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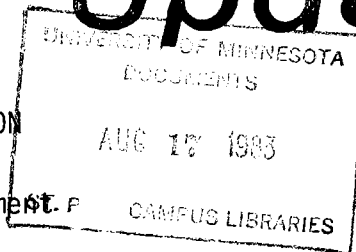
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Dairy Update

UPDATE ON PROPOSED DAIRY LEGISLATION

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Note: The new "milk pricing" proposal that is working its way through Congress has already been sent you by Paul Hasbargen. In his last release on this subject (June 29) he indicated I had done some computer calculations and pencil pushing to develop a base for recommendations. This material was presented recently to a group of dairymen in Goodhue County, and Dick Walters suggested I send it to all County Agents. The presentation, in outline form, follows:

Common Title: Dairy P.I.K. Program

Program Characteristics:

1. Duration - Oct. 1, 1983 to Dec. 31, 1984
2. Finances - A \$10.00/cwt. diversion program paid on 5 to 30% of the base milk not sold.
3. Base period - Either Oct. 1, 1981 to Sept. 30, 1982 (1 year), or Oct. 1, 1980 to Sept. 30, 1982 (2 years), whichever is more favorable to the producer.
4. Change in Support Price - Oct. 1, 1983 - Reduced from \$13.10 to \$12.60, plus a 50¢ self-help fee (tax), plus a 15¢ mandatory promotion fee, causing the effective price = \$11.95/cwt.
5. Support Price on Jan. 1, 1985 - Both the paid diversion program and 50¢ fee would end. The Secretary of Agriculture would set the price according to projected CCC purchases in 1985 as follows:
 - a) If projected surplus exceeds 6 billion pounds, the support price would be \$12.10.
 - b) If the projected surplus is under 6 billion pounds, the support price would be \$12.60.
6. Support Price on July 1, 1985 - If projected CCC purchases in the next 12-month period exceed 5 billion pounds, the support price would be reduced to \$11.60.

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Current information available from University of Minnesota Extension: <http://www.extension.umn.edu>

Effect on Individual Producers: In order to establish a typical situation, I made the following assumptions:

1. A 100-cow herd consisting of 68% 2nd and later lactation cows and 32% 1st calf heifers.
2. That seasonal freshening followed the national pattern, namely: 30.6% in July, August and September; 31.6% in October, November and December; 22.0% in January, February and March; and 15.8% in April, May and June.
3. That base level of milk production was 15,000 lb./cow/yr., and that production of animals remaining after initial culling would approach 16,000 lb. level.
4. To achieve a 30% reduction in base production, I've assumed that at least 36% of the cows would have to be culled (or the milk produced used for other purposes). There are two reasons for this assumption: (a) culling poorer producers, and (b) increased production per cow or addition of more cows since the end of the base period.
5. Even though problem cows are culled initially, there will be some "mandatory culling" (the cows eliminate themselves) later in the year. I've assumed these will be randomly selected (average) cows and that 4% will be culled each quarter (16% annually).
6. Further, I've assumed the "availability of heifer replacements" will vary considerably, ranging from a high of 42% annually in well-managed herds to only 30% in the below-average herd or herd that happened to have an unusually low heifer:bull ratio the previous two years.

Resulting Herd Size: With a 36% initial cull rate and a 16% annual "mandatory" cull rate, the number of cows in the herd at varying periods of time depending on number of available heifer replacements are shown in Table 1:

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Table 1. Predicted Herd Size.

	With Heifer Replacement Rate of:	
	42%	30%
Initial herd size, No.	100	100
After 3 months	65	63
After 12 months	86	78
After 15 months	94	81

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Projected Decrease in Milk Produced: Based on the projected herd size shown above, and accounting for variation due to stage of lactation (because of the multiplying effect of two high production periods - Oct., Nov., and Dec.), the reduction in total milk produced will not be the expected 30%, but rather only 17½% with a 42% heifer replacement rate or 27½% with a 30% heifer replacement rate.

The effect of "heifer replacement availability" to achieve different levels of reduced milk production, using the assumptions described previously, are shown in Table 2.

Table 2. Reduced Herd Milk Production Depends on Number of Replacements Available.

Milk Production to be Reduced:	Herd Replacement Availability is:	No of Cows To Be Culled:
30%	50%	NOT FEASIBLE
	40%	55%
	30%	40%
	20%	30%
20%	50%	NOT FEASIBLE
	40%	38%
	30%	26%
	20%	21%
10%	50%	35%
	40%	20%
	30%	13%
	20%	10%

Financial Long Range Budgeting: Several different budgets were proposed, using many of the different alternatives already developed. Only the calculated "Net Cash Farm Income" estimates are shown. The percent change is the expected 1984 results, divided by the expected 1983 results with the only change instituted being the price received for milk. Alternative 1 is when there is no change (dairyman elects to ignore the program). Alternate 2 is when Mr. Dairyman signs up for a 30% reduction in milk production, and Alternative 3 is for a 17.5% reduction in milk produced.

Example 1: 50-cow, high production (15,000 to 16,000 lb.) herd, with 34% initial cull rate and different heifer replacement availability rates.

	Alternative		
	1	2	3
% Reduction, Signup	0	30	17.5
Initial Cull Rate, %	0	34	34
Heifer Replacement Rate, %	35	16	42
Net Cash Farm Income (\$42,855 expected in 1983)	\$38,730	\$53,082	\$49,569
% change	-10%	+24%	+16%

Example 2. 50-cow, low production (11,000 to 12,000 lb.) herd, with 34% initial cull rate and different heifer replacement availability rates.

	Alternative		
	1	2	3
% Reduction, Signup	0	30	17.5
Initial Cull Rate, %	0	34	34
Heifer Replacement Rate, %	35	16	42
Net Cash Farm Income (\$22,284 expected in 1983)	\$19,259	\$32,700	\$30,027
% change	-14%	+47%	+35%

Multiple Year Effects: When heifer replacement rates are low, it is expected to be easier to achieve the desired level of reduced milk production (i.e., 30%) but much more difficult to re-establish cow numbers and maintain cash flow when the program ends on Jan. 1, 1985. To demonstrate this, we did a FINLRB in which: Alternative 1 is no change, Alternative 2 are the expected results in 1984, and Alternative 3 are the expected results in 1985. In this case, I've assumed that some of the available heifer replacements would be utilized to obtain some increase in cow numbers during 1984 even though the signup percentage was reduced to 22.5%. Even then, it became necessary to purchase about 10 cows (or springing heifers) in order to have a 50-cow herd in 1985. A 50 cow low production herd was assumed. The results are shown as follows:

	Alternative		
	1	1984	1985
% Reduction, Signup	0	22.5	0
Initial Cull Rate, %	0	28	0
Heifer Replacement Rate, %	30	16	30
No. of Cows Purchased	0	0	10
Net Cash Farm Income (22,284 expected in 1983)	\$19,259	\$34,110	\$21,374
% change	-14%	+53%	-4%
		+24%	

Production Management Considerations:

1. How much progress has been made since September 30, 1982? Normal growth in herd size averages about 2% (1 cow per year), and production increases have averaged 1.3% annually over a 10 year period (200 lb./cow/year). This means that income in the typical herd would normally increase about \$3,000 annually. Further, it would require the culling of 2 cows producing at 12,500 lb. level to return the herd milk production to the base level.
2. If the farm has many bred heifers on the farm now (more than 30%), one should consider:
 - a) selling some bred heifers as well as cows if one hopes to achieve a 30% reduction.
 - b) signing up at a lower rate (i.e., 15%).
3. Before determining at what level of reduced milk production seems most desirable, consider how many heifers in the herd will freshen about January 1, 1985. If heifers typically freshen about 27-months of age, they will be 10 months old in August, 1983.
4. Would it be profitable to hold heifers "open" until late March, 1984? If so, how many?, how long? Heifer management would become more complex in that older heifers would need to be fed for "slower growth" and younger heifers would need to be "pushed" or full-fed. Some people suggest a 3-month delay (30-month of age animal) is maximum.
5. Would it be profitable to milk the same number of cows and utilize the milk not marketed on the farm? Alternative uses of this milk could include:
 - a) feeding more milk longer to both heifer replacements and bull calves;
 - b) raising fancy veal; or
 - c) raising feeder pigs on milk.

Note: I don't recommend going into the fancy veal market unless you are experienced and have a market established. If there is an established "fancy veal grower" in the neighborhood, he might purchase your surplus milk at a reduced price.

6. And finally,--- a wild one --, can dairy cows become "beef cows" for a year, then return to the dairy herd? University of Nebraska research (1971) suggests that this might be feasible.

In this experiment involving 42 cows, 32 had previously been in the dairy herd (averaging 2.4 lactations and 14,652 lb. of milk per cow annually). These cows received no grain and their calves suckled an average of 4,840 lb. milk and were weaned at 422 lbs. in 191 days.

After 1 year on the beef experiment, 15 of 26 cows were returned successfully to the dairy herd. Of the 16 cows on the beef experiment from 2 to 4 years, only 6 were returned to the dairy herd. A total of 21 cows (50%) were returned to the dairy herd.

Of the 21 cows not returned to the dairy herd, 7 were eliminated because they were not with calf, 6 because of mastitis, 3 died, 2 aborted, and 3 had other problems such as a physical disability unrelated to the beef project.