FM 521 (worksheet)
12/1/83

THE DAIRY COMPROMISE PROGRAM

SHOULD I PARTICIPATE?

prepared by

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The Program

The dairy compromise bill came out of conference committee on November 15, 1983, and was signed into law on November 29, 1983. It contains the following provisions:

1. Farmers can contract to reduce their milk sales from 5% to 30% from their base. The base period is 1982 with the January-March period added in twice to give a total of 15 months--or an average of 1981 and 1982 sales with the first quarters (January-March) counted twice, whichever is higher. (Note: The secretary of agriculture can reduce the amount of each farmer's contract if total sign-up appears to be too large.)

2. Payments of $10 per cwt of reduction from base will be made quarterly for five calendar quarters, starting January 1, 1984, and ending March 31, 1985. Precise payment plans will be developed by the administration.

3. The cost of the payments will be partially financed by a 50 cent fee levied against all milk sold during the 15 month period. This 50 cent fee replaces the current $1.00 assessment. But, the milk support price will be lowered by 50 cents from $13.10 to $12.60. Thus, the net price to farmers will remain about the same as in December, except--

4. A mandatory 15 cent checkoff for promotion purposes will also be made during this 15 month period. Farmers participating in the Minnesota checkoff of 6 cents per cwt will pay 9 cents rather than 15 cents. A referendum will be held sometime during the 15 month period to determine the future of this checkoff.

5. On April 1, 1985, if the secretary of agriculture projects CCC dairy removals in excess of 6 billion pounds in 1985, the support price will drop another 50 cents to $12.10. If this happens the net price to the producer will stay about the same--because the 50 cent fee will be dropped at that time. If the secretary's projection indicates CCC removals of less than 6 billion pounds, the net farm price increases 50 cents. The secretary could increase the price support level if and when the supply-demand situation warrants an increase.

Directions For Completing Worksheet

This worksheet provides a format for making estimates of the net dollar gains or losses likely from participation in the new milk diversion program. Directions follow.

A. Get 1981 and 1982 sale quantities from farm records or from milk plant; 1983 sales will help you project 1984 production for line E, column 1.

B. Compare two different levels of cutback with nonparticipation. A larger cutback will give higher returns during the first 15 months. The larger your cutback, however, the longer the time required to build cow numbers back--if that is the plan (assuming cows are sold rather than kept as nurse cows or milk reduction is obtained via lower concentrate feeding or using milk as feed).

C. The amount for which government payments of $10/cwt will be paid.

D. 15 month sales goal. Divide by 5 for quarterly goal. Multiply by .8 for 1984 goal (E).

F. This net price should be the same as you are now getting--after the two 50 cent deductions--minus an additional 15 cent deduction for promotional purposes (9 cents if the Minnesota checkoff is now paid).

H. A first estimate can be obtained by dividing line E by average milk production expected per cow milked. Informed culling can increase production per cow up to 1% for each 5 percentage points cut in total milk production if you have cow records and are able to cull lower producers. See table 1 in supporting materials for estimates of herd size given initial cut. (Include cows that are kept whose milk is used to raise calves or pigs.)

I. Counting calves from first calf heifers, this number should about equal the cow number. Half of these will be potential replacements--half will be bull calves to be sold.

J. The average value of bull calves at weaning time--even if fed longer since this analysis does not include the cost of growing out calves. If some dairy cows are to be kept as beef cows, the value of the calves raised on whole milk should be considered here. If milk is fed to pigs an estimate of its feed value can be included.

P. Escapable variable costs average $900 to $1,100 per cow for 11,000 pound to 17,000 pound herds. These estimates are below the averages observed in farm records because the authors feel that all feed and cash costs will not be proportionately reduced when cow numbers are cut. Make your own estimates. (See table 2 in supporting materials.)

S. A re-entry period of 15 months was selected because it can take that long for the farm that has a historical heifer availability rate of only 30 percent of cow numbers to get back to current numbers assuming (1) a mandatory cull rate of 4% per quarter, (2) 1984 production about 5% over the base, and (3) an initial cull rate of 35%. Under these conditions, the estimate in S should be about 90% of line H, column 1. The average performance herd (36% heifers available) would average 95% of initial cow numbers, whereas superior heifer replacement herds (over 40% heifer availability) should be back to 100 percent of initial cow numbers. If the initial cull rate is lower, the rebuilding is faster. (See table 1 in supporting materials.) Management strategies that would alleviate the re-entry problem are to (1) keep bred cows that are to be culled through calving before selling--perhaps milk for two or three months, (2) keep all healthy younger cows and get agreed upon milk reduction by feeding milk to calves or pigs, or (3) cull fewer cows but cut grain feeding.

T. Assume same production per cow in each column if herd rebuilt from raised replacements.

U. Milk price is likely to be about 50 cents higher here than in line F unless national milk production bounces back quickly after April 1--then net price would not change.

DAIRY COMPROMISE PROGRAM WORKSHEET*

Should I Participate In The 1984-85 Milk Reduction Program?

DETERMINE MILK PRODUCTION BASE

15 month base = milk sales in 1982 _____ plus Jan - Mar 1982 _____ = (A)_____
(An alternate base is the average of 1981 & 1982 sales plus the first quarter of 1981 & 1982; use this if sales in 1982 were less than in 1981.) _____

DETERMINE TARGET SALES FOR 1984 & JAN - MAR 1985 AT ALTERNATE PARTICIPATION LEVELS

Levels of cutback being considered (percent)	(B)	0	_____	_____
Required reduction from base in cwt. (B ÷ 100 x A)	(C)	xxx	_____	_____
Cwt of sales permitted during next 15 mo. (A - C)	(D)	xxx	_____	_____
Approximate sales target per quarter (D ÷ 5)		xxx	_____	_____

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ESTIMATE RETURNS FROM 1/1/84 TO 7/1/86 UNDER DIFFERENT LEVELS OF PARTICIPATION

		NO PART.	PARTICIPATION AT _____ %	_____ %
Total cwt of milk sales in 1984 (production per cow x number of cows or .8 x D)	(E)	_____	_____	_____
Net price per cwt BF adjusted (plant price _____ minus 59¢ or 65¢ minus milk hauling _____)	(F)	_____	_____	_____
Total 1984 milk revenue (E x F)	(G)	_____	_____	_____
Expected average number of cows on hand in 1984	(H)	_____	_____	_____
Expected 1984 calf crop (number surviving)	(I)	_____	_____	_____
Expected average value of calves to be sold	(J)	_____	_____	_____
Total value of calves sold (no. sold x J)	(K)	_____	_____	_____
Milk plus calf sales in 1984 (G + K)	(L)	_____	_____	_____
15 month sales (1.25 x L)	(M)	_____	_____	_____
Government payments ($10 x C)	(N)	xxx	_____	_____
TOTAL 15 MONTH INCOME (M + N)	(O)	_____	_____	_____
Variable costs per cow	(P)	_____	_____	_____
15 month variable expense (1.25 x H x P)	(Q)	_____	_____	_____
15 MONTH RETURN OVER VARIABLE COSTS (O - Q)	(R)	_____	_____	_____
15 month re-entry period (average no. of cows)	(S)	_____	_____	_____
Cwt of milk sales (1.25 x S x production/cow)	(T)	_____	_____	_____
Milk price (F + 50¢ or 59¢ or 65¢?)	(U)	_____	_____	_____
Milk revenue (U x T)	(V)	_____	_____	_____
15 month calf sales (1.25 x S x .5 x J)	(W)	_____	_____	_____
15 month variable expense (1.25 x S x P)	(X)	_____	_____	_____
15 MONTH RETURN OVER VARIABLE COST (V + W - X)	(Y)	_____	_____	_____
2½ YEAR RETURN TO LABOR & FACILITIES (R + Y)	(Z)	_____	_____	_____
2½ YEAR ADVANTAGE OVER NONPARTICIPATION			_____	_____

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* Prepared by Paul Hasbargen and Earl Fuller, extension economists; Linda Feltes, assistant extension economist; Merv Freeman, SE Minnesota area extension agent; Ken Olson, Morrison County extension agent; and Bob Appleman, extension dairyman.

DAIRY COMPROMISE PROGRAM WORKSHEET*

Should I Participate In The 1984-85 Milk Reduction Program?

DETERMINE MILK PRODUCTION BASE

15 month base = milk sales in 1982 7,000 plus Jan - Mar 1982 1,750 = (A) 8,750
(An alternate base is the average of 1981 & 1982 sales plus the first quarter of 1981 & 1982; use this if sales in 1982 were less than in 1981.) _____

DETERMINE TARGET SALES FOR 1984 & JAN - MAR 1985 AT ALTERNATE PARTICIPATION LEVELS

Levels of cutback being considered (percent)	(B)	0	10	25
Required reduction from base in cwt. (B ÷ 100 x A)	(C)	xxx	875	2,188
Cwt of sales permitted during next 15 mo. (A - C)	(D)	xxx	7,875	6,563
Approximate sales target per quarter (D ÷ 5)		xxx	1,575	1,313

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ESTIMATE RETURNS FROM 1/1/84 TO 7/1/86 UNDER DIFFERENT LEVELS OF PARTICIPATION

		NO PART.	PARTICIPATION AT 10 %	25 %
Total cwt of milk sales in 1984 (production per cow x number of cows or .8 x D)	(E)	7,250	6,300	5,250
Net price per cwt BF adjusted (plant price 12.50 minus 59¢ or 65¢ minus milk hauling .45)	(F)	11.40	11.40	11.40
Total 1984 milk revenue (E x F)	(G)	82,650	71,820	59,850
Expected average number of cows on hand in 1984	(H)	50	43	35
Expected 1984 calf crop (number surviving)	(I)	50	43	35
Expected average value of calves to be sold	(J)	100	100	100
Total value of calves sold (no. sold x J)	(K)	2,500	2,150	1,750
Milk plus calf sales in 1984 (G + K)	(L)	85,150	73,970	61,600
15 month sales (1.25 x L)	(M)	106,438	92,463	77,000
Government payments ($10 x C)	(N)	xxx	8,750	21,875
TOTAL 15 MONTH INCOME (M + N)	(O)	106,438	101,213	98,875
Variable costs per cow	(P)	1,000	1,000	1,000
15 month variable expense (1.25 x H x P)	(Q)	62,500	53,750	43,750
15 MONTH RETURN OVER VARIABLE COSTS (O - Q)	(R)	43,938	47,463	55,125
15 month re-entry period (average no. of cows)	(S)	50	48	47
Cwt of milk sales (1.25 x S x production/cow)	(T)	9,188	8,820	8,636
Milk price (F + 50¢ or 59¢ or 65¢?)	(U)	12	12	12
Milk revenue (U x T)	(V)	110,250	105,840	103,635
15 month calf sales (1.25 x S x .5 x J)	(W)	3,125	3,000	2,938
15 month variable expense (1.25 x S x P)	(X)	62,500	60,000	58,750
15 MONTH RETURN OVER VARIABLE COST (V + W - X)	(Y)	50,875	48,840	47,823
2½ YEAR RETURN TO LABOR & FACILITIES (R + Y)	(Z)	94,813	96,303	102,948
2½ YEAR ADVANTAGE OVER NONPARTICIPATION			1,490	8,135

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