

#### 2013 Risk and Profit Conference Breakout Session Presenters

"Knowledge for Life"

## 7. USDA Crop and Livestock Reports: What, When, and Where?

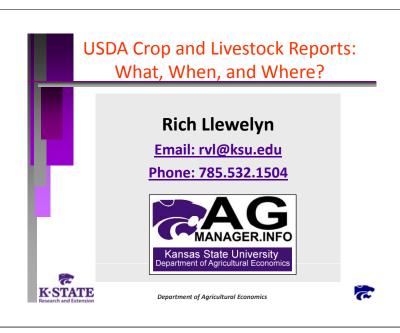
#### Rich Llewelyn

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Rich Llewelyn is an Extension Assistant in the Department of Agricultural Economics at K-State. Raised on a farm in Riley, KS, he is a graduate of K-State with a PhD in Agricultural Economics in 1995. He then spent 13 years teaching economics and working with rural and urban community development in East Java, Indonesia before returning to Kansas in 2006 to work with the AgManager.info website and departmental conferences, including the Risk and Profit conference.

#### Abstract/Summary

Generally, commodity markets are efficient. No one will consistently beat the market. But it is possible to end up well behind the market if you don't know what is going on. Focusing on USDA crop and livestock reports, this presentation will help participants understand what information is freely available and when, in order to be aware of times when a particular market may be absorbing this information, causing changes in prices.



# Predicting Commodity Prices: A couple of quotes

 "Prediction is very difficult, especially if it's about the future".

Neils Bohr, Physicist

 "I have seen the future and it is very much like the present, only longer."

Kehlog Albran, Author



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## Moneyball: The Art of Winning an Unfair Game

- By Michael Lewis (2003). Movie with Brad Pitt (2011).
- Sabermetrics (Bill James: 1980s)
- Billy Beane Oakland A's general manager
  - Determined "prices" for things not generally considered "priceable"
  - Fielding skills, on-base percentage, pitches not in the strike zone that are swung at.

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- For hitters, the most important statistic:
  - OBP: on-base percentage (3x more important than slugging percentage). Most important predictor of run production.
  - Also: strikeout percentage and ERV (expected run value). These are all more important than HR, RBI or batting percentage.
- For pitchers, the most important stat:
  - Ground ball:fly ball ratio. By far the most important.
     2.5x more important in predicting low runs scored than ERA (earned run average).
  - Others: walk:strikeout ratio, pitches per batter.



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#### The Point: Information Matters

- Market Efficiency:
  - In "Moneyball", market inefficiencies existed: highpriced players did not have some of the most important statistics; those with some of the most important stats were low-priced.
  - Much economic analysis assumes that markets operate efficiently (perfectly competitive market)
    - Perfect information
    - Homogeneous good
    - No participant with market power to set prices
    - No barriers to entry or exit
    - Equal access to production technology



#### Market Efficiency

- For the most part, commodity markets are efficient. (You cannot/will not consistently beat the market over a long time).
- BUT: you may well be behind the market if you don't know what is going on.
- This presentation is to help you understand what information is freely available and when, so that you are aware of times when a particular market may be absorbing this information, causing changes in prices.





#### A Note on Fundamental vs.Technical Analysis

- Fundamental Analysis: uses supply and demand data (and other economic data such as income, costs, currency rates, inflation, etc) to forecast prices.
- Technical analysis: primarily uses the patterns of price data itself. Looks for trends in prices, as well as highs and lows which provide "natural" limits to price movement.

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#### Fundamental Analysis vs. **Technical Analysis**

- Technical analysis attempts to spot patterns in price volatility and tries to time the purchase and sale of a particular asset.
- Fundamental analysis researches factors which should affect the price of the asset and makes purchase or sale decisions based on what prices are expected to do.

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- Advantages of technical analysis:
  - May be better at timing a purchase or sale
  - When wrong, technical analysis is faster to selfcorrect
  - May be useful to catch short-term trends.
- Disadvantages of technical analysis:
  - Relies almost exclusively on past price movements
  - May ignore other market information
  - Is more vulnerable to unexpected changes

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#### **Technical Analysis**

- A couple of quotes attributed to Warren Buffet about technical analysis:
  - "I realized technical analysis didn't work when I turned the charts upside down and didn't get a different answer."
  - "If past history was all there was to the game, the richest people would be librarians."



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#### **Fundamental Analysis**

- Advantages of fundamental analysis
  - Provides extra information not available using technical analysis.
  - May predict a price movement well in advance of it actually happening
  - Gives incentive to hold a winning position
  - Fundamental news provides information to the entire market, but is best utilized by someone who knows what it means.



#### **Fundamental Analysis**

- Disadvantages of fundamental analysis
  - Difficult to determine timing
  - May be missing variable(s)
  - Gives incentive to hold a losing position
  - Does not account for unexpected developments
    - 1973: Russian wheat sales
    - 1979: Russian invasion of Afghanistan; Iran revolution
    - 1991: Irag invades Kuwait
    - 2006: ethanol subsidy/mandate/tariff



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# Fundamental Analysis

- In today's world, the factors affecting the market fundamentals (supply and demand) are more numerous and more interconnected than ever.
  - Argentina's export ban on grains (2008)
  - Australia's drought (2009-2010)
  - Russia's fires (2010)
  - Europe's recent woes (Cyprus, Spain, Greece)

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#### Some factors to pay attention to:

- Income and unemployment
- Inflation
- Currency exchange rates (\$, Euro, Yen, etc)
- Interest rates
- Trade balances/deficits (current account)
- Government deficits and debt
- Government policy
- Weather
- Natural disasters
- Conflict/War

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#### **Fundamental Analysis**

• A few other notes:

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- Are fundamentals instantaneously discounted?
  - May be lags. Market may have already overshot equilibrium prior to report or info.
- Long-term vs. short-term
  - LT implications may differ from ST response.
- Key is understanding ALL the news in the market and how it will affect prices.
- One of the biggest sources of market news: USDA reports

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- USDA provides a variety of reports on agricultural commodities at daily, weekly, monthly, quarterly, and annual intervals.
  - Crop reports, including supply-demand info, planting intentions, stocks and inventory, and crop condition reports, among others.
  - Livestock reports, including animal inventories, slaughter, cold storage, on-feed, among others.
- In addition to reports, the annual USDA
   Outlook Conference the end of February is something to pay attention to.



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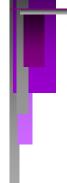


#### **Crop Reports**

- The USDA publishes monthly crop supply and demand estimates for the USA and the world
  - These benchmark estimates provide grain markets with objective, timely and comprehensive supply-demand info
    - Crop Production Reports
    - World Agricultural Supply-Demand Estimates (WASDE)
- USDA crop and WASDE reports have broad impact as they define the fundamental supplydemand conditions in commodity markets



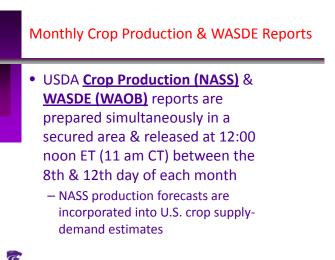
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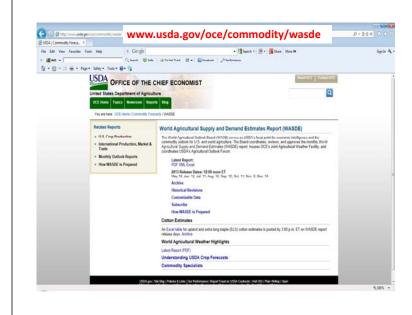
#### **USDA World Agricultural Outlook Board**

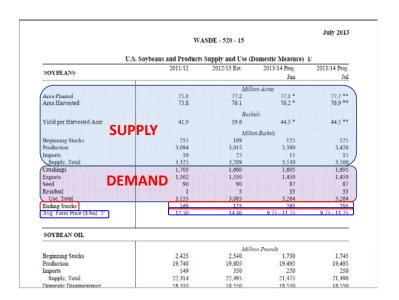
- Interagency process, with monthly forecasts of U.S. and world supply and demand for major crops
- A balance-sheet approach
  - Supply: Beginning stocks, Production & Imports
  - <u>Use</u>: Food, seed and industrial use, Exports, Feed+Residual
  - Ending Stocks or carryout stocks
  - Prices: U.S. average cash price projections (by marketing year)



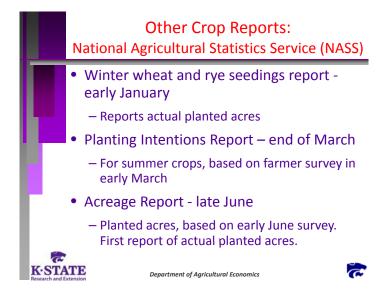


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# National Agricultural Statistics Service (NASS) Monthly yield and production forecasts Winter wheat – starting in May Spring wheat and other small grains – starting in July Other spring-planted crops – starting in August Final crop estimates - end of the harvesting season

Other Crop Reports:

Quarterly Stocks Reports

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- Grain and soybeans stored on and off farms (March, July, September, December)
- These inventory reports have become large market-changers in an era of relatively low stocks.

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## Other Crop Reports: National Agricultural Statistics Service (NASS)

- Weekly crop progress and condition report
  - Beginning in March, for each state.
  - Released each Monday morning, reporting on the previous Monday-Sunday period.
  - Also includes days suitable for fieldwork as well as topsoil and subsoil conditions for the state.
- Expected yield reports
  - Monthly, August to November, for corn and soybeans.
  - Reflect conditions as of the first of the month.



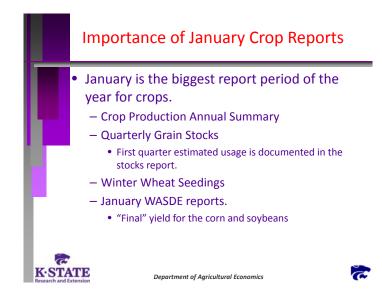


# Annual USDA June Ag Survey Largest USDA Survey Each Year Survey done in 1<sup>st</sup> two weeks in June: ≈ 2,400 interviewers contact > 125,000 farmers • Either by phone or in person

- U.S. crop & livestock producers report:
  - Acreage of each crop either planted or intend to plant
  - Acreage they expect to harvest as grain
  - Stocks of grain in on farm storage
  - Livestock inventories

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# Other "Big" Reporting Times • End of March: Planting Intentions report and Quarterly Stocks reports. • End of June: acreage report (reporting actual plantings, based on early June survey) • Mid-August: first expected yield report for summer crops, based on field surveys. • End of September: small grains summaries (including wheat)



- NASS Reports by Release Day
   http://www.nass.usda.gov/Publications/Reports by
- Release Day/index.aspUSDA Outlook Reports:

as news headlines.

 http://www.ers.usda.gov/Browse/view.aspx?subject= Crops



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#### **Useful Websites for Crop Reports**

- Crop Progress and Conditions
  - http://www.nass.usda.gov/Publications/State Crop Progress and Condition/
- Prospective Plantings:
  - <a href="http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1136">http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1136</a>
- Winter Wheat Seedings:
  - http://usda.mannlib.cornell.edu/MannUsda/viewDoc umentInfo.do?documentID=1188
- Small Grain Summaries:
  - http://usda.mannlib.cornell.edu/MannUsda/viewDoc umentInfo.do?documentID=1268





#### **Useful Websites for Crop Reports Quarterly Grain Stocks Reports:** http://usda.mannlib.cornell.edu/MannUsda/viewDoc umentInfo.do?documentID=1079 June Acreage Report: http://usda.mannlib.cornell.edu/MannUsda/viewDoc umentInfo.do?documentID=1000

#### K-State AgEcon Grain Outlook Newsletter:

http://www.agmanager.info/marketing/outlook/newl etters/default.asp

## A Few Additional Sites

- **Weekly Export Inspection Report:** 
  - Monday morning at 8 am.
  - http://www.ams.usda.gov/mnreports/wa\_gr101.txt
- **Weekly Export Sales Report:** 
  - Thursday morning at 8 am.
  - http://www.fas.usda.gov/export-sales/esrd1.html
- Weekly Petroleum Status Report:
  - Wednesday morning at 10:30 am.
  - http://www.eia.gov/petroleum/supply/weekly/
- NOAA 6-10 day forecasts (Daily)
  - http://www.cpc.ncep.noaa.gov/products/predictions /610day/index.php/





#### **Livestock and Meat Market Information USDA Reports**

- Many USDA livestock reports available
- The bigger ones:

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- Livestock, Dairy, & Poultry Outlook middle of each month, with a quarterly forecast for next 4-
- Cattle-on-Feed third or fourth Friday of each month.
- Livestock Slaughter Thursday, often the day before cattle-on-feed, each month.
- Cattle Inventory semi-annually, end of January and end of July.
- Hog and Pig Inventory quarterly, March, June, September, December.

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- June, September, December.
- US and Canadian Cattle / US and Canadian Hogs – latter parts of February and August.
- Cold Storage generally around 22<sup>nd</sup> of each
- Milk Production between the 19th-24th of each month



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#### **Livestock and Meat Market Information USDA Reports**

- Livestock, Dairy, & Poultry Outlook
  - http://www.ers.usda.gov/publications/ldp
    - Monthly, in the middle of the month
    - Quarterly forecast for next 4-6 quarters
- US & Canadian Cattle
  - http://usda.mannlib.cornell.edu/MannUsda/vie wDocumentInfo.do?documentID=1464
    - Released 2x year (Feb. & Aug, mid month)
- US & Canadian Hogs
  - http://usda.mannlib.cornell.edu/MannUsda/vie wDocumentInfo.do?documentID=1624
    - Released 4x year (Feb, Apr, Aug, Oct)

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http://usda.mannlib.cornell.edu/MannUsda/vie wDocumentInfo.do?documentID=1034

Livestock and Meat Market Information

- Released monthly, mid-month
- Livestock Slaughter
  - http://usda.mannlib.cornell.edu/MannUsda/vie wDocumentInfo.do?documentID=1096
    - Released monthly, mid-month
- Cattle on Feed
  - http://usda.mannlib.cornell.edu/MannUsda/vie wDocumentInfo.do?documentID=1020
    - Released monthly, 3<sup>rd</sup> or 4<sup>th</sup> Friday















- Cattle Inventory Reports
  - http://usda.mannlib.cornell.edu/MannUsda/vie wDocumentInfo.do?documentID=1017
    - Released in Jan & July; end of the month;
- Hogs and Pigs Inventory Reports
  - http://usda.mannlib.cornell.edu/MannUsda/vie wDocumentInfo.do?documentID=1086
    - Released quarterly (Mar, Jun, Sep, Dec); end of the month
- Milk Production

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- http://usda.mannlib.cornell.edu/MannUsda/vie wDocumentInfo.do?documentID=1103
  - Released quarterly (Mar, Jun, Sep, Dec); end of the month

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- Daily Livestock Report
  - http://www.dailylivestockreport.com/
    - 1 page synopsis on livestock/meat market drivers
    - Lists schedule of releases, and links to, current month's USDA reports
- Interest Rates Forecasts
  - http://www.cmegroup.com/trading/interestrates/fed-funds.html
- CME Group Livestock Fundamentals
  - <a href="http://www.cmegroup.com/trading/commodities/cme-group-livestock-fundamentals.html">http://www.cmegroup.com/trading/commodities/cme-group-livestock-fundamentals.html</a>
    - Overview of cattle & hog industries; outlines stages of production, etc.



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#### Livestock and Meat Market Information Current Price Information

- Futures Markets
  - <a href="http://www.cmegroup.com/trading/commodities/">http://www.cmegroup.com/trading/commodities/</a>
  - http://www.agmanager.info/livestock/marketing/fut ures/default.asp
- Cash Markets
  - http://www.agmanager.info/livestock/marketing/graphs/default.asp
  - http://www.agmanager.info/livestock/marketing/dat abase/default.asp
- Basis (Cash Futures) Information
  - http://www.agmanager.info/livestock/marketing/gra phs/default.asp#Basis Charts
  - BeefBasis.com <a href="http://www.beefbasis.com">http://www.beefbasis.com</a>

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#### Livestock and Meat Market Information Newsletters and Commentary from K-State

- KSU Radio Interview
  - http://www.agmanager.info/livestock/market ing/outlook/newsletters/default.asp
- "In the Cattle Markets"
  - http://www.lmic.info/memberspublic/InTheC attleMarket/CattleMktsframe.html
- Recent Cattle Finishing Returns
  - http://www.agmanager.info/livestock/market ing/outlook/newsletters/FinishingReturns/de fault.asp



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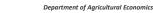


# THANK YOU! QUESTIONS???

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