



FATTY ACID PROFILE TESTING: INTERPRETING RESULTS

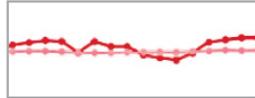
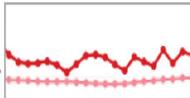
Results should be compared to your farm's test results over time and a comparable herd's average. The elements presented here are simplified solutions. Since each farm is unique, ELS strongly recommends consulting with a nutritionist and/or veterinarian to interpret results and evaluate the economic impact of each change applied. For additional information and resources visit <https://bit.ly/3FBeQaS>.

De novo fatty acids (indicator of rumen health)

Maximizing de novo fatty acids maximizes butterfat and true protein. This fatty acid group should be evaluated first and is the most important to monitor.

- **High:** The rumen is healthy, but is your ration too safe or could your cows produce more?
- **Average:** Could your cows make more fat or milk?
- **Low:** Is the rumen functioning well? Are your cows consuming enough or is there a risk of ruminal acidosis? Confirm low de novo with polyunsaturated fatty acid and milk urea nitrogen values. Look at feeding frequency, stocking density and physically effective fiber. (See back for details)

LEGEND
Dark Curve – Your herd
Light curve – The average
*Fatty acids are shown in Milk Base

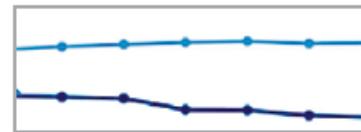
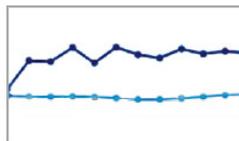


Mixed fatty acids (indicator of rumen health or fat in ration)

Mixed fatty acids tend to follow either de novo or preformed. The interpretation is similar to these two groups.

- **High:** The rumen is healthy, but is your ration too safe or could your cows produce more? (This is normal if palm oil derivatives are added to the ration or the herd contains cows of several breeds)
- **Low:** Is the rumen functioning well? Are your cows consuming enough or is there a risk of ruminal acidosis?

LEGEND
Dark Curve – Your herd
Light curve – The average
*Fatty acids are shown in Milk Base

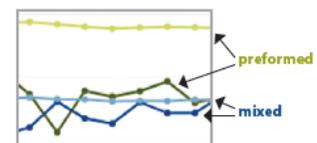
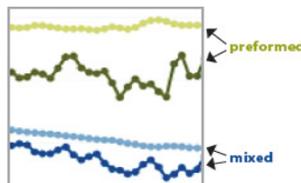
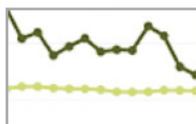


Preformed fatty acids (indicator of fat intake from ration and body mobilization)

This fatty acid group can be influenced by fatty acid supplementation.

- **High:** There may be an excess of fat in the ration or an important mobilization of body reserves. (This is normal in cows consuming a large proportion of grass or grass silage)
- **Slightly low:** Revalidate with de novo values, often seen in herds with high corn silage rations
- **Very low (close to the mixed average):** Cows appear to lack fatty acids in their diet. Validate the total intake and type of feed provided

LEGEND
Dark Curve – Your herd
Light curve – The average
*Fatty acids are shown in Milk Base



Source: Lactanet PROFILab fact sheet and potential solutions, November 2021

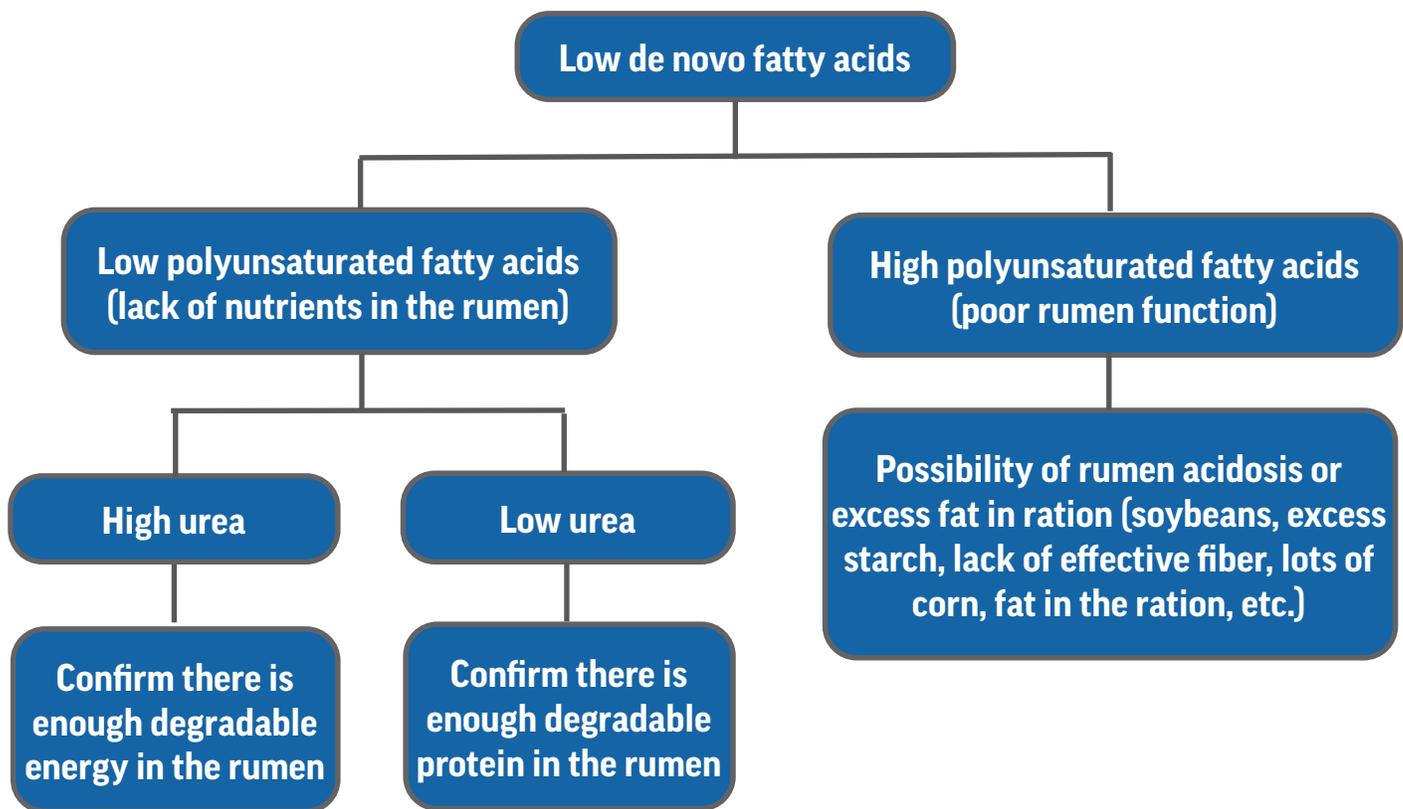


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If de novo fatty acids (an indicator of rumen health) are low, dig deeper into potential causes by testing polyunsaturated fatty acids and milk urea nitrogen levels and utilizing the chart below. If de novo fatty acids are high, the level of polyunsaturated fatty acids are usually not critical for ruminal health.

Polyunsaturated fatty acids (ruminal biohydrogenation)

All polyunsaturated fatty acids are preformed fatty acids. An increase in polyunsaturated fatty acids reflects an increase in the ingestion of polyunsaturated fatty acids or an issue with biohydrogenation. Grazing herds will have high polyunsaturated fatty acids due to the high intake from the grass consumed.



Source: Lactanet PROFILab fact sheet and potential solutions, November 2021

