

## Livestock Risk Protection Insurance & Cattle Outlook

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## LRP-What Is It?

- Livestock Risk Protection Insurance
- LRP for feeder cattle available in KS
  - Provides protection against a decline in CME Feeder Cattle Price Index while you own cattle
  - CME Feeder Cattle Price Index is a 7 day weighted average of cash feeder cattle prices across the U.S.
- LRP for slaughter cattle is also available in KS
  - Provides protection against a decline in the 5 Area Weighted Average Price reported by USDA

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## LRP-What Is It?

- **CME Feeder Cattle Index is used to cash settle Feeder Cattle Futures**
  - Since both CME Feeder Cattle futures and LRP use the CME Feeder Cattle Index to settle, purchase of LRP for Feeder Cattle is similar (but not identical) to purchasing a CME Feeder Cattle put option
- **USDA's 5 Area Weighted Average Price is used to settle LRP for Fed Cattle**
  - Purchase of LRP for Fed Cattle is similar (but not identical) to purchasing a CME Fed Cattle put option

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## Restrictions On Cattle Eligible For Coverage

- Feeder cattle must weigh less than 900 lbs. at the end of the insurance period
- Fed cattle must weigh between 1,000 and 1,400 lbs. at the end of the insurance period

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## What's Eligible for Coverage?

- Can insure steers, heifers, Brahma and dairy breeds
- Coverage is now available for 13, 17, 21, 26, 30, 34, 39, 43, 47, or 52 week periods
- Cattle weighing less than 600 lbs. (at end of insurance period) can now be insured and will receive a price adjustment to reflect the fact that lighter weight cattle generally trade at a premium to heavier cattle

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## How Does LRP Work?

To use LRP to protect against a price decline,

- you would purchase LRP insurance for a particular set of cattle (# of hd. & ending wt.)
- you must choose
  - Coverage Price (this is similar to an option's *Strike Price*)
  - End Date (e.g., the date coverage ends)
- Price you pay is known as LRP premium

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### Definitions

- Specific Coverage Endorsement (SCE)
  - is an endorsement to the policy necessary to provide coverage
- Expected Ending Value
  - The expected ending live weight times expected ending price
- Coverage Level
  - The percent of the expected ending value that is covered by the policy

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### Definitions

- Coverage Price
  - Level of protection provided by policy on a dollar per cwt basis
- End Date
  - The date that coverage period ends for each contract (SCE)
  - LRP buyer selects weeks of coverage desired within limits set by RMA

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### Definitions

- Actual ending feeder cattle value equals steer weight times CME Feeder Cattle Price Index
  - CME Feeder Cattle Price Index based upon sale prices for Medium and Large Frame #1-2 steers weighing from 700-849 pounds (changing to 650-849 pounds next summer)
  - CME Feeder Cattle Price Index is available at

[http://www.cme.com/dta/hist/cash\\_settled\\_commodity\\_prices.html?type=Feeder%20Cattle](http://www.cme.com/dta/hist/cash_settled_commodity_prices.html?type=Feeder%20Cattle)

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### LRP Feeder Cattle Premium

- To calculate actual LRP premium you must know
  - Number of cattle ready for market (weighing less than 9.0 cwt) on End Date
  - Target Weight per head
  - Ownership share in cattle

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### LRP Feeder Cattle Premium

- Insured Value Equals
  - $\text{Number of Head} \times \text{Target Weight (cwt)} \times \text{Coverage Price} \times \text{Ownership Share (\%)}$
- Total Premium Equals
  - $\text{Insured Value} \times \text{Rate}$
- Producer Premium Equals
  - $\text{Total Premium} \text{ minus } \text{USDA Subsidy}$
  - $\text{USDA Subsidy} = 13\% \text{ of Total Premium}$

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### LRP Premium Calculation Example

- An operation has 100 head of feeder cattle
- Expects to market the feeder cattle at a target weight of 7.00 cwt each
- Insured share is 100 percent
- Assume Expected End Price (updated daily by RMA on its website) is \$109.25 per live cwt

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### Premium Calculation Example

- Producer selects a coverage price which is a % of the Expected End Price published by RMA
  - Assume producer selects \$100 per cwt. coverage price (e.g., 92% of RMA's expected ending price)
  - For this coverage price, the rate is 1.449%
  - The premium subsidy is 13 percent

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### Premium Calculation Example

- $100 \text{ head} * 7 \text{ cwt} = 700 \text{ cwt.}$
- $700 \text{ cwt.} * \text{coverage price } (\$100) = \$70,000$
- $\$70,000 * \text{insured share } (1.00) = \$70,000 \text{ Insured Value}$

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### Premium Calculation Example

- $\$70,000 * \text{rate of } .01449 = \$1,014 \text{ Total Premium}$
- $\$1,014 * .13 \text{ (subsidy)} = \$132 \text{ subsidy}$
- $\$1,014 \text{ (total premium)} \text{ minus } \$132 \text{ subsidy} = \text{producer premium of } \$882 = \$1.26/\text{cwt. premium}$

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### Calculating Indemnity

- Indemnity is payable if actual ending price is less than coverage price
- Calculate indemnity by:
  - Multiplying number of head by target weight (in live cwt.)
  - Subtract actual ending price from coverage price
  - Multiplying total weight by difference between actual ending & coverage price

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### Indemnity Calculation Example

- Expected End Price for appropriate insurance period is \$109.25 per live cwt.
- Producer selects a coverage price of \$100 per cwt. (e.g., 92% of Exp. End Price)
- Actual End Price is \$80 per cwt. (e.g., CME Feeder Cattle Index = \$80 on End Date)

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### Indemnity Calculation Example

- $100 \text{ head} * 7.00 \text{ cwt} = 700 \text{ cwt.}$
- Subtracting actual ending price of \$80 from the coverage price of \$100 = \$20/cwt.
- Multiplying 700 cwt. by \$20/cwt = \$14,000
- Multiplying \$14,000 by insured share of 1.00 = indemnity payment of \$14,000

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### Indemnity Calculation Example

- What happens if actual ending price = \$105?
- Subtracting actual ending price of \$105 from the coverage price of \$100 = neg. \$5/cwt.
  - Therefore, no indemnity payment is made to producer
  - This is analogous to a put option that *expires worthless*

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### LRP Coverage Prices & Levels

- Price guarantees change daily
- Premiums change daily
- Coverage available ranges from 70% to about 95% of Expected Ending Price, but maximum guarantee on most days is less than 95%

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### Premium

- Producer may obtain premium quotes via RMA's Premium Calculator available on USDA-RMA's web site
- Premium must be paid on day LRP insurance is purchased for coverage to be provided
- Rates available at  
<http://www.rma.usda.gov/tools>  
Under livestock reports  
Or use link on AgManager  
[www.agmanager.info/livestock/marketing](http://www.agmanager.info/livestock/marketing)

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### LRP Coverage Availability

- Available from about 5 p.m. until 9 a.m. Central Time during the week
- Not Available on Federal holidays
- Not Available if RMA web site down
- Not Available if company you're working with exceeds their company's limit

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### LRP Summary

- Insure the exact number of head that you choose
- Flexible contract size matches "small" operations vs.
  - Feeder cattle futures that represents about 67 steers weighing 750 pounds
  - Live cattle futures that represents about 33 steers weighing 1200 pounds
- Can incrementally minimum price a few head at time

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### LRP Summary

- LRP does not guarantee a cash price
- LRP protects against a decline in
  - Feeder cattle price level as measured by CME Feeder Cattle Price Index
  - Fed cattle price level as measured by USDA's 5 Area Weighted Average Price
- LRP does NOT guarantee the basis
- Basis risk under LRP differs somewhat from basis risk when using Feeder or Live Cattle futures
- Policy does not cover any other peril

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**Livestock Risk Protection (LRP) Premiums vs. CME Put Option Premiums for Similar Coverage**

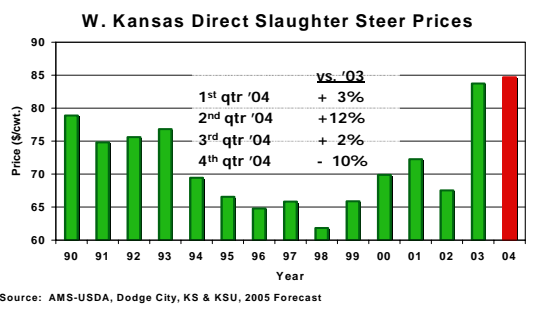
- LRP premiums are “fair” but they are priced similar to “market value” and no “effective” farmer subsidy
- LRP advantage is its flexible contract size
- Likely to get an LRP order filled at the stated premium
- Insurance can be an advantage for Lenders compared to options

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K-State Cattle Risk Management Workshop  
 What is LRP Insurance?  
 Comparing LRP Insurance to CME Options  
 February 23, 2005  
 9:30 a.m. – 3:30 p.m.  
 Friendship Center  
 746 Commanche  
 Salina, KS  
 (785) 309-5850

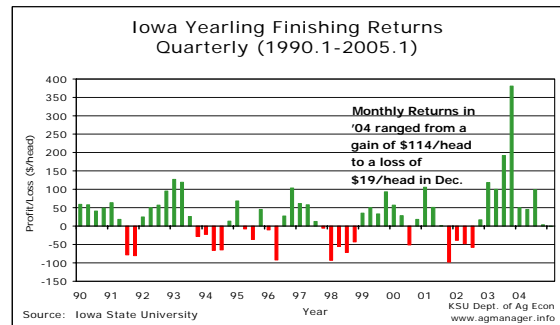
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**Surprisingly Strong Cattle Prices During 2004**



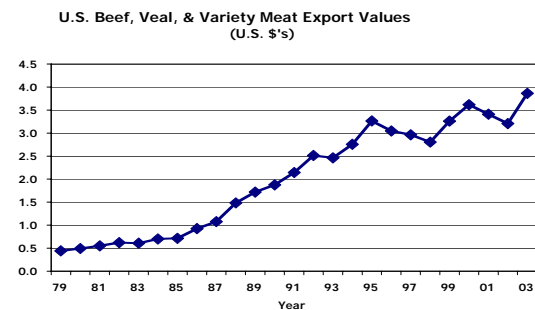
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**Feeding Returns Turned Negative In Nov-Dec. '04 But Rebounded in March '05**

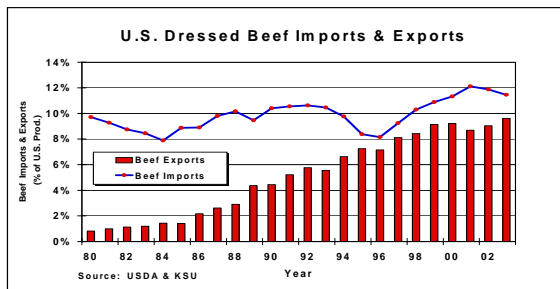


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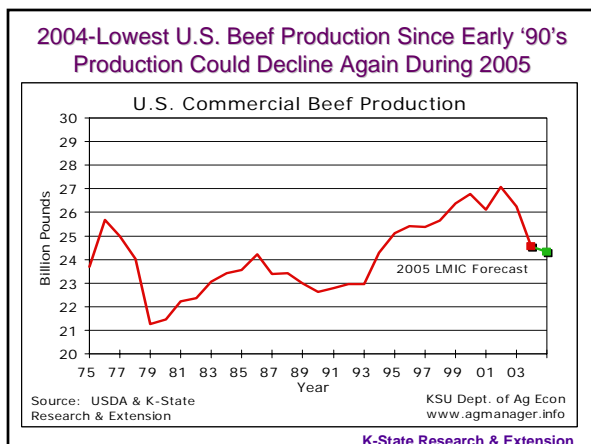
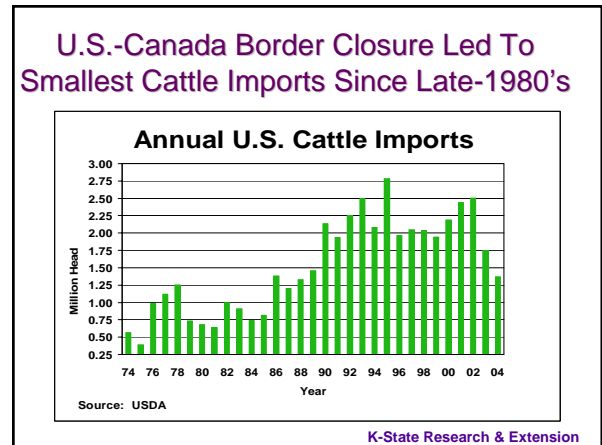
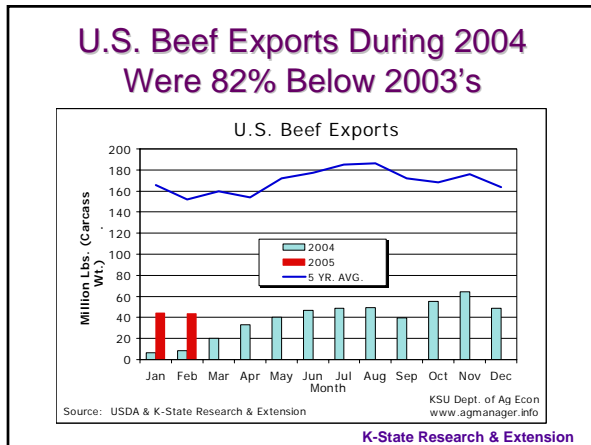
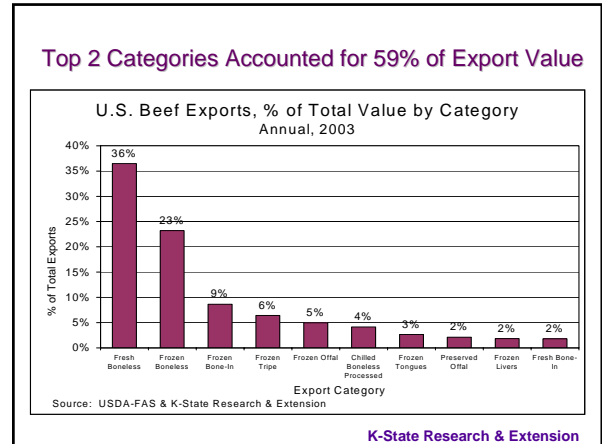
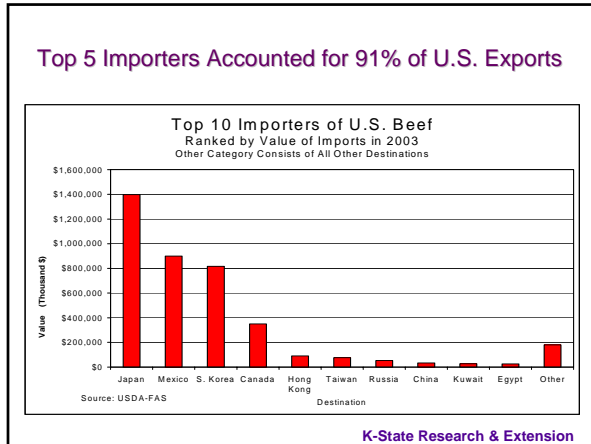
**Long-Run Beef Export Growth Has Been Phenomenal**



**Export Market Loss A Big Concern**



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- ### What Happened In 2004?
- U.S. beef production fell 6.5% below '03
    - Smallest beef production since '94
    - Smaller cattle imports contributed to the decline
  - U.S. beef exports declined 82% below '03
  - U.S. beef imports rose 22.4% above '03
    - Imports were up 14% compared to '02
  - Result: Beef supplies facing U.S. consumer's rose 1.7% above 2003's
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### Primary Beef Demand Shifters during 1980's and 1990's

- Consumer expenditures & income
- Competing meat supplies
- Food safety
- Negative health information
- Consumer demographics
  - Desire for convenience

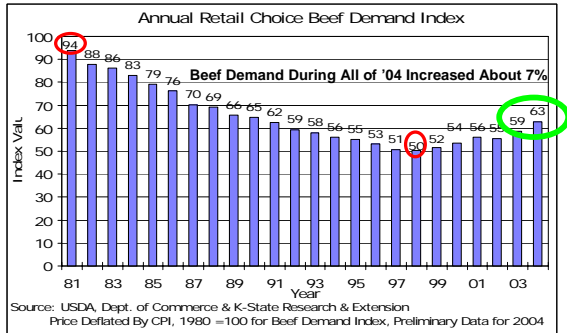
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### Beef Demand Shifters What's been taking place recently?

- Growth in consumer income
- New product offerings
- Positive health information
  - Low carb diets
  - But low carb diet effect could be leveling off

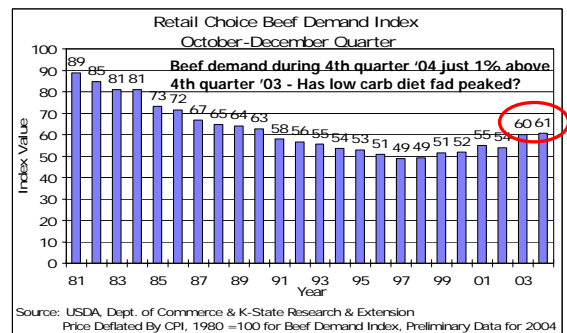
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### Beef Demand Rebound That Began In '98/'99 Continued In 2004



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### Domestic Consumer Demand Was Very Strong in First Half of '04, But Showed Signs of Slowing In 4<sup>th</sup> Qtr

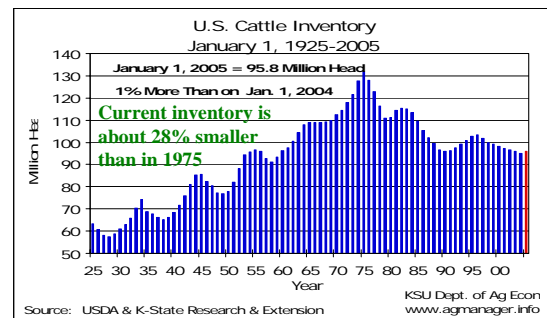


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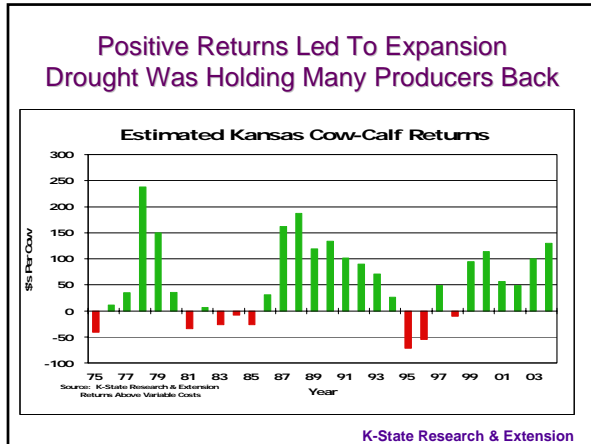
### Where Are We In The Cattle Cycle?

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### Liquidation Finally Came To An End During 2004

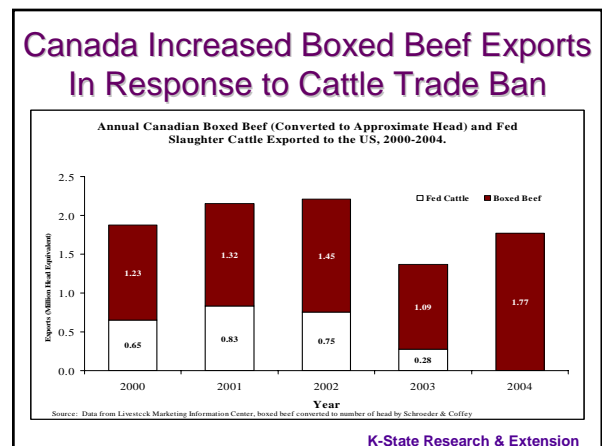
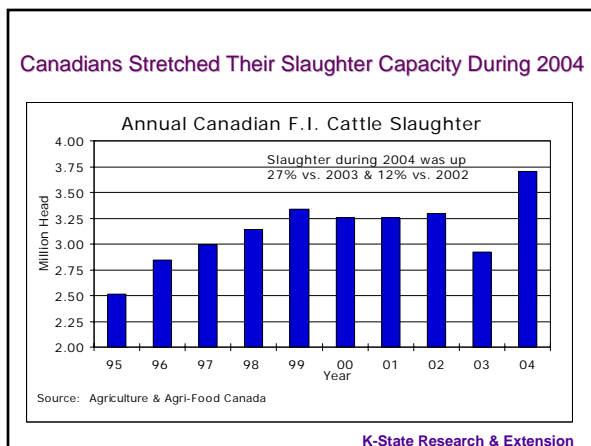
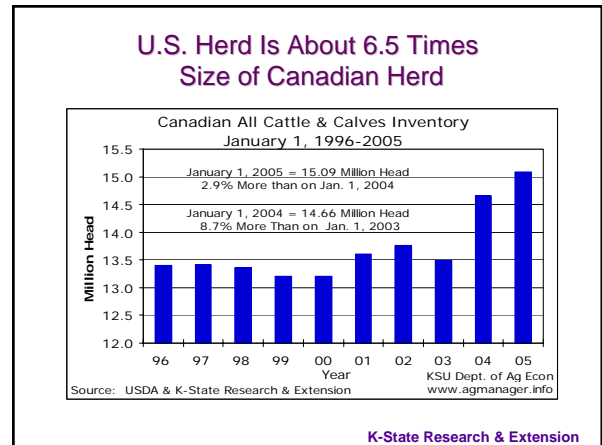
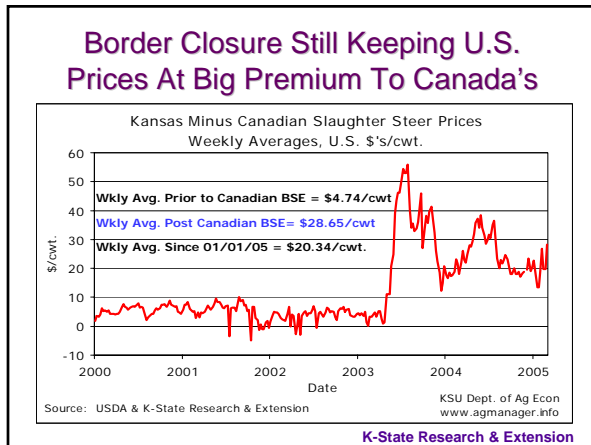


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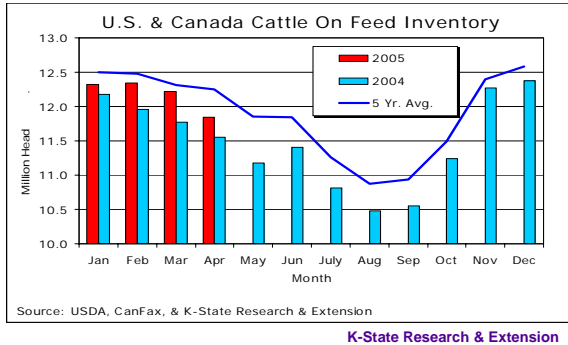


## What's Happening In Canada?

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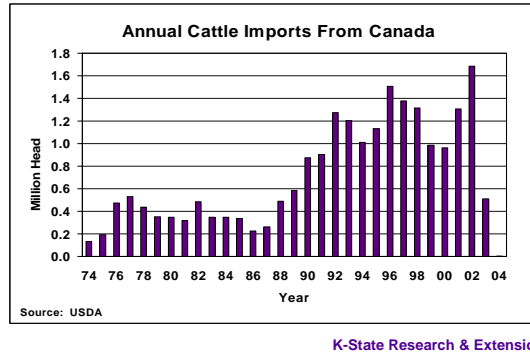


### U.S.-Canada Combined On Feed Inventory Up 3% Over Prev. Year



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### Imports From Canada On Hold for Now But Could Resume This Summer

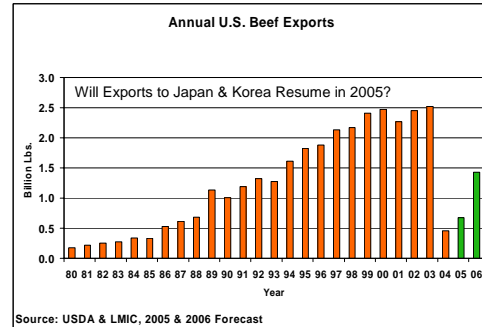


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### Putting It All Together

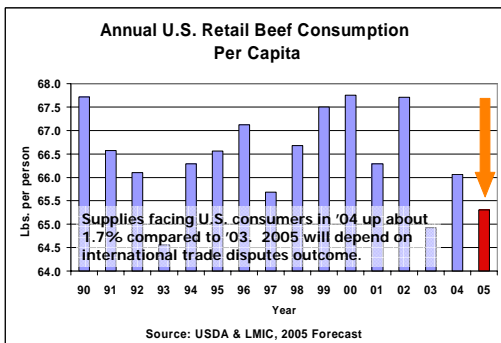
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### Beef Exports Still Much Smaller Than In '03



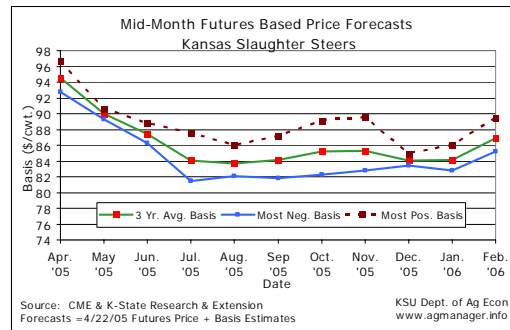
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### Slow Export Recovery Means U.S. Beef Consumption In '05 Will Increase Modestly

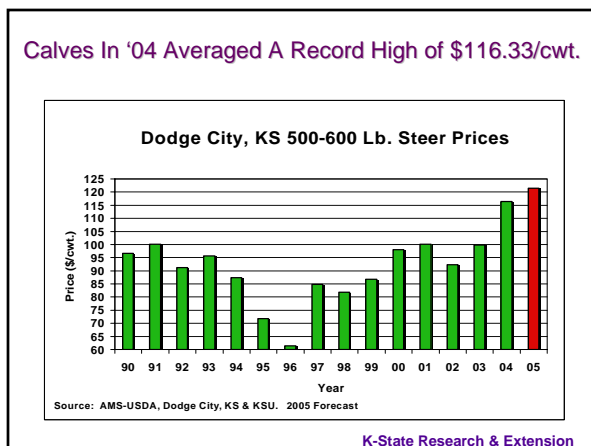
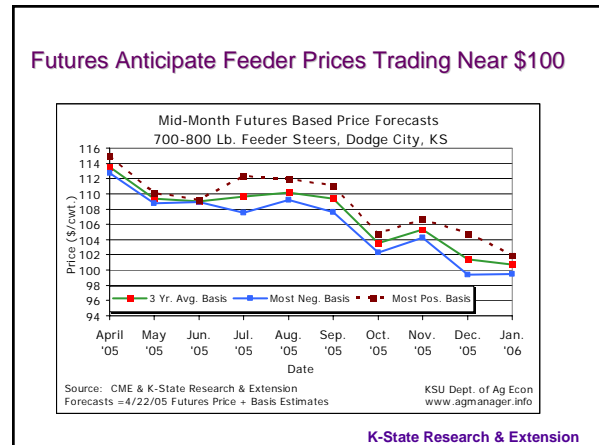
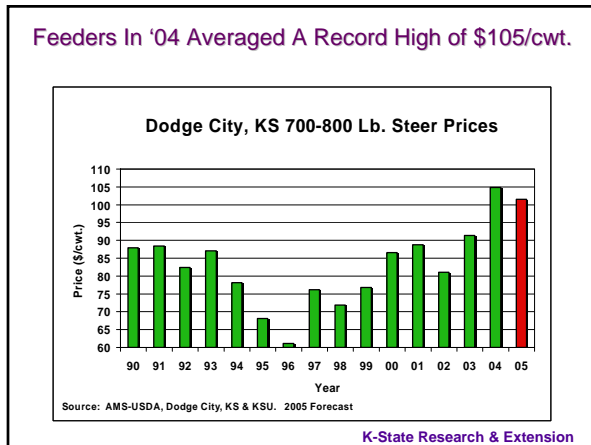
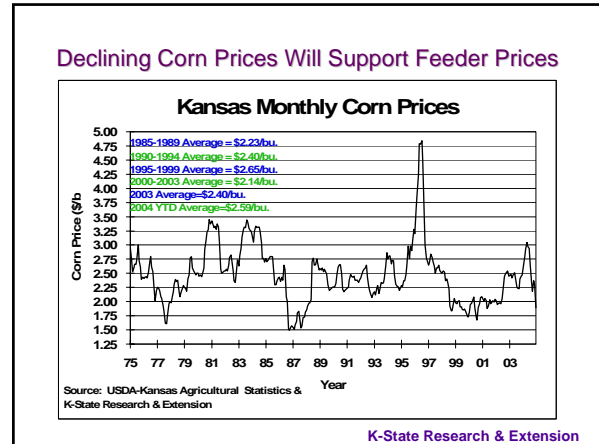
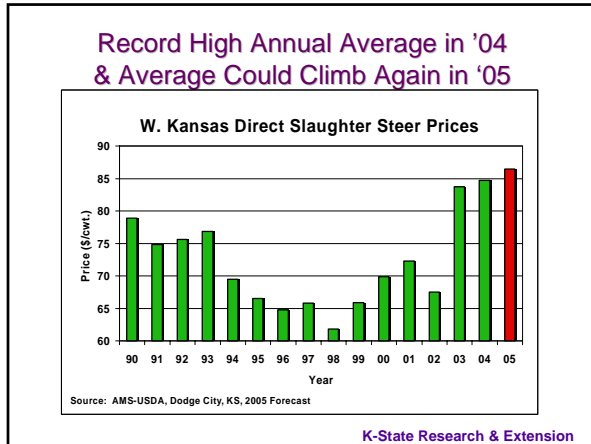


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### Futures Anticipate Prices Averaging In Upper \$80's This Winter & Declining Seasonally Into Summer



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- Key Points To Consider**
- BSE Has Had Little Impact On Domestic Consumer Demand
    - That could change if more U.S. BSE cases are identified
  - When Will Japan Reopens Its Border To U.S. Beef?
    - Japanese agreed to use carcass age for verification
    - Production record requirements to be determined
  - Will Canadian border reopen this spring?
    - Trade will push U.S. slaughter & production up
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## Key Points To Consider


- Opening Canadian border could lower U.S. prices by 2 to 4%
- Domestic production will fall modestly (depends on Canada)
- Despite small exports, U.S. per capita beef supplies could decline again
- Look for domestic demand to level off, large year-to-year gains of late '03 and early '04 will be hard to repeat
- Slaughter cattle prices in '05 could average in the mid to upper-\$80's
- 2005 could provide the cyclical peak in cattle prices

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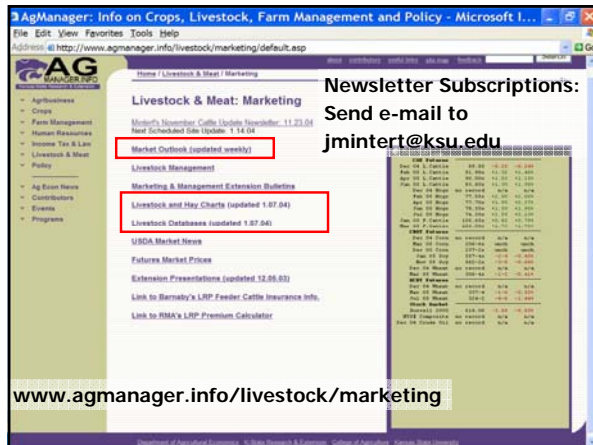
K-State Cattle Risk Management Workshop

What is LRP Insurance?  
 Comparing LRP Insurance to CME Options

**K-State Cattle Risk Management Workshop**



February 23, 2005  
 9:30 a.m. — 3:30 p.m.  
 Friendship Center  
 746 Comanche  
 Salina, KS  
 (785) 309-5850



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Address: http://www.agmanager.info/livestock/marketing/default.asp

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Market's November Cattle Update Newsletter: 11.23.04  
 Next Scheduled File Update: 9.14.04

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Market Outlook (updated weekly)

Livestock Management

Marketing & Management Extension Bulletin

Livestock and Hay Charts (updated 1.07.04)

Livestock Databases (updated 1.07.04)

USDA Market News

Future Market Prices

Extension Presentations (updated 32.05.03)

Link to Barnaby's LRP Feeder Cattle Insurance Info.

Link to RMA's LRP Premium Calculator

www.agmanager.info/livestock/marketing