



Dairy Ingredients in Swine Feed.... a Few Facts - September 2015

A very significant portion of dried dairy permeate is used in swine feeds in the US and throughout the world. The dairy permeate is used only in the first dry feed (starter feed) that the baby pig consumes following weaning. Modern hog production facilities all over the world are weaning the baby pigs at a very young age. Many are weaning at approximately three weeks of age. The young pig that is weaned at this early age must have a source of lactose in the first dry feed. The baby pig's enzyme system is not yet geared up to digest the carbohydrate starch but is fully capable of digesting lactose. A baby pig will consume about 2.5 pounds of dried dairy permeate in its lifetime.

Here are some facts about pork production:

Pig Populations in Selected Countries	
Pig inventories (X 1,00 head), 2014 data.	
China	475,110
EU	145,400
US	66,025
Brazil	38,844
Vietnam	33,000
Russia	19,186
Canada	12,745
Korea, So.	9,912
Mexico	9,876
Japan	9,600
Ukraine	7,890
Belarus	3,300

Largest US Swine Integrators:		
Smithfield Foods/WH Group	Smithfield, VA	887,000 sows
Triumph Foods	St. Joseph, MO	407,500
The Maschhoffs	Carlyle, IL	218,000
Seaboard Foods	Shawnee Mission, KS	217,000
Pipestone Systems	Pipestone, MN	170,000
Prestage Farms	Clinton, NC	170,000
Iowa Select Farms	Iowa Falls, IA	165,000
Cargill	Minneapolis, MN	161,000
AMVC Management Service	Audubon, IA	110,000

The reproductive cycle of the sow.

The gestation period of the sow is approximately 114 days. An easy way to remember this is “three months, three weeks and three days”.

Today most pigs are weaned at approximately 21 days of age. **Pigs cannot be successfully weaned at this young age without a source of lactose in the starter feeds.**

After weaning the pigs will be fed starter diets for approximately 21 days. They will consume approximately 17.5 pounds of feed in the starter phase. The pigs **will consume approximately 2.0 pounds of lactose (from 2.5 pounds of permeate) in starter phase.**

Following the starter phase the pig will be fed grower and finisher rations that contain no dairy ingredients. The sow will be re-bred about a week after weaning and the cycle will start over again. Today, well run swine operations in the US sows will produce approximately 24 pigs per year

Let's look at some numbers:

1,000 sows X 24 pigs/sow/year X 2.5 lbs. = 60,000 lbs.

So when you read about a 1,000 sow operation, think about 30 tons of dried dairy permeate.

There is great potential for increased dairy permeate use in swine feeds in Asia. Pork producers in that region are using much lower inclusion rates of lactose sources in their pig starter feeds.

Contributor:

Dr. Jim Sullivan

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