

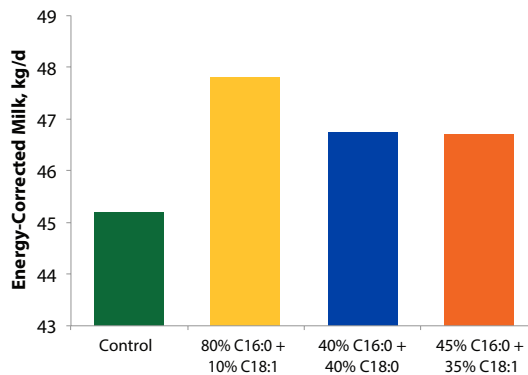
**SPECTRUM Fusion** is the next generation of fatty acid supplements for high producing dairy cattle. There are aspects of this fatty acid product beyond fatty acid profile that contribute to its potential to serve as a high impact feed ingredient in dairy diets.

**Feeding Directions:** Feed at 1.5% of dry matter intake to high producing dairy cattle, or according to the recommendations of an animal nutritionist. Do not exceed 3% of total dry matter intake.

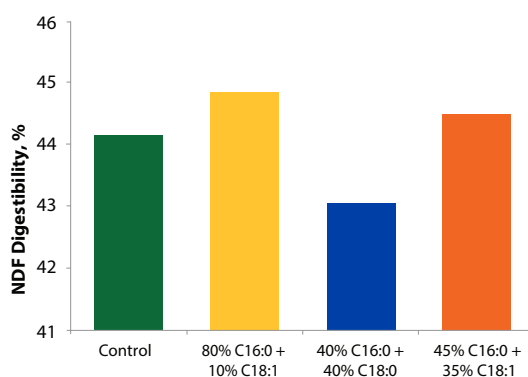
Standard Analysis	% DM
Dry Matter	98

Fatty Acids	% DM	%TFA
Ether Extract	97	—
Total Fatty Acids	99	—
Calcium	1	—
C16:0	80.0	81.6
C18:0	5.0	5.1
C18:1 cis	10.0	10.2
Other	3.0	3.1

**Figure 1**



**Figure 2**



**Fatty acid digestibility** of palmitic acid (C16:0) supplements are greater than that of stearic acid (C18:0) supplements with increasing supplementation rate (Boerman et al., 2017, JDS 100:2729-2738; Rico et al., 2017, JAS 95:434-446). This study determined the ideal supplementation rate to be 1.5% DMI.

**Providing the optimal fatty acid combination increases energy corrected milk (Figure 1).** The effects of different dietary ratios of fatty acids in a supplemental fat blend fed at 1.5% diet DM on energy corrected milk yield (de Souza et al., 2016, JDS 99:E620). **Supplementation of C16:0 increases milk production while C18:1 allocates energy towards body weight** (de Souza et al., 2016, JDS 99:E620). These two in combination should maximize energy allocation to milk production and help stabilize energy balance in the post-fresh cow.

The latest research highlights the benefit of specific fatty acid combinations that increase NDF digestibility allowing for more energy corrected milk production (Figure 2). A recent meta-analysis of C16:0 shows C16:0 increases NDF digestibility by 3 percentage units. (Lock and de Souza, 2017, TriState Dairy Nutrition Conference Proceedings, pg. 87-98) Instead of using raw fatty acid distillates or nonspecific fatty acid streams, **SPECTRUM Fusion** is formulated using enriched fatty acid streams with known fatty acid profiles.



SPECIFICATIONS