

# Rock River Laboratory Total Tract Fat Digestibility (TTFD) Benchmarks

Summarized by Jacob Karlen & Dr. John Goeser  
Rock River Laboratory, Inc.  
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**Executive summary:** Fecal fat content (ether extract, % of DM) is related to apparent total tract fat digestibility (TTFD) in dairy diets: **TTFD, % of fat = 90.5 - 6.54 x fecal fat (% DM)**. Results from over 2,500 fecal fat analyses associated with TMR apparent digestibility (TMRD) measures and over 15,000 additional fecal analyses were summarized here.

This TTFD model is appropriate for lactating dairy cattle diets containing greater than 3% total dietary fat (ether extract, % DM). Guidelines and benchmarks are as follows:

Total Tract Fat Digestibility, % of Fat - Benchmarks & Guidelines*		
Goal	Average	Minimum
74.7%	67.5%	60.7%

Fecal fat, % DM		
Goal	Average	Minimum
2.41% of DM	3.52% of DM	4.56% of DM

**Economic implications:** Achieving optimal TTFD likely equates to a roughly \$0.14 to \$0.27 per head economic impact relative to average or minimum scenarios, respectively.

These economic impact estimates are attributable to undigested fat and assumed wasted feed costs. These estimates were calculated assuming:

- 56 lb dry matter intake and 4.5% dietary fat level
- Goal vs Average or Goal vs Minimum scenario
- \$1500/ton for supplemental fat

*\*Note: Goals correspond to the top 15th percentile and the minimum corresponds to the bottom 15th percentile.*

## References:

Diepersloot, E.C., M. Pupo, L. Ferraretto, and J. Goeser. 2024. Univ. Wisconsin - Madison.