



Keeping **SHOW PIGS** Healthy

Show pigs can bring many disease organisms into a farm and spread them to other swine. However, there are things you can do to prevent yours from contracting and spreading diseases. These are some precautions:

- Taking care that the show pigs are healthy when they arrive on the farm
- Using isolation practices to prevent disease
- Using good health management practices
- Providing plenty of fresh, clean water
- Changing rations slowly
- Providing rations containing medication to prevent specific diseases that kill or cripple pigs
- Taking special care during and after surgeries
- Understanding disease risks within a well-managed farm
- Vaccinating to prevent serious diseases
- Deworming the pigs routinely
- Having sick pigs promptly diagnosed and treated
- Using prescribed drugs properly

STARTING WITH HEALTHY PIGS

To prevent disease outbreaks in show pigs, start by preparing before you produce or buy them. Pigs should be very healthy if they are farrowed at one location, are never exposed to other swine and are fed at that location until exhibition.

When buying show pigs, it is best to buy them directly from one farm of origin that has a history of excellent herd health. You may house the pigs together if you bought them all from one farm of origin unless they are fighting too much (a common cause of lameness) or need to be fed different rations.

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Show pigs can be exposed to many disease-causing organisms for these reasons:

- They are bought at a sale that is not at the farm of origin and are exposed to other pigs.
- They are bought directly from multiple farms and then mixed on a trailer for transportation to a location for distribution to buyers.

REMEMBER:
**The greater the exposure,
the greater the likelihood
of disease problems.**

ISOLATING PIGS FROM THE FARM

If you buy show pigs directly from several farms, isolate them from each other. Use separate stalls while hauling the pigs and, once they get to your farm, isolate them in separate pens. You need to prevent them from contacting each other through the fence for 60 days.

Treat these separate isolation pens as if they were totally different farm locations. Before going from one pen to another, wash and disinfect your boots, equipment and other items. In fact, you could continue isolating these pigs from each other for the entire feeding period before exhibition.

If you show the pigs several times during a season, isolate them in their own pen after each return to the farm. Do not expose other swine, such as breeding stock, on the farm to the many disease-causing organisms that these show pigs may have picked up elsewhere.

FOLLOWING GOOD HEALTH MANAGEMENT PRACTICES

Generally, it is much easier to prevent swine diseases by using good management practices rather than trying to treat the pigs after they have become sick. Injecting them with antibiotics in order to prevent diseases usually does not work. For example, if pigs are purchased from multiple sources, mixed on a trailer and subjected to the stress of hauling, injections during this time may only postpone or delay the development of bacterial diseases.

Antibiotics are totally ineffective in preventing common viral diseases such as transmissible gastroenteritis and swine influenza. Also, vaccines are not available for all swine diseases and must be given long before the pigs undertake the rigors of exhibition.

USING GOOD WATERING AND FEEDING PRACTICES

Your pigs should always have access to fresh, clean, cool water. If they go without water for 2 to 3 days and then gorge themselves on water, pigs can suffer brain damage or die from *salt intoxication*, or *water deprivation*.

Also, it's critical to make sure that the pigs find the water and are drinking. Some pigs are accustomed to trough or bowl-type waterers and may not drink from nipple waterers. You can fix that by temporarily wedging a kernel of corn or pebble beside the nipple of a nipple waterer to allow it to drip into a pan. This helps the pigs quickly find the water source. If you use a trough-type waterer, make sure that you secure it to a solid object or see that the trough is heavy enough to keep the pigs from overturning it when rooting.

Proper feed management is also important. Do not change rations quickly because this can cause edema disease, which can kill pigs. Change the rations over several days to a week by mixing in the new feed and gradually increasing the amount of new feed. Do this until all that you are feeding is the new ration.

You can also buy rations containing medication that help prevent serious show pig diseases. Lincomix[®] and Denagard[®] are approved antibiotics commonly used in rations. For more information on feed medication for specific diseases, check these Extension publications: *Diarrheal Disease in Show Swine*, L-5320; and *Swine Pneumonia*, L-5203.

TAKING CARE DURING AND AFTER SURGERY

If the pig undergoes surgery such as castration, make sure that sanitized instruments are used and that the operation is done in clean conditions. After the surgery, house the recovering pigs in clean areas like a sanitized trailer, for example. If a veterinarian performs the operation, follow the post-surgical care instructions meticulously.

Many veterinarians try to prevent complications after surgery by administering antibiotics and injecting a *tetanus* antitoxin. The highest risk for tetanus in pigs is after castration when the incision site is purposely left open for drainage and becomes contaminated with dirt containing tetanus spores, which are in substances like dirt and dust.

Another possible complication is an abscess or cyst formation that creates an obvious skin enlargement at the castration site after healing. These usually must be removed surgically before you can exhibit a barrow. However, lack of healing time before a show is always a concern after abscess removal. To prevent complications such as abscesses, consider utilizing a veterinarian who uses anesthesia for castration, uses an aseptic surgical technique and closes the castration site.

Veterinarians also commonly perform other surgeries requiring anesthesia, such as removal of a retained testicle (*cryptorchidism*), removal of an infected and enlarged urine pocket (*preputial diverticulum removal*), repair of scrotal or umbilical *hernia*, and removal of tumors. Before a surgeon administers anesthesia to your pigs, you need to understand that properly complying with drug withdrawal times can conflict with future exhibition dates. This is especially true for larger, older pigs. Therefore, always talk to your veterinarian beforehand and cooperatively plan any surgery involving anesthesia to ensure you're in compliance.

Obviously, if you choose a gilt for exhibition, you can avoid many of the potential problems of barrows.

RECOGNIZING RISKS ON THE FARM

Even if you use the best management techniques to minimize the exposure of your show pig to disease, the pig's dam (or sow) can still pass disease-causing bacteria and viruses to each pig in its litter. The piglets can encounter these organisms while they are moving through the birth canal, when they nurse, and while they simply share the same space with the sow before weaning. Harmful bacteria, for example, may be found in the sow's body secretions.

Before and after weaning are also times that pigs can become infected with *roundworms*, *whipworms*, *mange* or *lice*. Another way they can be exposed to disease-causing organisms is when several litters from the same farm are mixed in the nursery.

The ideal health maintenance situation is when a show pig is farrowed and raised on one farm. Even so, it can still carry disease-causing organisms in its mouth, nose, tonsils, respiratory tract and other areas. These organisms may become active later, particularly after being stressed by such activity as hauling.

VACCINATING TO PREVENT SERIOUS DISEASES

There are many vaccines fully approved and readily available to help with the prevention of domestic swine diseases. The best way for you to deal with this is to follow a basic or minimal vaccination program that is practical and simple.

A major problem with pigs in 4-H and FFA projects is that no vaccines are used, or they are improperly used. While vaccines do not exist for all swine diseases, there are ones that are effective against some very important disease-causing organisms that are prevalent in many swine herds. In these cases, vaccinations are recommended because the organisms might kill the pig or make it unfit for exhibition.

Whether you raise pigs from a litter or buy them, you should routinely vaccinate against erysipelas and *Actinobacillus pleuropneumonia* (APP). Erysipelas is caused by the bacterium *Erysipelothrix rhusiopathiae*, which can result in sudden death, skin disease and lameness. APP comes from the bacterium *Actinobacillus pleuropneumoniae*, which causes pneumonia, sudden death and chronic illness with poor weight gain.

An example of a combination erysipelas-APP bacterin (inactivated bacterial vaccine) is *Pneu-Pac-ER*[®] (Schering Plough). The first dose is administered for pigs as early as 4 weeks of age that are raised on your farm. Pigs are usually purchased when they are at least 8 weeks old or weigh at least 40 pounds; you will need to vaccinate them the first week they arrive. In both cases, the second dose is given 3 to 4 weeks later. Approximately 2 weeks after the second erysipelas-APP bacterin is administered, healthy pigs develop an immunity that lasts until about 6 months of age. Sometimes these diseases still occur after vaccination; however, vaccination should make them less severe.



Another extremely important disease is *porcine reproductive and respiratory syndrome* (PRRS).

The virus that triggers this can cause pneumonia and death, or it may cause a chronic disease that reduces a pig's weight gain or stops its growth. In addition, the syndrome causes reproductive disease in breeding swine. If infection is a known herd problem or a potential problem in purchased pigs, you should consider vaccinating pigs against PRRS to prevent pneumonia.

Two modified-live PRRS virus vaccines are available and effective. One is *Ingelvac® PRRS ATP*, which fights respiratory form of the virus. The other is *Ingelvac® PRRS MLV* (Boehringer Ingelheim Vetmedica), which prevents both the respiratory and reproductive form of PRRS. Even though they do work, you still must strictly follow the many label warnings about the use of modified-live PRRS virus vaccine. Vaccinated swine carry the vaccine virus that may be shed and infect non-vaccinated swine with which they later come in contact. This is of minor importance if only barrows destined for slaughter are exposed. If gilts, sows or boars in a closed breeding herd are exposed to PRRS-carrier animals through, for example, vaccinated and/or infected carrier gilts brought into the closed herd, their reproductive performance might decrease.

Ingelvac® PRRS ATP is approved for pigs that are at least 3 weeks old and should not be used on adult, breeding gilts, sows or boars. The vaccine protects against a very severe respiratory form of PRRS caused by an atypical PRRS virus strain. You vaccinate pigs for this only once.

Pigs at least 3 weeks old can be vaccinated with *Ingelvac® PRRS MLV* to prevent the respiratory form of PRRS. It can also be used for non-pregnant sows and gilts in PRRS-positive herds 3 to 4 weeks before each breeding. With both groups, you will vaccinate only once.

Remember the following about *Ingelvac® PRRS ATP* or *Ingelvac® PRRS MLV*:

- Only use them against a respiratory form of PRRS in purchased show barrows or gilts that are at least 3 weeks old and which are destined for terminal shows and/or slaughter.
- Make sure these particular pigs will not have contact with current or potential breeding swine or are not kept as breeding stock.

- **Always consult a swine veterinarian before vaccinating any breeding animal with any modified-live PRRS virus vaccine.**

Compared to modified-live PRRS virus vaccine, inactivated PRRS virus vaccine has the advantage of not being shed to other swine. Unfortunately, proprietary inactivated PRRS virus vaccine is no longer available.

Mycoplasma hyopneumoniae infection that causes the most common form of swine bacterial pneumonia can be reactivated or made worse by PRRS virus infection and pneumonia. Vaccination against this bacteria can help suppress a part of the disease syndrome caused by PRRS virus infection. Large commercial swine farms use custom-made or autogenous inactivated PRRS virus vaccines, but these vaccines are not practical or economically feasible for use in show swine.

With the absence of proprietary inactivated PRRS virus vaccine, you should consider routine vaccination against mycoplasma pneumonia for pigs you raise from birth or ones you buy. Examples of one-dose *Mycoplasma hyopneumoniae* bacterins are *Pneumo STAR Myco* (Novartis) and *Mycosilencer Once* (Intervet, Inc.). Pigs need vaccination when they are at least 3 weeks old, and protection from one-dose mycoplasma pneumonia bacterins will last until the pigs are about 6 months old.

Two-dose mycoplasma pneumonia vaccines are also available. One example is *MycoShield* (Novartis). It is given when the pigs are at least 2 weeks old and is repeated 2 weeks later.

You want to vaccinate only healthy pigs. If a pig is sick, wait until it is completely well before vaccinating. If healthy growing pigs are vaccinated but are not kept for breeding stock, they will not require any booster vaccinations before slaughter. At this point, they will be around 5.5 to 6.5 months old.

All of these vaccines have 21-day withdrawal times, while *Pneu-Pac-ER* has a 60-day withdrawal time. Because of such differences, it is critical to read the instructions on vaccine labels carefully and follow recommended withdrawal times. **When in doubt about a vaccine or drug withdrawal time, always ask your veterinarian for advice before injecting the product into your pig.**

DEWORMING HEALTHY PIGS

Deworming should also be a routine practice in healthy pigs on their arrival and 1 month later. Use a dewormer effective against whipworms at least once. Approved products such as *Safe-guard*[®] (fenbendazole, Intervet) administered daily for 3 days or *Atgard*[®]C (dichlorvos, BI Vetmedica) are effective against whipworms as well as roundworms.

Pigs sick with diarrheal disease can be especially sensitive to certain deworming products. *Safe-guard*[®] (fenbendazole) is probably the drug least harmful to whipworm-infected pigs with diarrhea. *Ivomec*[®] (ivermectin, Merial) and *Dectomax*[®] (doramectin, Pfizer) are excellent injectable dewormers, and also kill lice and mange. However, since their effectiveness against whipworms varies, they are not approved for use against this important internal parasite.

An alternative to routine deworming is take a fecal sample from each pig to a veterinarian, who can perform a fecal flotation to check for worm eggs. Test results will indicate which pigs to deworm. If no worm eggs are detected in a pig's feces, recheck that pig a month later. Routine deworming is likely more practical and economical than testing each pig for worms.

DIAGNOSING AND TREATING SICK PIGS PROMPTLY

Pigs that are sick for an extended period of time do not respond to treatment as well as pigs appropriately treated earlier in the disease process. If your show pig becomes ill, promptly consult your veterinarian for diagnosis and treatment.

USING PRESCRIBED DRUGS PROPERLY

Carelessly using an approved or unapproved product on your show hog may disqualify you from exhibition. You must carefully read and follow the label instructions when using any approved feed, oral or injectable drug, or product for swine. If you are in doubt about any vaccine, drug, or other product for your show animal, **do not use it** unless you have consulted a veterinarian. **You must be absolutely certain that it is acceptable and know that no withdrawal periods will be violated by using the product.**

More information is available through The Pork Quality Assurance Youth Program. This educational program covers 10 good production practices that help prevent possible drug residues and physical hazards like broken needles. It also addresses microbial contamination in pork, increasing food safety awareness among producers and consumers. Youth leaders can contact the National Pork Producers Association at (515) 223-2600 or pork@nppc.org. Its website address is <http://www.nppc.org>.

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