from Noble Research Institute, LLC. Special thanks to Megan Kelley, Sharon Bard, the Beef Quality Assurance (BQA), and the Integrity Beef Alliance.

EMPLOYEE BENEFITS: PRIORITIZING HEALTH AND WELL-BEING

To enhance employee safety and well-being, a feedyard should consider offering each of these benefits to their employees in an effort to improve workplace safety, employee health and financial security.

HEALTHCARE

RETIREMENT

FINANCIAL COUNSELING

VACATION

IMMUNIZATION

SMOKING CESSATION

For more information, consult HR resources at the Society for Human Resource Management, a credible source of human resources information for all industries.

Community Engagement

Being engaged with your community and the lives of your employees will support their well-being. What options do you have available to become involved? Try these to start:

- Purchasing 4-H or FFA livestock or supporting other youth clubs
- Host or sponsor community activities such as baseball teams
- Donate to a youth fundraising activity
- Find out what your employees and their children are involved in and support something that would relate to them

MORE RESOURCES

This is not an exhaustive list, continue exploring resources specific to your state or region.

- The Agricultural Safety & Health Council of America is a coalition of organizations, businesses, and agencies with a mission to, "proactively address ongoing and emerging occupational safety and health issues affecting U.S. agriculture."
- For online training materials, visit Safety Made Simple, where you can find courses for individuals or groups created by safety experts.
- The Great Plains Center for Agricultural Health offers posters, handouts, and activities regarding farm and agricultural safety.

ANIMAL HEALTH MANAGEMENT: PRODUCTIVITY

Healthy cattle are more productive. Animal Health Management for a productive herd should be:

- Science-Based
- Include animal health products and antibiotics
- Common-Sense Driven
- Describe veterinarian partnerships
- Describe disease management practices

Animal well-being and animal health go hand-in-hand. The U.S beef industry has zero tolerance for animal neglect or animal abuse. A feedyard focused on animal well-being uses:

- ✓ Low-Stress Handling
- ✓ Appropriate Driving Aids
- ✓ Non-Ambulatory & Euthanasia Protocols
- ✓ Sanitary & Sufficient Feed & Water Supplies
- ✓ Adequate Space for Safe Animal Movement
- ✓ Antibiotic Management & Withdrawal Protocols
- ✓ Biosecurity Measures

ANIMAL HEALTH MANAGEMENT: VCPR

A Veterinary-Client-Patient-Relationship (VCPR) Agreement should be in place in order to specify the responsibilities of the feedyard operator and veterinarian, as well as to meet legal obligations for some antibiotics and medications. A VCPR should have the following components according to the American Association of Bovine Practitioners:

- A written agreement describing the working relationship between the veterinarian(s) and the client.
- A Veterinarian of Record (VOR) identified who has sufficient knowledge of the feedyard and animals and should be consulted before other veterinarians provide professional services to the herd.
- Treatment Protocols for commonly occurring or easily recognizable conditions written out, including when to stop treatment and seek veterinarian help.
- Description of electronic or written treatment records maintained for the herd
- List and protocols for prescription drugs to be used in specific time frames

When you require a Veterinary Feed Directive (VFD), check if the State or Federal Definition of the VCPR applies in your state. Visit the FDA VCPR Jurisdiction document to find your state.

DISEASE MANAGEMENT: BIOSECURITY

Biosecurity includes three critical components:

- SECURITY - practices in feedyards are aimed at controlling access to the facility in an effort to protect everything within it from theft, damage, or contamination
- BIOSECURITY - reducing risk associated with the entry of disease-causing agents to a feedyard
- BIOCONTAINMENT - reducing the transmission of disease-causing agents among cattle within a feedyard

These practices attempt to control risk from intentional and unintentional introduction of disease agents or toxins as well as the risk of an individual or group carrying out an act of terrorism or vandalism against the feedyard. Visit the template on the following page for more guidance.

ANIMAL HEALTH MANAGEMENT: VCPR

Use this VCPR template adapted from the Professional Animal Auditor Certification Organization

Owner Name:_____ Date:_____

Mailing Address:_____ City:_____
State:_____

Feedyard Name:_____

Feedyard Address (if different from above)
_____

Primary Phone:_____ Fax:_____ Email:_____

Veterinarian of Record Information: The veterinarian of record takes responsibility for making medical judgements on the farm regarding the health and welfare of animals and is the responsible party for providing appropriate oversight of drug use on the farm. Such oversight is critical in establishing and maintaining a VCPR. This oversight should include establishment of treatment protocols, training of personnel, review of treatment records, and monitoring use of all drugs regardless of where or from whom the drugs are distributed.

Name:_____ Clinic Name:_____

Mailing Address:_____ City:_____
State:_____

Primary Phone:_____ Email:_____

State Licensed In:_____ Other:_____

Before signing this agreement, the following must be completed:

- ☐ Develop an Approved Drug List, noting condition to be treated, proper dose, route, and withdrawal times
- ☐ Develop and commit to maintaining a Treatment Record System (written or computer based)
- ☐ VOR provides/approves treatment records

I hereby certify that a valid VCPR is established for the above-listed farm and veterinarian and will remain in force until cancelled by either party, or one year from signature date below.

Farmer/Owner Signature:_____ Date:_____

Veterinarian of Record Signature:_____ Date:_____

DISEASE MANAGEMENT: BIOSECURITY

Use this template from the BQA Feedyard Assessment to establish responsibilities for biosecurity

Security, Biosecurity, And Biocontainment Protocol

General

- Security, Biosecurity, and Biocontainment Protocols will be reviewed by _____ on a _____basis.
- All employees will be trained on the Security, Biosecurity, and Biocontainment Protocols when they are hired.
- Update/refresher training on the Security, Biosecurity, and Biocontainment Protocols will be provided to employees at least every _____.

Security

- _____will be responsible for feedyard security including: _____ _____.
- Visitors must sign in at _____. Visitor logs will be kept with the name, address, company, and date of visit. The following procedures will be taken during visits:
    - *Insert Procedures*
- Background checks will be performed on new hires prior to their start date.
- Employees will be trained to politely challenge visitors that are not following outlined procedures and escort them to the _____to sign in.
- Employees will be trained to recognize and report suspicious behavior to _____.

Biosecurity

- Unload and visually inspect all incoming cattle during daylight hours, if possible. Maintain isolation until inspection is completed. If cattle are unloaded at night they should be maintained in the receiving area and inspected the following morning.
- Rendering company vehicles should avoid driving through the feedyard and/or contaminating the direct delivery path of feed trucks.

Biocontainment

- The _____is responsible for proper cleaning and disinfection of hospital equipment and tools per feedyard veterinarian's directions.
- Equipment and facilities will be cleaned with the high-pressure water hose prior to disinfecting with _____.
- The hospital crew is responsible for _____ cleaning of the hospital facility. The yard _____ is responsible for weekly cleaning of the receiving and processing facility. Trucks and loaders used to clean pens and move manure or dead animals will not be used for handling feed without first being thoroughly cleaned and disinfected by _____ with _____.
- The crew is responsible for maintaining an ongoing bird, rodent, fly/insect, other pest, and feral animal control program.

DISEASE MANAGEMENT: JUDICIOUS USE OF ANTIBIOTICS

The Beef Quality Assurance Program (BQA) provides 14 Guidelines for the Judicious Use of Antibiotics, which are outlined below. You can find more information on these guidelines in the BQA Antibiotics Stewardship for Beef Producers Guidebook.

1. Prevent problems:
Emphasize appropriate husbandry and hygiene, routine health examinations, and vaccinations.

2. Adhere to FDA guidance:
Follow label instructions and FDA guidance for the use of all antibiotics. The use of antibiotics medically important in human medicine should only be used after careful consideration. If medically important feed grade antibiotics are used, they must be under the guidance of a Veterinary Feed Directive (VFD).

3. Select and use antibiotics carefully:
Consult with your veterinarian on the selection and use of antibiotics, under the premise of a valid Veterinarian-Client-Patient-Relationship (VCPR). Have a valid reason to use an antibiotic. Appropriate therapeutic alternatives should be considered prior to using antimicrobial therapy.

4. Use the laboratory to help you select antibiotics:
Cultures and sensitivity test results should be used to aid in the selection of antibiotics, whenever possible.

5. Combination antibiotic therapy is discouraged unless there is clear evidence the specific practice is beneficial:
Select and dose an antibiotic to affect a cure.

6. Avoid inappropriate antibiotic use:
Confine therapeutic antibiotic use to proven clinical indications. Avoid inappropriate uses such as for viral infections without bacterial complication.

7. Treatment programs should reflect best use principles:
Regimens for therapeutic antimicrobial use should be optimized using current pharmacological information and principles.

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8 **Treat the fewest number of animals possible:**
Limit antibiotic use to sick or at-risk animals.

9 **Treat for the recommended time period:**
To minimize the potential for bacteria to become resistant to antimicrobials.

10 **Avoid environmental contamination with antibiotics:**
Steps should be taken to minimize antimicrobials reaching the environment through spillage, contaminated ground run off, or aerosolization.

11 **Keep records of antibiotic use:**
Accurate records of treatment and outcome should be used to evaluate therapeutic regimens and always follow proper meat and milk withdrawal times. Keep records for a minimum of two (2) years or longer based on state and local regulations.

12 **Follow label directions:**
Follow label instructions and never use antibiotics other than as labelled without a valid veterinary prescription.

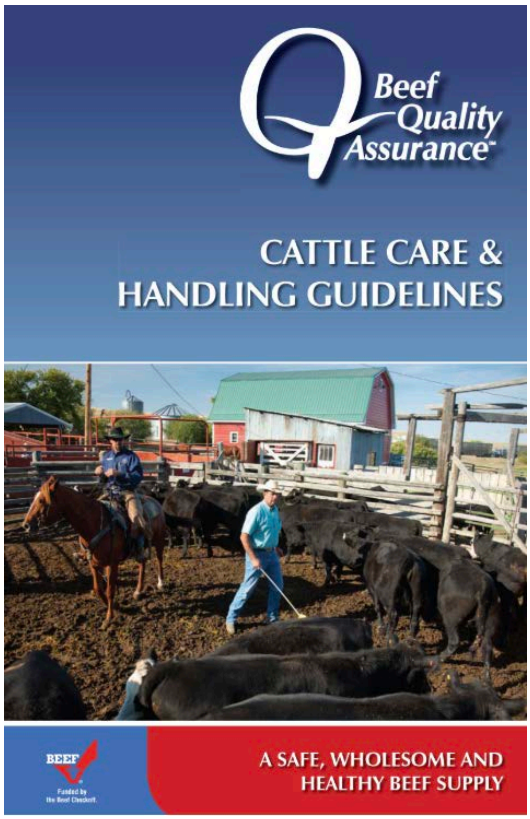
13 **Extra label antibiotic use must follow FDA regulations:**
Prescriptions, including extra label use of medications, must meet the Animal Medicinal Drug Use Clarification Act (AMDUCA) amendments to the Food, Drug, and Cosmetic Act and its regulations. This includes having a valid VCPR.

14 **Medically important antibiotic use should be limited to the control and treatment of disease**
Medically important antibiotics should not be used if the principal intent is to improve performance. Antibiotics that are medically important to human medicine may not be used for performance. Guidelines developed from AVMA, AABP, and AVC guidance on Appropriate Veterinary Antibiotic Use.

TRAINED PERSONNEL: STOCKMANSHIP

Review the resources below to refresh your knowledge or see what opportunities are available to continue developing your stockmanship skills.

- The BQA Cattle Care and Handling Guidelines provides detailed information about proper cattle care and handling techniques which should be followed by all personnel.
- BQA Self-Assessment Guides can be utilized to gauge effects of current handling and care protocols and identify areas of improvement.
- The Farmers Assuring Responsible Management (FARM) from the National Milk Producers Federation and the BQA (FARM) program partnered to create this Stockmanship Video.



- Consider attending the Stockmanship and Stewardship unique two-day training with hands-on practice for low-stress cattle handling or visit the website for instructional cattle handling videos.

STATE LEVEL RESOURCES

State Cattlemen's Associations and State Extension Service Specialists can provide resources on a variety of animal care and handling topics. *Do you have a contact at these two state-level associations? List their information here. If not, consider a friend or fellow producer who could connect you with their staff.*

*State Cattlemen's Association Contact Name:*_____ *Number:*_____

Email: _____

State Extension Service Contact Name: _____ *Number:*_____

Email: _____

MORE RESOURCES

This is not an exhaustive list, continue exploring resources specific to your state or region.

- The Center for Disease Control (CDC) provides information about antibiotic resistance in humans with their Common Questions and Answers page
- The American Association of Bovine Practitioners (AABP) Antibiotics Position Statement sets context on proper and judicious antibiotic use in cattle production
- The AABP also publishes The Bovine Practitioner with guidance such as humanely raising livestock in a "Raised Without Antibiotics" framework
- Find Clinical Updates with articles ranging from medicine, record keeping, networking, and more from The Beef Cattle Institute at Kansas State University
- Find a comprehensive overview of "The Cattle Industry's Guidelines for Care and Handling of Cattle" from the University of Nebraska-Lincoln

BIOSECURITY

- Find a practical approach to biosecurity in this Penn State Extension article
- Learn more about specific roles and responsibilities in biosecurity from this University of Tennessee publication
- View the industry manual for Foreign Animal Disease Preparedness and Response Plan from USDA-APHIS
- Find professional services and resource from SBS – Secure Beef Supply
- BQA Daily Biosecurity Template

BEEF QUALITY ASSURANCE: BQA MANUALS & GUIDES

Beef Quality Assurance (BQA) is a national program funded by the Beef Checkoff that raises consumer confidence by offering proper management techniques and a commitment to quality within every segment of the beef industry. You can find online trainings, manuals, and resources at the National Cattlemen's Beef Association website: BQA.org

MORE RESOURCES

This is not an exhaustive list, continue exploring resources specific to your state or region.

- The National BQA Manual provides an in-depth look into all aspects of proper animal care and handling topics. This link also provides the manuals for *Antibiotic Stewardship for Beef Producers* and the *Cattle Industry Guidelines for the Care and Handling of Cattle.*
- You can find the BQA Feedyard Assessment designed to help all feedyard managers benchmark their operations in areas such as animal welfare, cattle handling, record keeping, etc.
- For interviews, producer profiles, and demonstrations on BQA practices, visit the BQA YouTube Channel.

WHAT ABOUT TRANSPORTERS?

For Cattle Transporters, the BQA Transportation Quality Assurance Program is an online training to provide steps to implement during the transportation of cattle.