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October 12, 2011

Policy Watch: The Dairy Security Act of 2011

Dairy Margin Protection Program & Dairy Market Stabilization Program

On September 23, 2011, House Agriculture Committee Ranking Member Collin C. Peterson, D-Minn., and Rep. Mike Simpson, R-Idaho, introduced The Dairy Security Act of 2011. Key provisions of this legislation are the Title I[A]: Dairy Producer Margin Protection Program (DPMPP), Title I[B]: Dairy Market Stabilization Program (DMSP), and Title II: Federal Milk Marketing Order Reform. The duration of the proposed DSA-2011, if enacted, would be from January 1, 2012 through December 31, 2017.

This paper will review provisions of Title I[A]: Dairy Producer Margin Protection Program (DPMPP), and Title I[B]: Dairy Market Stabilization Program (DMSP). Title II: Federal Milk Marketing Reform will be discussed in a separate paper.

Title I[A]: The Dairy Producer Margin Protection Program

The DPMPP provides for establishment, by the Secretary of Agriculture, of a dairy producer margin protection program for the purpose of protecting dairy producer income. This will be accomplished by paying *participating dairy producer* basic margin protection payments when actual dairy producer margins are less than the threshold levels for such payments; and supplemental margin protection payments if purchased by a participating dairy producer. To participate in the DPMPP a dairy producer must pay an annual fee based on the quantity of milk marketed in a calendar year. By registering as a *participating dairy producer* to be eligible for the margin protection program, the dairy producer will, without choice, also be enrolled in the DMSP.

Margin Protection: Basics

The basic margin protection program uses the monthly U.S. All Milk price and a calculated National Average Feed Price to determine the margin, or income over feed cost on a hundredweight basis. The calculated feed price is based on a weighted average value using the (1) monthly national average price for corn (per bushel) as reported by the National Agricultural Statistical Service; (2) soybean meal price (per ton) for the Central Illinois market, as reported the Agricultural Marketing Service; (3) the price (per ton) for alfalfa hay each month, as reported by the National Agricultural Statistical Service.



Margin Protection: Administrative Fee

Each registered dairy producer will be required to pay an annual fee based on the total milk marketed in the previous calendar year. The fee is specified as \$100 for registered producers with less than 10 million pounds of milk marketings, \$400 for those with 10 million to 40 million pounds, and \$1000 for milk marketings greater than 40 million pounds.

Margin Protection: Operation

The DPMPP operates by calculating, on a bi-monthly basis, the difference between the U.S. All Milk price and the calculated National Average Feed Cost. The program specifies that these prices be calculated as averages for consecutive two month periods. The program specifies that this margin, i.e., the dollars remaining to pay all other costs associated with milk production, be no less than \$4.00 per hundredweight. As the margin is calculated on a defined consecutive month basis, and the defined months are January-February, March-April, May-June, July-August, September-October, November-December, the margin calculation for this program will be made in the months of March, May, July, September, November, January. If for any of these defined consecutive months, the margin is less than the required \$4.00, the registered dairy producer will receive the difference between \$4.00 and the calculated margin, up to a maximum of \$4.00 multiplied by the lesser of: (1) 80% of one-sixth of the producer's production history, or (2) the actual milk marketed during the consecutive two month period for which the margin payment is due. Which of these options is used in the calculation depends on the selection made by the producer at the time of registration for the program.

Margin Protection: Supplemental Coverage

Registered dairy producer can select a supplemental coverage option and increase the level of the margin protection from \$4 up to \$8 in fifty cent increments. Registered producers electing the supplemental coverage must select a minimum coverage level of 25% up to a maximum level of 90% of the producer's production history, or under the *growth option* the annual production volume of the current full calendar year. Supplemental margin coverage must be elected at the time of registration, remains in effect for the duration of the margin protection program, and only death or retirement of the registered producer will cancel the obligation to pay the annual premium. Coverage levels and quantity percentages are not alterable after election.

The cost of this supplemental margin coverage starts at 1.5 cents per hundredweight for the first fifty cent supplement, and increase to 92.2 cents per hundredweight for the last fifty cent increment. The following table shows the margin cover in fifty cent increments, the premium per hundredweight, the marginal cost per fifty cent increment, and the average cost per fifty cent increment. The cost of the supplemental coverage is not linear. Each additional fifty cent increment costs more both at the margin and on average.

Margin Coverage (\$)	Premium per cwt.	Marginal cost	Average cost
4.50	0.015	--	--
5.00	0.036	0.021	0.018
5.50	0.081	0.045	0.027
6.00	0.155	0.074	0.039
6.50	0.230	0.075	0.046
7.00	0.434	0.204	0.072
7.50	0.590	0.156	0.084
8.00	0.922	0.332	0.115

The supplemental premium can be paid through a number of alternatives. The premium can be paid as a single annual payment on or before January 15 of the calendar year, or it can be paid in semi-annual installments, at the beginning, on or before January 15, and then the middle of the calendar year, June 1 through June 15.

Basic Margin Protection: An Example

The following table shows the information required to assess the operation of the DPMPP using market prices for 2011. The registered dairy averages 57.5 pounds of milk per cow per day and has a milking herd of 125 cows. Annual milk produced / marketed is 26,234 cwt. and the administrative fee would be \$400. The columns in the table show (i) the U.S. All Milk Price (column I), (ii) the National Average Dairy Feed cost by month (column J) and for each consecutive two month period (column K), (iii) the average margin value for each consecutive two month period (column M), (iv) indicator columns for the DMSP (columns N through R), and (v) the value of the DPMPP payment (column S). The price data are actual values for past months and futures prices for October through December months in 2011.

For 2011, the DPMPP margin for each consecutive two month period exceeds the \$4.00 minimum and therefore no payment would be made under the program (column S). Using projected prices for the final months of 2011, November-December, the average margin is calculated to be \$4.82, above the trigger level for a basic DPMPP payment.



H	I	J	K	L	M	N	O	P	Q	R	S
FY Month	U.S. All Milk Price Value (enter the actual if announced)	National Average Dairy Feed Cost (actual or estimated)	DPMPP Feed Cost	National Average Margin [Sec. 102.(b)(2)(A)(B)]	Two Consecutive Month Average Margin Value [Sec. 102.(b)(1)(n)(B)]	DPMPP Actual or Projected Margin Payment rate (\$ per Cwt.)	"\$6.00" Trigger to require payment reduction under DMSP	"\$4.00" Trigger to require payment reduction under DMSP	"\$6.00" Trigger to require payment reduction under DMSP	"\$5.00" Trigger to require payment reduction under DMSP	"\$4.00" Trigger to require payment reduction under DMSP
Label	Calculated	Calculated	Calculated	Calculated	Calculated	Calculated	Calculated	Calculated	Calculated	Calculated	Calculated
January		10.74		5.96							NRP
Feb	17.90	11.63	11.18	7.47	6.72	0.00		NSP			NRP
Mar		11.57		8.83			NSP	NSP	NRP		NRP
Apr	20.00	12.77	12.17	6.83	7.83	0.00	NSP	NSP	NRP		NRP
May		13.17		6.43			NSP	NSP	NRP		NRP
Jun	20.40	13.18	13.18	8.02	7.22	0.00	NSP	NSP	NRP		NRP
Jul		13.25		8.65			NSP	NSP	NRP		NRP
Aug	21.95	13.96	13.60	8.04	8.35	0.00	NSP	NSP	NRP		NRP
Sep		13.83		7.07			NSP	NSP	NRP		NRP
Oct	19.98	13.38	13.61	5.67	6.37	0.00	NSP	NSP	NRP		NRP
Nov		13.21		4.93			NSP	NSP	NRP		NRP
Dec	17.91	12.97	13.09		4.82	0.00	DMSP	NSP	0.98	NRP	NRP
Calendar Year Month	U.S. All Milk Price Value (enter the actual if announced)	Calculated from either reported feed prices or projected feed prices based on CBOT futures prices	Calculated as provided by the DMSP rules	DSA-2011 [Sec.102.(b)(2)(A)(B)]	DSA-2011 [Sec.102.(b)(1)(A)(B)]	DSA-2011 Sec.114	Stabilization Program Indicator: NSP=no program effect, DMSP=program	Stabilization Program Indicator: NSP=no program effect, DMSP=program	Percent of milk price to be received by registered producer if the DMSP is effective (depends on base selected)	Percent of milk price to be received by registered producer if the DMSP is effective (depends on base selected)	Percent of milk price to be received by registered producer if the DMSP is effective (depends on base selected)

Supplemental Margin Protection: An Example

If the registered producer had purchased supplemental margin coverage then there may be a margin payment due. For example, suppose the producer had purchased an additional one dollar of margin coverage on 50% of the base volume, increasing the basic margin coverage from \$4 to \$5 per hundredweight. The cost of this supplemental coverage would be 3.6 cents per hundredweight. Fifty percent of the annual base quantity of 26,234 multiplied by 3.6 cents equals \$472.21. For the last consecutive two month period in 2011, November-December, the DPMPP margin is \$4.82 (column M). Fifty percent of the eligible base November-December volume for this example producer would be 2,192 cwt. The payment would be $(\$5 - \$4.82) * 2,192 = \$394.59$. Subtracting the cost of the supplemental margin coverage, the net payment would equal $(\$394.59 - \$472.21) = -\$77.62$.

Note that while no payment would be received under the basic margin program (column N), there would be a reduction in the milk price received by the registered dairy producer for the last two months of 2011 under the Dairy Market Stabilization Program (column O). Registered producers would have either 2% or 4% of their gross milk value withheld by their milk buyer as the low margins for October, November and December would require the Secretary of Agriculture to announce that the DMSP was in effect. This aspect of the proposed Dairy Security Act of 2011 will be discussed in more detail in the next section on the Dairy Market Stabilization Program.

Evaluation of the Dairy Margin Protection Program

The DPMPP is presented as a replacement program for the current dairy price support program and the Milk Income Loss Program (MILC). Monies traditionally appropriated to fund these two programs will be used to fund the operation of the DPMPP. As a margin protection program it is important to assess the advantages of this program relative to the current programs.

First, there is the question of the fee to administer the program. The accompanying table shows the fee and the typical herd size based on three levels of average milk production per cow. The current U.S. average milk production stands at 57.5 pounds per day per cow. This rate equals a per cow herd average of 21,000 pounds. The next higher rate reflects per cow herd average of 23,700 pounds, and the third rate, that achieved by the most efficient operations, equals 27,400 pounds. From the information in the table it is apparent that (1) all but the smallest dairies would be assessed the highest annual participation fee of \$1,000; and (2) the more efficient the dairy operation the smaller the minimum herd size necessary to require the higher administrative fee. It is not obvious that the administrative cost of the DPMPP program would be higher the more efficient the participating producer as measured by milk per cow. As such this fee structure appears to be a penalty imposed on the more efficient, and likely larger herd-size milk producers.

Peterson / Simpson Dairy Margin Protection Program Milk Marketed in Previous Calendar Year			
	<=10m #'s	10-40m #'s	>40m #'s
DMP Administrative Fee per year (dollars)	100	400	1000
Herd size @ U.S. Average Production 57.5 #/day	<=50	51-191	>191
Herd size @ Production 65 #/day	<=42	43-168	>168
Herd size @ Production 75 #/day	<=36	37 - 146	>146

Second, as a margin protection program, it is reasonable to assess whether or not the DPMPP would have provided basic coverage margin payments to registered dairy producers. Using USDA data from the period 2005 through September 2011, the DPMPP would have provided margin payments in 4 of the 40 consecutive month periods as specified by the Dairy Security Act 2011. These margin payments would have been for the January through August consecutive months in 2009. The margin payments would have averaged \$1.57 per hundredweight. Over this period of seven years, the smallest registered producers would have paid in \$700 in administrative fees, which the largest producers would have paid \$7000 in assessed administrative fees. Extending the evaluation to include the remaining months of 2011 and all of 2012 using futures price data and projected U.S. All milk prices show that there will be no margin payments through 2012, only another round of administrative fees.

For those registered producers purchasing supplemental coverage, they would have had to purchase an additional \$1.50 of coverage to the \$5.50 level to secure any additional payments over the 2005 – 2011 time periods. At the \$5.50 level, this would have resulted in one additional payment triggered by the September-October period in 2009, and possibly one payment for the projected November-December 2011 period. The cost of this supplemental coverage over the seven years of coverage would be 8.1 cents per hundredweight times the elected supplemental coverage rate. Using the example dairy

farm discussed in the section on supplemental coverage, total premium paid would be over \$7,000 for the period. Add to this the total administrative fee of \$2,800 and the cost to participate in what appears to be a rather meager margin protection program would be over about \$10,000 for the period.

Title I[B]: The Dairy Market Stabilization Program

By registering as a *participating dairy producer*, each producer will be automatically enrolled in the Dairy Market Stabilization Program (DMSP). At the start of each calendar year, each registered dairy producer will have to select a stabilization base from two options. The first option is to select the average monthly milk marketing for the immediately preceding three months whenever the DMSP is declared in effect. The second option is to select the same month in the preceding year for which the DMSP is declared in effect. This stabilization base option cannot be altered during the calendar year, but can be changed at the beginning of each calendar year.

Dairy Market Stabilization Program: Operation

The DMSP will operate by charging the Secretary to monitor the calculated national producer margin on a monthly basis and whenever (1) the actual margin has been \$6.00 or less per hundredweight of milk for the immediately preceding two months; or (2) the actual dairy producer margin has been \$4.00 or less per hundredweight of milk for the immediately preceding month, the Secretary will order reduced milk payments for any *participating dairy producer* that “*exceeds the applicable percentage of the producer’s stabilization program base.*” This last phrase is interpreted to mean that registered producers, whose recorded milk marketing at the time the Secretary declares the DMSP effective, are greater than either (i) the average monthly milk marketings for the immediately preceding three months, or (ii) for the same month in the preceding year for which the DMSP is declared effective, will have their milk pay price reduced by a specified percent depending on which base option the producer selected at the beginning of the calendar year. The task of collecting the required information on registered producer milk marketing volumes, for the current month, the past three months, and the preceding year, as well as the collection of the excess funds and their dissemination, will fall to the registered producer’s milk buyer. The DSA-2011 does not specify the process by which the milk buyers will be compensated for this activity.

Dairy Market Stabilization: An Example

An example may help clarify the DMSP operation. Assume that the calculated margin has been less than six dollars and greater than five dollars for any two consecutive months in the calendar year. This will trigger the reduction in the registered producers pay price dependent on the volume of milk marketed and the stabilization base option selected. If the registered producer had selected the three month average as the stabilization production base, then that producer’s pay price will be reduced to 98% of

the actual pay price provided that the current milk marketed is greater than 98% of the immediately preceding three month average. If the registered producer had selected the prior year one month stabilization production base, then that producer's pay price will be reduced to 94% of the actual pay price, provided that the current milk marketed is greater than 94% of the prior year same month marketing. If the margin is less than the \$5 trigger, the pay price will be reduced to 97% or 93% respectively.

When the margin is \$4 or less, the trigger is based on the immediately preceding month, not the consecutive two month requirement. In this case the pay price for registered producers will be the greatest of either 96% or 92% dependent on the stabilization base selected.

The following table shows the margin triggers and the pay price reductions for the DMSP.

DMSP 'Margin'	DMSP Trigger: Any two consecutive months											
	January	February	March	April	May	June	July	August	September	October	November	December
Margin <= \$6	February	March	April	May	June	July	August	September	October	November	December	
Margin <= \$5	98% of immediately preceding three month average milk marketing (three month average stabilization base)											
	94% of milk marketed in the month the DMSP is in effect											
Margin <= \$4	97% of immediately preceding three month average milk marketing (three month average stabilization base)											
	93% of milk marketed in the month the DMSP is in effect											
Margin <= \$4	DMSP Trigger: Immediately preceding month											
	96% of immediately preceding three month average milk marketing (three month average stabilization base)											
Margin <= \$4	92% of milk marketed in the month the DMSP is in effect											

Registered producers whose actual milk marketing volume is equal to or less than the respective DMSP quantity percentages will not be penalized by a pay price reduction.

The Dairy Security Act of 2011 directs the Secretary to terminate the DMSP based on two alternative triggers. First, whenever the calculated margin is greater than \$6 for two consecutive months the DMSP will be suspended. Second, whenever the U.S. domestic prices for cheddar cheese or the skim milk powder (nonfat dry milk) are more than 20% above the world price for that same commodity for two consecutive months. If either or both of the conditions occur the DMSP will be suspended. The DSA-2011 is ambiguous as to the exact price series to be used for "cheddar cheese price", "skim milk powder price", or "world price".

Evaluation of the Dairy Market Stabilization Program

The DMSP cannot be evaluated without considering the DPMPP as a packaged program. The combined DPMPP and DMSP appear to be rather complicated in their function. Clearly the DMSP is designed to impose a price penalty on those producers registering for the DPMPP. This penalty, by effectively reducing the pay price to participating dairy

operations, is designed to lessen the volume of milk produced and thereby increasing the market price, i.e., the U.S. All Milk Price. Doing so will lessen the need to make basic margin payments under the DPMPP and lower payments under the supplemental coverage.

There are a number of unresolved issues identified by a careful reading of the DSA-2011, Title I[B]. First, it is not clear if those charged with the collection of requisite data, i.e., the milk buyer, will be at all compensated for what is likely to be perceived as an expense database collection and management activity. While the language of Title I[B] does specify the manner and the amount by which members of the 'DMSP Board' will be compensated for their expenses, the act has no such language for the milk buyers.

Second, it is apparent that the intent of the DMSP is to provide incentives to scale back or reduce milk production as a means to raise the average value of the U.S. All Milk price. To the extent that only a small number of dairy producers, and most likely those of small scale, choose to participate, it is unlikely that this will have the intended impact on the milk price. What is more likely, and possibly more troubling is the prospect that as a registered dairy producer, participating in both the basic margin protection program and the dairy market stabilization program, the reality will be one of annual administrative fees, no margin protection payments, and a sustained period of reduced milk pay prices. Using futures market prices for the calendar year 2012 to project the necessary milk and feed costs, the example producer used throughout this paper, would experience reduced pay price 2% (98% trigger) for the months of March through May and September through January 2013, and 3% (97% trigger) for the months of June through August. While the calculated margin would be low enough to trigger the DMSP, it would not be low enough to trigger basic margin protection program payments.

The Dairy Security Act of 2011 is at present time only a proposed program, in the form of a bill introduced into the U.S. Congress House of Representatives, and it remains to be seen what, if any, modifications and alterations will be forthcoming. Never-the-less it is useful to have a clear perspective on the envisioned programs and their likely impact on individual dairy producers and the dairy industry.

