Swine Vaccination and Deworming Protocol

****This is a general guideline, every farm is unique and should have its own vaccination protocol based on risk****

*****Follow label directions for all vaccines. Boosters and timing may vary depending on the brand and type of vaccine*****

1. **Piglets**
    a. **All piglets at 1-3 days of age should receive injectable or oral dose of Iron
    b. Piglets born to unvaccinated sows:
        i. @ 1 week of age :
            1. Erysipelas, Bordetella, Pasteurella and Mycoplasma vaccines
        ii. @ 4 weeks of age:
            1. Booster Erysipelas, Bordetella, Pasteurella and Mycoplasma vaccines
            2. +/- Influenza vaccine
            3. +/- CircoVirus vaccine (no booster required)
            4. +/- PRRS vaccine (no booster required)
            5. Can spread injections out between 4-7 weeks of age so not all given at once.
        iii. @ 7 weeks of age:
            1. If given, Booster Influenza vaccine 3 weeks after initial vaccination
            2. Deworm (~1-2 weeks after weaning)
        iv. @ 10 weeks of age:
            1. Booster Erysipelas, Bordetella and Pasteurella vaccines
    c. Piglets born to vaccinated sows:
        i. @ 4 weeks of age:
            1. Erysipelas, Bordetella, Pasteurella and Mycoplasma vaccines
            2. +/- Influenza vaccine
            3. +/- CircoVirus Vaccine (no booster required)
            4. +/- PRRS vaccine (no booster required)
            5. Can spread injections out between 4-7 weeks of age so not all given at once.
        ii. @ 7 weeks of age:
            1. Booster Influenza, Erysipelas, Bordetella, Pasteurella and Mycoplasma vaccines 3 weeks after initial vaccine
            2. Deworm (~1-2 weeks after weaning)

2.) Breeding Gilts and Sows

a. All Gilts:
    i. Pre-Breeding:
        1. 5 weeks out:
            a. Lepto, Parvovirus and Erysipelas vaccines
            b. +/- CircoVirus and PRRS vaccine (no booster required)
        2. 2 weeks out:
            a. Booster Lepto, Parvovirus and Erysipelas vaccines
    ii. Pre-Farrowing:
        1. 5 weeks out:
            a. Bordetella, Pasteurella, E. Coli, Clostridium and Influenza vaccines
            b. +/- Mycoplasma vaccine
        2. 2-3 weeks out:
            a. Booster Bordetella, Pasteurella, E. Coli, Clostridium and Influenza vaccines
            b. +/- booster Mycoplasma vaccine
b. Previously Unvaccinated Sows:
    i. Pre-Breeding:
        1. At weaning:
            a. Lepto, Parvovirus, Erysipelas, Bordetella and Pasteurella Vaccines. Booster in 3 weeks.
            b. +/- CircoVirus and PRRS vaccine (no boosters required)
    ii. Pre-Farrowing follow same protocol as Gilts
c. Previously vaccinated sows:
    i. Pre-Breeding:
        1. At weaning:
            a. Yearly booster of Lepto, Parvovirus, Erysipelas, Bordetella and Pasteurella vaccines
            b. +/- CircoVirus and PRRS vaccine
    ii. Pre-Farrowing:
        1. 2-3 weeks out:
            a. Yearly booster of E.Coli, Clostridium and Influenza vaccines
            b. +/- booster Mycoplasma vaccine
d. Deworm all gilts and sows with Ivomec or Dectomax injectable 2 weeks prior to breeding and 2 weeks prior to farrowing.

3.) Breeding Boars:

a. Every 6 months:
    i. Booster Lepto, Parvovirus and Erysipelas vaccines
    ii. Deworm with Ivomec or Dectomax inj.

b. +/- yearly booster of Bordetella, Pasteurella, Influenza, CircoVirus and PRRS vaccines

Specific Disease Risk:

1.) ****All Feeder and Show pigs should be vaccinated at minimum for Erysipelas, Atrophic Rhinitis (Bordetella + Pasteurella), Mycoplasma and Influenza**
2.) ****All Breeding stock should be vaccinated at minimum for Lepto, Parvovirus and Erysipelas**
3.) Other vaccinations should be based on farm specific risk and production programs:
    a. Porcine CircoVirus:
        i. Most commonly affects pigs 2-4 months of age
        ii. Infection causes Post Weaning Multi-Systemic Wasting Syndrome (PMWS) in nursery and growing pigs
            1. Has also been associated with porcine dermatitis, porcine nephropathy syndrome, porcine respiratory disease complex and reproductive failure or abortion
        iii. Risk factors include: high density facilities with poor biosecurity, poor air quality, poor hygiene and frequent introduction of new pigs
    b. Porcine Reproductive and Respiratory Syndrome (PRRS)
        i. Arterivirus that causes reproductive impairment or failure and respiratory disease in any age of pig
        ii. Immunity occurs post infection of specific strains but pigs can still have clinical disease if infected with a new strain
        iii. Available vaccines are inconsistently effective
        iv. Risk Factors include high density breeding productions and introduction of new/untested gilts or sows
    c. Mycoplasma Pneumonia (Enzootic Pneumonia):
        i. Mycoplasma Hyopneumoniae
        ii. Chronic respiratory disease associated with reduced growth and feed efficiency
        iii. Effects weanlings, growing and finishing pigs
        iv. Risk factors: high density of young growing pigs (i.e. show pigs/fair), poor biosecurity, poor hygiene/husbandry, poor air quality and continuous flow production systems
        v. All at risk young/growing pigs should be vaccinated, sows can be vaccinated pre-farrowing in endemic herds
    d. Actinobacillus Pleuropneumonia
        i. Most common in 6-20 week old pigs
        ii. Severe, acute respiratory disease with high mortality
            1. Associated with sudden death and abortions
        iii. Survivors often remain life-long carriers

iv. Risk Factors include: high density/over stocking, poor ventilation, poor biosecurity and hygiene and stress
v. Vaccinating breeding stock is controversial

e. Swine Influenza:
    i. Highly contagious, acute onset and short lasting respiratory disease in pigs of all ages
    ii. Risk factors include: continuous pig flow systems, poor hygiene and air quality, high density/overstocking (i.e. fair/shows)
    iii. Disease resolves within 5-7 days but secondary bacterial infection is very common
    iv. Vaccination is effective for specific strains
f. Transmissible Gastroenteritis (TGE):
    i. Highly contagious rapidly spreading Corona virus that causes severe diarrhea and vomiting in swine of all stages of production
    ii. High mortality to piglets < 2 weeks of age due to severe dehydration, low mortality in mature pigs
    iii. Can vaccinate sows/gilts during pregnancy to protect piglets
    iv. Disease resolves within 5-10 days in mature pigs but they continue shedding in feces and nasal secretions for up to 18 months.

Commonly used Vaccines (Follow current label directions as they may change)

- FarrowSure Gold (Zoetis) = Lepto + Parvovirus + Erysipelas
    - Directions: Give 2 ml IM. Healthy swine should receive two doses, 3-5 weeks apart, with the second dose given 2-4 weeks prior to breeding. A single dose booster is recommended prior to subsequent breedings. Boars should be revaccinated semiannually.
- ParvoShield L5E (Elanco) = Parvovirus + Erysipelas + Lepto
    - Directions: Inject 5 ml IM to sows and gilts 4-6 weeks prior to breeding and again in 3-4 weeks. Revaccinate with a single dose 4-6 weeks prior to each subsequent breeding.
- Respisure-One/ER Bac Plus (Zoetis) = Erysipelas + Mycoplasma
    - For swine > 3 weeks of age
    - Directions: Primary vaccination: administer a single 2 ml IM dose to healthy swine 3 weeks of age or older. Follow with another dose of erysipelas protection approximately 3 weeks later. Semiannual revaccination with a single dose of Respisure-ONE/ER Bac Plus is recommended.
- RhiniShield Tx4 (Elanco) = Bordetella + Erysipelas + Pasturella

    - Directions: administer a 5 ml dose to sows and gilts at 5 and 2 weeks prior to farrowing. Piglets receive a 1 ml dose at 7-10 days followed by a 2 ml dose 2 weeks later.
- FluSure XP (Zoetis) = Influenza
    - Directions: For use in healthy swine, including pregnant sows and gilts, 3 weeks of age and older. Aids in preventing respiratory disease caused by SIV subtypes H1N1 and H3N2. Give 2 ml IM, and repeat in approximately 3 weeks. In young pigs, vaccinate after maternally derived antibodies to SIV have declined.
- ProSystem Rota = Rotavirus
    - Directions: An aid in the prevention of rotaviral diarrhea in young piglets; a 1 mL oral dose and 1 mL IM dose to pig preweaning
- LeptoShield5 (Elanco) = 5 strains of Lepto
    - Directions: For unvaccinated swine – give 2 doses 3 weeks apart. Give annual booster prior to breeding.
- Litterguard LTC (Zoetis) = Killed E.coli bacterin and Clostridium Perfringens Type C
    - Directions: Administer 2 ml IM or SQ. Give 2 doses, 3 weeks apart during the last half of pregnancy, with the 2nd dose at least 2 weeks prior to first farrowing. Give a single 2 ml booster at least 2 weeks prior to each subsequent farrowing.
- Inglevac CircoFLEX (BI) = reduces symptoms associated with Circovirus Type 2
    - Directions: Give a single dose for swine > 3 weeks of age.
- Ingelvac PRRS MLV (BI) – PRRS
    - For use in pigs, gilts and sows (including pregnancy) at any stage of production in PRRS-virus positive herds.
    - Directions: Sows and Gilts- Inject a single 2 ml dose IM 3-4 weeks prior to breeding. Give yearly boosters. Piglets: Inject a single 2 ml dose IM in swine 3 weeks of age or older.
- Fostera PRRS (Zoetis) – PRRS
    - For vaccination of healthy, susceptible swine in PRRS virus-positive herds or seronegative pigs deemed at risk to exposure to PRRS, or in preventing disease associated with Porcine Reproductive and Respiratory Syndrome Virus.
    - Directions: Administer 2 ml IM to pigs 3 weeks of age or older. Do not vaccinate boars of breeding age.