



Diet formulation (fiber, rumen ecology)
 Feeding strategy (mixing, sorting, particle size)
 Fat supplementation

MILK FAT
ENERGY balance: body condition
Herd Health (reproduction)

intermediates of bio-hydrogenation out of the rumen that subsequently reduce milk fat synthesis in the mammary gland. Low milk fat tests typically occur as a result of several concurrent diet or management factors rather than as a result of a single factor.

SUPPLEMENTING PALM FAT

There is a wide range of FA supplements available for lactating dairy cattle. For example, Ca-salts of free FA and prilled saturated free FA are two common types of supplements used in the dairy industry and they differ in FA content and saturation. Ca-salt supplements typically contain 80-85% FA and these comprise approximately 50% saturated and 50% unsaturated FA. By comparison prilled saturated free FA contain approximately 99% FA which are approximately 90% saturated, 10% unsaturated.

A series of studies using the specific FA palmitic, oleic, and stearic acids suggest that palmitic acid (palm fat) supplementation induces a higher milk fat response (concentration and yield) as compared to oleic and stearic acids supplementation.

Apparently the uptake efficiency of the mammary gland, as well as the conversion of feed to milk is higher for the palmitic acid than for oleic and stearic acids. The effect of stearic acid is more related to the energy balance in the cow; it increases intake and the yields of milk and milk components, more evident in high producing cows.

Furthermore, there is an interaction with the type of diet fed. The supplementation with Ca-salts of palm FA distillate and palm oil at the same concentrate to

forage ratio (40:60) increased the energy partitioned for milk and milk fat when the cows were fed a more lipogenic diet compared to the cows fed a glucogenic diet. The energy mobilized from body fat tended to be higher in cows fed the lipogenic diet (decrease of body condition).

In 133 research studies, FA supplementation as 3% of the diet dry matter has been shown to increase milk yield, milk fat yield, and the efficiency of milk production.

10% OFF
HYPER PRO
 (source of Palm Fat)
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DAIRY UPDATE is published in the interest of helping dairy producers become more profitable. We welcome your comments.

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