

FATTY ACID PROFILING



The animal nutrition industry is continually learning and growing in fatty acid nutrition, driven by the complexities of fat and its role within rations and subsequent performance. Rock River Laboratory is dedicated to providing definitive analysis and results that parallel this progress.

Your fatty acid profile (FAP) is an accurate representation of your feedstuff's fat structure. Analysis results that drive sound decisions is our promise. By closely mimicking Penn State University's procedures and utilizing reference chemistry from Michigan State University - two leading authorities within the fatty acid sector - we reinforce that commitment. Confidence is knowing your FAP is backed by Rock River Laboratory.

Fatty Acid Profile Offerings:

NIR (6 fatty acids quantified)

- Applicable for commodities
- Total fatty acid reported as a percentage of dry matter
- Add-on to commodity NIR package
- Method: Near Infrared Spectroscopy

Wet Chemistry (15 fatty acids quantified)

- Applicable for commodities, forages, and TMRs
- Add-on to moisture protein package
- Method: FAME (Fatty Acid Methyl Ester) analysis by GC FID (Gas Chromatography Flame Ionization Detection)

Users will receive the following breakdown of total fat content:

| 6 NIR Fatty Acid + Total Fatty Acid | |
|-------------------------------------|----------------|
| C14:0 | Myristic Acid |
| C16:0 | Palmitic Acid |
| C18:0 | Stearic Acid |
| C18:1 | Oleic Acid |
| C18:2 | Linoleic Acid |
| C18:3 | Linolenic Acid |

| 15 Wet Chemistry Fatty Acid + Total Fatty Acid | | | |
|--|--------------------|-------|----------------------|
| C12:0 | Lauric Acid | C18:1 | Oleic Acid |
| C14:0 | Myristic Acid | C18:1 | Vaccenic Acid |
| C16:0 | Palmitic Acid | C18:2 | Linoleic Acid |
| C16:1T | Palmitelaidic Acid | C18:3 | Linolenic Acid |
| C16:1 | Palmitoleic Acid | C18:3 | Alpha-Linolenic acid |
| C17:0 | Margaric Acid | C22:0 | Behenic Acid |
| C18:0 | Stearic Acid | C24:0 | Lignoceric acid |
| C18:1T | Elaidic Acid | | |