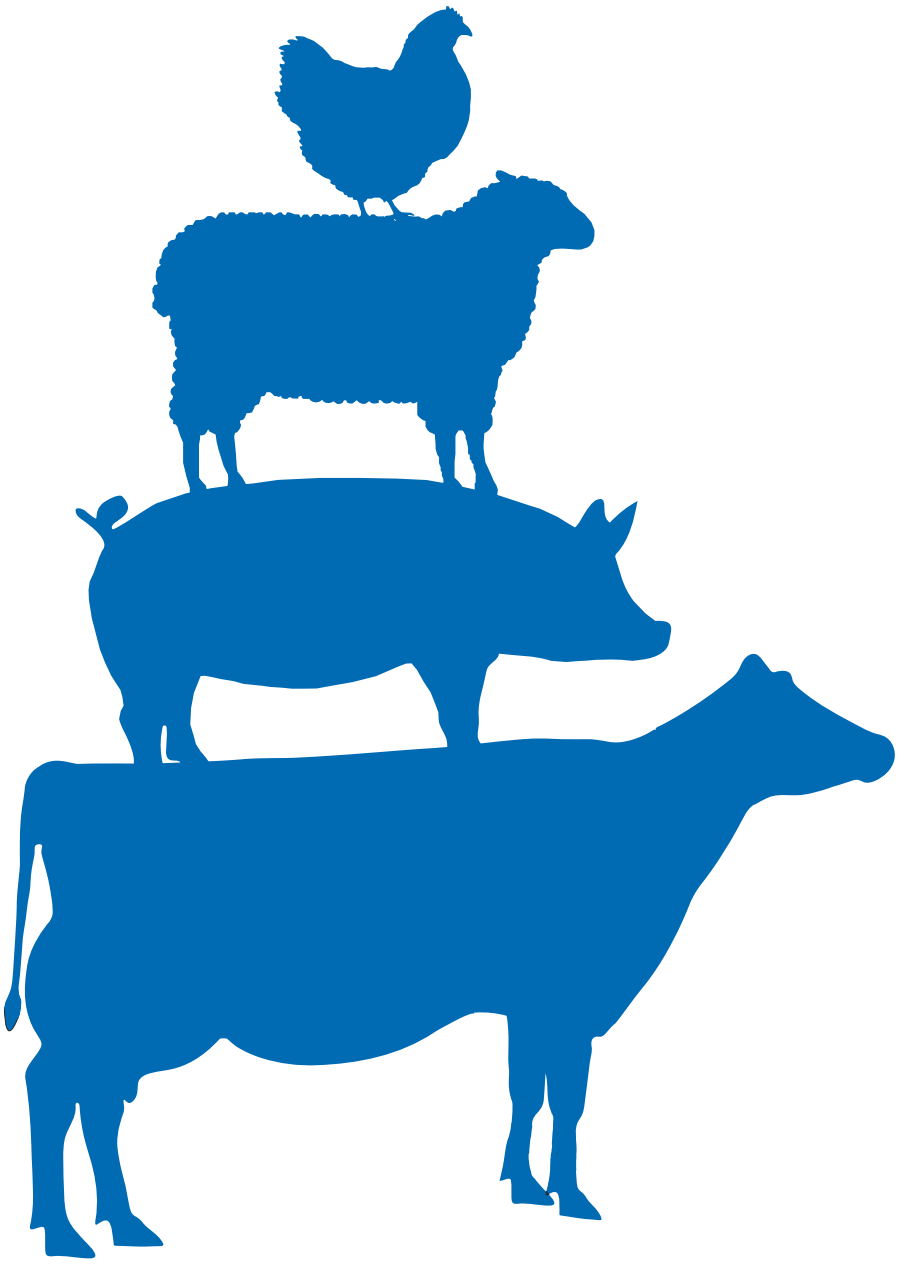
CHS MIRACLE OF BIRTH CENTER



2021 EDITION

CHS MIRACLE OF BIRTH CENTER

The CHS Miracle of Birth Center is an exhibit that brings together the veterinary community and livestock farmers, supported by youth leaders in agriculture, to provide a public exhibit that offers an educational experience for visitors.

Visitors will be able to experience the joys of livestock production and learn about production practices used to care for livestock on farms' today.

OBJECTIVES

1. To provide ambassadors for the Minnesota agricultural community that represent farmers, veterinarians, and those that serve them.

2. Farmers and veterinarians experience the miracle of birth every day. CHS Miracle of Birth Center ambassadors want to share this exciting experience with the public.

3. Provide insight and perspective around the work of farmers to provide the world with an ample supply of safe, wholesome food.

4. Our ambassadors will follow proper animal handling procedures, provide a safe environment for livestock and visitors, and share information on animal care used daily by farmers and ranchers.

5. Work together to keep our animals clean, comfortable, and healthy.

6. Provide information on modern production practices that have evolved to improve the care of livestock and provide safe, healthy and nutritious food.

KEY MESSAGES

Miracle of Birth
Today, we are witnessing the miracle of birth, a process that is part of nature's plan. A farmer's first priority is the care and well-being of their animals. This dedication lays the foundation for farmers' and veterinarians' lifelong work on farms that is so vital to feeding the world and supporting our local communities.

Farmers
Farmers touch the lives of Americans each and every day with the food and fiber they produce. They work hard every day to care for their animals; to provide wholesome, nutritious, high-quality food; and to take good care of the environment. They are productive members of their communities. They love the work they do.

Animal Care
Farmers recognize and take seriously their responsibility to care for their herds and flocks. Healthy animals start with proper nutrition, proper living conditions and good veterinary care.

Veterinary Care
Preventative health care provided by veterinarians is important to the care of farm animals. Veterinarians help oversee animal health through regular checkups, as well as emergency care. Veterinarians and farmers work as a team to give the best care possible to animals.

Food Safety
Farmers, along with those who manufacture and distribute food, place the highest priority on producing the most wholesome and high-quality food in the world. Farmers take great personal pride in providing all of us with good, wholesome foods.

Environment
Farmers are the original recyclers: growing crops, feeding the grain to animals and using the nutrients in animal manure as fertilizer to decrease reliance on petroleum-based fertilizers. Additionally, protecting the air we breathe, the water we consume and the land we love are important values of the people involved in the entire food system.

Community and Economic Impact
Farmers take pride in being good citizens in their communities. Farm families participate in service clubs, church groups and school boards—because, like their neighbors, they want to preserve their surroundings for future generations. In Minnesota, animal agriculture contributes to the state's economic growth and generates value-added economic activity.

BE A BRIDGE BUILDER

Bridging can be used for common questions AND tough questions at CHS Miracle of Birth Center.
Bridging Statements for tough conversations

1. “I think it would be more accurate (or correct) to say…”
2. “Let me emphasize again…”
3. “And that reminds me…”
4. “Before we leave this subject, I need to add…”
5. "Like you, I agree that _____ (insert value) is important, that's why on farms we_____- (insert practice with simple explanation)."

Bridging a common question:

“What is the calves (or any other specie) name?”

This is a question you can get often. When asked this question we will provide a name as that is **fun and adds personalization** to CHS Miracle of Birth Center. We want to consider a bridging statement to provide some information about **farm practices and husbandry** with the fairgoer.

“This calves name is Fred. On cattle farms we typically don’t name livestock. Cattle are commonly given ear tags commonly on Minnesota farms and these numbers allow us to keep track of individual health and breeding records on each head of cattle.”

“Is this a boy or a girl?

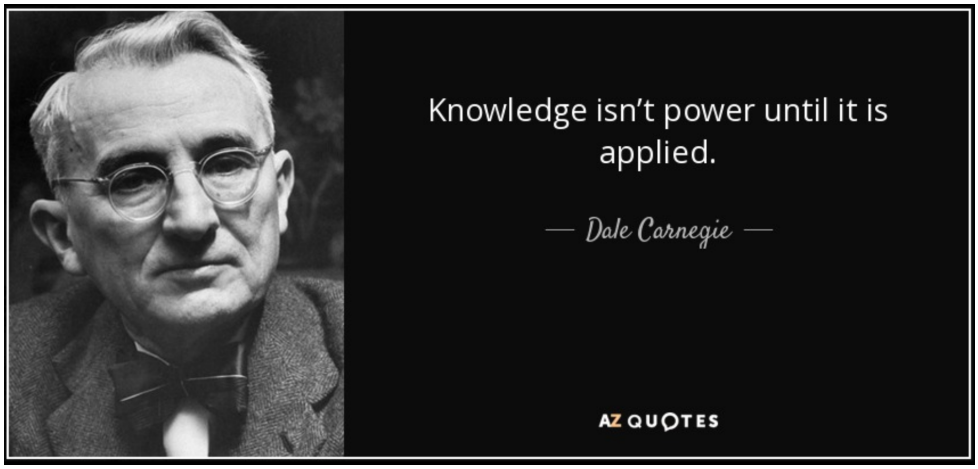
“This is a male pig. We use names for animals on farm depending on their gender. In pigs we call males Boars or Barrows and females Gilts or Sows, depending on their age and if they are a breeding or market animal.

All questions are valid and important. Remember, many visitors have never been around farm animals and may not know much about the topic, just like each of us that haven't been exposed to something may also ask questions.

HUMAN RELATION PRINCIPLES FOR SUCCESS

Based on teachings of Dale Carnegie

- Don't criticize, condemn, or complain.
- Give honest, sincere appreciation.
- Arouse in the other person an eager want (figure out what they want and show them how to get it).
- Become genuinely interested in other people.
- SMILE.
- A person's name is the sweetest and most important sound to that person.
- Be a good listener and encourage others to talk about themselves.
- Talk in terms of the other person's interests.
- Make the other person feel important and do it sincerely.
- The only way to get the best of an argument is to avoid it.
- If you are wrong, admit it quickly and emphatically.
- Get the other person saying, "YES, YES" immediately.
- Try honestly to see things from the other person's point of view.



How can we use these principles to connect with vistors?

Don't criticize, condemn, or complain.

Give honest, sincere appreciation.

Arouse in the other person an eager want (figure out what they want and show them how to get it).

Become genuinely interested in other people.

SMILE.

A person's name is the sweetest and most important sound to that person.

Be a good listener and encourage others to talk about themselves.

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The only way to get the best of an argument is to avoid it.

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Get the other person saying, "YES, YES" immediately.

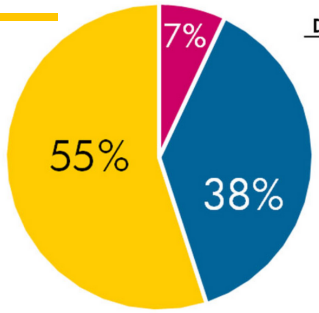
Try honestly to see things from the other person's point of view.

COMMUNICATING WITH OTHERS

FIRST, DO A SELF-CHECK.

Am I …

- Visibly closed off or open and receptive?
- Waiting to talk or really listening?
- Reacting or responding?
- Thinking "Me vs. You" or "Me and You"?
  - Or "Us vs. Them" or "Us and Them"?



Dr. Albert Mehrabian's 7-38-55% Rule

Elements of Personal Communication

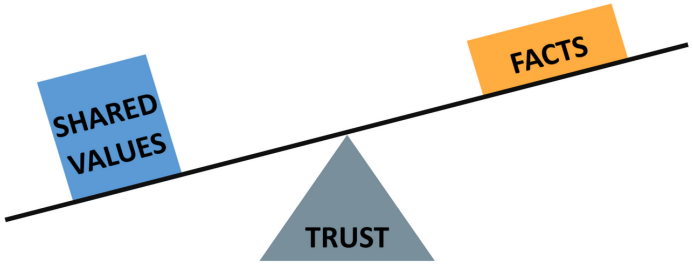
- 7% spoken words
- 38% voice, tone
- 55% body language

What do I do if...

I say something wrong.	• Excuse me, I said that wrong. • That is not what I meant to say. Let me try that again. • That didn't come out right, let me clarify.
I don't know the answer.	• I don't know, but I do know that... • I am not the best person to ask, I can get you in contact with... • We don't know the results yet OR I wish I could, but...
I get mad and react poorly.	FIRST...Breath, pause, & check body language • Explain that you are very passionate about this subject and explain your emotion. • Calmy continue.
I can't find common ground.	• Agree to disagree • Tell the person you appreciate the opportunity to talk about this concern. • Walk away from the conversation politely.

LET'S TALK AG...THE BEST WAY!

What Drives Consumer Trust?



Shared values are 3-5x more important to building trust than sharing facts or demonstrating technical skills/expertise

Trust research was published in the December 2009 *Journal of Rural Sociology*
Sapp/Look East

WINNING WORDS

Today, we are witnessing the miracle of birth...

The birth process of an exciting part of nature.

These newborn animals are built to thrive.

Farmers' first priority is the care and well-being of their animals.

Farmers...

Family Farm...

Healthy animals start with proper nutrition, healthy living conditions and good veterinary care.

Preventative health care provided by veterinarians...

FARMERS RECOGNIZE AND TAKE SERIOUSLY THEIR RESPONSIBILITY TO...

Wholesome, safe, and high-quality food...

Farmers are the original recyclers...

Farmers take pride...

THAT'S A COMMON MISPERCEPTION...

That's not my area of expertise, but what I can tell you is ...

On the farm where I live...

THAT'S A GOOD QUESTION TO ASK YOUR MOM...

No, let me explain ...

No, that's not true...

The most important point to remember is ...

LET'S TALK AG...THE BEST WAY!

WORDS to USE and LOSE

USE IT

Farmer

Farm

Farm Families

Farm Team

Farm Community

United States Department of Agriculture

Environmental Protection Agency

Creates Rural Jobs

Sustainability

Calves

Strong, Healthy (referring to livestock)

Proper Disease Names (H1N1, BSE, etc.)

Animal Care/Wellbeing

Safe, Content

Excellent Nutrition

Sick Animal

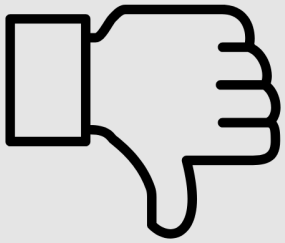
Veterinarian

Manure/Poop

Natural Occurring Hormone

Share your story

I can't answer that question, but what I can tell you is...



LOSE IT

Producer

Operation, Business

Farm Community

USDA

EPA

Economic Impact/Benefits

Efficiency/Efficient

Baby Calves

Cute, Cuddly, Adorable

Mad Cow Disease, Bird Flu, Swine Flu

Happy (insert livestock species)

Balanced Rations

Down Animal

Vet

Animal Waste

BST, rBST

Educate

No Comment

"You eat so you should know"

AgVocacy in Action

Understanding begins with productive conversations

INTRODUCE

#1

Introduce yourself and ask the name of the other person.

Be positive in your body language and tone of voice

NOTES:

LISTEN

#2

Ask the person questions to learn more about what they know about their concern.

Don't listen to respond, but to understand

NOTES:

CONNECT

#3

Find common ground. What connection do you share related to the topic of the concern?

experiences, feelings, values, concerns

NOTES:

SHARE

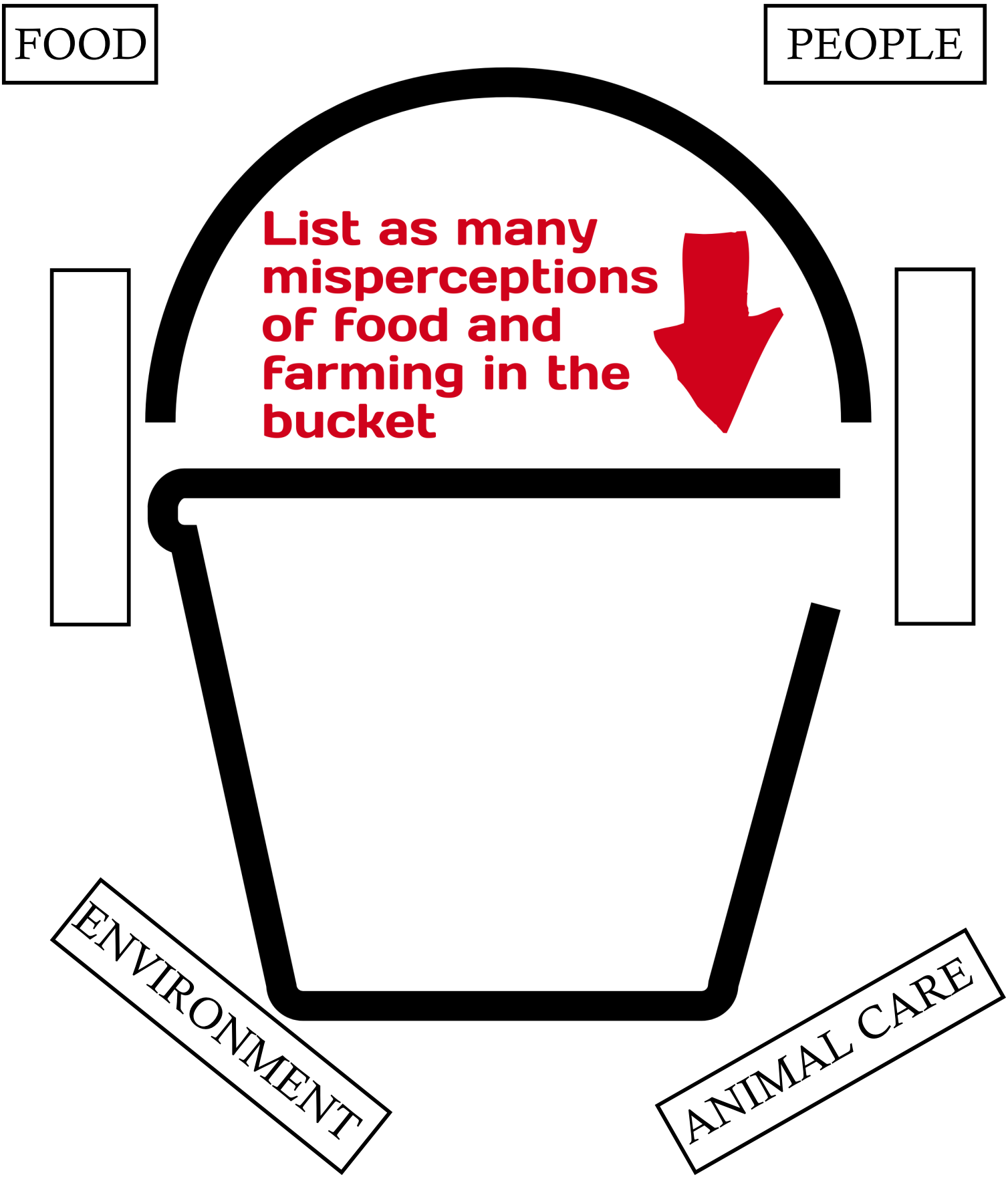
#4

Share what you know. Provide specific details of the practices surround that topic.

Focus on the WHY.

NOTES:

CONNECT THE VALUE



AgVocacy in Action

Misperception **Value** **Practice**

Connection Opportunity: "Just like you I also value _____, that's why...

Misperception **Value** **Practice**

Connection Opportunity: "Just like you I also value _____, that's why...

AgVocacy in Action

Misperception **Value** **Practice**

Connection Opportunity: "Just like you I also value _____, that's why...

Misperception **Value** **Practice**

Connection Opportunity: "Just like you I also value _____, that's why...

WHAT IF THINGS GO WRONG?

IF CONVERSATIONS BECOME CONFRONTATIONAL/AGGRESSIVE:

- Volunteers (Veterinarians, Veterinarian Students, & FFA Members) are not expected to engage in conversations with visitors that become confrontational. It is appropriate not to agree, but neither volunteers nor visitors should create conversations that become aggressive.
  - Do not agree with the visitor if you do not concur, however, have a conversation about their concerns.
  - Listen to the visitor and their concerns and find a shared value, if possible.
  - Give examples and analogies to their questions if appropriate and you feel comfortable doing so.
- If the techniques listed above do not calm a concerned visitor, calmly tell them that you want to make sure that their concerns are heard and documented, and that you will find a manager that they can visit with more to gather the details of their concern. Bring the visitor near the office entrance and find a manager. Do not leave the visitor on their own if possible. Ask another volunteer to help you if needed.
- Activists may be on the fairgrounds and may enter the CHS Miracle of Birth Center. If you are aware of an activist in the building please follow the same advice above. Assure them that their concerns are important and that you would like the visitor to share them with the management.
- CHS Miracle of Birth Center managers are employed by the fair and have training to engage in these conversations, as well as how to report concerns to state fair personnel.
- These types of situations are uncommon, however you shouldn't take on these conversations on your own.

No one cares how much you know
until they know how much you care.

FREQUENTLY ASKED Q & A

What time is the next birth?
Attendants: Be aware of the timing of the next birth and keep in mind that giving a specific time isn't possible. This is the #1 question you will receive.

Where do all the animals come from?
Farmers from across the Midwest provide the animals you see here. These farmers care very much for their animals and want others to witness the “miracle of birth.”

Do the animals go home when they are done here?
Many of the animals return to their farm when the fair is over. Some animals, like the pigs and poultry, go to another farm so that they do not bring any fair germs back to their original herd or flock.

Is it a boy or girl? How can you tell?
This animal is a <*insert proper terminology for the species* >. Spending time with animals helps you quickly see what gender they are, just like pet owners can tell which are male and female dogs.

How big is it? How big will it get?
Attendants: Review the sections devoted to species-specific information.

What breed is that animal? How do you know?
The name of this breed is <insert name>. This breed has characteristics such as <*insert information such as color, markings, or other physical traits*>. This is similar to dogs, just as there are breeds such as a Labrador or Chihuahua, there are different breeds of livestock as well.

Is it hard for the animals to be here?
We take very good care of the animals while they are here, just as farmers do back on their farms. Farm animals have routine contact with people -- perhaps not quite this many --- but farmers are definitely checking on their animals every day. Additionally, fans are used to increase airflow and some animals are misted with water to keep them cool. We also provide nutritious food and clean water throughout the day. The veterinarians give them regular checkups.

FREQUENTLY ASKED Q & A

Why are the pigs in crates/stalls?

This is a way to keep both the sow - the mother - and the piglets safe. It prevents the piglets from getting in the way when the sow lies down or moves around.

Why is the dairy calf separated/taken from its mother/the cow when it is born and the beef calf isn't?

We actually provide better care to that calf than the cow would. The long-term health of the animal is determined within the first 24-hours of a calf's life. As care-takers of the animals, we can immediately determine the needs of that calf. (See next message on colostrum). Beef calves are raised with their mother until weaning age, typically 6-7 months old since we don't use beef breeds for milk production.

Why are the baby calves bottle fed?

When a calf is born, they need antibodies that are in a cow's colostrum, or its first milk. Bottle-feeding makes sure calves get the colostrum they need. We continue to feed the calf with a bottle so it gets enough nutrition in the early stages of its life.

Why are calves living in the calf hutches?

Calves are prone to illness so they can get each other sick quite easily when they can touch and share germs. Each calf has individual nutrition needs, as well, and the hutch allows for individual feeding ensuring each calf gets the proper nutrition each day.

Why are they pulling the calf out with chains?

Sometimes a cow needs assistance to move the calf, which could weigh as much as 100 pounds, through her birth canal. People carefully pull the straps or chains when the cow has a contraction, helping her deliver her offspring.

Why do the animals have eartags or notches?

These help identify the animals so that farmers can take care of them on an individual basis. These identifications are tracked on the computer and might include its birth date, weight at birth, genetic information and information that may come from a veterinarian.

Why are the dairy cattle in the CHS Miracle of Birth Center so skinny? Are they unhealthy?

No, the cattle in the CHS Miracle of Birth Center are all extremely healthy. Farmers recognize and take seriously their responsibility to care for their herds and flocks. Healthy animals start with proper nutrition, proper living conditions and good veterinary care. Dairy cattle are physically different from beef cattle, meaning these animals were created for the primary purpose of providing milk for you to enjoy. You may have noticed beef cattle that seem more muscular. Dairy cattle are raised for milk production so their energy goes to their udder and beef cattle are raised for the primary purpose of providing beef for you to enjoy so they are heavier muscled.

FREQUENTLY ASKED Q & A

What do cattle typically eat and drink?

Farm and ranch families work every day to ensure cattle have food, water and shelter to keep them healthy and safe. Cattle are fed a balanced diet of corn and hay or graze on grass. Farmers and ranchers also provide clean water access to their cattle every day.

Where does all the manure/poop go?

Several times a day we take the manure out of the animal's pen. The manure is recycled and used as a natural fertilizer for fields or gardens.

Why would a farmer treat a cow with antibiotics?

Farmers and ranchers provide care for their cattle 24 hours a day, 7 days a week, 365 days a year. Animal health is a top priority for farmers and ranchers. Farmers and ranchers give cattle medicine only when they are sick, just like people get medicine when they are sick.

What is antibiotic resistance?

Antibiotic resistance refers to bacteria that have evolved to the point that they are not easily killed by antibiotics. Antibiotic resistance is a serious public health concern and the animal health community shares that concern.

Are there scientific studies on the risk of human resistance resulting from animal antibiotic use?

Studies conclude there is a 1 in a billion chance of treatment failure from antibiotic resistance related to the use of common animal antibiotics. To put that into context, you are thousands of times more likely to die from a dog bite or lightning strike than from treatment failure related to the use of antibiotics in animals.

What is antibiotic residue and is my meat safe to eat?

Antibiotic residue is different from resistance and refers to molecules that remain in meat from animals that have been treated with antibiotics. There are multiple safeguards in place to ensure meat is safe, including mandatory antibiotic withdrawal periods for animals and routine testing of meat by the U.S. Department of Agriculture and food companies. Antibiotic residue is not the same as antibiotic resistance.

What can consumers do to make sure meat is safe?

Cooking meat to the proper temperature kills all bacteria, eliminating the possibility of exposure to resistant bacteria. It is also important to handle raw meat properly to prevent spreading bacteria to other foods.

FREQUENTLY ASKED Q & A

What is the public benefit of using antibiotics in livestock and poultry?
The responsible use of animal antibiotics benefits all of us by making food safer and more affordable. Antibiotics make food safer by helping keep animals healthy, and studies show this reduces bacteria entering the food supply. Keeping animals healthy allows farmers to produce food more effectively, which has the added benefit of making food more affordable while using fewer natural resources.

Is antibiotic use in the best interest of animals?
Antibiotics have been used in farm animals for decades for the same reason they're used in humans – to treat or prevent or control diseases that cause pain and suffering. When an animal is sick with a bacterial infection, treating it with antibiotics is the ethical thing to do. The American Veterinary Medical Association, the nation's largest veterinarian organization, testified before Congress that antibiotics are one of the most important tools that veterinarians use to protect both human health and animal health.

What is being done to reduce the use of animal antibiotics?
The animal health community is working collaboratively with the Food and Drug Administration to ensure the responsible use of antibiotics in animals. In fact, several changes are underway. In Minnesota, veterinarians, farmers, doctors, and environmentalists have joined together with the Department of Agriculture and Department of Health to work in the OneHealth Antibiotic Stewardship Collaborative to look at how antibiotics are used across all species, including humans.

HAND WASHING AND SANITIZATION

Staying healthy when the farm comes to you!

Even healthy, well cared for animals can carry germs that can make people sick

If the farm's coming to you, follow these simple tips to stay healthy. Children under 5 years of age do not have fully formed immune systems and therefore should not have direct contact with higher risk animals such as calves, goats, chicks, ducklings, reptiles, or amphibians.

Keep food and drinks away from visiting animals

This includes water bottles, sippy cups, and pacifiers. You don't want to get germs on them.

Don't touch your mouth

That's how germs get in your body and make you sick.

Wash your hands

Wash hands with soap and water after visiting the animals and before eating. Don't rely on hand sanitizer. It doesn't work against all germs.

Wear the right gear

Wear closed-toe shoes and clothes you can get dirty. When you get home remove your shoes. Change your clothes and wash them.

DEPARTMENT OF HEALTH
www.health.state.mn.us

UMASH Upper Midwest Agricultural Safety and Health Center

HAND WASHING AND SANITIZATION

INDUSTRY INSIDER

Misconception: GMOs aren't safe and they're only tested by the companies making them.

You may have heard the rumors that GMOs cause cancer, autism, allergies, gluten intolerance, or other illnesses and conditions in humans and animals. This is simply not true. GMOs are the most regulated and tested product in agricultural history. Additionally, many independent scientists and organizations around the world – such as the U.S. National Academy of Sciences, United Nations Food and Agriculture Organization, World Health Organization, American Medical Association and the American Association for Advancement of Science – have looked at thousands of scientific studies and concluded that GM food crops do not pose more risks to people, animals or the environment than any other foods.

Before they reach the market, crops from GM seeds are studied extensively to make sure they are safe for people, animals and the environment. GMOs take years, and millions of dollars, to come to market.

Misconception: There is animal DNA in GMOs.

Once upon a time there was an experimental tomato that contained a gene from the winter flounder to increase the tomato's resistance to frost, but that tomato was never commercialized. While that tomato did not survive, its legend continues to live on in online search engines. While there are many fake images online featuring fishy tomatoes, there are, in fact, no GMO tomatoes commercially available today. Further, there are no commercial GM crops on the market today that are genetically modified to contain "animal genes".

It's important to note that an estimated 60 percent of the genes in plants have very similar copies in animals. While DNA isn't specifically pulled from a fish and combined with a plant, DNA from any source is made up of the same four basic nucleotide building blocks: adenine (A), cytosine (C), thymine (T), and guanine (G). DNA that comes from a plant or a microbe has the same four nucleotides as the DNA in animals.

Misconception: **Genetically modified crops cause farmers to overuse pesticides and herbicides.**

Two relevant GMOs dominate the market. The first enables crops to express a protein from the bacterium Bacillus thuringiensis (Bt), which is toxic to certain insects. It's also the active ingredient in pesticides used by organic farmers. Bt crops have dramatically reduced reliance on chemical insecticides in some regions, says Bruce Tabashnik, a University of Arizona entomologist.

The second allows crops to tolerate the herbicide glyphosate so that farmers can spray entire fields and kill only weeds. Glyphosate is among the mildest herbicides available, with a toxicity 25 times less than caffeine. Its use has decreased reliance on more toxic alternatives.

INDUSTRY INSIDER

Cattle

Female cattle are called heifers. After they have given birth, they are called cows. Male cattle are either bulls or steers. Bull calves that are mature and capable of producing offspring are called bulls. Steers are male cattle that have been neutered, therefore unable to reproduce.

The offspring of a bull and a cow is called a calf. **The length of pregnancy, or gestation, for a cow is about 283 days, approximately 9 months.** When a cow gives birth, it is called calving. Cows usually give birth to just one calf at a time, but twins are not uncommon. A calf weighs 80 to 100 pounds when it is born, depending on the breed.

In the last few weeks to days prior to birth, the calf rotates within the cow's uterus, and ends up facing the back end of the cow, with forelegs tucked under the chin, and the back of the calf upwards so that it is resting with abdomen and feet on the floor of the uterus.

In the day before birth, the cow will normally experience a drop in body temperature of about 1° C. Her appetite will generally drop off as well. The cow will find a quiet corner and pace and paw; appearing restless. She may kick at her belly, or turn around to stare at it and get up and lie down. A cow may arch her back and raise her tail prior to the birth. At this point, the calf is moving into the birth canal and birth membranes may be seen.

A few hours before the actual birth, there may be passage of some watery fluid as the water bag (amniotic sac) bursts. This is the time when the uterus begins full-strength contractions, and the calf passes out through the canal. The cow may rest for short periods in between pushes. When the calf arrives, the cow will normally turn and lick her offspring and this helps to stimulate the calf to breathe well, to rise and to nurse.

After the calf is born, the afterbirth or placenta is expelled. This usually happens within a few hours of birth.

Intake of the first milk (colostrum) is essential for the welfare of the calf. A typical calf needs to nurse about a gallon of this special milk which is rich in energy and provides antibodies from the mother that help protect the offspring from infections. This usually takes place within the first 12 hours.

It is important to prevent chilling in the newborn calf. A farmer will often towel dry the calf, and in a cold environment, a heat lamp may be provided. The farmer will also make sure that the membranes are passed and the navel is dipped in germicide.

INDUSTRY INSIDER

Pigs

Female pigs are called gilts. After gilt has given birth, she is called a sow

Male pigs are either boars or barrows. Boars are male pigs that are capable of producing offspring. Barrows are male pigs that have been neutered and are not capable of reproducing.

The length of pregnancy, or gestation, for a sow is 114 days (3 months, 3 weeks, 3 days). The offspring of a boar and a sow is a piglet or pig. When a sow gives birth, it is called farrowing. A sow gives birth to a group of 10-12 piglets at a time, called a litter. A pig weighs about 3 pounds when it is born.

When a pig is about 6 months old and at market weight (around 270 -290 pounds), it is called a hog.

Sows can readily deliver piglets that are presented both backwards and forwards in the birth canal unlike other farm species such as sheep, cattle and horses. Piglets in the forward position also usually have their forelegs tucked under their belly.

As birth approaches, hormonal changes trigger the milk glands to swell and to begin milk formation. In the day prior to the birth the sow will experience a temperature elevation of approximately 1° C. In other farm species, the temperature drops during this time instead.

In the time just prior to birth, the sow's appetite will likely drop off, and she will often appear to be very restless.

The amniotic sac will rupture as it is pressed into the birth canal, sometimes resulting in a small amount of fluid being passed. Farmers refer to this as the water breaking.

During birth, one piglet is passed at a time. Once this begins, piglets usually arrive quickly, with an average of 5-10 minutes elapsing between deliveries. After the piglets are born, the afterbirth, or placenta, is passed.

Normally, farmers will have prepared for the birth process and will observe the farrowing closely. They will have placed a warming lamp off to the side, and often will towel dry the piglets to help prevent chilling. They will make sure all of the placental membranes are passed, and closely watch piglets to confirm that they take their first milk (colostrum). The colostrum contains essential energy and protection against disease and must be taken in within the first day of life.

INDUSTRY INSIDER

Sheep

Female sheep are called ewes, and referred to as ewe lambs until they reach 1 year of age. (not all producers breed ewe lambs the first year. Some may not lamb until 2 years of age - they are not ewe lambs after 1 year regardless of when they lamb)
Male sheep capable of producing offspring are called rams. Male sheep that have been neutered and are unable to reproduce are called wethers.

The length of a ewe's pregnancy, or gestation, averages 148 days. The offspring of a ram and a ewe is a lamb. When a ewe gives birth, it is called lambing. A ewe often gives birth to twin lambs, sometimes even triplets, quadruplets, or singles. A lamb weighs about 8-15 pounds when it is born.

During the last month of pregnancy, the ewe's belly will grow and her udder will begin to produce colostrum, the first milk. A few days before she goes into labor, there will be relaxation of the muscles in the hip area.

At the start of labor, the ewe is not as social and becomes restless. She will move away from the main part of the flock and will spend extra time getting up and laying down. As the onset of labor gets closer, a ewe may start to dig a nest in the bedding.

As the labor progresses, the ewe will, from time to time, stand up and lay down. She may also turn circles while bleating. The first sign that the lamb is coming is the appearance of the amniotic fluid, or water bag. Once the water bag breaks, the lamb is usually born within 30 minutes.

The front feet of the lamb will usually come first in the birthing. The lamb's head lays above and between the front legs coming out next. Most of the time a thin membrane will still cover the lamb, and breaks open as the lamb is born.
Once the lamb is born, a farmer will check to make sure that it is breathing. The farmer may wipe the head and nose off well to make it easier for the lamb to breath. In cold weather, a farmer may also dry off the lamb's ears and tail. Most newly born lambs will soon be trying to stand up.

INDUSTRY INSIDER

Goats

Female goats are called does (like deer), and referred to as does or doelings until they reach 1 year of age. Goats are commonly 1.5-2 years old at first kidding (term for Parturition, giving birth)

Male goats are either bucks or wethers. Those that are mature and capable of producing offspring are called bucks. Male goats that have been castrated and are unable to reproduce are called wethers.

The length of a doe's pregnancy, or gestation, last an average of 150 days. The offspring of a buck and a doe is a kid. When a doe gives birth, it is called kidding. A doe often gives birth to twin kids, sometimes even triplets, quadruplets, and singles. A kid weighs about 6-10 pounds when it is born.

During the last month of pregnancy, the doe's belly will grow and her udder will begin to produce colostrum, the first milk. A few days before she goes into labor, there will be relaxation of the muscles in the hip area and in the tail head.

At the start of labor, the doe becomes unsocial and restless. She will move away from the main part of the herd and will spend extra time getting up and laying down. As the onset of labor gets closer, a doe may start to dig a nest in the bedding.

As the labor progresses, the doe will, from time to time, stand up and lay down. She may also turn circles while softly maaing. The first sign that the kid is coming is the appearance of the amniotic fluid, or water bag. Once the water bag breaks, the kid is usually born within 30 minutes.

The front feet of the kid will come first in the birthing. The kid's head lays above and between the front legs coming out next. Most of the time a thin membrane will still cover the kid, and breaks open as the kid is born.

Once the kid is born, a farmer will check to make sure that it is breathing. The farmer may wipe the head and nose off well to make it easier for the kid to breath. Most newly born kids will soon be trying to stand up.

INDUSTRY INSIDER

Horses

A young female horse is called a filly. After females have given birth, they are called mares.

Young male horses are called colts. Males that are mature and capable of producing offspring are called stallions. Male horses that have been neutered and are unable to reproduce are called geldings.

The length of a mare's pregnancy, or gestation, last an average of 340 days. The offspring of a stallion and a mare is a foal. A weanling is a horse 6 to 12 months old; a yearling is 1 to 2 years old. When a mare gives birth, it is called foaling. A mare usually gives birth to just one foal. A foal weighs about 80 pounds when it is born.

Two to four weeks prior to foaling, the muscles around the mare's tail head become soft and relaxed and her udder begins to fill with milk. The mare may show signs of uneasiness during the last two weeks of pregnancy. She may also rub her tail or hindquarters on fences or barn walls.

During the first stage of labor, the muscles of the pelvic area relax, allowing the bones to spread so the foal can be positioned toward the birth canal. Movement is often noticeable as the foal turns into position. The abdominal wall above the flank and behind the ribs becomes concave, or sinks inward, and the tail head becomes more prominent. A mare's contractions may cause nervousness, erratic eating, sweating, pacing, tail switching and frequent urination.

A mare has very powerful uterine contractions, and when the unborn foal is positioned in the birth canal properly, delivery can occur in a relatively short period of time, 10 to 15 minutes. Birth usually occurs shortly after the outer water bag ruptures.

Presentation of the foal's front feet occurs first, soles down, relatively close together, one slightly more advanced than the other. The nose of the foal is usually tucked between the extended forelegs near the knees.

Most mares position themselves on their sides, with their legs fully extended during the delivery of the foal; however, some insist on standing.

The mare will usually rest after the passage of the foal's shoulders and again after the passage of the hips. As the foal emerges, the inner fluid sac usually breaks. During this time, the mare will clean her offspring by licking it. The foal should be trying to stand within a few minutes of delivery. The foal will drink the first milk (colostrum) to help combat disease and to aid in eliminating fecal material that has built up in the intestinal tract.

INDUSTRY INSIDER

Chickens

Chicks hatch from eggs. It takes about three weeks for them to develop and come out of their eggshells. Every chick is born with a small tooth in its beak that helps it peck its way out of the shell. The average incubation time for a chick is 21 days.
A male chicken is called a cock or an old rooster. A female chicken under 20 weeks old is called a pullet; one over 20 weeks is called a hen.

Egg Production Housing Options

“The Hen House” Message to share: Eggs are an affordable & nutritious protein. Become an informed consumer when choosing your eggs.

Free-Range

Food Safety

- Less likely to use an automated nesting system
- May lay eggs on ground
- Increased likelihood of contact with manure
- Egg collection can be labor intensive

Bird Behavior/Social Interaction

- Larger groups of hens Increase fighting because a stable “pecking order” isn’t established

Health

- Hens are exposed to predators, inclement weather, parasites and diseases from other animals
- Increased injury, cannibalism and death loss
- Death loss can be higher than either cage or cage-free production

Production

- Production is limited because of stressors hens are exposed to
- Hens may hide their eggs, making egg collection difficult
- Provides access to the outdoors (most hens tend to stay indoors to lay their eggs, near food, water and away from predators).

Benefits to Consumers

- Free-range egg production costs more, and those costs are passed onto consumers.
- More feed required
- Additional space and land required
- Results in higher egg prices for consumers
- Free-range eggs are not allowed in the WIC subsidized food program for women, infants, and children

Farm Worker Safety

- Egg collection is more labor intensive
- Increase exposure to manure and other contaminants

INDUSTRY INSIDER

Cage-Free

Food Safety

- Hens lay eggs in a nesting system – more potential for eggs to come in contact with manure
- Increases need for greater sanitation
- Depending on the farm, these systems may or may not have an automated egg collection system
- Bird Behavior/Social Interaction
- Increases fighting because a stable “pecking order” isn’t established

Health

- Hens are protected from predators, inclement weather, and diseases from other animals
- Greater incidence of broken bones and other injuries
- Increased cannibalism and death loss

Production

- Provides more space per hen
- Hens are able to roam the entire barn
- Allows hens to dust-bathe
- Permits hens to choose a nesting site
- May result in fewer eggs laid because of additional stress on hens living in a larger group setting

Benefits for Consumers

- Cage-free egg production costs 2-3 times more than caged egg production
- More feed required
- Additional space and land required
- Results in higher egg prices for consumers
- Cage-free eggs are not allowed in the WIC subsidized food program for women, infants, and children

Farm Worker Safety

- Depending on the farm, egg collection may be more labor intensive
- More potential for increased exposure to manure
- Caged Housing

INDUSTRY INSIDER

Caged Housing

Food Safety

- Once an egg is laid, it rolls to a belt which moves it to be washed
- Most eggs are never touched by human hands
- Eggs are never in contact with manure
- Less handling=safer food

Bird Behavior/Social Interaction

- Hens naturally prefer to “flock” in a small group, establishing a stable pecking order
- Limits stress and aggression

Health

- Hens are protected from predators, inclement weather and diseases from other animals
- Limits cannibalism
- Death loss is very low

Production:

- Climate-controlled barn 24/7
- Constant access to fresh food and water
- Comfortable, cleaner and less stressed hens are healthier

Benefits to Consumers

- Most affordable eggs to the consumer
- Caged eggs are allowed in the WIC subsidized food program for women, infants, and children

Farm Worker Safety

- Manure is continuously removed by a revolving belt, limiting odor exposure to hens and farm workers
- Less labor intensive - no hand-picking of eggs

INDUSTRY INSIDER

Myth: Brown colored eggs are better and more nutritious than white colored eggs.
Fact: The essential nutrients in all eggs, regardless of color, are the same.

Bonus Fact: The color of a hen's earlobe determines the color of the egg! Hens with brownish-red earlobes lay brown eggs & hens with white earlobes lay white eggs.

Myth: Eggs from hens raised outside are better for you.
Fact: Regardless of how hens are housed, the nutrient quality of all eggs is the same.

Myth: Poultry are pumped full of hormones and steroids.
Fact: There are no added hormones or steroids given to poultry – it is illegal!

Myth: Eggs are high in cholesterol.
Fact: Recent studies show a grade "A" egg is 14% lower in cholesterol than previously recorded and can be enjoyed daily as part of a well-balanced meal plan.

Turkeys
A newborn turkey is called a poult. A male turkey is called a tom and a female is called a hen. The average incubation time for a turkey is 28 days.

Highly Pathogenic Avian Influenza (HPAI)

Food Safety
- Turkey, chicken and eggs are safe to eat.
- Any poultry testing positive for avian influenza are prohibited by law from entering the food chain.
- Minnesota's turkey farmers have been monitoring their flocks for avian influenza for 40 years.

Public Health
- According to the Centers for Disease Control and Prevention (CDC), avian influenza is not a public health risk.
- No human infections with the avian influenza viruses found in the U.S. have been reported.

Economic Impact
- The economic toll of avian flu on Minnesota's poultry industry has climbed to nearly $650 million.
  - This includes $171.7 million of lost wages, salaries, and benefits.
- Minnesota farmers have lost more than 9 million turkeys and egg-laying chickens to avian influenza since March 2015.

INDUSTRY INSIDER

Biosecurity

- Protecting flocks from disease is a top priority.
- All flocks in Minnesota are regularly tested for a number of avian diseases, and farmers follow strict biosecurity measures.
- What is "biosecurity?"
  - Biosecurity describes the procedures and practices followed to contain or prevent the spread of germs and viruses in a poultry flock and includes:
    - Limiting all but necessary visitors to the farm
    - Wearing protective clothing (such as coveralls, disposable gloves and shoe covers) when inside a barn
    - Cleaning and disinfecting vehicles and equipment before moving them on or off the property
  - A farmer's goal is to keep what's outside the barn out and what's inside the barn in.

Research

- Minnesota farmers are working with avian health experts and government agencies to study the avian influenza virus to better understand how it's spread.
- We're utilizing epidemiology, developing best practices for biosecurity, coordinating research and conducting tests of waterfowl to help us better prepare for - and ideally prevent - future waves of avian influenza.
- Combating avian influenza is truly a team effort!
  - University of Minnesota
  - Minnesota Board of Animal Health
  - Minnesota Department of Agriculture
  - U.S. Department of Agriculture
  - Minnesota Department of Natural Resources
  - Minnesota Department of Health

INDUSTRY INSIDER

Turkeys

Turkeys also have names for specific types. An adult male turkey is called a tom or a gobbler. A young turkey of either sex is a poult.

All modern turkeys practice artificial insemination. Artificial insemination allows selective breeding of the sexes so breeders can raise fewer males and achieve higher rates of hatchability.

Once the turkey breeder female reaches 28 weeks of age they will start laying. It takes a female between 24 and 32 hours to produce a fertile egg. The eggs are automatically collected daily, transported to the hatchery, and stored at 55-65° F and 70% humidity until they are set in the incubator. The eggs are held here for about three to 10 days prior to being placed in an incubator.

Most integrated companies own their own hatchery to produce the poults. Incubators will hold thousands of eggs in a very controlled environment. They are then transferred into hatching baskets, and on the 28th day the poults hatch.

After hatching, poults they are removed from the hatchers and processed before being taken to a grow-out farm. Processing of turkeys include sexing (separating the males and females so the company can raise the two sexes separately), beak and toe trimming and vaccination.

Once the poults arrive at the integrated company's breeder grow-out farm, the birds are raised to 28 weeks of age under environmentally controlled conditions. Controlling the length of daylight is extremely important. During the 28 weeks of grow-out, hens will grow to 24-30 lbs and eat about 102 pounds of feed. Males will grow to 50-70 pounds and eat over 200 pounds of feed. Once they reach 28 weeks of age, parent breeding stock are transported to the breeder farm.

At the grow-out farm, poults are then placed in a floor rearing houses where they are raised under environmentally controlled conditions. Ventilation of the turkey house is critical for controlling temperature and humidity in the grow-out house. Birds are grown to different sizes depending on the market that they are meant to fill. On average, a hen turkey will consume around 35 pounds of feed (current cost of about $5.69 or $.33/pound of gain) and reach 14-20 pounds (live weight) in 12-14 weeks. Toms will consume about 90 pounds of feed (current cost of about $14.65 or $.38/pound of gain) and reach 35-42 pounds in 16-19 weeks.

INDUSTRY INSIDER

Turkeys

Once the birds reach the desired weight a company catching crew will catch and load the birds onto trucks for transportation to the processing plant. The catching crew takes a great deal of care in handling the birds to prevent bruises or injury.
Harvesting
At the processing plant turkeys are humanely slaughtered as quickly as possible. Once they are slaughtered, the feathers, offal, head, legs, and other items are removed leaving a whole dressed carcass ready for sale or to send onto further processing. The cost of processing turkey is about $.19 per pound. The wholesale price for a whole turkey carcass is about $.65 per pound.

https://extension.psu.edu/modern-turkey-industry

INDUSTRY INSIDER

Ducks

A drake is a mature male duck. A duckling is a young duck of either sex.

Ducklings hatching in an incubator. Once you have fertilized eggs, the next step is to hatch them. You can either use a broody duck to set a nest and hatch your eggs or you can use an incubator and hatch them yourself.

Either way, it takes 28 days of you or a duck tending and turning those eggs to hatch most duck breeds. Incubating duck eggs is more challenging than chicken eggs. However, with the right equipment and an understanding of humidity and the development cycle of the embryo, you can get good results.

Commercial duck production is carried out in extensive, semi-extensive and intensive systems. Extensive systems are frequent in Asia, while in Europe the intensive system predominates.

Ducks are generally rustic animals which have a lower incidence of disease than other domestic birds. They can easily adapt to simple, low-investment facilities, and can show satisfactory performance under these conditions.

The reception of the animals is a critical point in the production cycle. Comfort conditions must be ensured so that ducklings can start eating and drinking as soon as possible, to ensure a good weight at one week of life and reduce neonatal mortality.
Proper cleaning of the drinking systems, feeders and flooring is essential in this species, since a poor state of the facilities can offer the ideal conditions for the growth of pathogens.

The length of the cycle on commercial duck production depends on the breed, market, final product required, and production system used. Ducks are able to adjust feed intake based on the energy concentration of the formulation and they have better compensatory growth than other birds. Therefore, in formulations with a medium or low energy can be used in part of the cycle without excessively affecting conversion rates and performance.

https://www.veterinariadigital.com/en/articulos/management-in-commercial-duck-production/

INDUSTRY INSIDER

Rabbits

The primary use of rabbits in the United States is meat production, but other uses also exist. For instance, rabbits can be used for wool (fur), for their skins, as pets, and as laboratory animals.

With more than 200,000 meat rabbit producers, the United States consumes more than 8 million pounds of rabbit meat per year. Meat rabbits are raised as fryers or roasters. A fryer is a domestic rabbit, usually 12 weeks old, whose carcass weighs more than 1 1/2 pounds but no more than 4 pounds. A roaster is a rabbit that is heavier than a fryer or cull animal from the breeding herd.

Rabbit meat is a white meat that is high in nutrition and protein but low in fat, calories, and cholesterol. Like all other meats, rabbit must be inspected for proper sanitation and food safety.

To be successful in raising rabbits for meat, one must assess the amount of feed required for the animals to reach premium harvest weight. Rabbit production operations can range from small ones that market just a few rabbit carcasses a year to large ones that market thousands of carcasses a year. Most commercial operations sell fryers and roasters to processors. The processors then harvest the rabbits and market their skins and meat. Some producers harvest and market the rabbits they grow, but they must follow the same strict sanitation and harvesting regulations as large processors. Rabbits are also used to produce wool.

Angora rabbits are used because their wool grows between 2 and 3 inches long and can be harvested at a rate of 1 inch per month. On average, Angora rabbits shear 14 to 15 ounces of fleece per year. The use of Angora wool production from rabbits is about 20 million pounds annually. To raise Angora rabbits successfully, one must keep the rabbits' environment clean and harvest the wool often. Because the price for rabbit wool is low, raising animals for both wool and meat is a good idea. The wool is marketed for use in making clothing. Rabbits are also used for their skins. The pelts are usually marketed by the pound and bought by raw-fur buyers. A pelt is an animal's skin that still has the hair attached. Skins must meet specific requirements and therefore should not be cut or mutilated by overstretching or drying.

Rabbit producers primarily raise white breeds of rabbits because colored pelts are not worth as much as pure white pelts. The pelts are used in a variety of products, including ballet shoes, glue, gloves, toys, and even felt. Rabbits play an integral role in research, particularly in medical advancements. More than 600,000 rabbits are used each year for this purpose. Another way the rabbits are used is as pets or as 4-H and FFA projects. This use is generally classified as small. Rabbits can be raised outside or inside the house. Marketing for rabbits raised for pets is usually done locally.

http://agriculturewithmrsskien.weebly.com/uploads/2/1/3/2/21329554/rabbit_production_and_marketing.pdf

FARMER & RANCHER Pillars of sustainability

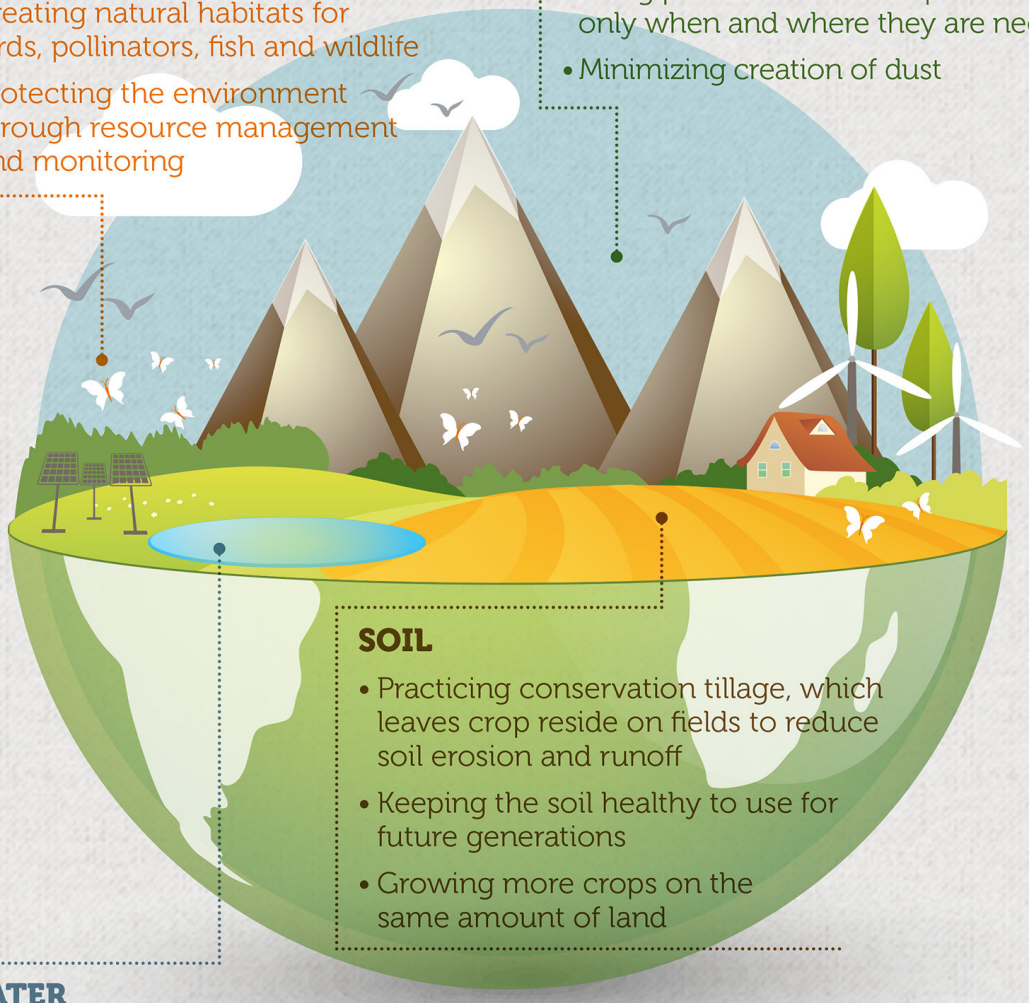
When it comes to sustainability, **78%** of consumers care most about **WATER**, **SOIL**, **AIR**, and **HABITAT**.

HABITAT

- Creating natural habitats for birds, pollinators, fish and wildlife
- Protecting the environment through resource management and monitoring

AIR

- Using precise amounts of pesticides only when and where they are needed
- Minimizing creation of dust



SOIL

- Practicing conservation tillage, which leaves crop reside on fields to reduce soil erosion and runoff
- Keeping the soil healthy to use for future generations
- Growing more crops on the same amount of land

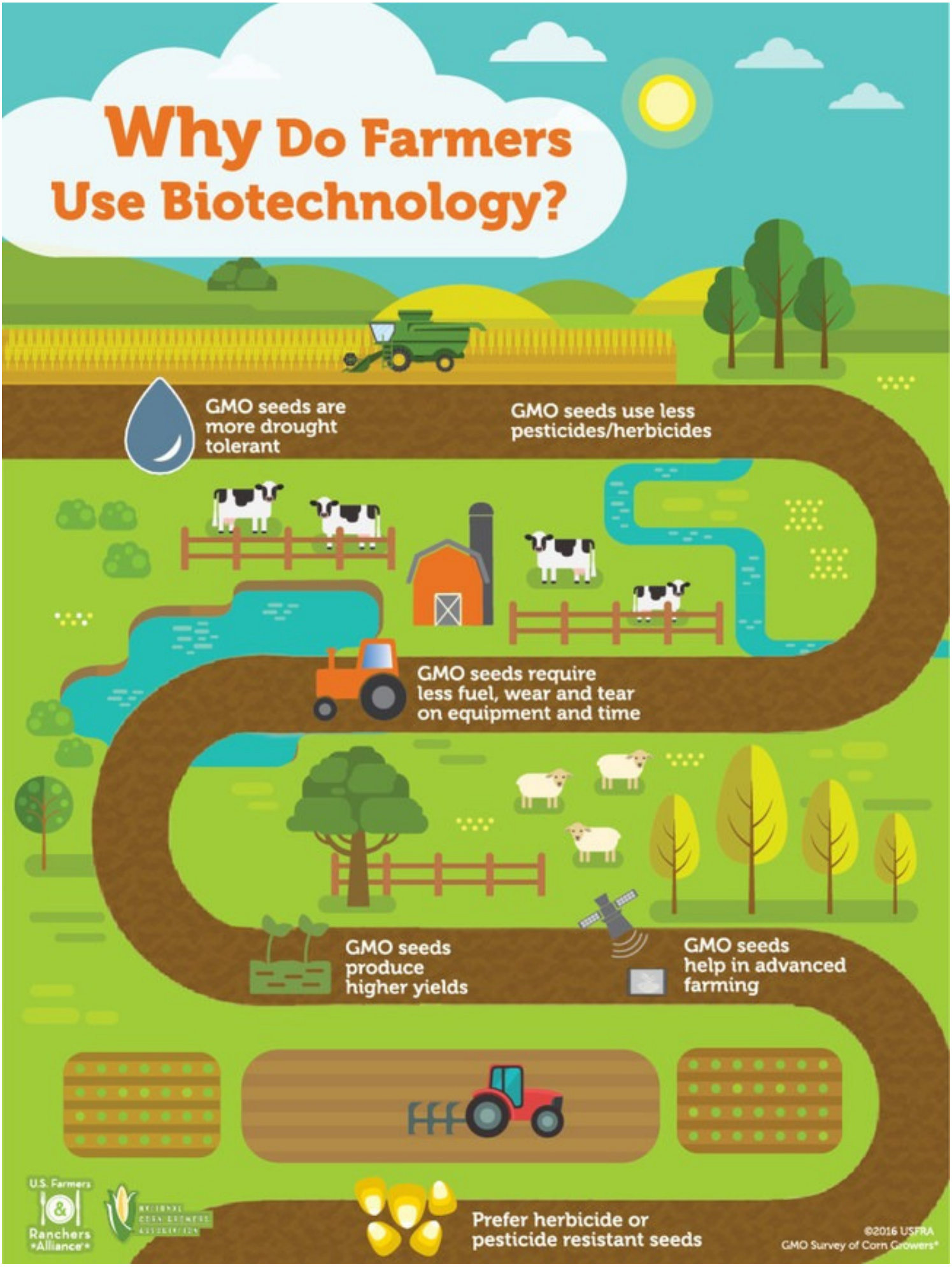
WATER

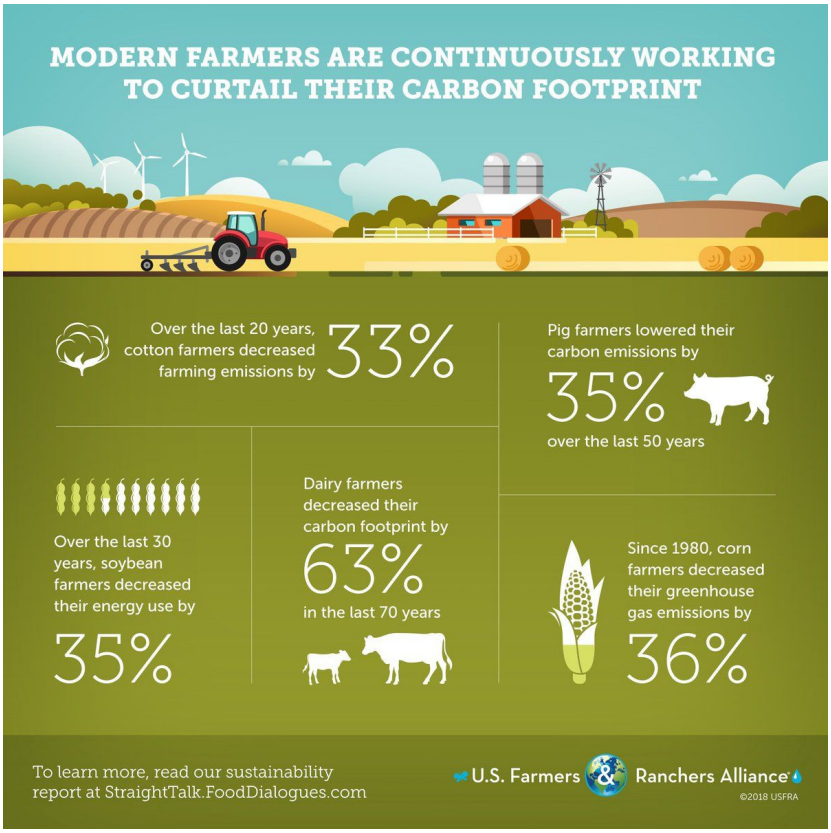
- Efficient use of water through more precise irrigation systems such as high efficiency sprinklers and soil monitoring
- Applying technology to measure and monitor water usage

1 2015 survey conducted by The Tarrance Group of more than 1,000 consumers to understand their perceptions on the importance of sustainability in farming and ranching.

U.S. Farmers & Ranchers Alliance

Why Do Farmers Use Biotechnology?




MODERN FARMERS ARE CONTINUOUSLY WORKING TO CURTAIL THEIR CARBON FOOTPRINT
Over the last 20 years, cotton farmers decreased farming emissions by 33%
Pig farmers lowered their carbon emissions by 35% over the last 50 years
Over the last 30 years, soybean farmers decreased their energy use by 35%
Dairy farmers decreased their carbon footprint by 63% in the last 70 years
Since 1980, corn farmers decreased their greenhouse gas emissions by 36%
To learn more, read our sustainability report at StraightTalk.FoodDialogues.com
U.S. Farmers & Ranchers Alliance
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How GMOs Help Reduce FOOD WASTE & LOSS
In the United States, approximately 133 BILLION POUNDS of food is WASTED annually, contributing to 18% of the total U.S. landfill methane (greenhouse gas) emissions.[1]
GMOs help farmers minimize these losses and grow more food using less land.
In 2014, GMOs enabled farmers to use 51 million less acres of land to produce the same amount of crops[7]—equivalent to nearly four times the size of America's largest national park, Wrangell-St. Elias National Park and Preserve.[8]
GM APPLES ARE NON-BROWNING AND NON-BRUISING, ELIMINATING THOSE SUPERFICIAL ISSUES that cause people to unnecessarily throw them away.[2]
In 2010, each American on average THREW AWAY 17 APPLES
totaling 1.7 billion pounds of food waste[3]
25 GALLONS OF WATER WASTED PER APPLE.[4]
GM POTATOES ARE LESS PRONE TO BRUISING AND BLACK SPOTS, meaning fewer potatoes will end up in landfills.
24 BILLION POUNDS FROM WASTE IN 2013[5]
more than 1,000x THE WEIGHT OF THE EIFFEL TOWER![6]
20 – 25% of all crop yields in the U.S. are LOST to pests, crop diseases, or post-harvest losses. In the developing world, it's as high as 40 – 50%.[9]
gmo answers

ANTIBIOTIC RESISTANCE

Although *there is broad scientific acknowledgement that the* **use of antibiotics in people is the primary source of antibiotic resistance, antibiotics must be used responsibly in food animals** *to minimize agriculture's contribution to antibiotic resistance.*

The Centers for Disease Control identified the

MOST CONCERNING PUBLIC HEALTH THREATS

FROM ANTIBIOTIC RESISTANT BACTERIA.

NONE of the most urgent threats have any relation to farm animals.

2 OUT OF **18**

On the broader CDC list, which includes less urgent threats, **only two of 18** involve bacteria associated with farm animals.

Changes to ensure responsible use of antibiotics

Farmers **MUST HAVE** a prescription-like directive from a veterinarian to treat animals with antibiotics that are regulated by the FDA as medically important to human medicine.

Antibiotics the FDA has regulated as medically important to human medicine will no longer be used for growth promotion because drug manufacturers have agreed to **REMOVE** the "growth promotion" and "feed efficiency" labels, which will make it illegal to use the products for these purposes.

FOR MORE INFORMATION, VISIT

AnimalAntibiotics.org