

Swine production often occurs on a large scale in a confined setting. This type of environment increases the opportunities for diseases to spread among swine (although it reduces their spread from farm to farm or by other animals). Swine producers have to be able to keep diseases from spreading to produce healthy and productive pigs.

Swine Diseases

Swine are generally hardy animals, but they are susceptible to a variety of diseases. Producers can prevent most diseases by using good health management practices, or they can control them by using vaccines. The major swine diseases are erysipelas, leptospirosis, pneumonia, porcine reproductive and respiratory syndrome (PRRS), pseudorabies, rhinitis, and transmissible gastroenteritis (TGE).

Erysipelas - A bacterium causes this disease. Pigs suffering from erysipelas are slow growing and sometimes lame. Hogs with severe erysipelas often have red skin lesions. Animals with this disease frequently die. Producers should vaccinate pigs against erysipelas at six to eight weeks of age if it is present in the herd.

Leptospirosis - Leptospirosis is a reproductive disease caused by bacteria that results in abortions and the birth of weak or dead pigs. Females and males should be vaccinated against leptospirosis. Producers should vaccinate females two to three weeks before breeding.

Pneumonia - Pneumonia is a respiratory disease caused by bacteria. It usually does not cause death. However, the disease causes chronic coughing and reduces growth and efficiency. Producers can vaccinate pigs for some strains of pneumonia, but good management practices is the best prevention. Good sanitation and isolation of infected animals are two ways to prevent the disease. Pigs also should not be exposed to cool and drafty conditions.

PRRS - PRRS is the most profound health problem in swine herds across the United States. It is a viral disease that is spread from contact between hogs and between humans and hogs. The disease can cause abortions, mummified pigs, and stillbirths; it can also result in chronic respiratory problems throughout the herd. PRRS is hard to prevent and treat, but producers can vaccinate hogs

against it. They should also buy breeding stock that is free of the disease.

Pseudorabies - Pseudorabies is a viral disease that is spread from hog to hog through body fluids. The disease cannot be treated, and it causes a high death rate in young pigs. Pigs experience paralysis and run a fever. Sows with pseudorabies may abort, or the pigs may be stillborn. Pseudorabies is a difficult disease to control when an outbreak occurs. Producers must use a zero tolerance policy when dealing with pseudorabies. They should purchase all breeding stock from herds certified free of pseudorabies. Vaccines can prevent the spread of the disease.

Rhinitis - Rhinitis is caused by bacteria. It results in the degeneration of the bones in the pig's snout. The snout will then appear twisted. Pigs usually become infected at a few weeks of age. Vaccinating sows and baby pigs against rhinitis can prevent the disease.

TGE - TGE is a preventable viral disease that usually affects young pigs, most critically. The disease causes severe diarrhea. The death rate is close to 100 percent when young pigs contract TGE. Producers can vaccinate pigs against TGE, but vaccines are not effective in controlling the disease. Proper sanitation plays a major role in preventing outbreaks.

Reducing the Spread of Disease

Swine producers can reduce the spread of disease in several ways. They include biosecurity measures, proper sanitation, and the purchase and use of disease-free breeding stock.

Biosecurity involves preventive measures designed to reduce exposure to disease. These measures help to isolate diseased animals, keeping them from contaminating others. Many swine operations use biosecurity to varying degrees. Typically, swine operations limit the number of outside visitors. If they do allow visitors, the visitor showers in and puts on clean clothes and shoes before entering the facilities. Biosecurity also involves limited access to critical areas, such as the farrowing house and nursery, because pigs are the most vulnerable to disease when they are young. Some biosecurity plans specify that certain people can only enter particular buildings. For

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example, people working in the farrowing house could not go into other swine buildings because they might carry disease-causing bacteria or viruses back to the farrowing house. An outbreak of disease could cause large losses.

Proper sanitation is also important to herd health. Producers should clean and wash new animals before allowing them into the facilities. After they have moved all of the pigs out of a facility, the building should be cleaned using a pressure washer to remove waste. They should then disinfect the facility.

Another important preventive measure is the purchase and use of disease-free breeding stock. Many swine producers who sell breeding stock to others have strict health programs to ensure that their animals are free from disease. Their herds may be validated as specific pathogen free (SPF) herds, which means they are declared free of certain diseases. Blood tests are done on the animals before sale to ensure that they do not have any diseases. All incoming breeding stock should go through an isolation and acclimation period lasting 45 to 60 days in which they are tested for diseases and then exposed to cull animals from the facility in which they are to be placed. Using artificial insemination can reduce the spread of disease among breeding stock.

Herd Health Programs

Herd health programs vary from producer to producer and within production systems. However, most producers vaccinate animals for disease whenever possible. A good practice for all farrow-to-finish and feeder pig producers is to take blood samples from their animals and have them evaluated for specific diseases, which they can then treat.

Farrow-to-finish producers are involved in all phases of production. They have the most extensive herd health program because they must prevent health problems throughout the breeding, farrowing, and growth phases. Producers should use blood tests to reveal health problems and then target those problems with vaccines. They should also buy disease-free breeding stock, practice biosecurity, and administer preventive antibiotics in the feed given to the pigs. In addition, they should use products to control external and internal parasites. Pigs must be treated for parasites at regular intervals.

Feeder pig producers focus on breeding, farrowing, and raising the young pigs until they weigh approximately 50 pounds. Producers should purchase disease-free breeding stock and use the same biosecurity programs as farrow-to-finish producers. They should also take blood samples to discover specific health problems and vaccinate their animals for them. Producers also need to add preventive antibiotics to the feed and control external and internal parasites.

Feeder pig finishers usually have the fewest problems with disease. They own the pigs for a short time with no breeding, gestation, or farrowing taking place. Most feeder pig finishers will purchase vaccinated feeder pigs and use antibiotics in their feed. They also practice necessary biosecurity measures and treat animals for parasites.

Administering Medications

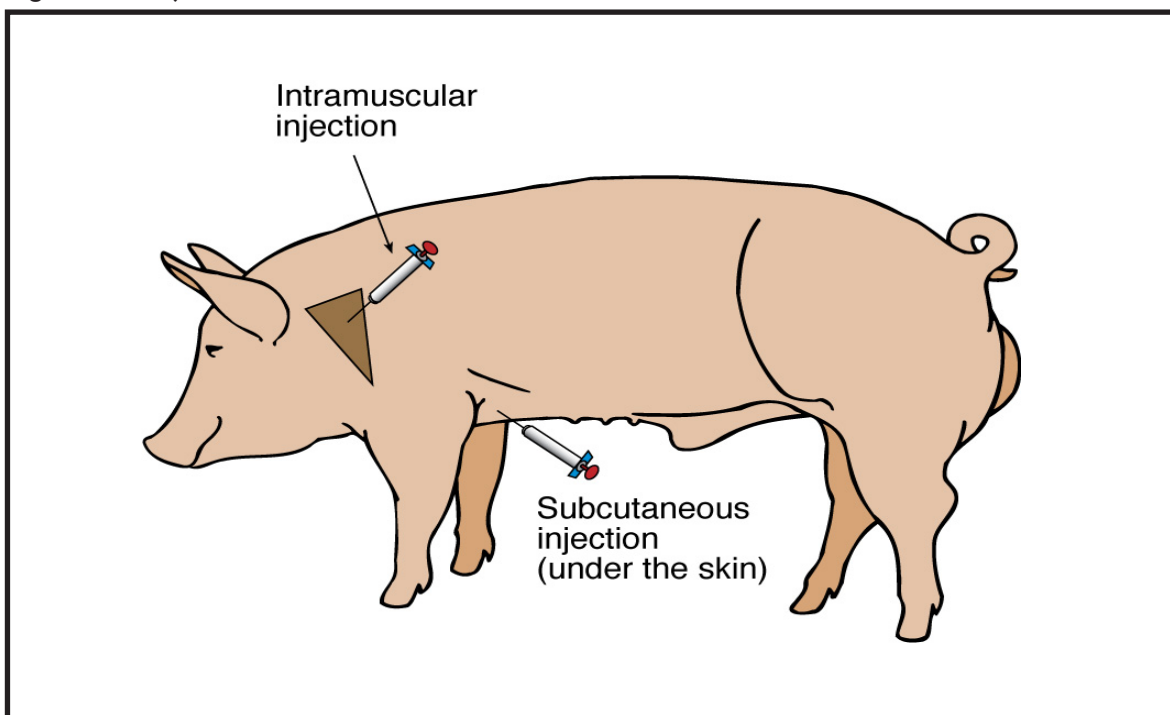
Swine producers need to know how to administer medications to keep their pigs healthy. They typically use subcutaneous and intramuscular injections plus medicated feed to help prevent and treat diseases. Figure 5.1 shows injection sites. To ensure that they produce high quality, safe pork, producers must be cautious and observe proper dosage, usage, and withdrawal times when using any medication. Withdrawal times tell producers how long the medicine takes to clear out of an animal's system. After the specified time, the animal can be sold for human consumption.

Subcutaneous (Sub-Q) injections are injections given between the skin and muscle. Most subcutaneous injections are given just behind the front leg in the loose skin of the foreflank between the leg and stomach. Sub-Q is recommended because there is a potential for carcass damage when injections are made into muscle tissue.

Intramuscular (IM) injections are made into the muscle. Injections should always be given in the neck of the pig and never in the rump or ham area, because the meat from the neck area is of a lower value.

Most swine producers use medicated feeds to help prevent disease and promote growth. The feed contains small amounts of USDA-approved antibiotics. Pigs consume the medication as they feed.

Figure 5.1 - Injection Sites



Summary

Pigs can contract many different diseases. Producers use a variety of methods to help reduce the spread of disease, including biosecurity measures, proper sanitation, and the purchase of disease-free breeding animals. They need to identify specific health problems and work to reduce their effects. Swine diseases can generally be prevented through the use of disease-free breeding stock, biosecurity, and vaccinations. Producers should use subcutaneous injections whenever possible.

Credits

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