

## Inducing Short Term Reductions in Milk Yield via Diet Modifications

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Because of the Covid-19 pandemic, milk is being dumped because of lack of processing capacity and reduced sales. One way to reduce milk supply is to cull a substantial number of cows. Another way is to feed for less milk (something I thought I would never write about). Milk yields drop very quickly when cows are fed protein deficient diets. With severely deficient diets (~12% CP), milk yield and milk protein yield decrease within a day. When fed less deficient diets (~14% CP), several days may be required before milk starts to decrease and the greatest decrease may take a few weeks to occur. As a compromise, if you need to reduce milk production, dietary protein to most groups of cows should be decreased to about 13 or 13.5% CP. The protein should not be replaced with energy feeds or cows can get too fat. Ideally, if you have adequate forage inventory, increase forage fiber and decrease dietary protein. Forage fiber can be increased by feeding more forage or by incorporating some lower quality forage into the diet. Reducing dietary protein from 16.5 to 13.5% in an average herd (80 lb/day of milk) is equal to feeding about 3 lb/day less soybean meal (48% CP). You may want to reduce high bypass protein sources first because of cost, and milk yield will likely decrease more than when only soybean meal is reduced in the diet. Some additional dietary changes may be needed (e.g., changes in forage inclusion rates) so a nutritionist should be consulted.

If you feed fresh cows separately, that diet should not be modified to reduce production because of the potential long-term effects (reduced peak and total lactation production). If fresh cows are not grouped separately but a large proportion of the cows in a group are in early lactation, make a less drastic reduction in dietary protein for this group than discussed above.

Based on limited research, milk production from cows post peak milk yield will return to near normal levels when dietary protein is returned to normal concentrations (i.e., no long-term effects). Over or under feeding energy results in either fat or thin cows, which can have long term production and health implications. This is one reason if you reduce protein to reduce milk, you also need to reduce energy intake by increasing the concentration of forage fiber in the diet.