

One of the *Salmonella choleraesuis* vaccine directions includes intranasal or oral administration at 3 weeks of age or older. Since this vaccine is an avirulent inactivated modified live vaccine, it should be used in the absence of medications. The pigs should be taken off all feed or water medication 2 to 3 days prior to and 3 to 5 days after administration to prevent destruction of the vaccine.

Label directions including withdrawal times before slaughter should be read before any vaccination program is finalized. Some vaccines that contain oil adjuvants advise 60-day withdrawal times.

Vaccine products vary considerably, and manufacturers' recommendations for time of administration differ. All of the various conditions could not be included in the timetable. The producer's veterinarian should be consulted for specific vaccination recommendations for each situation.

For example, veterinary assistance should be used to determine which species, strain, or serotype should be included in the selected bacterins. Vaccinations that offer several choices include *Pasteurella*, *E. coli*, *Actinobacillus*, *Mycoplasma*, and leptospirosis.

Immunization is a complex process and many unforeseen circumstances can interfere with the planned protection against the specific disease. These include maternal antibody interference, stress at the time of vaccination, poor nutrition, and inappropriate vaccine or faulty vaccine due to poor handling or lack of refrigeration. Administration techniques using improper needle length and size or wrong deposition site also can contribute to insufficient antibody development and protection. Vaccination does not necessarily mean immunization.

Some operations use no vaccines yet have excellent herd performance. These herds rely on strict sanitation and herd exposure control methods, such as exposing young gilts to the adult herd at least one month prior to breeding to prevent parvovirus and perhaps other unidentified viruses that cause reproductive failure problems. In a well-managed herd, growing pigs may require no vaccinations.

Segregated Early Weaning

Segregated early weaning (SEW) is a production management technique designed to control or eliminate specific swine diseases with minimal use of vaccines and antibiotics.

Pigs are weaned at less than 21 days of age and benefit from the protective colostrum antibodies from their highly immune dams. Pigs (usually no more than 7 days age variation) are separated at weaning from the rest of the swine herd and reared all-in, all-out by room, building or site.

Strict biosecurity measures are enforced. SEW decreases the low-level disease in the herd and growth rate improves in these high health status pigs. However, these high health pigs are more susceptible to disease if exposure to infectious agents occurs.

Control of Parasites

Before proceeding with an active deworming program, fecal examinations from at least five pigs, each at 10 to 15 weeks and 16 to 26 weeks of age and from at least five sows or boars should be made to determine the species of worms present. Samples should be collected from several different pens. Slaughter health checks also can be helpful in determining the presence and extent of a parasite problem.

The dewormer effective against the parasite(s) diagnosed

should be used as recommended by the manufacturer. Frequently in slotted-floor systems, no worm eggs are found, and a dewormer may not be required. The importance of fecal exams representative of the entire herd and slaughter health checks are stressed.

Diagnosis of mange may require skin scrapings of young pigs or older sows and microscopic examination by a veterinarian. If mange and/or lice are present, an intensive program for external parasite elimination is possible with a single product or a combination of products. Injectable endectocides (products that remove internal and external parasites), pour-ons and sprays are effective products for use against mange.

Manufacturers' recommendations should be followed including amount applied and pressure if a spray is used. External applications should be repeated within 7 to 10 days. Caution should be exercised against the indiscriminate simultaneous use of different products. Lice and mange can be eliminated from the herd with a well-designed, veterinarian-assisted program.

Records

Records are important to the success of a herd health program. They enable the producer and herd health team to identify problems in the operation and to measure the progress of the program.

Farrowing records should denote the sow number, sire(s), date of farrowing, number born, number alive, number mummies, litter weight, weaning age and weight, and number weaned. Any abnormalities, disease problems, and treatments of pigs or sows should be recorded. Using a computer program to retrieve and compare data enhances the value of records.

With the exception of newborn pigs, hogs that die should generally be necropsied by the attending veterinarian or taken to a state diagnostic laboratory. Follow the attending veterinarian's guidelines. Routine postmortem examination, regardless of cause of death, detects chronic, slow-moving but costly diseases before they become established in a herd. Moreover, a devastating disease may be prevented by vaccination or treatment before serious losses occur.

Slaughter Checks

Routine slaughter checks of at least 20 percent of a production group or up to 30 market-sized hogs by a veterinarian will provide considerable herd health information. Slaughter checks need to be included in the calendar to allow the producer and veterinarian to monitor the health status of the herd and the effectiveness of the herd health program.

The veterinarian should inspect the lungs for bacterial and mycoplasmal pneumonia, the liver for parasite damage, and the snout for evidence of atrophic rhinitis. Mange, arthritis, foot injuries, and abscesses also can be detected. With the exception of the veterinary inspection fee, the producer incurs no financial costs from a slaughter check because the carcasses are processed normally.

When the producer does not have a cooperative packer nearby, two or three market hogs can be slaughtered at a local plant, and arrangements can be made with a veterinarian to inspect the slaughter. If this alternative is not practical, the lungs, liver, snout, and intestines can be collected and taken to the veterinarian's office for examination.