

# TECHNICAL BULLETIN

## DAIRY



### QLF LIQUID SUPPLEMENTS COMPLEMENT THE FEEDING OF WHEY TO DAIRY COWS

**Summary:** Liquid whey and condensed whey from cheese manufacturing plants are being fed on dairy farms as a source of energy and to add moisture to the ration. One assumption is that if a dairy farm is feeding whey, then they will not benefit from feeding a QLF liquid supplement. This assumption is not correct because whey and QLF liquid supplements complement each other. When we compare and contrast the impact of liquid whey and QLF liquid supplements we find that both liquids aid in reducing sorting and improve palatability (table 1.). Only molasses based liquid supplements consistently improves fiber digestibility and performance (table 1.)

**Table 1. Why Use Liquids in Dairy Cattle Diets: A Comparison of the Impact of Liquid Whey and QLF Supplements**

Reason to Use Liquids in the Dairy Cow Diet	QLF Supplement	Liquid or Condensed Whey
Improve Palatability of the Ration	Yes	Yes
Reduce Ration Sorting	Yes	Yes
Reduce Shrink and Dust in Batch Mixes	Yes	Yes
Help Extend Feed Bunk Life by Reducing Heating	Yes	No
To Deliver Feed Additives and Minerals and Vitamins	Yes	No
Increased Dry Matter Intake in Lactating Cows	Yes	No
Increased FCM or Energy -Corrected- Milk	Yes	No
Increased Milk Fat Percent	Yes	Sometimes
Increased Milk Fat Yield, lb/day	Yes	No
Increased Milk Protein Yield, lb/day	Sometimes	No
Decreased MUN Percent	Yes	Yes
Typical Rumen Fermentation VFA's	Acetate, Butyrate	Butyrate
Improved Fiber Digestion	Yes	No
As an Energy Source to Replace Corn	Yes	Yes
Help Maintain Dry Matter Intake During Hot Weather	Yes	No

*Continued...*

QLF liquid supplements complement liquid whey because the sugars (sucrose and glucose) in molasses stimulate digestion and grow more rumen bugs. This leads to greater feed efficiency. Lactose, the sugar in whey, is converted to butyrate in the rumen and butyrate is used as an energy source by the cow. Lactose is digested faster than corn so you will see a reduction in MUN when feeding whey. You will get similar milk production when whey replaces corn in the diet. The net result from feeding whey will be an improvement in nitrogen efficiency. When molasses or molasses based liquid supplements replaced corn in the diet, the average increase in dry matter intake was 2.4 pounds, the average increase in FCM was 4.7 pounds and the average increase in milk fat yield was 0.18 pounds per day. The net effect was an increase in IOFC and milk margin. **Bottom-Line:** whey replaces the energy from corn but QLF liquid supplements stimulate rumen digestion and increase milk income.