

10 ways to get more milk from homegrown forages

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All dairy producers share this goal: Get more milk out of a homegrown forage and spend less on purchased feeds. To improve milk production from homegrown forages, the emphasis needs to go on the main forage – whatever that is. For example, if we are feeding primarily corn silage and only a small amount of haylage, much greater emphasis should be placed on managing the corn silage. We then need to focus on what nutrient in that forage is most influential on milk production.

When it comes to forages, many factors – such as weather, soil depth and rainfall - are out of our hands. Here are 10 things we can do to improve forage quality and, hopefully, the milk production that comes from these feeds.

- 1. Start with the right hybrid or variety:** BMR corn often is 10 to 15 percentage units higher in fiber digestibility versus conventional corn silages; most other management practices will not yield that kind of improvement. Newer corn silage varieties boast improvements in starch digestibility as well. Work with an agronomist to find the right balance of forage digestibility and yield per acre.
- 2. Cut at the right maturity:** There is a trade-off between yield and quality. Taking alfalfa scissor clippings and checking corn silage dry matter (DM) can help fine-tune digestibility and ideal forage quality.
- 3. High-cut corn silage:** This is a double-edged sword. It results in a feed with a higher proportion of starch and more digestible fiber, but it also reduces the amount of true forage in inventory. High-cutting should be considered with caution because feeding high amounts of well-fermented, high-grain corn silage may have negative effects on milkfat production.
- 4. Retain leaves:** When leaves are protected, the highly digestible fiber of the plant is protected too. In alfalfa, this means harvesting at the right DM to minimize leaf shatter. In corn silage, this could mean the use of fungicides to prevent leaf diseases.
- 5. Minimize ash:** Ash is completely indigestible and can be detrimental to gut health and functionality. Strategies to minimize ash in alfalfa include raising the cutter bar, keeping the windrow off the ground, and using flat knives on the disc mower.
- 6. Process well:** Good processing of the corn kernel means breaking it into at least four separate pieces. A good, unofficial rule of thumb for a corn silage processing score (CSPS) goal is to multiply the corn silage DM by 2 and subtract 5. For example, if the DM of the corn silage is 32%, the goal is 59% ($32 \times 2 - 5$). Note that drier corn silages will require a higher CSPS.
- 7. Use an inoculant that improves milk production:** Ask for published, unbiased, peer-reviewed research where inoculated silages were fed to cows in a controlled setting. Look for a substantial improvement in milk production (at least 2 pounds). This improvement is usually due to better fiber or protein digestibility of the forage.
- 8. Allow for adequate storage time:** Ideally, corn silage should sit in the silo untouched for at least three months before feeding to get the most milk per ton. This makes starch more available to rumen micro-organisms.
- 9. Minimize spoilage:** Any management practices that minimize spoilage (covering promptly, packing well, feeding at a daily rate of at least 12 inches in the summer and 6 inches in the winter) will improve digestibility and support cow health.
- 10. Keep a healthy rumen:** If the rumen pH gets too low, fiber-digesting micro-organisms can die. When that happens, it doesn't matter what the potential digestibility of a forage is because a cow won't be able to get any of the nutrients.

Bonus tip: Do not fall for gimmicks or quick solutions. If it seems too good to be true, it probably is. At the end of the day, there is no replacement for keeping cows healthy and good management practices.

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