

A COMPUTER DECISION AID APPROACH

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This publication is intended to help you in the collection and interpretation of data required to use a computer decision aid to help determine a "bid price" necessary to provide an income comparable to that expected if you continued your dairy enterprise. It is divided into two sections. This page explains the "output form" illustrated on the back page (open this folder to study the form as you read this material). The inside pages explain how to complete the "input page" provided.

INTERPRETATION OF THE OUTPUT FORM

Page 1 of the output (not shown) provides a summary of the input data entered in the computer. Page 2 summarizes the data analyzed and estimates a "bid price" to assist you in arriving at the bid you submit to your local ASCS office.

COMPARATIVE FINANCIAL SUMMARY: Three columns of information are provided: (1) expected annual income and expense from dairy enterprise with dairying continued; (2) adjusted to annual change in sales and expenses with no dairy on the farm; and (3) the difference. The estimated annual gross margin from dairying is shown, both per cow and per cwt. of milk. This is the amount you will have available for family living, debt reduction, depreciation, and return to management.

ESTIMATED BREAKEVEN BIDS BEFORE TAXES: Several bid prices are listed, including the bid necessary to equalize: (1) initial loss in assets; (2) annual loss in earnings, at various levels of supplemental income you may be able to earn annually (for example, off-farm employment); and (3) combined minimum bid to cover the 5-year period, discounted to present value based on the interest rate reported for 4 different payment options and the resulting income flows for the 5 years.

Note: Any negative values shown in the 5-year table to equalize "annual loss in returns" indicates you may be financially better off to discontinue dairying even if there were no dairy herd buyout program option.

PAYMENT OPTIONS: Suggested bids, in \$/cwt of milk base, that include interest cost considerations, along with total dollars received each year if you participate in the buyout program, are indicated for 4 payment options, namely:

(1) 80% payment 1st year, equal payments thereafter; (2) no payment in year 1, 85% of total in 2nd year, equal payments thereafter; (3) equal annual payments; and (4) no payment 1st year, 4 equal payments thereafter.

This information (1) shows comparable bids after interest costs are considered, and (2) will help to determine how you can best manage your income taxes. Receiving the bulk of the money early will reduce the amount of interest paid on loans where buyout payments are used to reduce loan balances. Alternately, accepting large payment in the first year when you will be receiving a substantial income from sale of cattle could increase your taxes.

This archival publication may not reflect current scientific knowledge or recommendations.
Current information available from University of Minnesota Extension: <http://www.extension.umn.edu>.

INTERPRETATION OF DATA INPUT SHEET

HISTORICAL BASE MARKETINGS: Report your "milk sales" during each of 2 base periods from records provided by your milk purchaser. No credit is given for an increase in herd size, more milk per cow, or participation in the previous "dairy compromise" program.

BID DATE and NUMBER OF ANIMALS: Report when you expect to submit a bid to the local ASCS office (Deadline is March 7, 1986) and use this date to determine number of female animals on your farm or under your ownership, by age group, as follows: (1) cows that calved at least once; (2) heifers 1-year of age or older; and (3) heifer calves under 1-year of age.

INTEREST RATE: Indicate the average interest rate you pay on any existing dairy (cows or facilities) loans. If there are none, report average interest rate you expect to receive on investment of monies received. (Example: 13% on loan, 8% on investment, and 10% if some of both will occur).

MILK MARKETED PER COW: Indicate the average amount of milk per cow you expect to market during the next 5 years if you remain in dairying.

AVERAGE BODY WEIGHT: Estimate the average body weight of all cows in your herd that have calved at least once. Note: Most Holstein cows = 1300 lbs.

ESTIMATED MILK PRICE: Record average expected price/cwt milk to be sold. Include adjustment for fat and/or protein differential and any usual quality premiums received. Do NOT deduct hauling costs, promotion charges, or "buyout" program assessment fees.

EXPECTED SLAUGHTER PRICE: Indicate the probable net slaughter price you would expect to receive. (Example = \$32.00/cwt).

OTHER DAIRY HERD INCOME: Indicate estimated (typical) annual income from other than sale of milk, cull cows, and veal calves. An example would be income from "sale of breeding stock" for dairy purposes.

DAIRY VALUE OF LIVESTOCK: Enter your estimate of the current value of the average cow, yearling heifer, heifer calf, and bull calves sold for veal.

FEED INFORMATION: The program estimates the hay, corn silage and corn grain equivalent amounts per cow based on expected production level of the herd. All feed amounts and Other Dairy Related Variable Expenses include the cow plus her replacement animals in the herd.

Report feed prices expected over next several years and number of acres of hay and/or corn silage typically grown to feed your dairy herd. Also report "tons of hay" normally purchased.

FEED PRICES: Enter the prices you expect to receive for hay (\$'s/ton) or corn (\$'s/bu) equivalents sold if you no longer have a dairy herd. Note: Corn will likely be near local loan rates. Also report the total annual expenditure for other feeds purchased (protein supplement, minerals, milk replacer, etc.). Include cost of any purchased feed grains.

OTHER VARIABLE COSTS: You may either use your own values (annual herd total) or standard estimated values based on production level.

NATIONAL DAIRY HERD BUYOUT PROGRAM BREAK-EVEN DECISION ANALYSIS
 Departments of Animal Science and Agricultural Economics
 Minnesota Extension Service - University of Minnesota

Name: _____ Date: _____
 Address: _____

Historical Base Marketings: Lbs Milk
 July 1984 to June 1985 _____
 Jan. 1, 1985 to Jan. 1, 1986 _____

Herd Composition and Size: Cows Heifers Calves
 On Bid Date..... _____
 Average For Next 5 Years..... _____ ***** *****

DAIRY ENTERPRISE BUDGET INFORMATION

Enter planning values that in your best judgement will represent realistic average goals and prices between now and 1991.

INTEREST AND LOSS OF ASSET VALUE

Interest Rate You Pay or Receive.. _____ % Interest (farm loan or C.D.)
 Loss in Asset Value Above Animals. _____ \$ (without dairy on farm)

EXPECTED ANNUAL DAIRY PRODUCTION AND PRICES

Average Pounds Marketed Per Cow... _____ lbs./cow
 Average Body Weight of Cows..... _____ lbs./cow
 Expected Gross Milk Price..... _____ \$/cwt.
 Expected Slaughter Price (cows)... _____ \$/cwt.
 Sale of Breeding Animals..... _____ \$ (yearly total for herd)
 Dairy Value of: Dairy \$
 Milking Cows..... _____ \$/cow
 Yearlings Not Yet Fresh..... _____ \$/yearling
 Replacement Heifers Under 1 Year.. _____ \$/calf
 Value of Bull Calves..... _____ \$/calf

HOME GROWN FEED AND PRICES

Forage Fed To The Dairy Herd:
 Harvested Hay Acre For Dairy Herd. _____ acres
 Harvested Corn Silage Acres..... _____ acres
 Tons of Hay Equivalents Purchased. _____ tons
 Price of Hay Equivalents..... _____ \$/ton
 Price of Corn Grain Equivalents... _____ \$/bu.
 \$ Value of Other Home Grown Feeds. _____ \$/year for Herd

OTHER DAIRY RELATED VARIABLE EXPENSES

Note: You may enter yearly herd total values for your herd or have the program estimate expenses based on herd level of production.
 rite zero (0) for expense items to be estimated by the program.

	Your \$ Costs Herd/Year	Estimated \$/cow/yr 12000/cow	18000/cow
Purchased Feed.....	_____	165.00	210.00
Milk Hauling.....	_____	42.00	63.00
Cattle Hauling.....	_____	8.14	8.14
Health & Veterinary.....	_____	40.00	55.00
Breeding.....	_____	23.80	35.20
Dairy Fuel.....	_____	26.30	30.20
Dairy Utilities.....	_____	57.50	65.00
Dairy Repairs.....	_____	40.00	40.00
Dairy Supplies.....	_____	57.50	65.00
Dairy Insurance.....	_____	10.00	10.00
Hired Labor For Dairy.....	_____	.00	.00
Other Costs.....	_____	.00	.00

Name:..... Jim Dairy
 Address:..... Someplace, Minnesota 55000

Milk Marketing Bid Base..... 620000 Lbs Milk

Herd Composition and Size:
 On Bid Date.....Cows..... 50 Yrlings.. 22 Calves... 25
 Next 5 Years.....Cows..... 50
 Production Per cow.. 13000 Lbs Milk Milk Price.. 11.00 \$/cwt.



ANNUAL COMPARATIVE FINANCIAL ANALYSIS

	Continue Dairying	Without Dairy	Comparison (Buyout-Dairy)
Dairy Related Gross Income..\$	79945	27650	
Adjustments to Buyout Income			
Loss of Tax Shelter on Cull Cows.....\$		-1373	
Savings on Interest for Liquidated Assets..\$		3749	
Dairy Related Variable Expenses (excluding home grown feeds)	30549	2053	-28496
Value of Home Grown Feed	29362	27650	
Income Above Variable Expense	20034	323	-19711
Assets Liquidated or Changed\$	67100	31242	-35858
Estimated Gross Margins From Dairying:			
Per Cow.....	401	\$ PER COW PER YEAR	
Per 100 pounds of milk..	3.08	\$ PER 100 LBS MILK	

ESTIMATED BREAKEVEN BID LEVELS BEFORE TAXES

To Equalize Initial Loss in Assets.... 5.78 \$ PER CWT.

Minimum Dollars per 100 Pounds Milk Required to Equalize Annual Earnings:

	---At Supplemental Income Levels of:-----				
	None	\$5,000	\$10,000	\$15,000	\$20,000
Year 1	3.18	2.37	1.57	.76	-.05
Year 2	3.18	2.37	1.57	.76	-.05
Year 3	3.18	2.37	1.57	.76	-.05
Year 4	3.18	2.37	1.57	.76	-.05
Year 5	3.18	2.37	1.57	.76	-.05

Combined Five Year Breakeven Bid Levels For Assets and Earnings:.
 5 Equal Annual Payments.... 21.68 17.65 13.62 9.58 5.55

DISCOUNTED BID PRICES AND INCOME FLOW FOR BUYOUT PAYMENT OPTIONS

Payment Option	Bid \$/cwt Discntd*	%----- (before tax cash payments)-----				
		Year 1	Year 2	Year 3	Year 4	Year 5
80% Year 1	19.13	80% 94873	5% 5930	5% 5930	5% 5930	5% 5930
85% Year 2	21.08	0 111085	85% 6534	5% 6534	5% 6534	5% 6534
Five Equal Annual	22.65	20% 28085	20% 28085	20% 28085	20% 28085	20% 28085
Equal Yr. 2 to 5	24.13	0 37402	25% 37402	25% 37402	25% 37402	25% 37402

*Discount rate Used =% 12.00