

## Time Calving to Suit your Circumstances

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We started grazing our milking herd in 1994. Our farm fits the traditional northeast Iowa dairy model - 380 acres (mostly tillable), an 80-cow tie stall barn, two large silos, and other buildings for dry cows and heifers. The point here is that we do have the infrastructure for confinement dairying and the debt that goes along with building a dairy of this size.

We have experimented with concentrating calves in spring and fall groups. We have started compiling enough data to compare profitability of calving during the different months of the year. The accompanying graphs compare 157 actual 305-day milk records that have been completed on our farm. I am starting to see some trends that may apply to other conventional dairymen contemplating grazing. The numbers speak for themselves, but some explanation is necessary.

Our herd is fed in the winter much the same now as it was before grazing: corn silage, haylage, dry hay, ground shelled corn, protein supplements, vitamins, minerals and salt. Daily routine and housing for the milking string is also conventional. The cows are gradually switched to grass in the spring, starting as soon as the pastures start to dry out. When grass growth is sufficient, all supplemental forage feeding is finished until we have new corn silage in the fall. We average 5.5 months when the silos do not run, no dry hay is fed to the cows, and supplement concentrate feeding consists of 15 lb ground shelled corn, 4 lb whole cottonseed, minerals and salt. The whole cotton seed has been fed two of the last three summers and seems to benefit body condition and reproductive performance. No protein supplements are fed from April 20 - October 20.

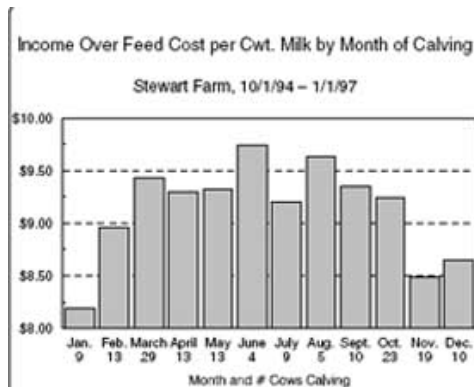


Figure 6. Income per cwt. milk over feed cost by calving month.

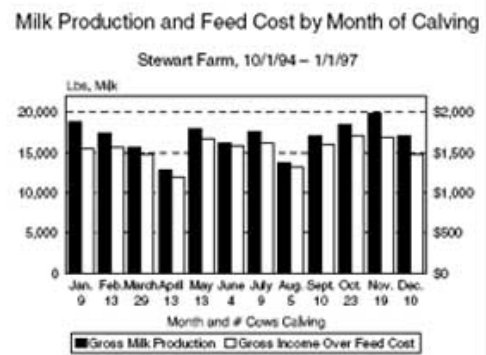


Figure 7. Milk production and feed cost by calving month.

March and April are the months we have calved most of our first-calf heifers. This large percentage of heifer records has lowered average milk production and gross income over feed costs for these months. I do think that the relationship between March and April calving is significant. I like to have the cows through their peak milk production before the hot weather.

I also would point out the general decline in production and gross income over feed cost between cows calving from May through August. Also note the decline in margin of profit per cwt. of milk as production levels climb (Figures 6 and 7). Four June calvers produced more income per cwt. over feed cost than nine January calvers that produced 2,600 lb more milk. Thirteen May-calving cows produced only \$20 less income over feed cost than 19 November-freshening cows that produced 2,000 lb more milk. Look at the differences between January and February production and profit.

What are the take-home messages for me in these numbers? First, in the Upper Midwest, month of calving probably needs to be driven more by personal preference than by gross income over feed costs per cow, assuming you already have the facilities to calve and milk cows in the winter months. We have found a reduction of total farm expenses from reduced labor, fuel, fertilizer, chemical, storage, veterinary, seed, and machinery replacement costs related to allowing the cow to harvest her own feed. Our challenge is to produce larger quantities of higher quality grass per acre. This allows us to produce more milk per acre by increasing our stocking rate. On a traditional Upper Midwestern dairy farm considering transition to a grass-based dairy, converting to seasonal calving will probably not increase profitability unless you are already a successful grass farmer and expanding beyond your present facilities.

The figures in these graphs definitely lead us to believe that there is much more potential for increased farm profit by increasing cow numbers on a fixed number of acres than by increasing milk production on a fixed number of cows. The key to becoming a successful grass-based dairyman is learning how to successfully grow more grass and turn that grass into more milk.