PROFILab on Barjo Farm: 45 kg/day of milk and higher than average de novo fatty acids

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« It is normal that my *de* novo fatty acids are below average, my cows produce 42-45 kg of milk per day ». This is a rumour that we hear often in the field, but analysis of the herds in the database has proven that this is a myth.

Some mistakenly believe that high production levels could create a dilution effect, causing the *de novo* fatty acids to be lower than the provincial average. While it is true that the *de* novo average for high-performance herds is slightly lower than the Quebec average (0.04 g/100g of milk to be precise), around 30% of our herds that produce more than 41 kg/cow/day of milk have above average *de novo* fatty acids. The Barjo farm in Charlevoix is among these high performing herds. Let's take a closer look at this farm:

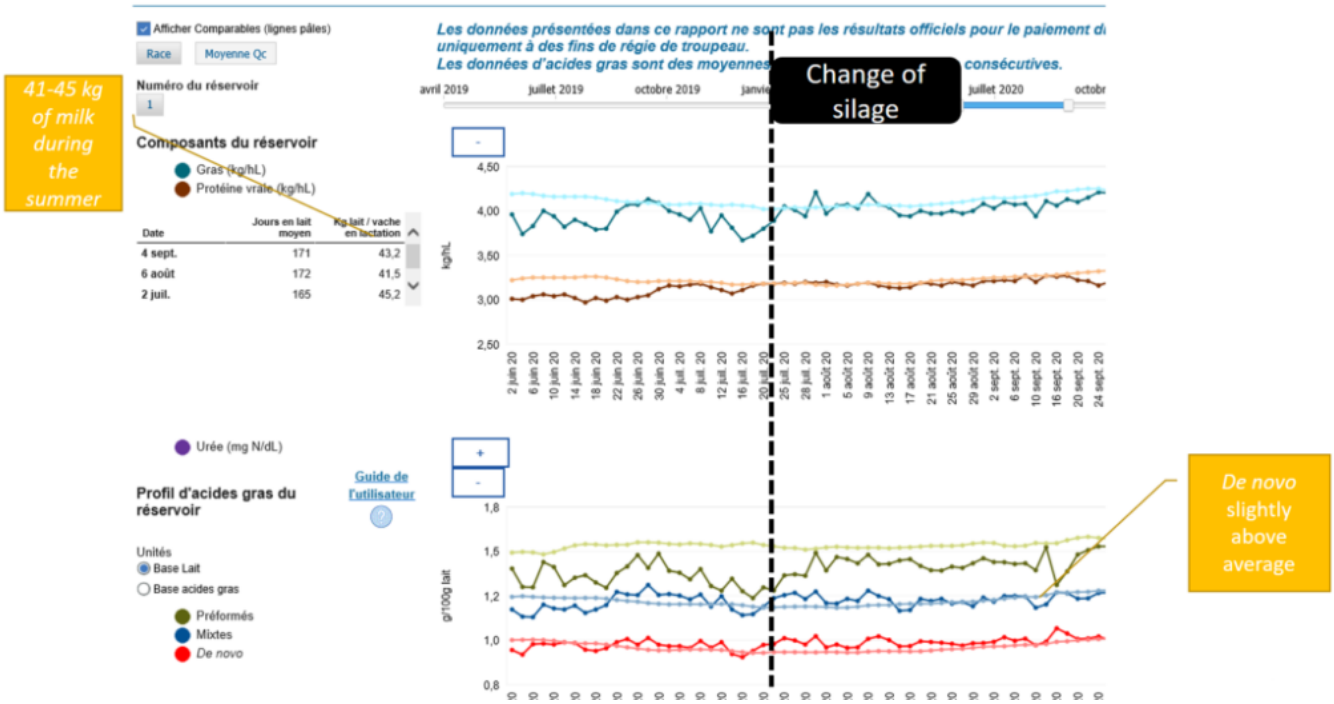
Barjo Farm

- 45 cows in milk, almost half of which are 3rd lactation or +
- Tie stall housing
- Production: 13,313 kg
- 3 milkings per day
- Calving interval: 379 days
- Partially mixed ration composed of:
    - 18 kg grass silage

    - 8 kg ground corn
    - 1.7 kg soybean meal
    - 450 g minerals
- Feeding is also individually completed with corn, soybeans and minerals, and inert fat added for the cows at peak production.

The farm's PROFILab report (Figure 1) demonstrates that the *de novo* fatty acids stayed at the average level all summer long, despite production levels of between 41 and 45 kg/cow/day. The major components (fat and protein) are also stayed at the provincial level, with only a minor adjustment after a change in silage at the end of July. The secret lies in a good, well-balanced feeding and optimal management.

FIGURE 1: Fatty Acid Profile for Farm Barjo Inc.



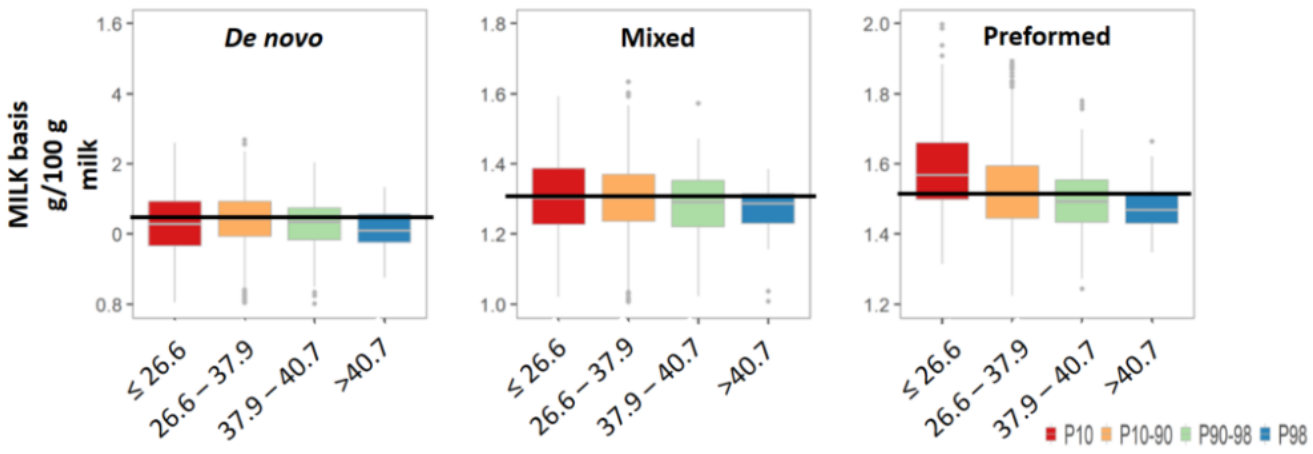
Fatty Acid Profile in High-performance Herds

In Figure 2, the herds were sorted according to the volume of milk

produced (kg/cow/day). The high-performing herds (blue block) represent the 200 highest performing herds in our database that produced 41 kg of milk/cow/day or more over the past year. The herds with the lowest performance (red blocks) fell in the bottom 10% for production, producing 27 kg/cow/day or less. The majority (80%) of our herds are found in the yellow block, between 27 and 38 kg/cow/day. The table at the bottom of the illustration indicates the deviation from the Quebec average (yellow) for each of the categories.

By comparing the fatty acid profiles according to the categories, we can see that the milk from the high performing herds (blue) have an average concentration of *de novo* fatty acids that is slightly below average with a difference of 0.04 g/100g of milk, or 0.04 units of the fat test. Nevertheless, it is important to remember that the colored block only includes 50% of the herds in this category. There is a large variation per category with 25% of herds being above the block, and 25% below.

FIGURE 2 : Comparables for herds that make a lot of milk



As Compared to an Average Herd (27-38 kg of milk/cow/day)…

	de novo	Mixed	Preformed

≤ 27 kg/cow/day	-0.02	—	+0.08
38-41 kg/cow/day	-0.02	-0.02	-0.02
≥ 41 kg/cow/day	-0.04	-0.04	-0.02

It is also interesting to note that almost 30% of these high-performing herds have *de novo* levels that are above the Quebec average, even though the herd produces much more milk than the provincial average. What do these herds do to maintain an above average *de* novo fatty acid profile? That is exactly what we are trying to find out with a project that is underway on 100 farms.

Do not hesitate to contact your Lactanet advisor or write us at profilab@lactanet.ca for more information.

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