

What is Rovimix® Carnichrome™?

Rovimix Carnichrome™ is a patent protected combination of Carniking™ brand L-carnitine and Chromium Picolinate for use in swine diets. These specialty feed ingredients are most commonly used to improve sow performance but can also be included in diets fed in other phases of swine production to improve pig growth and/or carcass characteristics. Carnichrome™ can be included as part of a premix or as a separate ingredient in swine diets and is exclusively available from DSM Nutritional Products.

The Technology behind It

L-carnitine is a nutrient essential for the metabolism of fatty acids. Added L-carnitine increases the number of pigs born alive and improves growth and muscle development of the offspring. Sows fed L-carnitine use feed more efficiently, show increased weight gain, and farrow heavier pigs with fewer stillborns.

Chromium Picolinate is a trace mineral that is actively involved in the metabolism of carbohydrates, lipids, proteins, and nucleic acids in the body. Chromium improves glucose tolerance by increasing the cellular uptake of glucose and influencing intracellular carbohydrate metabolism by potentiating the effects of insulin. Providing sows diets with chromium picolinate has improved farrowing rates and in some trials results in more pigs born alive.

How does Carnichrome™ improve sow performance?

Carnitine and Chromium influence two separate energy metabolic pathways and feeding in combination will provide the greatest improvement on energy utilization of sows. This is important because enhanced energy status will positively impact all phases of sow performance and metabolism as well as reduce total feed requirement.

Sows fed Carnichrome™ exhibit improved glucose tolerance due to the chromium.

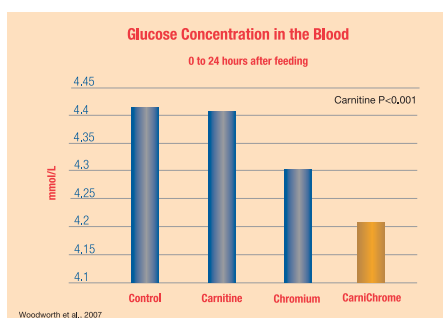


Figure 1: Glucose Levels in Sow Serum

Sows fed Carnichrome™ exhibited improved fatty acid utilization from the carnitine component of blend.

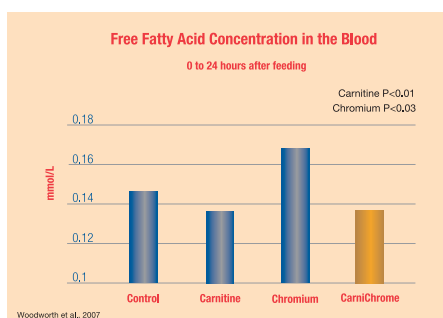


Figure 2: Free Fatty Acids in Sow Serum

The greatest improvement in overall energy utilization occurred when sows were fed Carnichrome™. This valuable technology is why producers have come to depend on Carnichrome™ as an important part of their swine nutrition program.

Practical Experience with Carnichrome™

Research trials are an investment in helping you discover alternative methods to improve sow productivity. In determining the overall impact of using Carnichrome™ in your commercial swine operations, the study compared the influence of L-carnitine and chromium picolinate on sows' long-term performance and found that they elicit an additive benefit on sow productivity. The study observed that farrowing rate was greatest when both L-carnitine and chromium picolinate together are fed to the sows. Consequently, more sows completed two parities when fed Carnichrome™ compared to the other treatments. The greatest improvement in reproductive performance occurred when Carnichrome™ was fed to sows.

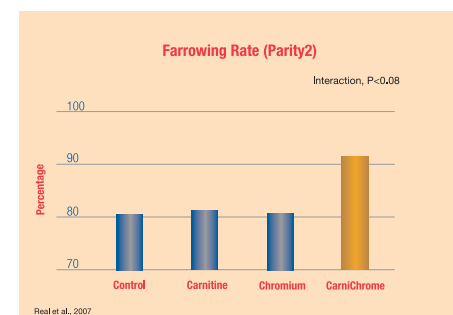


Figure 3: Farrowing Rate in Parity 2

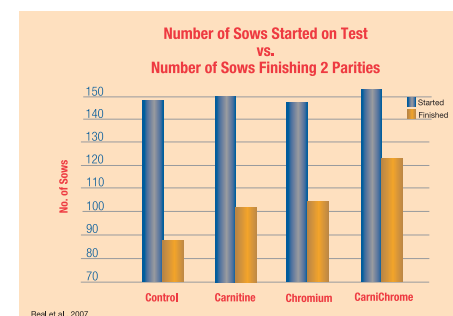


Figure 4: Number of Sows Started and Finishing 2 Parities

Rovimix® Carnichrome™

Optimize economic performance
of your sows



How much Rovimix® Carnichrome™ should be included in swine diets?

Carnichrome™ can be included as part of a premix or as a separate ingredient in swine diets and is exclusively available from DSM Nutritional Products. Carnichrome™ contains a minimum of 50% L-carnitine and 0.2% Chromium in a free flowing crystalline powder form. Final levels in complete feeds are presented in the following table.

Table1. Mixing Directions and Nutrient Levels in Final Feeds

Rovimix CarniChrome™	Inclusion Rate	Nutrient Levels in Complete Feed	
		0.2 pounds/ton	Carnitine
		Chromium	200 ppb

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