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Swine Newsletter

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Vaccines & Programs

As a consulting pig vet one of my most frequent tasks is to establish, review, adjust or reorganize the vaccine program for pig farms. There are many different diseases that can be vaccinated for or against and you don't want to spend money and time vaccinating against something that your herd doesn't have or that is not a significant threat to the health and well-being of the herd.

Vaccines are either live or killed. Live vaccines are often very effective at creating high antibody levels in the vaccinated pig. They are "attenuated" or changed slightly from the pathogenic bug so that they don't cause the disease that we are trying to prevent. Killed vaccines are considered to be safe, have to be boosted two to four weeks after the first inoculation, and depend on an adjuvant or carrier agent to enhance the immune response in the pig being vaccinated.

Killed vaccines really vary by how they are made. Some are whole cell vaccines, some use only a part of the cell or are sub unit vaccines. Vaccine development is complex and scientific. It is well beyond my scope of thorough understanding but we don't need to go into all that here.

For our purposes, let's break them into three categories.

1. Gilts
2. Sows
3. Piglets/growing pigs

Gilts

Since gilts will be your future breeding females, the primary purpose in gilt vaccine selection is to prepare them for potential pathogens that they will encounter when they enter the herd. These pathogens can be enteric, respiratory or reproductive. We usually vaccinate them against a wide combination. Keep in mind that if they are thoroughly vaccinated as a pre breeding gilt then a single booster will bump up immunity before farrowing. We do this to pass on maternal antibodies to the piglets and to maintain protection in the sows.

Bugs that are shed for a long period of time should have exposure to gilts at a very young age; this will allow time for gilts to decrease shedding prior to breeding/gestation and also allow time for good immune responses

prior to farrowing. Examples of this include agents implicated in scouring piglets such as Rotavirus and Ileitis which are typically given as a live exposure/vaccination to the gilts. Another example may be PRRS live virus exposure of gilts. Other examples of gilt vaccinations include but are not limited to Circovirus, Mycoplasma, Influenza, Parvovirus, Leptospira, Erysipelas, and Haemophilus parasuis.

Prefarrow/sows

Next are prefarrow vaccination. The primary purpose of these vaccinations are to protect piglets by reducing in pathogens load/shedding as well as increase colostral maternal antibody passage to piglets. These include but are not limited to E coli, Clostridium perfringens, Rotavirus, Haemophilus parasuis, Influenza, and Erysipelas.

General sow vaccination may fall under prefarrow or could be a slightly different timing such as gestation or lactation. Sow vaccinations are typically designed to protect reproductive health and embryos of the female animals. Examples include but are not limited to Circovirus, Parvovirus, Leptospira, Erysipelas, and Influenza.

Piglets/growing pigs

Piglet vaccinations. Piglet vaccination programs will likely have the most variation of the above mentioned categories. There are many reasons for this but a few factors to consider when selecting a vaccine are; disease pressure in the area the pigs are produced, as well as the location where the pigs will be finished, route of administration (ease of administration), number of doses required, compliance, vaccine quality, and price. Examples include but are not limited to Circo virus, Mycoplasma, Haemophilus parasuis, Erysipelas, E.coli, Streptococcus, Ileitis, PRRSv, and Salmonella.

Most vaccine programs evolve over time. With changing disease pressure some vaccines become unnecessary. Back in the late 70's and 80's we vaccinated extensively against Atrophic Rhinitis. Since AR is no longer around we don't vaccinate against it anymore. Start-up herds are usually high health and the vaccine program will be simple and minimal. As new disease creep in for one reason or another new products will need to be used. This is why we are always reviewing and changing the program.

If you have questions or concerns about your program please call Glenn or myself for a review.

Yours truly

R.G. Reed

