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Diarrhea in newborn piglets is an important and exhausting factor for many customers as it decreases piglet growth rate, reduces the quality of weaned pigs and increases pre-weaning mortality. Often diarrhea is considered as an issue caused by a single illness, but in reality there exists several different causes for diarrhea problems. It is important to work in strict collaboration with your veterinarian to collect samples and determine with appropriate laboratory analysis the actual cause of the piglet diarrhea and using the diagnosis obtained to put in place an effective preventative treatment.

The most commonly encountered causes of diarrhea in suckling piglets include enteritis caused by Clostridium Type A, Rotavirus and E. Coli.

While many different pathogens (microbes) can be associated with neonatal diarrhea, there are much more common factors that influence its expression. These factors are often underestimated and are extremely important for controlling diarrhea problems.

Essential Management Factors for Controlling Diarrhea:

- At birth, piglets need heat: The comfort zone is between 33 to 35 ºC (91.5 to 95 ºF). To reach this comfortable temperature, ideally an infra red heat lamp is required at the back of the farrowing crate and a heating mat on the side; make sure the heating mat works and that it generates sufficient heat. If there is no heating mat available, at least provide an infra red heat lamp with a mat that will hold the piglets’ comfort temperature.
- At 24 hours old: The piglet’s comfort zone is 33 ºC or 92 ºF.
- At 48 hours old: The temperature comfort zone is 31 ºC or 86 ºF.
- If the piglets do not have access to a heat source to meet their needs, it will be difficult to prevent and control diarrhea whatever the preventative treatment applied.
- Another extremely important factor to control is drafts at piglet level. If the air inlets are not well adjusted and there is a chance for a draft to reach the young pigs, they could get a chill resulting in diarrhea.

Description of Different Causes of Diarrhea and Suggested Treatments:

E. Coli:
Often manifests within the first 48 hours of life. Good control with vaccination of sows and/or gilts with a commercial vaccine prior to farrowing. Control diarrhea with an injection of an antibiotic effective against E. coli (consult your veterinarian).

Rotavirus:
Injectable antibiotics are not effective. The best treatment is prevention via the administration of the Prosystem-RCE vaccine to sows and gilts according to your veterinarian’s recommendations prior to farrowing. The management procedure described above is a must.

Clostridium Type A:
Different strategies exist to control Clostridium Type A including adding BMD to the sow feed at the end of gestation and during lactation, and to administer an autogenous vaccine to sows prior to farrowing. The results obtained with the BMD and autogenous vaccines can be variable. Administration of injectable tylosin to piglets at birth and/or at castration is 95% effective in cases that I’ve encountered in my practice. The management procedure described above is essential.

To control the expression of diarrhea in suckling pigs, it is fundamental to obtain a good diagnosis in collaboration with your veterinarian. You must also ensure your piglets are comfortable (adequate temperature) and housed in a draft free environment. There are no magic bullets!
The New Mix

By the time this edition of Landmarks At A Glance arrives in your mailbox hopefully the US corn and soybean crops are in the ground and off to an encouraging start and the Western Canadian crops are mostly in the ground and have covered the amount of acres that farmers have seeded historically, and then some. One gets the impression that with today's grain and protein prices seeding any one or more of the top 5 or 6 grains and proteins with cooperation from Mother Nature producers can manage and expect a nice profit. And with our population growing and low in-store inventories this profitable demand/supply scenario could continue for some years to come. The opposite occurring is a conversation for another time.

Even with a productive harvest and changes to the US Gov't's policy on Ethanol to stabilize our feed cost we must have continued strength in global pork demand.

There are fewer pigs and significantly fewer producers in Western Canada than 3 short years ago. The production units are larger and arguably more sophisticated then ever before and it may take some time before the pig numbers return to the levels of 2005 but I think they will albeit probably not in the same geography. And what sparked expansion and drove growth in our industry in the first place, currency, which is expected to stay on the side lines as it has in the last couple of years and for the foreseeable future. Currency has very little to do with your margin today, indeed the entire Canadian manufacturing sector including pig production has managed what most economists feared that with an economy so dependant on exports to the US certainly without that 25-30% currency edge we were doomed. But impressively that experience has been far from reality. It is true that some of the pig market contraction is due to currency but on the whole the lower margins it created has spawned innovations in cost awareness and reduction as well as opportunities for sow productivity gains to enhance revenues. Benchmarking with CompiPorc, understanding where you are and target where you need to be is critical for any successfully managed business and using Watson 2.0® for precision decision making analysis whether it’s deciding on your most profitable feed budget, your phase stay in days or your optimum slaughter weight for maximum revenue per hog. These innovative tools are becoming standard operating procedures for elite pork producers. Discovery of new feed ingredients and additives as well as advances in swine nutrition and physiology speak to the ever increasing importance of research and development a core value of Landmark and Nutreco which to that point we should be rolling out a new Sow and new Nursery feed programs by Q3 of this year. Risk management practises, hedging feed and selling pork forward, done sporadically a few years ago is now a routine with many producers today.

And with this new mix of events that is shaping our future pig industry, most if not all suppliers providing for the swine industry have needed to make difficult decisions as a result, reductions, closures, and consolidation in order to offer more for less, more value, more efficiency, the objective is not to be a cost burden to their customers. So with all this said what words have and will best characterize our industry today and in the future?

Resilient and Adaptable.

Take Care and Keep On! 🌟

Larry Stafford
Swine Business Manager
Landmark Feeds
The REV Dry Sow Feeding Program According to Bodyweight and Back Fat: A Roadmap to SUCCESS!

The importance of controlling the management of dry sow feeding is still too frequently underestimated. However, we know more than 70% of the feed for breeding herds is fed during gestation. This is a critical period for productivity and cost of production.

Dry sows use nutrients for maintenance, maternal weight gain and litter growth. Maintenance and weight gain are the largest component during the first two thirds of gestation. During the last trimester, litter growth increases substantially and therefore is the main driver of requirements. Knowing or estimating the bodyweight at breeding, target weight gain during gestation and litter size are critical to determine the feed allowance of gestating sows.

Any overfeeding during gestation will systematically compromise the feed intake of sows or gilts in the following lactation. The long term consequence of overfeeding will lead to overweight and premature culling due to reduced productivity or legs problems/weakness. The problem with gestation feeding is that the feed allowance is set according to subjective assessment of the need of each sow or group of sows based on incorrect assumptions concerning their condition often resulting, in systematic overfeeding. Underfeeding could also happen leading to more shoulder sores, welfare problems and premature culling.

Dry sows should be fed as precisely as possible by using objective techniques to assess individual body weight, body condition and ideally, measurement of back-fat depth. This is exactly the type of program we have developed.

The Elements of the Program:

1. The condition of each sow is measured at breeding by measuring the back fat depth at height of last rib, 6.5 cm aside mid-line.
2. Bodyweight is ideally measured with a scale but most often estimated by using a simple flank-to-flank tape measurement.
3. The reconditioning period in early gestation is adjusted for each individual sow.
4. The feed allowance program is then determined according to the dry sow diet density, the goals for bodyweight gain and litter size and the condition of each sow at breeding.

This appears very demanding at first sight but many clients of Landmark and Nutreco have successfully implemented this program in commercial operations and have demonstrated that it is feasible. The main benefit is ensuring objectivity in the dry sow feeding program. Other benefits include better intake of sows during lactation, more uniform body condition, less feed/sow/year and/or better litter weaning weight. The exact outcome can vary from farm to farm but in general applying this approach can improve productivity at lower cost. To know more about this program, contact your Landmark Feeds Swine Nutrition Advisor.
Do You Manage Slaughter Weight to Maximize Margin Over Feed Cost?

Did you ever realize your management of slaughter weight could significantly impact your costs and income, thus affecting your operating margin? Here is how it happens.

When shipping a group of finisher pigs to market, the weight variation around the average has an important impact on your revenue. Usually, we measure this variation indirectly by the percentage of carcasses which fall in the grid’s sweet spot. This method is good when the average weight obtained is aligned with the target weight of the grid, say 97 kg for example. However, if for any reason the average weight diverges from the grid’s sweet spot, it is better to measure the variation with the standard variation. The standard variation is a measure which indicates the range of weights for all the carcasses in your shipment. For example, you could need to target a standard variation of 4.5 kg around 97 kg (a range from 92.5 to 101.5 kg) to obtain 90% of all the pigs in the preferred target weight range of a certain grid. Apart from the mean, the number of pigs with very light and heavy carcass weights should be carefully examined because the grids usually heavily penalize these carcasses. It is fairly easy to get the standard deviation of your shipment by using simple statistical functions from Excel spreadsheets or from your slaughter reports. Normally, a reduction of the standard deviation will result in an improvement of the average index, as a result your income per pig. The following table illustrates the impact of individual carcass weight variation (from higher to lower standard variation) when the market price is $1.40/kg.

<table>
<thead>
<tr>
<th>Standard-Deviation (kg)</th>
<th>Average Index</th>
<th>Revenue</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.5</td>
<td>111.0</td>
<td>151.2</td>
<td></td>
</tr>
<tr>
<td>5.25</td>
<td>111.0</td>
<td>151.4</td>
<td></td>
</tr>
<tr>
<td>5.0</td>
<td>111.3</td>
<td>151.8</td>
<td>+$0.60</td>
</tr>
<tr>
<td>4.75</td>
<td>111.4</td>
<td>151.9</td>
<td></td>
</tr>
<tr>
<td>4.5</td>
<td>111.6</td>
<td>152.2</td>
<td></td>
</tr>
<tr>
<td>4.25</td>
<td>111.7</td>
<td>152.3</td>
<td>+$0.50</td>
</tr>
</tbody>
</table>

Maximum Index or Optimum Weight: What is the Right Target?

Today, what we often hear is that we need to maximise index to improve the income. This is true provided that we also check the average weight in context to the market price and cost of feed! By using Watson 2.0®, we can quickly determine the target weight which will maximize your margin over feed cost in any given market situation and grid. We can also determine for you if you need to have the same goal for gilts and barrows or set different targets. In the following table, we show for three different market prices; if the given feed cost is the same, what is the target carcass slaughter weight which will maximize the margin over feed cost?

<table>
<thead>
<tr>
<th>Pork Price ($/kg)</th>
<th>Average Index</th>
<th>Optimum Carcass Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1.10</td>
<td>110.9</td>
<td>95</td>
</tr>
<tr>
<td>$1.40</td>
<td>111.4</td>
<td>97</td>
</tr>
<tr>
<td>$1.70</td>
<td>111.4</td>
<td>99</td>
</tr>
</tbody>
</table>

Your Landmark Feeds Swine Nutrition Advisor can determine your optimum shipping weights for your farm using Watson 2.0®...

Let’s maximize your operating margin together!

Goes Across the Atlantic!

As a matter of fact, Watson 2.0® extends its scope to the European continent. Soon after the integration of Shur-Gain/Landmark within Nutreco, our European colleagues did show a keen interest to the “Swine Performance Investigator”. We first have identified the needs of our Dutch counterparts of Hendrix. Thereafter, we did proceed the required modification and adapted Watson 2.0® to specific requirements of pork producers from the Netherlands, Belgium and Germany. At end of September of 2010, we delivered the first training session to technical and nutrition leaders from Hendrix-UTD, Hendrix-Haeck, Hendrix-Ilesch and Nanta. Presently, more than 30 Hendrix advisors are using Watson 2.0® on a regular basis to identify the most profitable solutions specific to their clients. Watson 2.0® went across the Atlantic indeed! This is another proof you too can lean on the science of Watson 2.0®.
Oak Lee Farms
You Have to Trust your Instincts

“No matter what the industry was doing, we stuck to what we thought was right for the farm,” Allen Reimer explains. This in a nutshell is the philosophy of Oak Lee Farms, a pig and poultry operation outside of Steinbach, Manitoba.

History
Early in the 20th century Allen and Merv’s Grandfather Reimer acquired 80 acre for mixed farming. In 1970, the three Reimer brothers Ron, Allen and Merv, took over the farm from their father. In 1990, Allen and Merv purchased Ron’s share. Today the farm spans 1,350 acres.

Hogs
In 1971 a feeder barn was built and since then have expanded to a capacity of 500 sow producing approximately 11,000 market hogs a year.

Poultry
The Reimer family has also been in the turkey business for 50 years with a present quota of 300,000 kgs. In 1979 chicken broilers were added to the farm’s inventory with a quota allocation of 31,000 kgs.

Feed
A milestone for the Reimers was the 1990 construction of the feed mill which churns out approximately 5,000 tonnes annually for both hogs and poultry. The micro ingredients are sourced from Landmark Feeds.

Great Advice
Bruce Campbell, who was their first feed representative has been a mentor to the Reimers after the early passing of their father. The nugget of wisdom Bruce imparted was “invest in meat”. Ever since, the Reimers have relied on the farm nutrition advisors from Landmark Feed to help make sound decisions. Todd Hacault, their current adviser is no exception. The Reimers’ partnership with Landmark Feeds always was and continues to be excellent.

A Role for Everyone
Under the direction of Allen, the hog barn is presently managed by Angela and Len, Allen’s daughter and son in law along with an employee. Mike, Allen’s son looks after the feed mill. Overseen by Merv, Mike manages the poultry operation along with his wife Chantal and a part time employee. The cropping division is headed by Merv with the help of Allen and Mike and in busy times by anyone available.

A Fulfilling Profession
The Reimers find the farming lifestyle and flexibility fulfilling. Allen’s children and their spouses take a keen interest in the farm, something that Allen takes great pride in. Merv’s children all have successful careers off the farm.

Challenges Nonetheless
The extreme volatility of the hog market and in particular the recent downturn in the hog industry has dampened the Reimers’ dream to expand the hog operation. As Allen sees it, “Some of the current regulations are causing hardships for producers. We have no control over the end price of the product that we produce”.

Hope Springs Eternal
Challenges notwithstanding, the Reimer brothers are comforted knowing that the younger generation will take over the business. They are “cautiously optimistic” about the future of hog production and hope that the industry turns around and becomes profitable again.

Farm Profile:
Oak Lee Farms, Steinbach, Manitoba
Number of Sows: 625 (farrow to finish)
Pigs marketed/year: 11,000
Turkey Quota: 300,000 kgs
Chicken Quota: 31,000 kgs
Total Farm Size: 1,350 acres
Service Centres: Landmark Nutrition and Landmark Feeds Winnipeg