

**Meat Animal Quality Assurance (MAQA)**  
**A Study Guide for Youth Producers**  
**Bernie O'Rourke**  
**UW – Madison Extension Youth Livestock Specialist**

This is a helpful study guide for you to gather the major points of Quality Assurance education and the main take away message from the production of safe food products for consumers. Much of the topics included in this study guide are sheep and beef related. View the Youth PQA Plus Study Guide for further information and more as it related to swine production. Concluding this study guide is a Glossary of terms.

### **What is Quality Assurance?**

**Quality** could mean different things to different people. Quality in livestock could mean the animal looks ideal or has excellent breeding value. This booklet and the MAQA program will focus on **Quality** and how it relates to the quality of meat and food products of the animals that youth producers raise.

- Are the meat products safe and healthy?
- Do they taste good?

**Assurance** means a pledge or promise.

Therefore Quality Assurance for livestock producers is making a promise to consumers that you as a youth producer will produce a safe and wholesome food product for the consumption. You will do everything possible to produce safe food and food with the highest quality.

### **HACCP**

The Hazard Analysis Critical Control Points (HACCP) program is a seven-step program. It is a checklist for the packing plants to follow to make sure they are doing everything they can to avoid food safety problems.

The steps of HACCP are:

1. Identify Hazards
2. Find critical points in the process
3. Establish critical limits for each critical control point
4. Monitor
5. Take corrective action if monitoring shows there are deviations outside the limits of the critical control point
6. Keep records on each critical control point
7. Verify that the HACCP plan is working correctly

### **Everyone must do their part!**

Another way of looking at this is as a food supply continuum, where everyone is responsible for the safety of the product. Each segment relies on each other to make sure the product remains safe. Livestock producers, like yourselves, start the cycle by correctly using animal health products and medicated feeds, and by properly transporting and caring for the animals until it is marketed. Treatment of animals during this session is of utmost importance. Marketing is the next step. Animals are often marketed through an intermediary before arriving at the packer.

### **What is the next major step in the circle?**

At the packing plant, the packer harvests and processes the product. The packer supplies care before harvesting. Veterinarians inspect animals for signs of disease as carcasses are further processed with proper

handing and sanitation. The food supply chain then goes to grocery stores or restaurants. They also need to provide proper sanitation and handling as they prepare food for consumers.

### **What about consumers, don't they just eat the food?**

Finally the products reach the consumer, who is also responsible for food safety. Consumers should properly store foods, for example keeping ham lunchmeat in the refrigerator. If a consumer buys a product that should be cooked, such as ground beef, they should follow correct cooking instructions for temperature and time. As the chain continues, consumers ultimately affect producers by demanding a high quality product.

**Producer:** Producers start the cycle of raising animals that are free from violative residue levels and other potential hazards by correctly using animal health products, medicated feeds and providing animals the proper environment.

**Transportation and Marketing:** proper transport and care for your animals until they reach the market is important.

**Harvesting:** at the packing plant, the packer harvests the animals and prepares the carcasses for processing.

**Processing:** during processing the carcasses are usually broken into pieces for retail packaging as fresh or frozen pork or further processed into ready-to-eat products.

**Retail:** animals enter the food supply chain through retail & distribution companies. Includes grocery stores and other distribution points where meat is sold directly to the consumer.

**Food service:** meat is also distributed through the food service industry. This includes any place where food is served, like schools or restaurants.

**Consumer:** finally the meat product reaches the consumer. Consumers must be responsible and properly store and cook the meat product.

## **Your Role in Quality Assurance**

We will discuss 3 major areas of proper care of animals through the MAQA program.

1. Care and Management
2. Animal Health Products
3. Animal Handling

### **Care and Management**

Daily observation of animals and recording information on a record is helpful for youth producers raising project animals. This tool keeps them up to date with any changes that could quickly occur. Body Condition Scoring (BCS) is an excellent method of observing animal well being, another method to animal evaluation. Having proper Body Condition Scores usually eliminates or decreases problems in Breeding or any other management practices or concerns a producer may have. There are many different types of point scales available for Body Condition Scoring. A score of #1 is something that is too thin and the highest score describes an animal that is really too fat. Usually you want animals to be in the middle for breeding purposes and for good animal well being.

Every animal should have animal ID that contains a series of numbers or letters or both. Ear tags, Electronic ear tags, tattoos, brands are all types of identification in sheep and beef. Ear notching is most common in swine. Also more commonly found in swine, animals can be identified by pens, or groups as well as long as records are kept. It is required for pedigrees and performance record information, which include information such as birth date, weaning weight, average daily gain and more. Here in Wisconsin it is a state law where producers have to have a premise (where the animals reside) registered with the state. Animal Identification currently isn't mandatory in the United States with the NAIS (National Animal Identification System) that is managed through USDA (United States Department of Agriculture). Most importantly identification is needed for recording medications if administered. Scrapie ear tags are mandatory for breeding intact animals for

sheep and goats. This ear tag system is designed to track animals that are seen to have scrapie symptoms down the road. Ear notching is a form of identification that is usually only used in swine.

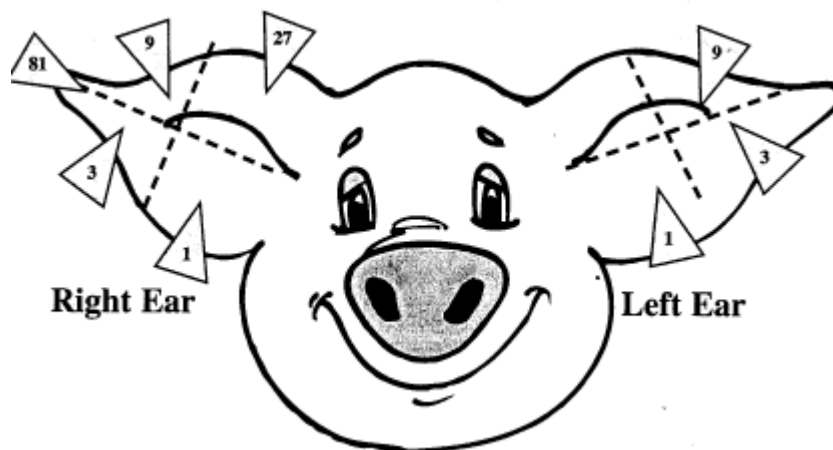
The pig's right ear denotes the litter number and the left ear identifies the pig number. The notches, which symbolize specific numbers, are added together for each ear and then read starting with the litter number. For instance, pig 23-4 was born in the 23rd litter, and was the fourth pig identified. Some producers notch all males with even numbers or odd numbers and the females the opposite. Many simply assign pig number in random order.

The ear can basically be drawn in half both across and down. Dividing the ear into these quarters will help you identify different notches.

We'll start with the right ear. The lower quarter of the ear closest to the head identifies the number 1. The lower quarter of the ear farthest from the head is the number 3. The top quarter of the ear farthest away from the head is the number 9. The top quarter of the ear closest to the head is the number 27. Taking a notch out of the tip of the ear denotes the number 81. Obviously, only one notch is permitted here.

Notice that with the exception of the number 1, the notch numbers are in multiples of three (1, 3, 9, 27, 81). With the exception of the number 81 at the very tip of the ear, up to two notches may be placed in each quarter of the ear. By adding the notches together, producers can identify up to 161 litters with this system. This is what is considered the Universal Ear Notching system. Even though some producers have made modifications to this, or use other systems of ear notching, the Universal system is what is expected for swine ID's.

Once you understand the right ear, the left ear is easy. The pig's left ear identifies the pig number and follows the same basic structure, except that the numbers 27 and 81 are not used because litters are not this large.



Feeding animals are very important. This can affect how your animal grows, it's health, etc... You should always feed the correct amount and good quality feed. Purchased feeds should have a label, and the feed should be fed to the appropriate animals in the amount given. This is especially true with medicated feeds. You should observe the withdrawal times on the medicated feeds. This is the amount of time that it needs to be removed from the animal's diet before the animal can be harvested or slaughtered. Keep feed in a clean and dry environment away from mice, rats, pets, birds, etc... Do not store feed for a long time as the nutritional value will start to go away as time goes. Medicated feeds need to be stored in a special location away from non medicated feeds. See 2 types of labels below. Make sure you keep records on all medicated feeds and keep it on hand in a file for at least 2-5 years. The past few years laws have been established not to feed meat and bone meal derived from ruminants to other animals due to the possible transmission of BSE. Water is the most important nutrient for animals and humans. You must have plenty of fresh water otherwise animals will dehydrate and die without adequate water.

## Veterinary Feed Directive

- A category of animal drugs.
- FDA determines these drugs & must be ordered by your veterinarian.
- Extra Label use is not permitted, even under veterinary direction.

Body condition scoring (BCS) animals is important to maintain animal function. Animals with adequate amount of fat cover tend to have advantages in breeding, increased ovulation and more desirable carcass characteristics. Beef BCS usually are on a 9 point scale, therefore a 5 point is the most desirable. In swine and sheep a 5 point scale is usually used, where the 3 point would be the most desirable.

**20% LAMB CREEP - BOVA**  
**MEDICATED**

FOR CREEP FEEDING LAMBS

For the prevention of coccidiosis caused by *Eimeria ovina*, *E. crandalis*, *E. ovinoidalis* (*E. ninakohlakimovea*), *E. parva* and *E. intricata*.

**ACTIVE DRUG INGREDIENT**

Lasalocid ..... 30 g/ton

**GUARANTEED ANALYSIS**

Crude Protein	Min. ....	20.0 %
Crude Fat	Min. ....	5.0 %
Crude Fiber	Max. ....	8.0 %
Calcium	Min. ....	0.7 %
Calcium	Max. ....	1.1 %
Phosphorus	Min. ....	0.5 %
Salt	Min. ....	0.3 %
Salt	Max. ....	0.8 %
Selenium	Min. ....	0.30 ppm
Vitamin A	Min. ....	5,000 IU/lb
Vitamin D3	Min. ....	700 IU/lb
Vitamin E	Min. ....	30 IU/lb

**INGREDIENTS**

Ground Corn, Heat Processed Soybeans, Soybean Meal, Ground Oats, Dehydrated Alfalfa Meal, Wheat Middlings, Cane Molasses, Calcium Carbonate, Salt, Monocalcium Phosphate, Dicalcium Phosphate, Magnesium Sulfate, Potassium Sulfate, Zinc Oxide, Manganous Oxide, Vitamin E Supplement, Sodium Selenite, Vitamin A Supplement, Vitamin D3 Supplement, Calcium Iodate, Sodium Molybdate, Cobalt Carbonate.

**FEEDING DIRECTIONS**


Provide 20% LAMB CREEP free choice to lambs until they are weaned, or switched to a lamb grower at 6 weeks of age.

**CAUTION**

The safety of lasalocid in unapproved species has not been established; do not allow horses or other equines access to lasalocid as ingestion may be fatal; feeding undiluted or mixing errors resulting in excessive concentrations of lasalocid could be fatal to sheep.

**VITA PLUS CORPORATION**  
GENERAL OFFICES  
Madison, Wisconsin 53713  
www.vitaplusfeed.com

Net Weight 50 lb (22.6 kg)  
**800200** Green002



**Swine Finisher Express**  
FOR MARKET HOGS OVER 50 POUNDS BODYWEIGHT

**GUARANTEED ANALYSIS**

Calcium	Min. ....	19.0 %
Calcium	Max. ....	21.0 %
Phosphorus	Min. ....	8.0 %
Salt	Min. ....	13.0 %
Salt	Max. ....	15.0 %
Zinc	Min. ....	4,000 ppm
Selenium	Min. ....	10.0 ppm
Vitamin A	Min. ....	100,000 IU/lb
Vitamin D3	Min. ....	16,000 IU/lb
Vitamin E	Min. ....	400 IU/lb

**INGREDIENTS**

Monocalcium Phosphate, Dicalcium Phosphate, Calcium Carbonate, Salt, Magnesium Sulfate, Potassium Sulfate, Mineral Oil, Zinc Sulfate, Ferrous Sulfate, Manganous Oxide, Copper Sulfate, Sodium Selenite, Calcium Iodate, Potassium Chloride, Vitamin A Supplement, Vitamin D3 Supplement, Vitamin E Supplement, Niacin Supplement, Calcium Pantothenate, Riboflavin Supplement, Menadione Nicotinamide Bisulfite, Vitamin B12 Supplement.


**MIXING DIRECTIONS:**

	Equivalent Crude Protein of the Ration (% lysine)			
	18% (1.0)	16% (.85)	14% (.75)	12% (.60)
Shell Corn, Ground	1,410	1,525	1,600	1,705
Soybean Meal, 48%	530	420	350	250
SWINE FINISHER EXPRESS	60	55	50	45
Total Pounds	2,000	2,000	2,000	2,000

Feeding recommendations must take into account environment, genetics, and body weight. Contact your Vita Plus representative for farm specific rations.

**VITA PLUS CORPORATION**  
GENERAL OFFICES  
Madison, Wisconsin 53713  
www.vitaplus.com

Net Weight 60 lb (27.2 kg) or Bulk  
**1465** Red407



## Animal Health Products

Your animals may need medications to prevent illness (vaccine) or when they are sick (antibiotic). You should work with a veterinarian to develop a plan of prevention of disease. This is called a veterinarian client patient relationship in which you are the client and the animals are the patients. There are 2 types of medications: over the counter and prescription drugs. Over the counter can be purchased at stores without being prescribed by a veterinarian. Prescribed drugs can only be given to you by a veterinarian and used under his or her direction. Always read and follow the label – what animals it can be used for, what problems it treats, the amount or dose, the way to give the medication, warning and withdrawal, and storage. Why is it important to follow the label? Certain animal medications can be harmful to humans. Medication left in animal tissues is called residue. If an animal was treated with penicillin and there was a residue of that left in the animal's tissue a person allergic to penicillin could cause an allergic reaction. Withdrawal time is the time needed for the residue to leave the animal's tissue and be safe for human consumption. It is important to give the direct dose as written on the label. Don't give more than the recommended dose and to the correct

labeled animal. It is illegal to give medications in any way other than labeled use. Go to the Glossary for information on Extra Labeled Use, Labeled Use, and Off Label use.

The main 2 types of injections are Subcutaneous (SQ) and Intramuscular (IM). SQ medication is injected under the skin and IM is injected in the muscle. There are other methods of medicine use, topical, IN (intranasal), IV (intravenous) etc... Again on injections should be given in the neck and shoulder area or in the elbow pocket or flank of small animals. Never inject animals in the loin or rump areas, these are the high valued cuts of the carcass.

If there is too much medication to be given in one injection – what does this mean? How much is too much? As a rule of thumb, for cattle, no one injection should be more than 10 cc. So, if the dosage is 15 cc, you should give two injections of equal or nearly equal amounts - -which would be what? 7.5 cc each or 7 and 8 cc . And these two injections should be given in the injection triangle on opposite sides of the neck if possible, or at least 4 inches apart. For smaller animals, such as sheep and young pigs, injections should not be more than 5 cc in one place.

Multiple locations you should place the injections 4 inches apart from one another if you have to give them on the same side. For particularly irritating drugs, sometimes the label may tell you not to inject even smaller amounts in any one place.

Keep needles clean and free from dirt. These cause infections and abscesses. Dispose of needles by putting them in a container (sharp's container). Use the right sized needle. Use the small diameter needle as much as you can. These cause less damage when used in the muscle tissue. Needle size is noted as gauge and length. Gauge is how big around the needle is. The large the gauge the smaller the needle. Use 16 and 18 gauge needles in smaller animals. Use shorter needles for SQ injections and longer ones for IM injections. Needles should be free from defects such as bent, burred or dull. When finished put them in the sharps container. As with all injections or medicated feed, record any medications that you give. Document animal ID, what medication was given, how much was given (dose), when (date) it was given, withdrawal time, and who gave the injection.

Antibiotics should be used in a limited manner. They are not to replace good management or proper animal care, but used when absolutely necessary.

Omnibiotic  
(Hydrocillin)

Directions for use: See package insert.

Warning: The use of this drug must be discontinued for 30 days before treated animals are slaughtered for food. Exceeding the highest recommended dosage level may result in antibiotic residues in meat or milk beyond the withdrawal period.

Store between 2° and 8° C (36° and 46° F).  
Keep dry and away from light.

Net Contents: 100 ml  
Distributed by:  
USA Animal Health, Inc.  
Destroy after August 7, 2008

Omnibiotic  
(Hydrocillin in Aqueous Solution)  
Directions for use: See Package Insert

For use in Beef Cattle, Lactating and Non-Lactating Dairy Cattle, Swine and Sheep

Read entire brochure carefully before using this product  
For intramuscular use only

Active Ingredients: Omnibiotic is an effective antimicrobial preparation containing hydrocillin hydrochloride. Each ml of this suspension contains 200,000 units of hydrocillin hydrochloride in an aqueous base.

Indications: Cattle – bronchitis, foot rot, leptospirosis, mastitis, metritis, pneumonia, wound infections. Swine – erysipelas, pneumonia. Sheep – foot rot, pneumonia, mastitis; and other infections in these species caused by or associated with hydrocillin-susceptible organisms.

Recommended daily dosage

The usual dose is 2 ml per 100 lb. of body weight given once daily.  
Maximum dose is 15 ml/day.

Body weight	Dosage
100 lb	2 ml
300 lb.	6 ml
500 lb.	10 ml
750 lb. or more	15 ml

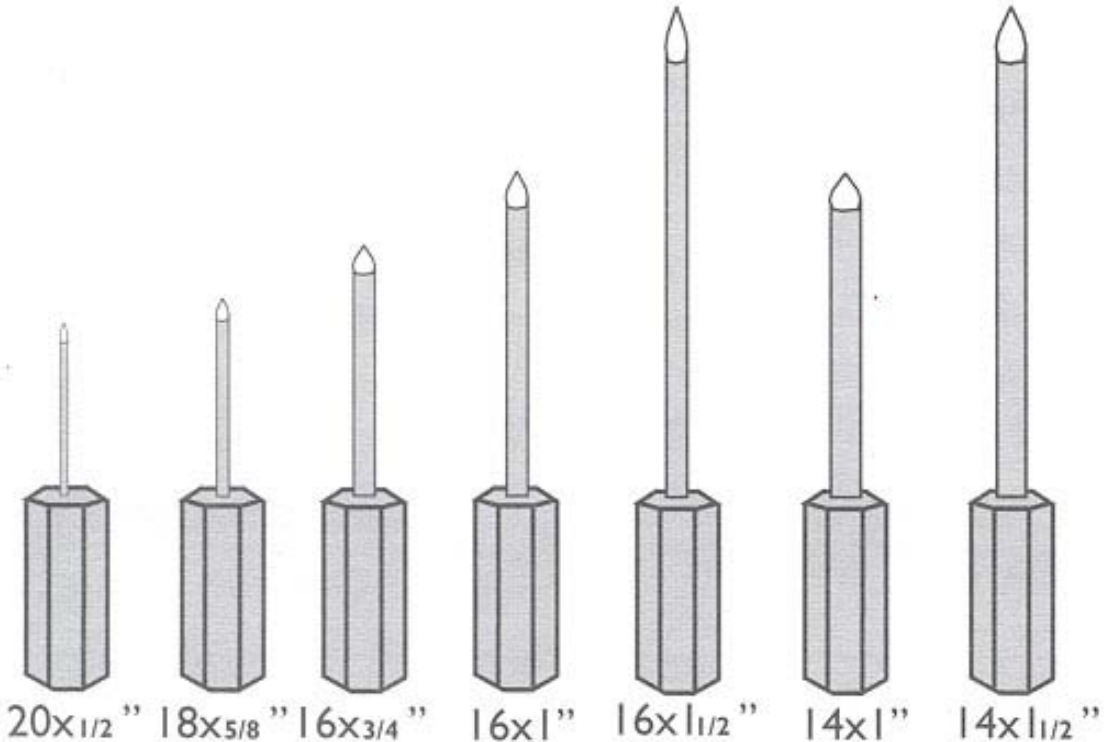
Continue treatment for 1 or 2 days after symptoms disappear.

Caution: 1. Omnibiotic should be injected deep within the fleshy muscle of the neck. Do not inject this material in the hip or rump, subcutaneously, into a blood vessel, or near a major nerve because it may cause tissue damage. 2. If improvement does not occur within 48 hours, the diagnosis should be reconsidered and appropriate treatment initiated. 3. Treated animal should be closely observed for at least 30 minutes. Should a reaction occur, discontinue treatment and immediately administer epinephrine and antihistamines. 4. Omnibiotic must be stored between 2° and 8° C (36° and 46° F). Warm to room temperature and shake well before using. Keep refrigerated when not in use.

Warning: Milk that has been taken from animals during treatment and for 48 hours (4 milkings) after the last treatment must not be used for food. The use of this drug must be discontinued for 30 days before treated animals are slaughtered for food.

How supplied: Omnibiotic is available in vials of 100 ml.  
Net Contents: 100 ml

Lot Number: ABCDE  
Made by: CJP Health, Inc.  
8/8/08

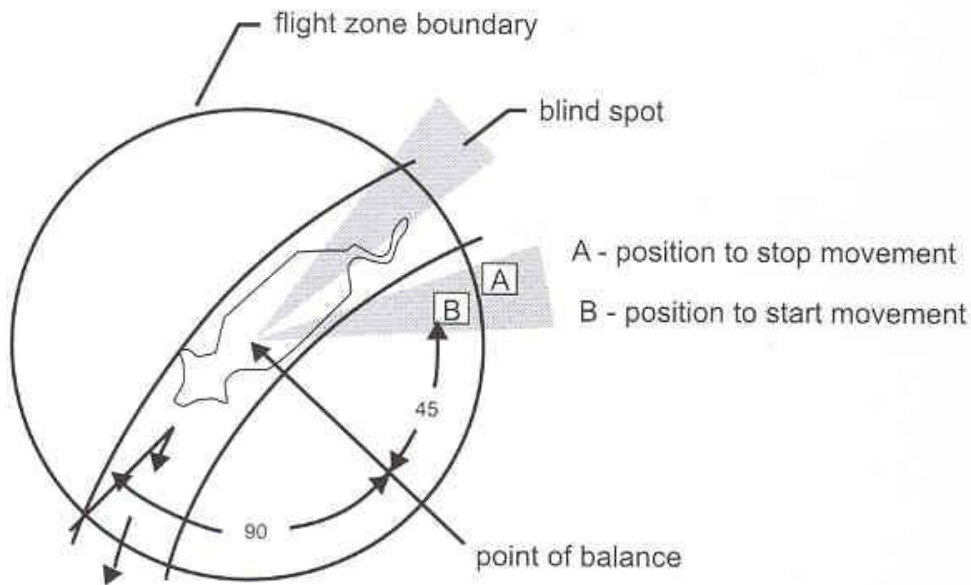


## Needles Sizes

Date	Animal ID	Product name	Amount given	Route	Given by	Withdrawal time
Sept. 22	145	Penicillin	10 cc	IM	Chuck	10 days

## Animal Handling

Animals have a blind spot where they cannot see. Animals may kick if approached from this area, avoid standing or walking in this area. Never pressure an animal to move when you are directly behind it. Animals may become scared of shadows, changing surfaces, unfamiliar places and people, and sudden movements. Animals see differently than humans, livestock are most at ease in a group or herd of animals, animals can bruise easily thus devaluing the meat products from this animal. Eliminate rough handling, such as hitting or forcing them to go in a certain direction. Remove nails and sharp objects in working areas and pens. If you need to move animals tap them lightly with a sorting paddle, on the lower valued cuts of the carcass such as neck and shoulder areas. Use a calm voice, do not yell this will make the animal nervous. Creating stress can also create meat quality challenges such as dark cutting beef or DFD (Dark Firm and Dry) in swine, as well as PSE (Pale, Soft and Exudative) in swine.



Before you get your animals make sure you have adequate pens and shelter for them. Pens should be clean and comfortable with adequate size for animals to lie down on both sides. In addition they should have adequate feeder and water space for all animals to get to. Feed troughs and water containers should be clean and free of manure, straw and shavings. Animals must be protected from extreme hot and extreme cold conditions. Add fans for hot conditions and move animals inside or provide wind shelter for extreme cold conditions.

Instruct family members and other care takers (friends, farm employees, neighbors) on how to properly feed and care for your animals while you are unable. Write down instructions of feeding, watering and proper

exercising of your animals. Develop a herd management plan to help keep your animals healthy such as vaccinating, deworming and work with veterinarians for prevention of animal disease.

It is hard to determine and decide to end an animal's life. However when treatment no longer is effective and the animal isn't getting better, or the source of pain or disease is incurable, this may warrant Euthanasia. Definition: intentional causing of a painless and easy death suffering from an incurable or painful disease.

Record keeping is a very important function of animal management, especially as it is related to giving injections and managing breeding dates, etc... For giving injections the following information should be filled in: date, animal id, product name, amount given, route, given by and withdrawal time.

Establish a VCPR veterinarian client patient relationship with your vet to develop treatment plans and preventive care for your animals.

A good herd health plan typically reduces the need for medications in your herd. When an animal is handled gently, calmly and regularly it should not be fearful when in the presence of humans.

Remember these three things:

1. Quality Assurance and food safety are everyone's responsibility.
2. No matter how many animals you produce, you are a producer of food for someone!
3. Everyone needs to do their part in producing safe and quality food for consumers.



## Glossary

**Abscess** – A fluid filled pocket in or under a pig's skin that may cause the skin to be raised.

**Active Ingredients** – The chemical name(s) of what makes up the medication.

**Administration techniques** – The delivery of medication, typical methods include by injection, topical application, or orally through water, feed, or directly into the mouth.

**Adulterated products** – A meat product or swine animal harvested or sold for harvesting, which has a violative medication residue or represents another safety hazard.

**Animal husbandry** – The aspect of agriculture concerned with the care and breeding of domestic animals, including the control and management of animals' health and surroundings.

**Antibiotic** – A chemical substance produced by a microorganism which has the capacity to inhibit the growth of, or kill, other microorganisms.

**Antibiotic resistance** – The ability of a microorganism to withstand the effects of antibiotics.

**Antimicrobial** – An agent that kills bacteria or suppresses their multiplication and growth. This includes antibiotics and synthetic agents.

**Bolus** – a large oval pill often containing antibiotics.

**Burr** – When the metal on a needle is chipped or raised off the surface and is not smooth. A burr can cause pain to the animal and damage the muscle during injection.

**cc** – cubic centimeter. Liquid medication given by injection is usually measured in cubic centimeters when drawn into a syringe. One cc is approximately one milliliter (ml).

**Cautions and warnings** – Items to pay particular attention to when using the medication. If the medication is not properly used and cautions and warnings are not followed, it could cause harm to an animal. Cautions and warnings are located on EVERY medication label.

**Deworming** – management practice of administering medication to alleviate internal parasites.

**Disinfecting** – using chemicals to kill disease-causing organisms on equipment or facilities.

**Distributor name** – the name of the company that distributed a medication.

**Dosage** – the amount of medication to be given at one time. This information is found on a medication's label.

**Drenching** – the oral administration of a liquid.

**Drug residue** – the presence of drug in animal product or by-product.

**Ear Notching** – An identification method used on swine. It is the act of notching pigs ears in a way that allows a producer to identify the litter and pig number. Pig’s right ear denotes the litter and the left ear identifies the pig number. These notches symbolize specific numbers and then are added together.

**Expiration date** – the date a medication should be discarded.

**Extra-Label Use** – Use of a animal drug in a manner that is not in accordance with the approved drug labeling. This is done legally under the direction of a veterinarian with a VCPR. However, this is not allowed with medicated feeds.

**Feed Suppliers Confirmation Form** – form from the feed supplier that says no ruminant proteins are in the product you will be feeding. This form should be filed for whenever it is needed.

**Food and Drug Administration (FDA)** – an agency of the U.S. Department of Health and Human Services that is responsible for regulation of medicated animal feeds and most animal health products.

**Food Supply Continuum** – a series of steps and relationships that take part in producing, marketing and consuming meat products.

**Good Management Practices (GMP’s)** – a set of guidelines for processing feed designed to prevent feed contamination and provide reasonable assurance that the feed is manufactured accurately.

**Good Production Practices (GPP’S)** – a set of guidelines for the safe, healthy, efficient and humane production of livestock.

**Guaranteed Analysis** - required, followed by a listing of nutrient analyses required for the product and species; must list “not less than (minimum) or not more than (maximum) depending on the nutrient.

**Injection** – introducing a substance into the body using a syringe and needle.

**Intramuscular injection (IM)** – an injection into the muscle.

**Intranasal (IN)** – administration given in the nasal passage.

**Intraperitoneal (IP)** – injection into the abdominal cavity and should only be used upon veterinary instruction and guidance as serious injury could result.

**Intravenous (IV)** – injection into the vein. This type of injection should only be used upon veterinary instruction and guidance as serious injury could result.

**Implant** – work in conjunction with the natural hormones in the animal’s body resulting in increased weight gain, improved feed efficiency and leaner carcasses. These pellets are placed subcutaneously in the middle ½ of the ear. They are estrogenic compounds or androgenic compounds.

**Label use** – use the drug exactly as specified on the label.

**Lot Number** – a reference number that the manufacturer uses to determine the batch in which the product was made.

**Medication Inventory Record** – Documentation of medication purchased but not yet used.

**Medication usage record** – Documentation of medication used.

**Medication** – something that treats, prevents or alleviates the symptoms of a disease.

**Nutrient** - A single class of food or group of like foods that aids in the support of life and makes it possible for animals to grow or provide energy for physiological processes.

**Off label use** – use of a drug by a producer in a manner other than what is stated on the label and without guidance from a veterinarian under the extra-label policy. This practice is illegal.

**Oral Medication** – Are those given through the mouth. Medications given orally are mixed in the animal's feed or water or some oral medications can be placed directly in the animal's mouth. See also drenching and bolus.

**Over the counter (OTC)** – drugs that can be purchased lawfully without a Veterinary Feed Directive or prescription.

**Prescription drug** – drug which requires a veterinarian's written permission for use.

**Prescription** – a medication that has been prescribed from a veterinarian to a specific animal for a specific reason.

**Quantity of contents** – the amount of medication in a container.

**Recordkeeping** – documenting an event or occurrence, related to an animal health or medication event.

**Residue** – a portion of medication that remains in the animal's tissue, milk or eggs.

**Scrapie** – Scrapie is a fatal, degenerative disease affecting the central nervous system of sheep and goats. It is among a number of diseases classified as transmissible spongiform encephalopathies (TSE).

**Storage instructions** – instructions found on a medication label on how to properly care for a medication when it is not being used. Exposure to sunlight, temperature and shelf life.

**Subcutaneous injection** – Injection given under the skin.

**Trade name** – the commercial name given to a medication by the manufacturer.

**Treatment records** – documentation that includes animal identification, the specific medication given to that animal, amount, the date, who gave it, the route and what the withdrawal time is.

**Topical medication** – applied to skin of animal. Examples are sprays, dusts, pour-ons and dips. These control insects and parasites.

**United States Animal Identification Plan (USAIP)** – USAIP is a national effort led by USDA and industry to create a national animal identification and trace back system which will protect the health of the animal industry.

**United States Department of Agriculture (USDA)** – a division of the federal government that enforces regulations related to agriculture.

**Vaccination** – injection given to healthy animals, used to stimulate prolonged immunity to specific diseases.

**Veterinarian** – person that is specifically educated and skilled in identifying and treating animal diseases and the care of animals.

**Veterinarian Client Patient Relationship (VCPR)** – relationship that exists between a client and a veterinarian where the veterinarian has assumed the responsibility for making medical judgments regarding the health of the animals, has sufficient knowledge of the animals and is readily available for follow-up consultations.

**Violative drug residue** – drug levels remaining in tissues of animal after harvest that exceed levels allowed by the FDA. These usually result from not following the proper medication withdrawal time or from improper use of a medication.

**Warnings** – (see cautions and warnings)

**Wholesomeness** – the quality of being beneficial and generally good for you or an animal.

**Wisconsin Department of Agriculture and Consumer Protection (DATCP)** – inspect and license more than 100,000 businesses and individuals, analyze millions of laboratory samples, conduct hundreds of hearings and investigations, educate businesses and consumers about best practices, adopt rules that have the force of law, and promote Wisconsin agriculture at home and abroad.

**Wisconsin Livestock Identification Consortium (WLIC)** – Multi species effort lead by Wisconsin livestock industry organizations, partnered with DATCP, USDA and UW Extension, to promote and educate the national identification.

**Withdrawal time** – length of time between the last day animals were given an animal health product and the first day that they may be harvested without the occurrence of a violative drug residue.

## **References:**

National Pork Board Youth Curriculum  
Assuring Quality, University of Nebraska  
Food Safety and Quality Assurance Program, Iowa State University  
Youth Food Animal Quality Assurance, Ohio State University  
Quality Counts, Texas A&M University