

USDA Crop and Livestock Reports: What, When, Where?



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Price Analysis and Forecasting

• "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

• "The future, predict we cannot."

Yoda



Moneyball: The Art of Winning an Unfair Game

- By Michael Lewis (2003)
- 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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Moneyball: Valuing Hitters

- 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.
 - A few others: pitches per plate appearance,
 walk:strikeout ration, pitches not in strike zone
 that are swung at.



Moneyball: Valuing Pitchers

- 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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Market Efficiency

- In "Moneyball", market inefficiencies existed:
 high-priced 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.
- If inefficiencies exist, opportunities exist.
 - Land markets?
 - Valuing used equipment and machinery?
 - Commodities?
 - Others?



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Fundamental Analysis vs. Technical Analysis

- Fundamental Analysis: uses supply and demand data (and other economic data such as income, costs, currency rates, inflation, etc) to understand prices. <u>USDA reports provide data about</u> <u>fundamentals (supply/demand).</u>
- 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.



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 in the longer term
 - Fundamental news provides information to the entire market, but is best utilized by someone who knows what it means.



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Fundamental Analysis

- Disadvantages of fundamental analysis
 - Difficult to determine timing
 - May be missing variable(s)
 - Does not account for unexpected developments
 - 1973: Russian wheat sales and OPEC embargo
 - 1979: Russian invasion of Afghanistan; Iran revolution
 - 1991: Iraq invades Kuwait
 - 2001: 9/11
 - 2006: Ethanol subsidy/mandate/tariff
 - 2014: Oil glut caused by shale oil (fracking)
 - 2018-2020: Tariff war with China
 - 2020-2021: COVID-19



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) and export taxes (2010)
 - Russia's drought and fires (2010)
 - Greek debt drama (2011-2015)
 - China's economic slowdown (2015)
 - Brexit (2016-2020)
 - U.S. rejects TPP and renegotiates NAFTA (2017)
 - U.S./China engage in escalating tariff war (2018-2020)
 - COVID-19 pandemic disrupts supply chains and demand.



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USDA Reports

- 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 at the end of February
 is something to pay attention to.
 Presentations released online after the
 conference.



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
 - World Agricultural Supply-Demand Estimates (WASDE)
 - Crop Production Reports
- USDA crop and WASDE reports have broad impact as they define fundamental supplydemand conditions in commodity markets



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USDA World Agricultural Outlook Board and WASDE Reports

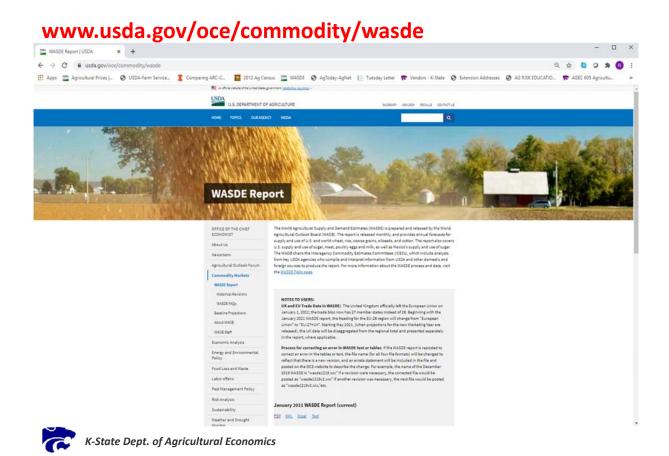
- Interagency process, with monthly forecasts of U.S. and world supply and demand for major crops
- A balance-sheet approach
 - Supply: Beginning stocks, Production & Imports
 - <u>Use</u>: Food, seed and industrial use, Exports, Feed+Residual
 - Ending Stocks or carryout stocks
 - Prices: U.S. average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



Monthly Crop Production & WASDE Reports

- USDA <u>Crop Production (NASS)</u> & <u>WASDE (WAOB)</u> reports are prepared simultaneously in a secured area & released at 12:00 noon ET (11 am CT) between the 8th & 12th day of each month
 - NASS production forecasts are incorporated into U.S. crop supplydemand estimates







USDA United States Department of World Agricultural Supply and Demand Estimates

ISSN: 1554-9089

Agricultural Marketing Service Farm Service Agency Economic Research Service Foreign Agricultural Service Office of the Chief Economist WASDE - 614 Approved by the World Agricultural Outlook Board July 12, 2021

WHEAT: The outlook for 2021/22 U.S. wheat this month is for reduced supplies, lower domestic use and exports, and decreased ending stocks. Supplies are lowered on reduced wheat production and beginning stocks. All wheat production is lowered 152 million bushels to 1,746 million. The all wheat yield is 45.8 bushels per acre, down 4.9 bushels from last month. The NASS July *Crop Production* report provides survey-based production forecasts for all wheat classes for the first time in the 2021/22 crop year. The production forecasts for durum and other spring wheat indicated a significant decline compared to last year for these two classes due to the severe drought conditions affecting the Northern Plains. Partially offsetting this decrease is higher winter wheat production, both on increased harvested acreage and a higher yield. Imports are raised 20 million bushels to 145 million. Beginning stocks are reduced on the latest NASS *Grain Stocks* report, which indicated lower 2020/2021 ending stocks than previously estimated.

Projected exports and feed and residual usage are lowered to 875 and 170 million bushels, respectively, on the reduction in durum and other spring wheat supplies. These would be the smallest U.S. wheat exports since the 2015/16 marketing year. Projected 2021/22 ending stocks are reduced 105 million bushels to 665 million and are the lowest since 2013/14. The projected 2021/22 season-average farm price is raised \$0.10 per bushel to \$6.60.

The global wheat outlook for 2021/22 is for reduced supplies, fractionally lower consumption, increased trade, and lower ending stocks. Supplies are projected to decline 5.3 million tons to 1,082.6 million on reduced beginning stocks in several countries and lower U.S. production not offsetting higher foreign production. Global production is lowered 2.0 million tons to 792.4 million but still remains at a record. Australia's production is raised 1.5 million tons to 28.5 million, based on continued widespread precipitation benefiting emergence and crop establishment. Russia's production is lowered 1.0 million tons to 85.0 million. Winter wheat production is reduced 0.5 million tons to 64.0 million on decreased harvested area from a damaging early spring freeze more than

offsetting higher also lowered 0.5 the spring wheat similar unfavorat tons to 138.2 and Central Europe.

The WASDE report includes summary information and highlights for each commodity, world supply and use tables, U.S. supply and use tables, and prices.

Projected 2021/2z word consumption is fractionally lower at 790.9 million on lower reed and resuse in Russia, the United States, and Kazakhstan mostly being offset by higher food, seed, and it is according to the projected 2021/23 clabel trade is resident 0.8 million tons to a

July 2021

WASDE - 614 - 15

U.S. Soybeans and Products Supply and Use (Domestic Measure) 1/

	Past y	ears	Current y	/ear		
OVDEANG	2019/20	2020/21 Est.	2021/22 Proj.	2021/22 Proj.		
OYBEANS			Jun	Jul		
		Mill	ion Acres			
Area Planted SUPPLY	76.1	83.1	87.6 *	87.6 **		
area Harvested	74.9	82.3	86.7 *	86.7 **		
		Bushels				
ield per Harvested Acre	47.4	50.2	50.8 *	50.8 **		
		Million Bushels				
Beginning Stocks	909	525	135	135		
roduction	3,552	4,135	4,405	4,405		
mports	15	20	35	35		
Supply, Total	4,476	4,680	4,575	4,575		
Crushings	2,165	2,170	2,225	2,225		
exports	1,679	2,270	2,075	2,075		
eed USE	96	102	104	104		
tesidual	12	4	15	15		
Use, Total	3,952	4,545	4,420	4,420		
nding Stocks	525	135	155	155		
avg. Farm Price (\$/bu) 2/	8.57	11.05	13.85	13.70		

Marketing Year

- The marketing year for wheat:
 - June 1 May 31
- The marketing year for summer crops (corn, soybeans, milo)
 - September 1 August 31.
- USDA begins estimating yields/production, usage, and prices in May each year for the following marketing year (projections for 2021-2022 MY began in May, 2021).



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Marketing Year Average Prices

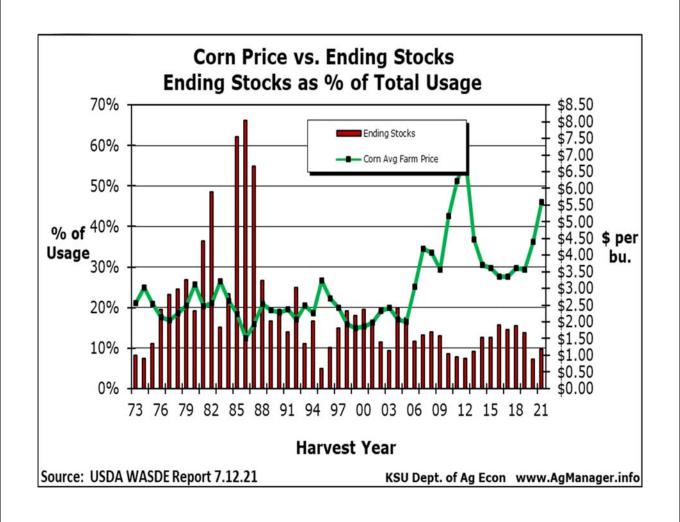
- Marketing Year Average (MYA) prices are determined by a weighted average of NATIONAL cash prices.
- Prices are weighted by sales each month.
- A relatively large proportion of sales take place in the three months following harvest for most crops (grain sorghum is an exception).
- MYA prices are used for government program payments (ARC, PLC), as well as crop insurance.
- USDA estimates MYA prices each month based on historical weights and expected prices and provides a range of expected prices.

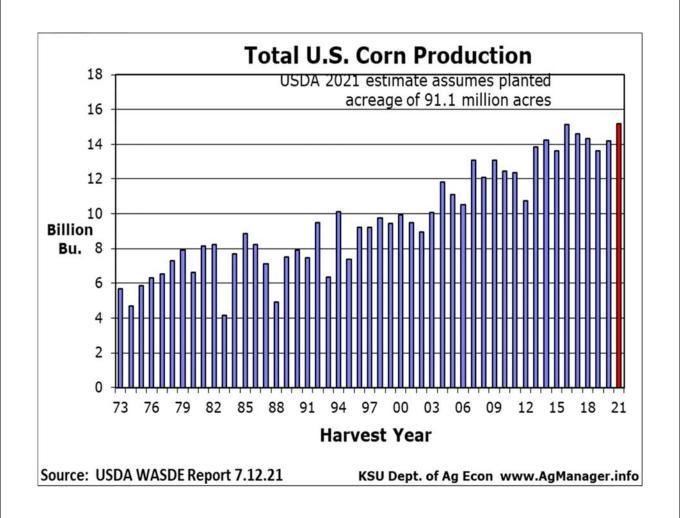


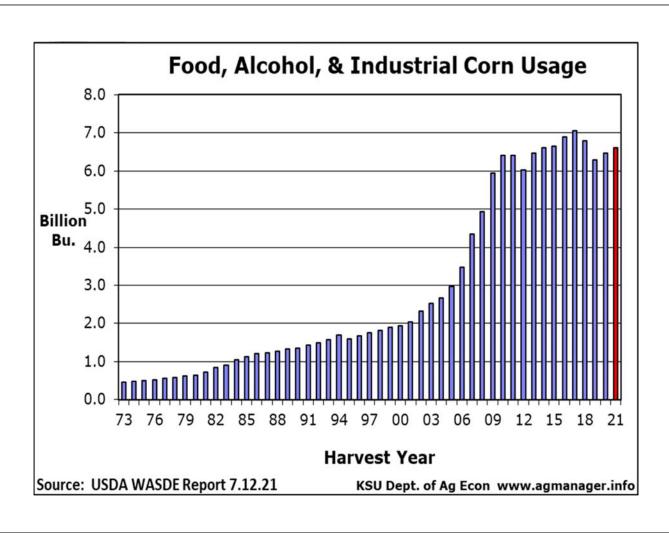


- Understanding supply and demand situation by comparing with historical values. Includes exports, production, imports, domestic use (ethanol), etc.
- Evaluating the size of ending stocks of a commodity and expected effects on prices (<u>stocks-to-use ratio</u>).
- Obtaining an idea of what USDA expects for MYA prices.









Other Crop Reports: National Agricultural Statistics Service (NASS)

- Winter wheat and rye seedings report early January
 - Reports actual planted acres from survey data
- Planting Intentions Report end of March
 - For summer crops, based on farmer survey in early March
- Acreage Report late June
 - Planted acres, based on early June survey. First report of actual planted acres.



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Other Crop Reports: 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
- Quarterly Stocks Reports
 - Grain and soybeans stored on and off farms (January, March, July, September)
 - These inventory reports have become large market-changers in an era of relatively low stocks.



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.



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Annual USDA June Ag Survey

Largest USDA Survey Each Year

- Survey done in 1st two weeks in June:
 - ≈ 2,400 interviewers contact > 125,000 farmers. Results released the end of June.
- 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



Importance of January Crop Reports

- January is the biggest report period of the year for crops.
 - Crop Production Annual Summary
 - Quarterly Grain Stocks
 - First quarter estimated usage is documented in the stocks report.
 - Winter Wheat Seedings
 - January WASDE reports.
 - First "final" yield for the corn and soybeans



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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) and quarterly stocks report, with ending MY inventories for summer crops.





Useful Websites for Crop Reports

- Crop Progress and Conditions
 - http://www.nass.usda.gov/Publications/State_Crop_ Progress and Condition/
- Prospective Plantings:
 - https://usda.library.cornell.edu/concern/publications/x633f100h?locale=en
- Winter Wheat and Canola Seedings:
 - https://usda.library.cornell.edu/concern/publications/z890rt24s?locale=en
- Small Grain Summaries:
 - https://usda.library.cornell.edu/concern/publications/ /5t34sj573?locale=en



Useful Websites for Crop Reports

- Quarterly Grain Stocks Reports:
 - https://usda.library.cornell.edu/concern/publications/xg94hp534?locale=en
- June Acreage Report:
 - https://usda.library.cornell.edu/concern/publications/j098zb09z?locale=en
- K-State AgEcon Grain Outlook Newsletter:
 - http://www.agmanager.info/grain-marketing/grain-market-outlook-newsletter



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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/



USDA Quick Stats and Quick Stats Lite

USDA data

- Census and survey data, by sector and commodity
- County, district, state, national, by year.
- Quick Stats:
 - https://quickstats.nass.usda.gov/
 - More difficult to use, but more data
- Quick Stats Lite:
 - https://www.nass.usda.gov/Quick Stats/Lite/index.php
 - Easier to use, but less data
- Census database:
 - https://www.nass.usda.gov/Quick Stats/CDQT/chapter/1/table/1



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Macroeconomic Data: FRED

FRED: Federal Reserve Economic data

https://fred.stlouisfed.org/

Maintained by the St. Louis Federal Reserve Bank.

Bond yields
Oil prices
Consumption expenditures
Public debt
Exchange rates
Consumer sentiment
Vehicle sales
MUCH more.





University of Illinois

 FarmDoc: extension website for ag econ department at University of Illinois. Lots of good information on markets, production, finance and other topics.

http://farmdoc.illinois.edu/

 FarmDoc Daily: a very useful daily blog with articles related to grain markets primarily. Can be very helpful in understanding grain markets and also for varying types of analysis.

http://farmdocdaily.illinois.edu/



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Livestock and Meat Market Information USDA Reports

- Many USDA livestock reports available
- The bigger ones:
 - Livestock, Dairy, & Poultry Outlook middle of each month, with a quarterly forecast for next 4-6 quarters
 - 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.



Livestock and Meat Market Information USDA Reports

- Some other reports:
 - Quarterly Hogs and Pigs End of March,
 June, September, December.
 - US and Canadian Cattle / US and Canadian
 Hogs latter parts of February and August.
 - Cold Storage generally around the 22nd of each month
 - Milk Production between the 19th-24th of each month



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Livestock and Meat Market Information USDA Reports

- Livestock, Dairy, & Poultry Outlook
 - https://usda.library.cornell.edu/concern/publicat ions/g445cd121?locale=en
 - Monthly, in the middle of the month
 - Quarterly forecast for next 4-6 quarters
- US & Canadian Cattle
 - https://usda.library.cornell.edu/concern/publicat ions/474299142?locale=en
 - Released 2x per year (March and August)
- US & Canadian Hogs
 - https://usda.library.cornell.edu/concern/publicat ions/7h149p85x?locale=en
 - Released 2x per year (March and August)



Livestock and Meat Market Information USDA Reports

- Cold Storage
 - https://usda.library.cornell.edu/concern/publicat ions/pg15bd892?locale=en
 - Released monthly, about the 22nd
- Livestock Slaughter
 - https://usda.library.cornell.edu/concern/publicat ions/rx913p88g?locale=en
 - Released monthly, about the 20th
- Cattle on Feed
 - https://usda.library.cornell.edu/concern/publicat ions/m326m174z?locale=en
 - Released monthly, 3rd or 4th Friday



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Livestock and Meat Market Information USDA Reports

- Cattle Inventory Reports
 - https://usda.library.cornell.edu/concern/publications/h702q636h?locale=en
 - Released in January & July; end of the month
- Hogs and Pigs Inventory Reports
 - https://usda.library.cornell.edu/concern/publicat ions/rj430453j?locale=en
 - Released quarterly (Mar, Jun, Sep, Dec); end of the month
- Milk Production
 - https://usda.library.cornell.edu/concern/publicat ions/h989r321c?locale=en
 - Released monthly, around the 20th of the month



Livestock and Meat Market Information Other Reports and Information

- 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
- CME Group Livestock Fundamentals
 - http://www.cmegroup.com/trading/commodities/cmegroup-livestock-fundamentals.html
 - Overview of cattle & hog industries; outlines stages of production, etc.
- Interest Rates Forecasts
 - http://www.cmegroup.com/trading/interest-rates/fedfunds.html
- Outlook for US Ag Trade
 - https://www.ers.usda.gov/publications/pubdetails/?pubid=99889



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

- KSU Radio Interview
 - http://www.agmanager.info/news/weeklycattle-market-report-glynn-tonsor-and-lmic
- "In the Cattle Markets" from LMIC
 - http://www.agmanager.info/news/cattlemarkets-lmic
- Recent Cattle Finishing Returns
 - http://www.agmanager.info/livestockmeat/cattle-finishing-historical-andprojected-returns/cattle-feeding-returns-1





Shows cattle inventory on January 1 and July 1. Released the end of January and end of July.

Some years did not have a July report (2013 or 2016).

https://usda.library.cornell.edu/concern/publications/h702q636h?locale=en



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Cattle

ISSN- 1948-9099

Released July 23, 2021, by the National Agricultural Statistics Service (NASS), Agricultural Statistics Board, United States Department of Agriculture (USDA).

July 1 Cattle Inventory Down 1 Percent

All cattle and calves in the United States on July 1, 2021 totaled 101 million head, 1 percent below the 102 million head on July 1, 2020.

All cows and heifers that have calved totaled 40.9 million head, 1 percent below the 41.4 million head on July 1, 2020. Beef cows, at 31.4 million head, down 2 percent from a year ago. Milk cows, at 9.50 million head, up 2 percent from previous year.

All heifers 500 pounds and over on July 1, 2021 totaled 16.0 million head, 1 percent below the 16.2 million head on July 1, 2020. Beef replacement heifers, at 4.30 million head, down 2 percent from a year ago. Milk replacement heifers, at 4.10 million head, up 3 percent from previous year. Other heifers, at 7.60 million head, 3 percent below a year earlier.

Steers 500 pounds and over on July 1, 2021 totaled 14.5 million head, down 1 percent from July 1, 2020.

Bulls 500 pounds and over on July 1, 2021 totaled 2.10 million head, unchanged from previous year.

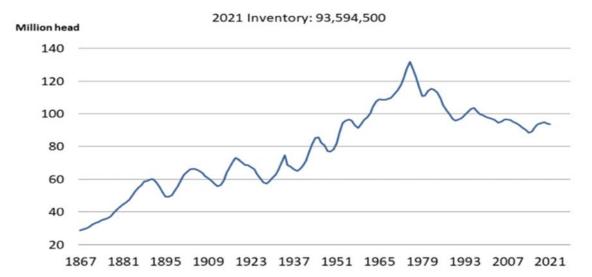
Calves under 500 pounds on July 1, 2021 totaled 27.4 million head, down 1 percent from a year earlier.

Cattle and calves on feed for the slaughter market in the United States for all feedlots totaled 13.4 million head on July 1, 2021, down 1 percent from previous year. Cattle on feed in feedlots with capacity of 1,000 or more head accounted for 84.3 percent of the total cattle on feed on July 1, 2021, up slightly from previous year. The total of calves under 500 pounds and other heifers and steers over 500 pounds (outside of feedlots), at 36.1 million head, down 2 percent from the 36.7 million head on July 1, 2020.

Calf Crop Down Slightly

The 2021 calf crop in the United States is expected to be 35.1 million head, down slightly from last year. Calves born during the first half of 2021 are estimated at 25.8 million head, up slightly from the first half of 2020. An additional 9.30 million calves are expected to be born during the second half of 2021.

All Cattle and Calves Inventory - United States: January 1



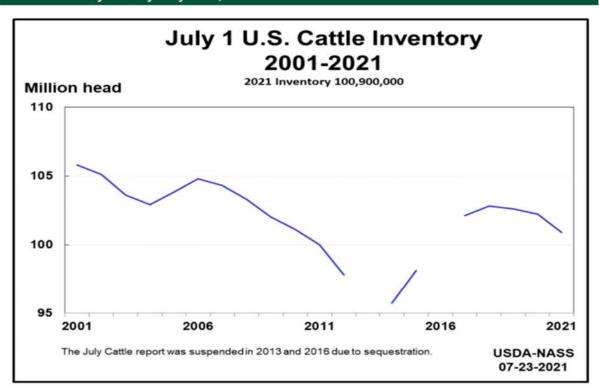
USDA-NASS 1-29-2021



Source: https://www.nass.usda.gov/Charts and Maps/Cattle/inv.php

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Cattle: Inventory on July 1 by Year, US





Source: https://www.nass.usda.gov/Charts and Maps/Cattle/jul inv.php K-State Dept. of Agricultural Economics

CFTC Commitment of Traders Report

- To help market participants understand market dynamics, the Commitment of Traders report is released every Friday by the CFTC (Commodity Futures Trading Commission).
- Main page:

https://cftc.gov/MarketReports/CommitmentsofTraders/index.htm

Annual data:

https://cftc.gov/MarketReports/CommitmentsofTraders/HistoricalCompressed/index.htm



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CFTC Commitment of Traders Report

- Provides a breakdown of each Tuesday's open interest for futures markets. Report is released on Friday.
- Open interest broken down into four trader classifications:
 - Producer/Merchant/Processor/User
 - Swap dealers
 - Managed Money
 - Other
- Pay attention to "Managed Money" class





CFTC Commitment of Traders Report: Corn, as of July 20, 2021

:					Report	table Posit	tions				
:											
: P	roducer/M	erchant :			:			:			
:	Processor	/User :	Sw	ap Dealers	:	Mar	naged Mone	ey :	Other	Reportab.	les
:	Long :	Short :	Long :	Short :	Spreading:	Long :	Short :	Spreading:	Long :	Short :	Spreading
OR	N - CHICA	GO BOARD O	F TRADE	(CONTRACTS	OF 5,000	BUSHELS)					
	C Code #0					,	Or	en Interest	is 1.478.	051	
P	ositions								100		
	399,077	926,541	304,199	33,218	19,970	258,994	40,431	163,672	151,010	58,044	53,404
C	hanges fr	om: Ju	ly 13, 20	21							
	-989	272	-2,120	-1,479	-1,121	12,023	-1,652	-15,466	-9,536	5,589	720
P	ercent of	Open Inte	erest Repr	esented by	Each Categ	gory of Tra	ader				
	27.0			2.2	1.4		2.7	11.1	10.2	3.9	3.6
N	lumber of	Traders in	Each Cat	egory			7	Total Trader	s: 794		
	281	368	29	10	19	93	24	67	76	82	90



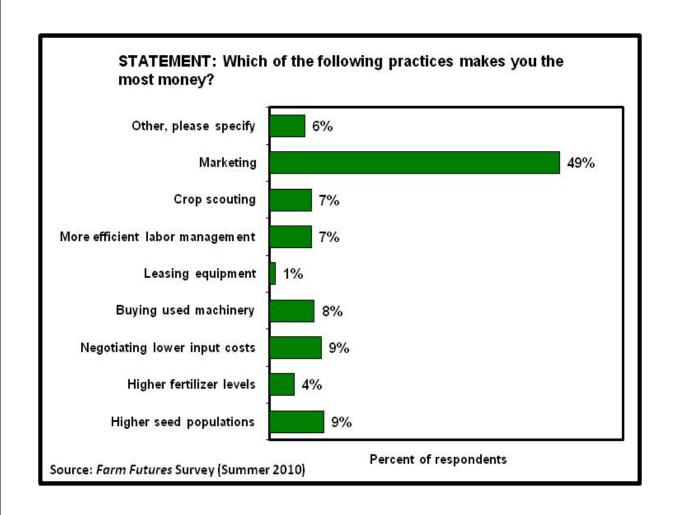
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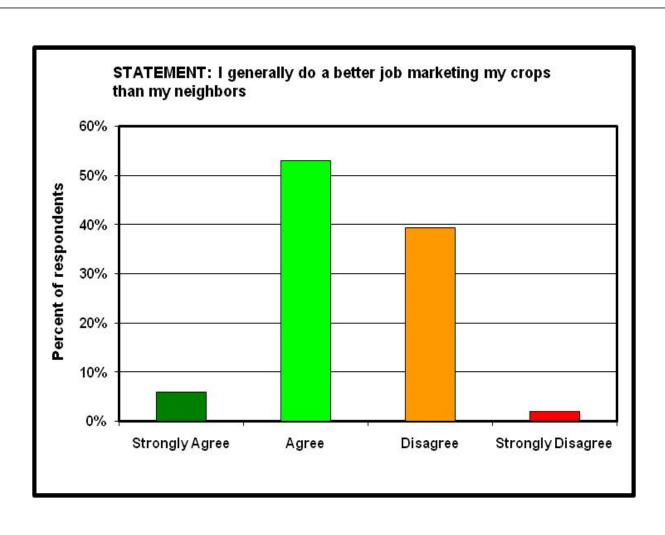
A Comment on Marketing and Profitability

- Many producers believe that marketing is the key to higher profits.
- While this is true to some degree, a more important factor is managing costs and production.
 - Production is important higher production helps when prices are low. And there is some control over it.
 - Cost management is more important.
- Machinery costs are very important. But also other costs, including seed, fertilizer, chemicals, labor.

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Somewhat higher yields and prices for higher profitability farms.

Lower variable costs (seed, fertilizer, chemicals, repairs) pretty much across the board for higher profitability farms.

Also lower fixed costs, with the except for maybe land charge for these farms.

Generally lower total machinery costs and lower total costs. These lower costs are what provide a lot of the profitability.

CORN	High 1/3	Mid 1/3	Low 1/3
KFMA	\$/acre	\$/acre	\$/acre
RETURNS			
Yield	119.13	100.39	96.00
Price	\$3.76	\$3.58	\$3.62
Gross Returns from Crop	\$447.93	\$359.40	\$347.52
VARIABLE COSTS			
Fertilizer	\$59.07	\$75.92	\$81.17
Seed	\$53.85	\$56.57	\$60.51
Chemicals	\$36.24	\$48.68	\$45.14
Machinery Repairs	\$22.63	\$22.33	\$28.44
Gas/Fuel/Oil	\$12.57	\$11.14	\$13.45
Total Variable Costs	\$278.72	\$296.02	\$330.28
FIXED COSTS			
Depreciation	\$30.81	\$30.73	\$41.44
Unpaid Operator Labor	\$30.27	\$39.94	\$54.23
Interest	\$11.19	\$12.40	\$17.04
Land Charge	\$25.48	\$19.86	\$34.85
Total Fixed Costs	\$100.97	\$106.97	\$154.59
Total Machinery Cost	\$71.38	\$68.52	\$86.24
Total Costs	\$379.68	\$402.99	\$484.87
Net Return to Management	\$61.07	-\$38.80	-\$127.59



QUESTIONS?



Risk and Profit Conference August 19-20, 2021/Manhattan, Kansas

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