

Feed Management Software.....What We Have Learned - Part 3

Feed Efficiency Ratios

by Keith Sather

Keith Sather is President of K.S. Dairy Consulting, Inc., and Feed Supervisor® Software in Dresser, Wis. He serves as a nutritionist for dairies in northwestern Wisconsin and eastern Minnesota. He developed Feed Supervisor®, which helps dairies around the country manage their feeding programs.

Feed efficiency ratios offer you a convenient way to quickly monitor the performance of your ration. The ratio demonstrates how well the milking herd is turning the feed that they eat into milk. To determine feed efficiency ratio, Feed Supervisor® takes the milk per cow average for the herd or group and divides it by the average dry matter intake of those cows. The results will be numbers that generally range from 1.2 to 1.8 when evaluated on the entire milking herd. Groups of cows within the herd will vary on their ability to convert feed into milk. A group of early lactation cows will push the 1.8 mark, while late lactation cows may have a level as low as 1.2. The average dairy is generally 1.4 or 1.5 when feed efficiency ratios are evaluated on the entire milking herd. Dairies that are at 1.8 are doing an exceptional job, but numbers this high are rarely seen. If your herd is consistently running a 1.2, it is time to contact your nutritionist and reevaluate your feeding program.

There are several factors that affect feed efficiency ratios. These factors include forage quality and the NDF digestibility of the ration. Bunk management also comes into play, with a focus on ration sorting, keeping feed fresh and accessible to cows at the bunk.

During the spring and summer of 2002, we observed nine dairies spread across the Midwest and Northeast to monitor feed efficiency and how it is affected by summer heat.

What we saw was actually a slight improvement in feed efficiency ratios during the months of May, June and July. During the month of August, the ratio was equivalent to the cooler months of March and April. Graph 1 shows the average Feed Efficiency ratios for the nine dairies during the observation period.

While Feed Efficiency Ratios were maintained or actually improved during the summer, dry matter intake and milk production both dropped as demonstrated in graphs 2 and 3.

This data proves the importance of heat abatement systems and how the cost of improving your system can be justified. Since the cow's ability to digest feed does not drop during times of heat stress, any effort to maintain intakes will pay off in milk production.

Feed Efficiency Ratios can be a useful tool as you work to streamline and enhance your management capabilities. Since the number gives you a quick gauge of how well your ration is performing, it then provides you with a simple number to work with when setting goals for personnel who work within your feeding program. This includes employees who push up feed and clean spoiled feed from the tops of bunkers. Feed efficiency ratios provide you with a simple number that can be tracked, giving you and your labor force another efficient tool of measuring job performance.

Feed efficiency ratios demonstrate ration performance by combining milk production and dry matter intakes into one number. You can use this tool to monitor both ration and job performance.

For more information on Feed Supervisor® Software and the feed efficiency ratios, contact Keith Sather, K.S. Dairy Consulting & Feed Supervisor® Software President, or Barb Thiel, Technical Support Specialist, at 888/259-8949.

