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**Research Report**

## The impact of the National Counter-Cyclical Income Support Program for Dairy Producers on Representative Dairy Farms

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# **The Impact of the National Counter-Cyclical Income Support Program for Dairy Producers on Representative Dairy Farms**

Briefing Paper 01-12

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## **The Impact of the National Counter-Cyclical Income Support Program for Dairy Producers on Representative Dairy Farms**

This report contains the results of an analysis of the National Counter-Cyclical Income Support Program for Dairy Producers on the Agricultural and Food Policy Center's (AFPC) representative dairy farms. The impact of the proposal on the representative farms is evaluated in terms of the change in average annual cash receipts and the change in the average annual net cash farm income. The role and potential importance of payment limits on these farms are discussed.

All milk prices by state and program benefits under the payment limit binding and non-binding scenarios were developed by FAPRI and were applied to the representative dairies. For more information on those results see the FAPRI analysis of this program.

### **Representative Dairies**

The AFPC maintains 26 representative dairy farms in the major milk producing regions of the country. Each farm is developed with a group of producers from the area. More information on these farms can be found in AFPC Working Paper 2001-01 on the AFPC website at <http://www.afpc.tamu.edu>.

### **Results**

The results are reported as a change from the baseline for the scenarios where the payment limits are non-binding and binding (Table 1). Each farm is denoted by its state abbreviation and the number of milk cows. For example, CAD1710 stands for a California dairy with 1,710 milking cows.

#### *Non-binding Payment Limit*

The increase in average annual cash receipts ranges from \$5,200 on the moderate size Missouri farm (MOD85) to \$194,500 on the large Idaho farm (IDD2100). All of the farms experience increases in cash receipts and net cash farm income (NCFI). Increases in average annual NCFI range from \$7,800 to \$196,700 on the same Missouri and Idaho dairies. No constraints for payment limits on the amount of money received from the program, allows each farm to more than fully offset reduced milk prices.

#### *Binding Payment Limit*

Under this scenario larger farms are unable to recoup the full level of income lost from reduced milk prices. That inability to offset lower milk prices causes sharp reductions in receipts and NCFI for 11 of the 26 dairies. Fifteen dairies experience greater receipts and NCFI under the binding payment limit scenario.

The largest dairies have lower cash receipts under this option than under the baseline. Average annual receipt declines range from -\$13,700 on the large East Texas farm (TXED750) to -\$836,300 on the 2000 cow New Mexico dairy (NMD2000). The same dairies see annual average NCFIs decline \$14,000 and \$938,700, respectively.

Fifteen of the dairies experience increases in cash receipts over the baseline under this option. For these farms, the program payments are sufficient to more than offset reduced milk prices. Cash receipt increases range from \$5,300 on the large Wisconsin farm (WID600) to \$45,700 on the moderate size East Texas dairy (TXED310). Average annual NCFI increases on these farms ranged from \$5,900 to \$50,100 on the same farms.

The smaller dairies tend to see larger increases in cash receipts and NCFI under the binding payment limit scenario than the non-binding scenario. Smaller milk price reductions combined with the program payments makes this option more attractive for the WAD185, TXCD400, TXED310, WID70, MIED200, MICD140, NYCD110, VTD134, MOD85, MOD330, and GAND200 dairies. For example, average annual NCFI for the 70 cow Wisconsin (WID70) increase \$9,700 under the non-binding scenario and \$16,800 when payments are constrained.

### *Payment Limits*

Payments lost due to a binding payment limit for each representative dairy farm are reported in Table 2. Seventeen of the 26 dairies are constrained by the potential payment limit. The incentives for these dairies to reorganize their structure to avoid payment limits similar to crop farms enrolled in farm programs is great. In 2002, foregone program payments range from \$9,178 on the large Missouri dairy (MOD330) to \$512,146 on the large Idaho dairy (IDD2100). Potential benefits would provide sufficient incentive for dairy producers to reorganize their operations to capture greater benefits and thus offset the impact of lower milk prices.

### **Summary**

All of the dairies benefit under this program when payment limits are non-binding. Fifteen of the 26 dairies benefit when payment limits are binding. In these cases the program benefits are large enough to offset reduced milk prices. The larger dairies experience reduced NCFIs when unable to capture program payments on more than 60,000 cwt. per year (5,000 cwt. per month). Large representative dairies in the West, Southwest, New York, and Florida experience large declines in NCFI.

**Table 1. Comparison of Baseline to National Counter-Cyclical Income Support Program for Dairy Producers on Representative Dairy Farms, Assuming Non-Binding and Binding Payment Limitations, 2002-2009.**

Farm	Change in Average Annual Cash Receipts		Change in Average Annual Net Cash Farm Income	
	Base to Non-Binding Limit	Base to Binding Limit	Base to Non-Binding Limit	Base to Binding Limit
	-----\$1,000-----		-----\$1,000-----	
CAD1710	130.1	-234.6	134.1	-240.8
NMD2000	171.7	-836.3	181.0	-938.7
WAD185	15.6	36.1	16.3	37.1
WAD900	73.5	-80.5	79.4	-86.6
IDD750	67.9	-51.0	71.4	-53.4
IDD2100	194.5	-281.5	196.7	-284.8
TXCD400	30.1	32.5	39.3	41.4
TXCD825	98.6	-95.2	99.2	-95.5
TXED310	22.6	45.7	25.3	50.1
TXED750	54.9	-13.7	58.2	-14.0
WID70	9.2	15.9	9.7	16.8
WID600	75.2	5.3	79.0	5.9
MIED200	16.4	37.6	18.6	41.2
MICD140	10.6	24.3	13.0	27.8
NYWD800	64.8	-58.9	67.7	-60.8
NYWD1200	97.0	-132.3	100.0	-135.8
NYCD110	9.0	20.7	9.1	20.9
NYCD400	32.1	15.6	32.2	15.7
VTD134	9.1	20.8	10.1	22.4
VTD350	28.9	22.8	30.5	24.1
MOD85	5.2	12.2	7.8	17.4
MOD330	22.4	35.1	23.1	36.1
GAND200	12.8	29.9	17.4	38.5
GASD700	44.9	-18.8	46.4	-19.1
FLND500	26.0	19.3	26.8	19.9
FLSD1800	88.0	-146.3	106.4	-171.2

**Table 2. Annual Payments Lost due to a Binding Payment Limit for the National Counter-Cyclical Income Support Program for Dairy Producers for Representative Dairy Farms, 2002-2009.**

Farm	2002	2003	2004	2005	2006	2007	2008	2009
				(dollars)				
CAD1710	403,290	555,444	597,589	637,337	670,826	690,106	690,515	678,943
NMD2000	435,997	600,376	645,809	688,639	724,693	745,389	745,702	733,205
WAD185	-	-	-	-	-	-	-	-
WAD850	182,426	252,026	271,965	290,908	307,074	316,789	317,848	312,520
IDD750	133,542	184,871	199,895	214,232	226,564	234,162	235,364	231,420
IDD2100	512,146	704,987	758,076	808,080	850,107	874,101	874,190	859,539
TXCD400	19,019	27,543	31,053	34,601	37,952	40,589	42,129	41,423
TXCD1150	220,637	304,520	328,301	350,843	370,006	381,376	382,322	375,915
TXED310	-	-	-	-	1,366	3,042	4,647	4,569
TXED750	92,125	127,973	138,833	149,268	158,352	164,156	165,481	162,707
WID70	-	-	-	-	-	-	-	-
WID600	89,787	124,762	135,387	145,602	154,503	160,205	161,537	158,829
MIED200	-	-	-	-	-	-	-	-
MICD140	-	-	-	-	-	-	-	-
NYWD800	150,670	208,400	225,146	241,097	254,773	263,112	264,265	259,835
NYWD1200	260,231	358,913	386,674	412,946	435,215	448,299	449,129	441,602
NYCD110	-	-	-	-	-	-	-	-
NYCD400	39,478	55,649	61,216	66,692	71,647	75,171	76,650	75,365
VTD134	-	-	-	-	-	-	-	-
VTD350	28,650	40,773	45,252	49,707	53,813	56,868	58,379	57,401
MOD85	-	-	-	-	-	-	-	-
MOD330	9,178	14,023	16,543	19,165	21,743	23,955	25,523	25,096
GAND200	-	-	-	-	-	-	-	-
GASD700	88,453	122,930	133,420	143,510	152,306	157,951	159,286	156,617
FLND500	29,570	42,037	46,608	51,151	55,329	58,423	59,932	58,927
FLSD1800	266,075	366,941	395,290	422,112	444,839	458,176	458,989	451,297

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