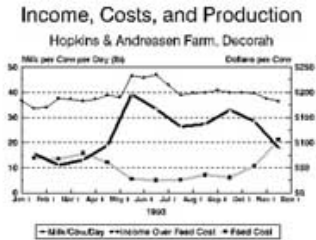


Grazing

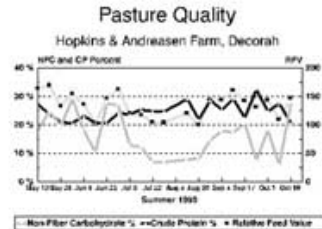
Figure 6. 1993 milk production, feed costs, and net return per-cow. Steve Hopkins and Sarah Andreasen, Decorah.
 Lowest line: non-fiber carbohydrates, Black line: crude protein, Top line: relative feed value.



PFI cooperators are working with support from the Leopold Center for Sustainable Agriculture to document the economics of management-intensive-grazing, using the Beef Cow Business Record. Those results will become available later in the project. The Leopold Center and PFI Sustainable Projects also sponsored PFI members **Steve Hopkins and Sarah Andreasen**, Decorah, to document their dairy grazing system.

In 1993, the couple milked 16 Jersey cows and 2 Ayrshires on 20 acres of steep pasture divided into approximately 30 paddocks. They recorded not only costs and production (Figure 6), but also the growth and quality of forage over the summer (Figure 7). At the field day August 3, Steve described how weekly forage analysis was teaching them things they could not learn by just watching the paddocks. While forage protein content had remained high, an energy component of the grass - nonfiber carbohydrate (NFC) - had steadily declined over the summer. This explained the drop in production they had experienced, and it allowed them to remedy the deficit with supplemental feed.

Figure 7. Pasture forage quality in 1993 on the farm of Steve Hopkins and Sarah Andreasen, Decorah.
 Lowest line: non-fiber carbohydrates, Black line: crude protein, Top line: relative feed value.



Steve and Sarah and their neighbors will be watching to see if forage quality and quantity hold up next summer, in the second year of the study. In a drier summer, NFC is not likely to be as much of a problem as in 1993. Steve's goal is to rely as much as possible on pasture and to avoid investments in row cropping or ensiling equipment. The couple has dried out the milking cows for the winter and will resume milking next spring.