THE DAIRY PRODUCTION TERMINATION PROGRAM:

BREAKEVEN BID CALCULATIONS

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The Dairy Unity Act recently passed by the House of Representatives
contains a production termination (buyout) provision that would allow dairymen
to bid to quit producing milk for a period of up to five years. Although the
details of how this provision would be administered are not clear, many people
believe that the farm bill finally enacted will contain a whole-herd buyout.
The purpose of this article is to give an indication of the breakeven bid that
would be required to make a dairy farmer as well off to quit producing as to
continue production.

Buyout Decision Criteria of Dairy Farmers

Because the basis upon which dairy farmers would make bid decisions is
not clear, this paper considers several bid decision criteria. The decision
criteria are the bid required (1) to keep Labor and Management Income (or Net
Farm Income) the same as in 1984, (2) to provide the same Net Farm Income as
in 1984 plus a 10% rate of return on equity (rather than the 5% used in
computing Labor and Management Income), (3) to provide the opportunity cost of
the operator's labor and management as reported in 1984, (4) to do a
combination of 2 and 3, (5) to keep cash flow equal to 1984, and (6) to keep
Labor, Management and Ownership Income the same as in 1984.

The Data

The calculations are based on the 1984 average data from 368 farms who
participated in the Cornell Dairy Farm Business Summary program in 1983 and
1984 and did not participate in the Dairy Diversion Program. The average herd
size was 91 cows and milk sold per cow was 15,497 lbs. Farm assets averaged
$536,000 and average equity was 65%. The average farm had 1.33 operators in
1984 and average age of operators was 43.

While 1985 will be more profitable than 1984 for many dairy farms, pre-
liminary projections indicate that 1986 net incomes may be lower than in 1985
(or about equal to 1984 levels) even if the support stays at $11.60 and below
1984 levels if there were either a $.50 assessment or a $.50 drop in support
beginning in early 1986. Therefore, the 1984 data may represent the best that
dairymen could expect in terms of net returns in 1986 and later unless the
dairy situation improves dramatically due to government action or voluntary
reduction in milk supplies.

Breakeven Bids based on Labor and Management Income

The initial calculations are based on the buyout payment that would be
required to keep Labor and Management Income 1/ the same on the average of
these farms for the next five years as in 1984.

1/ The same bid would keep Net Farm Income the same as in 1984.

Calculation of Labor and Management Income for the 368 farms is shown in Table 1. Note that receipts include increase in inventory of livestock and feed and supplies as well as cash receipts. On the expense side, expansion livestock, machinery and building depreciation and the value of unpaid family labor are included, in addition to cash expenses (including interest). Interest at 5% on equity capital is deducted in computing Labor and Management Income. Appreciation of livestock, machinery and real estate is not included in receipts.

Table 1. Calculation of Net Farm Income and Labor and Management Income, 1984

Total cash receipts	$213,470	
Increase in inventory of livestock and feed and supplies	8,252	
Total farm receipts, excluding appreciation		$221,722
Total cash expenses, including interest	$173,740	
Expansion livestock	1,678	
Machinery depreciation	16,011	
Building depreciation	7,240	
Total farm expenses, excluding unpaid family labor and interest on equity capital		$198,669
Net Farm Income		$ 23,053
Less: Interest on equity capital at 5%		$ 16,894
Unpaid Labor		1,606
Labor and Management Income per farm		$ 4,553
Labor and Management Income per operator		$ 3,423

Calculations of breakeven bids are based on the following assumptions:

1. Real estate currently owned is not sold.

2. All machinery, feed and supplies are sold at 80% of 1984 year end market value. This recognizes that there may have been some over-valuation at the end of 1984 and that markets for these items may be soft if a substantial number of farmers decide to sell.

3. All dairy livestock is sold for beef at 40 percent of year end market value. This is intended to approximate beef value.

4. Net after commissions is 95% of sale price.

5. Income taxes are equal to 20% of net sale.

6. The farmer pays off as much debt as possible with real estate debt paid off last.

7. Live in house, land idle. (There might be some income from renting out tenant house but it is not included in the calculations.)

8. Operator is idle with no income.

9. The effect of income taxes likely to be paid on income from the buyout payments is ignored. Some comments on this are included later.

10. Breakeven bids are calculated on the basis that the bid amount would be received each year of the buyout program.

Based on these data and assumptions, a buyout payment of $3.09 (Table 2) per cwt. would keep labor and management income at the 1984 level. This payment would also keep income at the probable 1986 level if the effective price is not lowered by $.50 per cwt. due to support or assessment adjustments. This does not imply that the average 1984 labor and management income of $3,423 per operator was at an acceptable level.2/ It only indicates that the operator could have the same labor and management income over the next five years as in 1984 by accepting a buyout at $3.09 per cwt. and leaving his farm and himself idle. Keep in mind that the buyout would prevent him from cashing in on any improvement in the dairy situation during the next five years. It would also protect him against any deterioration in the dairy situation in the next five years.

Re-entry to Production

The calculation implicitly assumes that the dairyman who sold out could buy back in at any time for the net proceeds from the sale, which is unrealistic. In an attempt to account for this, additional calculations were made. The market value of the farm property sold plus the difference between accounts receivable and accounts payable is $274,867. The net proceeds from the sale after estimated commissions and taxes is $132,664 for a difference of $142,203. If the dairyman could buy back the assets necessary to start producing milk at the end of the buyout period (five years in this example) for $274,867 he would be short the $142,203 that he lost as a result of the sale required to enter the buyout program. To make the $142,203 available at the end of five years would require an annual payment of $1.72 per cwt. of milk, assuming that the payments were invested at 8%. If this is added to the $3.09 calculated earlier, the total payment required to be as well off as operating the farm would be $4.81 per cwt. per year for five years (Table 3). If the land and buildings were left idle for five years, there would be some additional start-up costs that should be considered if the dairyman planned to enter production again.

Keep in mind that the calculatons assume that the land would be left idle and that the operator(s) would not earn income from non-farm jobs. If the land could be rented and income earned by the operators, the breakeven bid would be lower. A calculation of the break-even bid was made assuming that the operators would work off the farm and earn the estimated value of their

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2/ In 1984, the average charge for equity capital was $16,894 per farm or $12,702 per operator. The operators had this as a return in addition to Labor and Management Income.

Table 2. Calculations of Breakeven Bid based on Labor and Management Income

Sale	Price
Livestock ($119,828 x .40)	$ 47,931
Machinery ($101,153 x .8)	80,922
Feed and supplies ($43,611 x .8)	34,889
	$163,742
Net after 5% sale commission	$155,555
plus: accounts receivable	16,917
minus: accounts payable	6,642
Net before taxes	$165,830
Taxes at 20%	33,166
Net after taxes	$132,664
Farm Debt (except accounts payable)	191,365
Net debt (Interest on remaining debt @ 12% = $7,044)	$ 58,701

Partial Budget

Items that add to income:		Items that subtract from income:	
Increased receipts:		Reduced receipts:	
Diversion payment	X	Total cash receipts plus increase in livestock and feed and supply inventory	$221,722
Subtotal (1)	X	Subtotal (3)	$221,722
Reduced expenses:		Added expenses:	
Total farm expenses	$217,169	None	

Expenses not avoided:

Taxes	4,308
1/2 insurance	1,389
1/4 L, B&F repair	611
Interest	7,044
Bldg. depr.	7,240
Unpaid labor	1,606
Interest on equity	16,894
	39,092

Net reduction (2)	$178,077	Subtotal (4)	0

Total: 1 + 2 = A = X + $178,077   Total: 3 + 4 = B = $221,722

Change in net income = A - B = X - $43,645

X = $43,645 = the amount of diversion payment needed to keep net income (Labor and Management income) the same as in 1984.

Using 1984 milk production (base period would end June 30, 1985)

$$\frac{\$43,645}{14,102 \text{ cwt.}} = \$3.09 \text{ per cwt.} = \text{bid required to breakeven}$$

Table 3. Breakeven Bids for Dairy Buyout Program, based on average
non-dairy diversion participant in DFBS

| | Operator and Land Idle | | Buyout Forever bid b/ | |
| | Buyout bid | Total bid a/ | Operator and land idle | Operator and land used c/ |
Criterion				
	------------- per cwt. -------------			
1. Labor and Management Income	$3.09	$4.81	$ 9.17	$ 6.66
2. Net Farm Income plus 10% Return on Equity	4.29	6.01	12.33	9.82
3. Labor and Management Value	4.31	6.03	12.39	9.87
4. L & M Value + 10% ROE	5.51	7.23	15.55	13.02
5a. Cash flow 1	1.98	3.70	6.23	3.58
5b. Cash flow 2	2.68	4.39	8.07	5.31
6. Labor, Management and Ownership Income	3.49	5.21	10.21	7.36

a/ Includes re-entry bid of $1.72 per cwt.

b/ Buyout bid capitalized at 10% amortized over five years at 10%, plus $1.01
per cwt. to compensate for the loss in net worth due to selling the cows
for beef rather than dairy.

c/ Operator works off farm at 1/2 Labor and Management Value and tillable land
rented at $15 per acre.

labor and management that they entered on their 1984 farm records ($15,703 per
operator and $21,720 per farm) if they entered the buyout program. This
addition reduced the breakeven bid from $3.09 to $1.55 and the total bid,
including the amount to re-enter production from $4.81 to $3.27. If the
operators were able to earn only half the estimated value of their labor and
management from off-farm work, the total bid would be $4.04 (Table 4).

If the operators worked off the farm (earning $21,720) and rented the
tillable land for $15 per acre, the breakeven bid would be $1.37 per cwt. and
the total bid, including re-entry, would be $3.09 per cwt. If the operators
could earn only half the L and M value, the bid would be $3.86.

If the calculations above are valid, it appears that a substantial number
of dairymen could be bought out of milk production for a payment per cwt. far
less than the $10.00 that was offerred in the recent 5 to 30% diversion
program. Of course, no one knows whether farmers would actually be willing to
be bought out for these calculated breakeven bids.

Table 4. Breakeven Bids (Total bids) for Dairy Buyout Program, based on average non-dairy diversion participant in DFBS

Criterion	Operator idle, Land idle	Operator works off farm, Land idle		Operator works off farm, Land rented @ $15/A	
		At L&M value	At half L&M value	At L&M value	At half L&M value
		per cwt.			
Labor and Management Income	$4.81	$3.27	$4.04	$3.09	$3.86
Net Farm Income plus 10% Return on Equity	6.01	4.47	5.24	4.29	5.06
Labor and Management Value	6.03	4.49	5.26	4.31	5.08
Labor and Management Value + 10% Return on Equity	7.23	5.69	6.46	5.51	6.28
Cash flow 1	3.70	2.16	2.93	1.98	2.75
Cash flow 2	4.39	2.85	3.62	2.67	3.44
Labor, Management and Ownership Income	5.21	3.67	4.44	3.49	4.26

Income Taxes

Except for an estimate of the income tax that would be paid as a result of the sale of assets to enter the buyout program, the impact of income taxes on the breakeven bid have not been explicitly accounted for. In the examples above, the farmer would have more net cash flow with the buyout than if he continued to produce because some non-cash items such as increase in inventory would now be received as cash. For the average farm, cash flow would be increased $15,734 per year as a result of the $3.09 buyout payment plus $24,255 from the $1.72 re-entry bid for a total of $39,989 increase.

Calculations made elsewhere suggest that the average DFBS participant paid little or no income tax on 1984 farm income and in addition had about $2,000 investment credit carryover. If this farm entered the dairy buyout, there would be significant taxable income. Tax liability could be reduced by strategies such as contributing to IRA and Keogh plans (which he probably didn't have the cash to do previously) and using up accumulated investment credit, but Federal taxes might be in the range of $5,000 and state taxes also would be likely. Anyone planning to enter a bid should consider the tax consequences.

Breakeven Bids Based on Net Farm Income plus 10 percent
Return on Equity Capital

In the Cornell DFBS, a 5 percent charge is made on equity capital invested in the business when Labor and Management Income is computed (Table 1). Five percent is intended to represent a real interest charge rather than a nominal charge based on market rates partly in recognition that farmers usually also receive some income from appreciation of farm assets. Perhaps dairy farmers believe that if they are to enter the buyout (and no longer benefit from appreciation of cattle and machinery), they should be compensated at a rate closer to nominal rates that could be earned if the equity was invested outside the business such as in the stock market.

Breakeven bids were computed based on the same Net Farm Income that was earned in 1984 plus a 10 percent return to equity capital. Net Farm Income is defined as total farm receipts excluding appreciation, less total farm expenses excluding unpaid labor and interest on equity capital (see Table 1). The total bid, including re-entry, was $6.01 per cwt. compared to $4.81 when based on L and M Income (Table 3).

Whether this is a logical criterion is left to the reader. In the 10 years 1975-84, there was no year when the average return on equity, excluding appreciation, for the DFBS farms exceeded 10% and only three years when the average rate of return, including appreciation, exceeded 10%. The average rate of return on equity, excluding appreciation was 2.3%; including appreciation it was 6.5%

Breakeven Bids Based on Opportunity Cost of Operator's
Labor and Management

Each year the operator of each farm included in the Cornell DFBS is asked to provide an estimate of the value of his labor and management. Presumably, this is an opportunity cost, that is, the amount the operator could earn if he worked for someone else rather than operating the farm. For 1984 the values averaged $15,703 per operator and $21,720 per farm.

Breakeven bids were computed which would provide the operators with the estimated value of labor and management rather than with the labor and management income earned in 1984. The total bid, including re-entry, was $6.03 compared to $4.81 when L and M Income was used as the criterion (Table 3).

The author questions whether the estimated value of labor and management is a logical criterion. In the 10 years 1975-84, there was but one year when the average L and M Income on the DFBS farms exceeded the average labor and management value. Over the 10 years the average L and M Income per farm (with interest on equity at 5%) was $10,200 while the average labor and management value was $17,313.

Breakeven Bids based on Opportunity Cost of Operator's Labor and
Management and 10% Return on Equity

Perhaps some dairy farmers believe that to be induced to enter the buyout program, they should be compensated for what they believe their labor and

management is worth plus 10% return on their equity. When both these criteria are used in the computation, the total bid is $7.23 per cwt. (Table 3).

The reader can draw his own conclusions about whether this is a logical criterion on which to compute a bid. An analogy might be made to the man who wanted to marry a lady who would support him in the style to which he would like to become accustomed. In this case, the man is a dairy farmer and the lady is the Federal government.

Breakeven Bids based on Cash Flow

It is possible that farmers' decisions of whether to produce milk or enter the buyout program would be based on cash flow considerations rather than on labor and management income considerations. Calculation of labor and management income includes, in addition to cash receipts, increase in inventory of livestock and feed and supplies. On the expense side, expansion livestock, machinery and building depreciation and the value of unpaid family labor are included, in addition to cash expenses (including interest). In calculating cash flow the Cornell DFBS system leaves out these items but includes projected principal and interest payments rather than actual interest paid and also includes estimated living expenses (Table 5).

Table 5. Calculation of Net Cash Income and Cash Flow

Cash farm receipts	$213,470
Cash farm expenses	173,740
Net cash farm income	$ 39,730
Plus: Interest paid	18,688
Available for debt service and living	$ 58,418
Estimated living expenses	23,035
Available for debt service a/	$ 35,383
Projected debt payments	$ 45,197
Excess or deficit	$- 9,814

a/ Does not include off-farm income.

Breakeven bids that would make cash flow from not producing equal to the cash flow from producing under 1984 conditions were computed. The buyout bid was $1.98 per cwt., compared to $3.09 when computed on a Labor and Management Income basis (Table 3, Cash flow 1).

These calculations probably are misleading because the average cash flow in 1984 when computed using projected debt payments is negative. It is likely that actual net debt payments in 1984 were less than projected 1985 debt payments. It is likely that re-borrowing occurred to make up the difference. It is also possible that average living expenses are not the same as calculated by the DFBS program. In addition, even though an operating farmer could have

debt payments far exceeding his capacity to pay (with the difference made up by re-borrowing) it is unlikely that a farmer in the buyout program (and no longer operating) could convince his banker to continue to let him have a large negative cash flow.

A second set of cash flow based calculations was made in which 1984 net cash flow was set equal to zero in situations where there was a negative cash flow. This was done by reducing debt (principal) payments. This assumes that any deficits were covered by reborrowing so that net principal payments were smaller than planned principal payments. After making this adjustment, the buyout bid for the average non-dairy diversion farm was $2.68 per cwt. and the total bid was $4.39 (Table 3, Cash flow 2).

Breakeven Bids based on Labor, Management and Ownership Income

In the Cornell DFBS program, Labor, Management and Ownership Income (L, M and O Income) includes, in addition to the receipts included in Labor and Management Income, appreciation in the value of real estate, livestock and machinery. Also, interest on equity is not included in farm expenses when L, M and O Income is calculated. The average L, M and O Income for the non-diversion participants in 1984 was $27,007 per farm and $20,306 per operator (Table 6).

Table 6. Calculation of Labor, Management and Ownership Income

Total farm receipts, excl. appreciation	$221,722	
Livestock appreciation	-4,640	
Machinery appreciation	4,684	
Real estate appreciation	5,516	
Total farm receipts		$227,282
Total farm expenses, excl. interest on equity capital		200,275
Labor, Management and Ownership Income per farm		$ 27,007
Labor, Management and Ownership Income per operator		$ 20,306

If a dairy farmer entered the buyout program and sold all his livestock and machinery, he would no longer receive the benefits of appreciation on these items. In 1984, machinery appreciation averaged $4,684 per farm but livestock appreciation was -$4,640 due to declining dairy cattle prices. Real estate appreciation averaged $5,516. Future real estate appreciation is unknown, but could be less on a farm that sits idle than on one that is operated.

Breakeven bid calculations were made based on the money that would be needed to keep income the same as L, M and O Income was in 1984. In other words, 1984 appreciation of $5,560 was included in the cash required from the buyout. The assumption is that appreciation of $5,560 each year would be foregone if the buyout program was entered, without specifying the exact source of the appreciation.

The breakeven buyout bid was $3.49 per cwt., the re-enter bid the same as before and the total bid was $5.21 per cwt. (Table 3).

No Re-entry to Production

If the operator does not plan to return to milk production at the end of the buyout period, loss in value of the dairy cattle due to selling the herd for beef rather than dairy purposes should be included in the bid. This may be done by amortizing the loss in herd value over the buyout period and then dividing it by the base period production in cwt.

For the example calculations, the loss in herd value is $119,828 - $47,931 = $71,897, assuming the herd is still worth for dairy purposes the 1984 year-end value. If adjusted for the difference in taxes and sales commissions paid on the dairy versus beef value, the loss in net worth would be $53,922 assuming a five percent commission on the sale price and a 20 percent tax on net proceeds. This amount, when amortized over five years at 10 percent interest is $14,224 or $1.01 per cwt. This amount should be added to the buyout bid rather than adding the $1.72 re-entry bid.

A dairyman who does not plan to return to milk production at the end of the buyout should also consider the fact that there no longer will be buyout payments after the end of the buyout period. He will be entirely dependent on off farm work, land rental, crop income or retirement income. The lack of buyout income after the buyout period could be included in the calcualtions but has not been here because of complications such as age of operator, and years to retirement.3/ A dairyman not planning to return to production should consider the buyout to be a transition to off farm work, other farm enterprises or retirement.

Buyout Forever

It appears that the United States will be burdened with a dairy over production problem for a long time, particularly if technology such as iso-acids and the bovine growth hormone comes into general use in the next few years. Perhaps a "forever" dairy buyout should be considered as part of dairy legislation. To calculate the payment required to buy out the dairy production rights of a farmer permanently, the annual buyout payment of $3.09 (from Table 3, based on L and M Income) could be capitalized at an appropriate rate, similar to valuing land with the income capitalization approach. If the capitalization rate was 10%, the capitalized value would be $3.09 ÷ .10 = $30.90. If the farmer was willing to be bought out of production temporarily for $3.09 per hundredweight per year, he should be willing to be bought out permanently for a lump sum payment of $30.90 per cwt. If this payment was amortized over 5 years at 10% interest, a payment of $8.16 per cwt. for five years would be equivalent to a lump sum payment of $30.90 per cwt. The re-entry payment is not needed because the dairy farmer has been bought out of production permanently. However, to compensate for the loss in value of the dairy herd because of selling the animals for beef, $1.01 per cwt. would need

3/ The "buyout forever" bids shown in the next section may be an approximation of the appropriate bid for a person who does not plan to return to production.

to be added to the bid, making the total buyout forever bid $9.16 per cwt. (Table 3). The land is assumed to be left idle and the operator to have no off-farm income if the buyout is entered. If the operators worked off the farm for half the estimated value of labor and management and rented the tillable land for $15 per acre, the buyout forever bid amortized over five years at 10% would be $6.66 per cwt.

Buyout forever bids for the other decision criteria are shown in Table 3. With the operator and land idle, bids range from $6.23 to $15.55. Except for the criteria which would compensate the dairyman for the opportunity cost of his labor and management and/or give him 10% return on equity, the buyout forever bids amortized over 5 years are below the $10.00 payment offered for temporary diversion in 1984-85. If the operators worked off the farm for half the estimated labor and management value and rented the tillable land for $15 per acre, the buyout forever bids range from $3.58 to $13.02 per cwt. Only when the criteria is Labor and Management Value plus 10% return on equity does the bid exceed $10 per cwt.

Breakeven Bids related to Milk Sold per Cow and Debt per Cow

There has been interest in the characteristics of dairy farmers who would be likely to submit the lowest bids per cwt. In an attempt to shed light on this question, bids were calculated for nine milk sold per cow and ten debt per cow groups for each of the bid criteria discussed above. One of those was selected for inclusion here. The criterion selected was Net Farm Income plus 10 percent return on equity; with the operators working off the farm for one-half the estimated value of labor and management in 1984 and the tillable land rented for $15 per acre. After discussion of the results based on this criterion, a few comments will be made about the results with the remaining criteria.

The Effect of Milk Sold Per Cow on Breakeven Bids

Breakeven bids were calculated for nine milk sold per cow groups ranging from less than 11,000 to 18,000 or more lbs. in 1,000 lb. groups. The milk per cow groups include all the 1984 DFBS dairy herds, not just those who didn't participate in the dairy diversion. Factors other than milk sold per cow (such as herd size) are not held constant and therefore may be responsible for some of the apparent affect of milk sold per cow on buyout bids. For comparison purposes, the breakeven bids for the non-participants in the dairy diversion program and for the all-dairy average from the Cornell Dairy Farm Business Summary are included in Tables 7 and 8.

While there is some variation in buyout bid, re-entry bid and total bid per cwt. as milk sold per cow increases there is no trend (Table 7). Bids per cow are lower for the farms with lower milk sold per cow but this disappears when calculated on a per cwt. basis. Therefore, it cannot be concluded that the farmers with lower producing cows likely will be the low bidders.

While the bid levels are higher, there is also no trend in bids as related to milk sold per cow when Net Farm Income alone is used as the bid criterion.

Table 7. Breakeven Bids related to Milk Sold Per Cow a/

Milk sold per cow	No. of Cows	Cwt. milk sold	Breakeven Bids, per cwt.			Total bid per cow
			Buyout bid	Re-enter bid	Total Bid	
< 11,000	56	5,412	$3.28	$2.15	$5.42	$ 524
11,000-11,999	59	6,746	3.16	1.91	5.07	580
12,000-12,999	70	8,754	2.66	1.84	4.50	562
13,000-13,999	80	10,750	3.01	1.87	4.88	655
14,000-14,999	95	13,937	3.36	1.74	5.10	748
15,000-15,999	88	13,615	3.00	1.81	4.81	744
16,000-16,999	105	17,377	3.41	1.61	5.02	831
17,000-17,999	97	16,924	3.40	1.61	5.01	874
>18,000	123	23,662	3.69	1.57	5.26	1,011
Avg. all dairy	89	13,735	3.29	1.72	5.01	773
Avg. non-DDP	91	14,138	3.34	1.72	5.06	786

a/ The bid criterion is based on keeping Net Farm Income the same as in 1984, earning 10% return on 1984 ending equity, operators working off the farm at one-half their 1984 estimate of value of labor and management and renting the tillable land at $15 per acre.

Table 8. Breakeven Bids related to Debt Per Cow a/

Debt per cow	Milk Sold Per Cow	No. of Cows	Cwt. milk sold	Breakeven Bids, per cwt.			Total bid per cow
				Buyout bid	Re-enter bid	Total Bid	
$0	15,736	59	9,284	$3.99	$1.78	$5.77	908
$1-599	15,092	87	13,130	3.57	1.73	5.30	799
$600-1,199	15,163	82	12,434	3.12	1.73	4.85	735
$1,200-1,799	14,882	90	13,394	2.79	1.77	4.56	678
$1,800-2,399	15,907	96	15,271	3.40	1.67	5.07	807
$2,400-2,999	15,929	110	17,522	3.49	1.64	5.13	817
$3,000-3,599	14,789	81	11,979	3.32	1.68	5.00	739
$3,600-4,199	14,838	87	12,909	3.42	1.80	5.22	775
$4,200-4,799	14,763	60	8,858	4.00	1.89	5.89	870
$>4,800	15,381	78	11,997	3.51	1.99	5.51	847
Avg. all dairy	15,433	89	13,735	3.29	1.72	5.01	773
Avg. non-DDP	15,497	91	14,138	3.34	1.72	5.06	786

a/ The bid criterion is based on keeping Net Farm Income the same as in 1984, earning 10% return on 1984 ending equity, operators working off the farm at one-half their 1984 estimate of value of labor and management and renting the tillable land at $15 per acre.

There is no consistency among bid decision criteria in the relationship between milk sold per cow and bid per cwt. With some criteria, bids increase somewhat with milk sold per cow but with other criteria the opposite occurs. These results tend to confirm the conclusion that the farmers with the lower producing herds will not necessarily be the low bidders.

The Effect of Debt per Cow on Breakeven Bids

Breakeven bids were calculated for ten debt per cow groups ranging from $0 to $4800 or greater in $600 increments. Other factors such as milk per cow and herd size were not held constant and there could affect the results.

There is variation in buyout bids per cwt. (and per cow) as debt load per cow increases but no clear trend (Table 8). It cannot be concluded that the farmers with the highest debt loads will be the low bidders.

When Net Farm Income alone is used as the bid criterion, there is a tendency for the bids per cwt. to be somewhat higher as the debt load per cow increases.

As with milk sold per cow, there is no consistency among decision criteria in the relationship between debt load per cow and bid per cwt. This tends to lead to the conclusion that the farmers with the higher debt loads will not necessarily be the low bidders.

Summary

Breakeven bids for the dairy buyout program were calculated for seven alternative decision criteria, each of which is a measure of returns from operating the dairy farm. For each decision criterion, bids were calculated for five buyout situations: (1) operator and land idle, (2) land idle, operator works off the farm at (a) estimated value of labor and management or (b) half the value of labor and management and, (3) same as (2) but with tillable land rented at $15 per acre. For each criterion and situation, the breakeven bid would make the operator equally as well off not producing as continuing to produce milk during the assumed five-year buyout period.

Depending on the criterion and situation, bids ranged from $1.98 to $7.23 per year of the buyout for each cwt. of base. It appears that milk production could be reduced through a buyout program at a cost per cwt. substantially below the $10 paid in the recent diversion program.

Calculation of bids for farms with various levels of milk sold per cow and debt load per cow gave no indication that the farmers with low milk sold per cow or high debt per cow likely would be the low bidders in a production termination program.