



Dairy Revenue Protection

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Rain and Hail

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A Chubb Company



Dairy Revenue Highlights

- Provides protection against declines in quarterly revenue from milk sales.
- Quarterly coverage – can be sold up to five quarters with the exception of the last sales period with the availability of only four quarters.
- Two pricing options
 - Class price – class III and class IV milk prices
 - Component – combination of milk components (butterfat, protein, milk solids)
- Farmer chooses how much milk production to cover during the quarter.
- 70-95% percent coverage level, 5% increments
- Indexed using state-level milk production.

Current Federally Supported Risk Management Tools

Comparison to Existing Risk Management Tools

	WFRP	LGM	MPP	Dairy-RP
Commodity Revenue Protection	Yes	No	No	Yes
Margin Protection	No	Yes	Yes	No
Works with other Feed Insurance (e.g., Corn)	Yes	No	N/A	Yes
Regional	N/A	No	No	Yes
Coverage Election	Yes	Yes	Yes	Yes
Customizable (components/classes etc.)	No	Low	No	Yes, High
Via FCIC	Yes	Yes	No	Yes
Price Triggers Market Based	N/A	Yes	No	Yes
Covers Yield/Production Risk	N/A	No	No	Yes
Basis Risk	Low	High	High	Low
Reporting Requirements	High	Low	Low	Low
Disappearing Deductible	No	No	No	Yes
Directly Insure Milk Commodity or Indirectly via insuring Cash Flows from Live Animal	Indirect	Indirect	Indirect	Direct
Market Based Pricing	No	Yes	No	Yes

LGM - Dairy

- Federally reinsured and subsidized dairy insurance
- Protects the margin between milk revenue and feed cost base on market prices
 - Class III Milk Price minus Corn/Soybean meal futures
- Cannot participate if enrolled in MPP
- Producer elects milk marketings over 2 – 10 months, feed values and deductible
 - 240,000 cwt max marketings per policy per year
- Only 9% of milk production covered in the 2016/2017 crop year



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DRP and Other Milk Programs

- It IS allowed to have DRP and MPP covering the same milk
- DRP and LGM not allowed for same months

Five Decisions

- The dairy farmer basically has five decisions to make:
 - The value of milk protected
 - The amount of milk production to cover
 - Not required to insure all milk production
 - The level of coverage from 70 to 95 percent of the revenue guarantee
 - Which quarterly contracts he/she wishes to purchase
 - Protection Factor



Quarterly Insurance Periods – Practice (2019 CY)

Quarterly Insurance Period 801 -808			Sales Available			Sales Not Available		
Calendar Year	2018	2019	2019	2019	2019	2020	2020	2020
Sales Dates	Oct – Dec	Jan – Mar	Apr – June	July - Sept	Oct – Dec	Jan – Mar	Apr – June	July – Sept
7/1/18-10/8/18	801	802	803	804	805	806	807	808
10/9/18-12/15/18	801	802	803	804	805	806	807	808
12/16/18-3/15/19	801	802	803	804	805	806	807	808
3/16/19-6/15/19	801	802	803	804	805	806	807	808
6/16/19-6/30/19	801	802	803	804	805	806	807	808

Quarterly Coverage Endorsement

- Establishes guarantee, liability and premium
- Requirements to establish coverage:
 - Declared covered milk production
 - Coverage level (70-95, in 5% increments)
 - Type (class pricing vs component along with substantive items necessary for type chosen)
 - Practice (Quarter)
 - Declared Share
 - Protection Factor (1.0 – 1.5 in 0.05 increments)
- Expected prices will change daily.

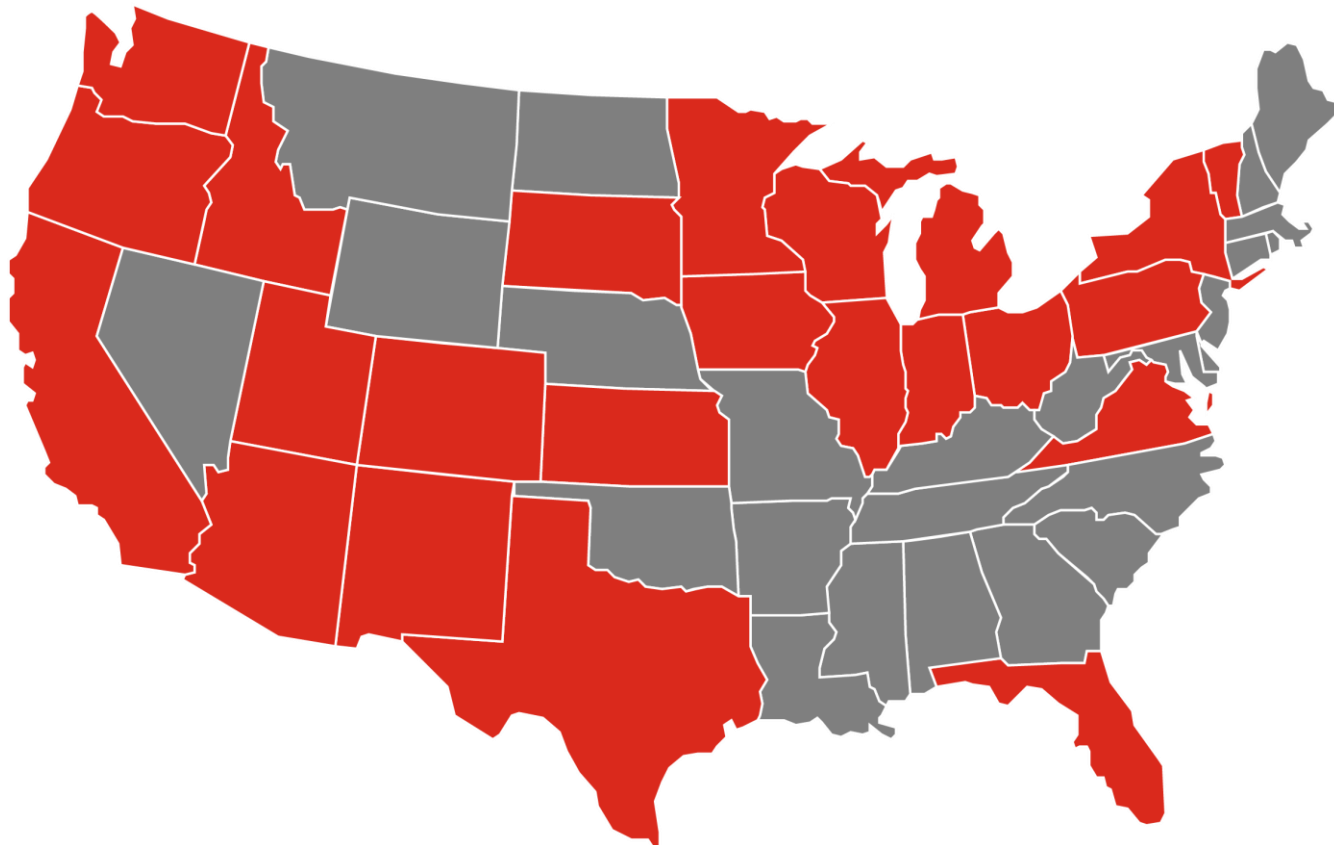


Futures Options Prices and Volatilities

- CME dairy related options are used to infer implied volatilities to calibrate premium rates.
 - Similar to RP insurance for corn/soy/wheat.
- Premiums will be higher during periods of higher volatility.
- Market established prices widely used in crop insurance.
- Assumes prices are riskier at further out horizons.
- Premiums for horizons further out will be higher premium than nearby quarters.



DRP States Sales



Top 23 States

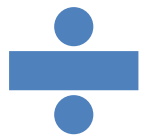
**DRP Indexed to State-Level USDA
NASS Milk Production Data**

Outside Top 23 States

**DRP Indexed to Groups of States'
USDA NASS Milk Production Data**

Yield Adjustment Factor

5,100 Lbs/Qtr



5,000 Lbs/Qtr

State or Pooled
Production
Region's Actual
Milk Production
per Cow



State or Pooled Production
Region's Expected
Milk Production per Cow

1.02

Yield Adjustment Factor

Yield adjustment factor will move the actual milk revenue up/down based on actual milk yields in the state or pooled production region relative to the expected milk yields.

Yield Adjustment Factors below 1.00 will INCREASE Indemnities.
Yield Adjustment Factors above 1.00 will DECREASE Indemnities.

Causes of Loss Covered

- This policy provides insurance only for the difference between the final revenue guarantee and actual milk revenue, times actual share and protection factor.
- Caused by natural occurrences in market prices and yields in your pooled production region.

What's not covered?

- This policy does not insure against the death or other loss or destruction of your dairy cattle, or against any other loss or damage of any kind whatsoever.
- Strictly protects against loss of revenue in milk prices and the loss of production at the state or pooled production region level



Indemnity Example (Lower Price/Lower State Production)

Declared Covered Milk Production in LBS	1,000,000.0	*Final Milk Production per Cow	5,900.0
Weighted Class Price (Class III and IV CME Futures)	\$ 15.81	Final Class Price (Class III and IV CME Futures)	\$ 14.90
Expected Class Pricing Milk Revenue	\$ 158,100.0	Final Milk Production on Farm	1,000,000.0
Coverage Level	95%	Minimum Milk Production (85% Declared)	850,000.0
Expected Revenue Guarantee	\$ 150,195.0	Covered Milk Production	1,000,000.0
Protection Factor	1.20	Yield Adjustment Factor	0.98
Declared Share	1	Final Revenue Guarantee	\$ 150,195.00
*Expected Milk Production per Cow	6,000.0	Actual Milk Revenue	\$ 146,020.00
		Total Revenue Deficiency	4,175.00
Liability	180234		
Total ESTIMATED Premium	2256	Actual Share	1
Premium Subsidy	993	Protection Factor	1.20
Estimated Producer Premium	1263	Indemnity	\$5,010.00



Indemnity Example (Lower Price, Lower Individual Production, Recalculation Triggered)

Declared Covered Milk Production in LBS	1,000,000.0	*Final Milk Production per Cow	5,900.0
Weighted Class Price (Class III and IV CME Futures)	\$ 15.81	Final Class Price (Class III and IV CME Futures)	\$ 14.90
Expected Class Pricing Milk Revenue	\$ 158,100.0	Final Milk Production on Farm	800,000.0
Coverage Level	95%	Minimum Milk Production (85% Declared)	850,000.0
Expected Revenue Guarantee	\$ 150,195.0	Covered Milk Production	941,176.5
Protection Factor	1.20	Yield Adjustment Factor	0.98
Declared Share	1	Final Revenue Guarantee	\$ 141,360.00
*Expected Milk Production per Cow	6,000.0	Actual Milk Revenue	\$ 137,430.59
		Total Revenue Deficiency	3,929.41
Liability	180234		
Total ESTIMATED Premium	2256	Actual Share	1
Premium Subsidy	993	Protection Factor	1.20
Estimated Producer Premium	1263	Indemnity	\$4,715.29



Notice of Probable Loss

- A notice of probable loss is used to notify the insured.
- The AIP will send the insured a notice of probable loss approximately 10 days after all DRP data applicable for the quarterly insurance period are released.



Milk Production Worksheet

- In the event of a loss, the milk production worksheet must be returned to the AIP with the notice of probable loss and marketing records.
 - Provide records from the dairy operation's milk cooperative or milk handler that corresponds to the quarter insured.
 - If the insured chose the component pricing option, records must show component levels in the milk sold.

Required Thresholds

- Producer must deliver 85% of declared covered milk or else the loss is reduced
 - Premium is not adjusted
- Producer must meet 90% of component levels for covered milk or else policy is recalculated based on actual components
 - Premium is not adjusted

Coverage Strategies

- Use DRP to lock in a price floor on some or all of the milk to be produced in the quarter
 - Less expensive than puts or calls on the board
- Take advantage of multiple QCE's for the same quarter.
 - Lock in some milk at the price needed to meet operating costs, if price goes up lock in more coverage if advantageous
- Coverage Levels
 - With current prices, indemnity triggering at levels below 90% seems highly unlikely (premiums reflect this)



Dairy RP- Subsidies

Coverage Level	70%	75%	80%	85%	90%	95%
Subsidy	59%	55%	55%	49%	44%	44%

Coverage Strategies

- Class Pricing is easier for record keeping, but component pricing will offer highly customized coverage
 - All herds producing higher levels of butterfat and protein should explore this option
- Class Pricing can be used to match the milk check
 - Since records aren't needed, the insured does not have to follow how their milk is split between III/IV, allowing them to insure a higher price
 - **BUT** Policy not matching the milk check won't reflect fluctuations in each class

Marketing Strategies

- Utilize Dairy Experts
 - Farm Credit is well equipped to write this product
 - Insurance Agents and Dairy Experts work together
 - Run scenarios with them
- In initial meetings with agents and business consultant, find out what price you would need to guarantee in order to meet operating costs. Keep an eye on the futures prices and when that hits, lock in a price
 - Policyholder services could be a great tool for people who market watch. They can quote on their own once the application is in and they are set up. eSign also will work great in getting these signed and processed timely