NEW ZEALAND'S EXCHANGE

NZ MILK PRICE OPTIONS

www.nzx.com

Contact us

For further information please contact NZX Derivatives on 09 309 3672 or at:
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PRODUCT SPECIFICATIONS

Milk Price Options – individual contract specification	
Underlying Futures contract	One NZX Derivatives Market Contract No.8 Milk Price (MKP) Futures Contract
Price basis	NZD / kg MS
Minimum price movement (Tick size and value)	0.01 NZD per kg MS (NZD 60)
Daily price limits by contract	None
Contract months	Every September such that up to 5 calendar years are available for trading
Trading hours	As determined from time to time by NZX by notice to the market in accordance with the NZX Derivatives Market Rules and Procedures
Last trading day	Trading shall terminate at the close of trading on the second Thursday of September each calendar year, or such other time as specified by NZX in accordance with the contract terms and administrative procedures for Derivatives Market Contract No 9 ("Contract T&Ps") The last trading day is the day specified in the expiry calendar for NZX Derivatives Market Contract No 9, or such other day specified by NZX in accordance with the Contract T&Ps.
Exercise price intervals	All contract months minimum NZD 0.05 intervals.
Exercise procedures	American style (see procedure 3.4 of the New Zealand Clearing Limited Clearing and Settlement procedures (the "C&S procedures") and the NZX Derivatives Procedures or contract term 6 of the Contract T&Ps). In-the-money options are automatically exercied on the expiry day inaccordance with the C&S procedures unless manually abandoned. In order to manually abandon an option, an instruction must be given through the Clearing House System no later than 16.02 hours NZST/NZDST on the expiry day. At-the-money and Out-of-the-money options shall expire worthless at 16.02 hours NZST/NZDST on the expiry day unless manually exercised. The expiry day is the day specified in the expiry calendar for NZX Derivatives Market Contract No.9, or such other day specified by NZX in accordance with the Contract T&Ps.
Clearing house	New Zealand Clearing Limited

WHAT ARE NZ MILK PRICE OPTIONS?

NZ Milk Price Options are tradeable contracts which give the holder the right, but not the obligation, to buy or sell the milk price at a specific price at an agreed date in the future.

Options contracts give the buyer the option to trade at an agreed price level, rather than being locked into an agreed price as with a Futures contract. As such, the buyer of a put option has the ability to protect against a decline in prices below the agreed price level, while still having the opportunity to benefit if prices rise above it.

However, this right does not come for free, and requires what is called a premium, which is paid upfront to the seller of the option. A premium cost is similar to the way you pay premium on an insurance contract, in this case, insurance against a milk price lower than your put option price.

The contracts are standardised, (except for the premium price) and traded through an exchange – NZX. This allows buyers and sellers to trade freely with each other without the burden of unique terms. Each NZ Milk Options contract is based on an underlying NZ Milk Futures contract which is equal to 6,000 kilograms of milk solids (kg MS). The contracts are annual to align with the New Zealand dairy season with three seasons listed for trading – the current plus two seasons ahead.

NZ Milk Price Options provide a useful tool for dairy farmers and processors to implement downside protection, while still being able to take advantage of price rises. As volatility increases in the global dairy markets it is now more important than ever to understand how to use these risk management tools.

BENEFITS OF HEDGING WITH OPTIONS

- Profit stability – locking in a certain amount of production with milk price options provides certainty of potential revenue received and protects against downside moves
- Reduce risk – locking in a portion of the milk price can reduce farmer's susceptibility to milk price movements which are largely outside of their control
- Price insurance – less the initial cost of the premium, holders of options are protected against downside risk but have the opportunity to take advantage of upside gains in price movements
- Reduce cash flow requirements – options only require an initial premium to be paid when you enter the contract, unlike futures contracts, cash margin is not required when buying options
- Reliable budgeting/forecasting – certainty around what revenue is coming in allows for more accurate budgeting and forecasting
- Strategic decision making – enhanced forecasting allows for an increased ability to make strategic investment decisions when looking at investing in infrastructure or growing your farming operation

RISKS OF HEDGING WITH OPTIONS

- Loss of premium – if the option is 'out of the money' at expiry your option will expire worthless, with the premium being a non-refundable sunk cost. However, you will have had the benefit of price protection below the agreed level for the life of the option, similar to insurance.
- Production risk (over-hedging) – trading more kg MS than you actually produce can result in an over-hedged situation which could result in a loss or gain on closeout of the position

HOW DO THEY WORK?

Trading

Trading happens on a central exchange (the NZX), where orders to buy and sell are matched together. To view the latest best buy (bid) and best sell (offer) prices visit: www.nzx.com/markets/nzx-dairy-derivatives/quotes/futures/mkp

Characteristics

There are both options to buy and options to sell.

Call

A call option gives the holder, the right but not the obligation, to buy the underlying asset at the strike price.

Put

A put option gives the holder, the right but not the obligation, to sell the underlying asset at the strike price.

As farmers are sellers of milk, and want to protect against downside movements in price, they are natural purchasers of put options.

Underlying asset

An options contract must be based on an underlying asset or instrument to be delivered if exercised, for example a physical good or in many cases a futures contract. For every one NZ Milk Price Option contract there is an underlying NZ Milk Price Futures contract.

Premium

The price for the option paid by the buyer (holder) to the seller (writer) of the option. While the other three characteristics are set by an exchange (NZX), the premium is set by market forces of supply and demand.

Strike price

The milk price at which the Option is traded. All Options contracts are exercisable into Futures contracts at the strike price, at expiry or at any time during the life of the contract should the buyer wish to do so.

If you are the buyer of a $6.50 NZ Milk Price put option, when you exercise that option you are entitled to sell a NZ Milk Price Futures contract at the strike price of $6.50.

Expiry date

All options contracts, which have not already been exercised will expire on a specified date. For NZ Milk Price Options the expiry day is the day on which the underlying futures contract expires.

Example

New Zealand dairy farmers may want to protect against the milk price falling below a certain level, but retain the benefit of potentially higher prices. To achieve this, the farmer would purchase a put option.

In July 2017, the 2017/18 season Milk Price Futures contracts are trading at $6.50 kg MS. 2017/18 season options with a $6.00 kg MS strike price are available, for a $0.20 premium cost.

End of season – final Fonterra farmgate milk price announced at $5.00 kg MS

If the final Fonterra farmgate milk price for the 2018/19 season falls below $6.00 kg MS, the put option is "in the money"– it can either be exercised prior to settlement or will be automatically exercised at expiration. If exercised, the purchaser of the put option will now have a short futures position and can sell milk at a price of $6.00 kg MS. The NZ Milk Price Futures will settle to the Farmgate Milk Price of $5.00 kg MS and the short futures holder will gain $1.00 kg MS ($6.00 - $5.00) from the settlement of the futures contract (less $0.20 kg MS premium cost) creating an effective milk price of $5.80 kg MS.

End of season – final Fonterra farmgate milk price announced at $7.00 kg MS

If the final Fonterra farmgate milk price for the 2018/19 season is announced at $7.00 kg MS, a $6.00 kg MS put option will be "out of the money" and expire worthless. In this instance, the purchaser of the put option would receive a price for their physical milk of $7.00 kg MS and forgo the right to sell on the futures market at $6.00 kg MS. The purchaser will still have had to pay the premium however, leading to an effective milk price of $7.00 kg MS less $0.20 kg MS = $6.80 kg MS.

HOW TO ACCESS THE MARKET?

1. Understand how price risk affects your business

It is important that you understand how hedging can deliver value to your business. Considerations might include your business objectives, the capacity of your business to meet cash flow obligations and withstand adverse price movements and your risk appetite. You can do so by seeking advice from an NZX Derivatives participant (list provided below) or an independent advisor.

2. Develop a hedging strategy

Aim to understand the different products on offer, the associated costs including the option premium. You can do so by seeking advice from an NZX Derivatives participant (list provided below) or an independent advisor.

2. Open an account and start trading

This requires you to provide basic company information and to fund the account. Trading can be done via phone or email with an NZX Derivatives participant (broker):

ADM Investor Services, Inc.

BNP PARIBAS

FNZC

INTL FCStone

OMF Connecting you to global markets

A full list of contact details for NZX Derivatives participants can be found at:

www.nzx.com/markets/nzx-dairy-derivatives/access-the-market