

# Hedging with Wheat Futures



*Minneapolis Grain Exchange*

## **Minneapolis Grain Exchange**

The Minneapolis Grain Exchange provides a platform for open outcry futures and options trading of commodities used around the world and has been doing so for more than 100 years. MGE also hosts the world's largest cash grain trade.

The Exchange has enjoyed steady growth and posted record trading volume in each of the past three years. The following futures and options are currently traded at the MGE:

- Hard Red Spring Wheat
- Soft White Wheat
- Durum Wheat
- White Shrimp
- Black Tiger Shrimp
- Twin Cities Electricity

The Exchange is continually evaluating opportunities to introduce new products and will launch futures Twin Cities (TC) electricity futures and options September 14, 1998.

The MGE's growth and performance continue to attract new clearing members and increase membership prices. For more information contact the MGE at 612-321-7101 or visit our web site at [www.mgex.com](http://www.mgex.com).

## **ECONOMIC FUNCTIONS OF A FUTURES MARKET**

- Price Discovery
- Hedging

# PRICE DISCOVERY

How are prices determined?

Opinion of hedgers and speculators looking at:

- Supply
- Demand
- Political factors
- Psychology

# HEDGING

## Definition:

Taking a position in futures that offsets the price risk associated with a physical position.

## Why hedge?

- Protect margins
- Determine a purchase price in advance of physical delivery
- Determine a selling price in advance of physical delivery
- Expands pricing horizon

# FUTURES CONTRACT

Definition:

An obligation to buy or sell a commodity that meets set standards on a specified future date.

- Futures contracts are designed to reflect a product that is commonly traded in the physical market.

<b>Transaction Types</b>	<b>Terminology</b>	<b>Price Advantage</b>	<b>Delivery vs. Offset</b>
Sell	"Short"	Lower prices ↓	Buy back Or Make delivery
Buy	"Long"	Higher prices ↓	Sell back Or Take Delivery

# **CONTRACT SPECIFICATIONS**

## **HARD RED SPRING WHEAT**

Contract Unit:

5,000 Bu

Delivery Months:

March, May, July, September and December

Delivery Points:

Elevators located in Minneapolis/St. Paul, Red Wing and Duluth/Superior

## **DURUM WHEAT**

Contract Unit:

5,000 Bu

Delivery Months:

March, May, July, September and December

Delivery Points:

On-track to a point designated by the Issuer within the Minneapolis/St. Paul switching district

## **SOFT WHITE WHEAT**

Contact Unit:

5,000 Bu

Delivery Months:

March, May, July, September and December

Delivery Points:

Delivered Columbia River District

# HEDGING (RISK SHIFTING)

## Hedging

Taking a position in futures which offsets your current physical position.

Futures accounts are marked -to- market every trading day and balanced via the margining process.

Owns Wheat:      _____→ At risk when prices <i>decline</i>	Seller of contracts (short) position gains in value when prices <i>decline</i>
Needs Wheat:      _____→ At risk when prices <i>increase</i>	Buyer of contracts (long) position gains in value when prices <i>increase</i>



# EXAMPLE ONE

## FIXING FORWARD A SALES PRICE

### Scenario

It is currently April Producer A will have wheat to sell in August and estimates the cost of production to be \$3.50 per bushel.

In April, the MGE HRS Wheat futures price is \$ 4.00 per bushel. Producer A would like to fix forward a sales price for a portion of his/her August wheat.

<b>Risk In Physical Market</b>	<b>Offsetting Position in Futures Market</b>
<u>lower</u> prices for wheat in <u>August</u>	Producer A will <u>sell</u> <u>SEP</u> futures

## EXAMPLE ONE FIXING FORWARD A SALES PRICE

**What happens if the market goes up?**

	Physicals		SEP Futures		Net
In Apr →			Sell \$4.00		
In Aug →	Sell \$3.00		Buy \$3.00		
	\$3.00	+	\$1.00	=	\$4.00

**What happens if the market goes down?**

	Physicals		SEP Futures		Net
In Apr →			Sell \$4.00		
In Aug →	Sell \$5.00		Buy \$5.00		
	\$5.00	-	\$1.00	=	\$4.00

**What happens if the market is sideways?**

	Physicals		SEP Futures		Net
In Apr →			Sell \$4.00		
In Aug →	Sell \$4.00		Buy \$4.00		
	\$4.00	+/-	\$0.00	=	\$4.00

## MARGIN EXAMPLE

Contract Size = 5,000 bu.  
 Minimum Tick (¼ cents/Bu.) = \$12.50 = 5000 x .0025  
 Limit Move (20 cents/Bu.) = \$1,000 = 5000 x .20  
 Initial Margin = \$1,000  
 Maintenance Margin = \$800

Day	Buy/Sell Futures Price	Dollar Change	Account Balance
Initial Trade	\$4.00	0	\$1,000
1	\$4.03	-.03 x 5000 = -\$150	\$850
2	\$4.05	-.02 x 5000 = -\$100	\$750 <u>+250<sup>1</sup></u> \$1,000
3	\$4.00	+.05 x 5000 = +\$250	\$1,250
4	\$3.90	+.10 x 5000 = +\$500	\$1,750
5	\$3.70	+.20 x 5000 = +\$1,000	\$2,750

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<sup>1</sup> Margin Call

# RISK PROFILE

## HEDGING WITH FUTURES VERSUS CASH MARKET SALE

# STEPS TO HEDGING REVIEW

1. Know Costs
2. Contract Specifications
3. Basis
4. Margin Requirements
5. Hedging Costs
  - Commission
  - Interest
6. Knowledgeable
  - Broker
  - Lender
7. Market Plan