



## Uniferon Best Practice Recommendation

### Iron & PRRS

Best Practice Anaemia Care means adapting your anaemia protocol to the health status of the herd. Uniferon helps you understand key aspects of PRRS and anaemia in the herd and recommended actions.

#### When are piglets at risk of anaemia?

Before weaning, the piglet has been on an all-milk-diet. The period around weaning will therefore be a high-risk period for iron deficiency and anaemia – ages around 21-35 days. The iron deficiency anaemia is either a sub-clinical or clinical manifest anaemia.

#### PRRS is affecting many farms worldwide

Many producers around the world have Porcine Reproductive and Respiratory Syndrome (PRRS) in their production facility, and it can be found in all production units from farrowing pen to finishing unit. Infection is transmitted from pigs via nasal secretion, manure, urine and semen. The incubation period ranges from 3 to 28 days, but is often 4-7 days. When a pig is infected with PRRS virus, you usually see virus in the blood (viraemia) for 4-6 weeks, and it is during this time the pigs/piglets are at risk of developing anaemia: During this period the infected piglet will not benefit from additional iron injections, as the production of red blood cells is inhibited.

#### Controlling PRRS in the sow unit

You can either redevelop the sow unit or you may choose to live with PRRS under controlled conditions in the sow unit. In case of the latter, it is crucial that the sow herd is stabilized. A stable sow means a sow with immunity but without active viral shedding. When the sow unit is immune and virus free, weaning piglets will generally be PRRS-free (also called negative offspring). If the sow herd is unstable, weaning piglets generally will have PRRS (called positive offspring). PRRS-free weaning piglets will remain PRRS free, if they are placed in sectioned areas. Otherwise they will be exposed to PRRS from infected pigs.

#### PRRS and Iron

Regardless of PRRS status of the farm, new-born piglets need iron! If the piglets are PRRS positive, the following approach is recommended:

1. Provide high quality iron according to standard protocol as the piglets are immunosuppressive
2. Make sure that the sow feed contains more vitamin E than the recommended standard of 40 mg/kg. In Denmark gestation mixture contains vitamin E at 80 mg/Fes and lactation diet contains vitamin E at 92 mg/Fes. However, levels of 150-250 mg of vitamin E in feed for sows have a positive effect on pig vitamin E status and thus presumably the pigs' resistance to diseases both before and after weaning. This supports recommendations of levels up to 250 mg/sow to sows with PRRS
3. Provide oral vitamin E to each piglet – use a product containing natural vitamin E (not synthetic) to support the iron absorption
4. In immunosuppressed pigs it may be advantageous to give a further iron treatment just before weaning, see JE Bach et al., 2006. Here it is demonstrated that a second injection of 200 mg of iron improves the post-weaning growth rate in an immunosuppressed herd with post weaning multisystemic wasting syndrome (PMWS).

Note: Additional treatment of up to the full recommended dose of iron injection should only be done after professional assessment and at the direction of the veterinarian

Sincerely  
The Uniferon Team