



In this issue we will continue with our back to basics series of articles designed to help maximize reproductive performance in sow herds. Our thanks to Dr. Kevin Vilaca for contributing the following article:

Semen – Before it's in Your Hot Little Hands



A few times a week, a package gets dropped off at the farm in a bubble wrapped container. It is so much a part of the weekly routine that some never think twice about what it is that they do with it. I challenge you to look at all your procedures through a new lens and see semen at the top of where all the good things start on your farm ... after all, that market hog would never exist if you had not gotten this part right.

At a stud, great care is taken to collect, analyse, extend and package your semen, not to mention deliver and transport it to your farm. I will not go into this part, but instead address **what you can do once it's in your hot little hands**.

Before it's in your hot little hands most semen is delivered to a location and not a person, where it will sit waiting to be picked up. This location and how long it sits at this location, are critical details you can influence. In my perfect world, semen should be delivered into **a temperature stable container that will maintain the semen at 17C +/- 2C**. (and be turned on!). This also means that this location should not be freezing in the winter or sweltering hot in the summer.

Why? Well, semen really does not like to get outside of its comfort zone (and it's a really small comfort zone). Dip below this and get cold and you start damaging the sperm, go above this and get warm and the sperm start using up energy the little buggers only have a set

amount of energy and they need all of it for when the magic happens. Semen is very delicate cargo and needs to be treated as such. We need to have as many of these guys as possible in peak condition to get the best results at breeding.

Where does this go wrong? I see many farms where producers say they don't need a Coolatron or fridge to deliver into because they "always come get it right away once it's arrived". And 99% of the time I believe this..... but we live in a real world where we know things happen: you did not see the driver drop it off, your chores took longer than expected, the feed line plugged, you're in the field, the driver is late/early....etc. the reasons are many but all very real. So why not accept that things could happen and just have an insurance policy.

I also hear, "but they are in the bubble package" and that will protect them. Well yes it will but only to an extent. You are putting too much faith in some little air-filled pouches. Think of a drink cozy on a hot day and how long it keeps your drink cold. It's better than nothing and that's why you keep the rest of the drinks in the cooler. Same with a coffee mug on a cold day and why you keep your coffee in a thermos. So why will we take this care every day for the things around us but not for the semen that ultimately will make us market hogs.

The challenge with poor temperature control of semen is that when things do go wrong, it's not like the semen just dies and all sows come up open (although this can happen). The reality is it's degrees of effect. **In many situations the primary impact is litter size and to some degree conception** and in most farms they are not measuring close enough to see this difference unless it's extreme.

Let's put it in perspective. Semen comes to your farm 3 times a week, 52 weeks a year. That's 156 times a year. If a Coolertron cost you \$500 dollars and it last you 4 years, **that's an insurance policy of \$0.80 per delivery**. If life happens one or two times, your 80 cent insurance has more than paid for it.

This is only one area that impacts semen handling and there are many others. However, it is one area that I unfortunately see being under appreciated for its impact. We are all chasing more pigs per sow and how we receive our semen is one spoke in the wheel. I hope this has made you think about your farm and that you take some time to think this over and add some insurance for that first important step.

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Both sides of a Coin

The futures market for lean hogs has appreciated rapidly over the last 3 weeks. Optimism has quickly replaced pessimism in our industry. All of the price increase is based on the fear that there will be a very real shortage of pork due to African swine fever in China and its neighboring countries.

While this definitely promises to be a boon for our industry here in North America, we should not forget about the producers who have been directly affected by this disease. For them this is disastrous. Farmers around the world share much in common. We all desire to see the animals in our care thrive. We all struggle when they do not. Don't forget the farmers, this could easily happen to us as well.

TSG Sentinel Herds

Great care is taken to deliver top quality semen to all TSG customers every day. Extensive quality control monitoring is in place to track semen motility and morphology on a daily and weekly basis. What really counts though, are the results achieved on farm.

TSG has a number of herds that share their performance records with us on a regular basis (sentinel herds). This enables TSG staff to monitor for changes in performance across herds. One of the early indicators of reproductive performance is the repeat rate at 21 days post breeding. Quarterly and annual key performance indicators such as farrowing rate and total born per litter reflect the overall fertility level of the sow herd, the competency of staff and quality of semen used.

These sentinel herds total 30,000 sows, and range in size from 400 to 3000 sows. Here are the performance levels achieved for the 12 months ending December 31, 2018:

Farrowing rate averaged 89.3%

Top herd (1300 sows) achieved 94.4%

46% of all herds were above 90%

13% were above 93%

Total born per litter averaged 15.3 piglets

Top herd (1500 sows) achieved 16.5 piglets

80% of all herds were above 15 piglets

20% were above 16 piglets

Why do we share this information? As producers, we often are very much isolated. From time to time we read of, or hear about performance on an individual farm, but we are not sure what the industry is really achieving. These numbers are real, from herds right here in Ontario. Farrowing rates above 90% and total born exceeding 16 per litter are being achieved in MANY herds. These are well managed herds with dedicated personnel in the barns. They understand the basics and follow best management practices all the time. No cutting corners, no compromising protocols, no making excuses. Knowledgeable, committed stockpersons, healthy herds, productive females and high fertility semen come together to make these herds shine. Well done!

These levels of achievement should inspire us all!