

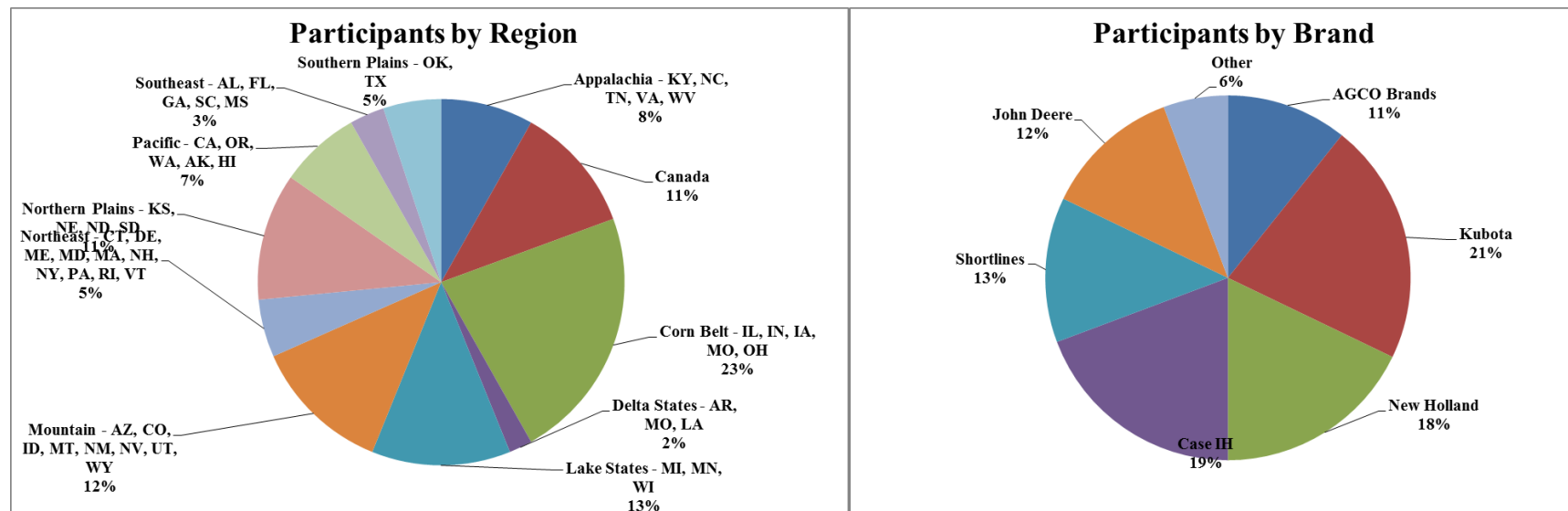
# ***Ag Equipment Intelligence***

December 2013 Dealer Sentiments &  
Business Conditions Update

# Monthly Ag Equipment Intelligence North American Dealer Survey

## **Background:**

- We are pleased to announce the results of the December Ag Equipment Intelligence survey conducted in partnership with Cleveland Research Company. We hope this monthly survey will provide valuable and timely insight into industry trends and fundamentals.
- The December survey had ~101 respondents representing combined annual revenues of roughly \$4.9 billion. Participants representing a broad cross section of geographies and brands are summarized in the charts below.
- It is important to note Challenger, Fendt, Massey Ferguson, and Valtra are included under AGCO while the “other” category includes manufacturers with relatively few respondents.



## Highlights / Summary Thoughts

- **Industry Sales Growth Slows in November** – Dealers reported sales grew 2% y/y on average in November, down from the 4% sales growth in reported in October. All equipment brands reported average sales growth for the month was up low to mid single digits y/y.
- **2014 Dealer Outlook for 1% Revenue Decline** - For 2014, dealers are expecting 1% sales decline, down slightly from the 1% growth outlook reported last month. Deere is forecasting the N. American Ag equipment industry to be down 5-10% in 2014.
- **New Equipment Inventories “Too High”**- A net 24% of dealers categorize their new inventory as “too high” (31% too high; 62% about right; 7% too low), vs. 8% of dealers last month who categorized their new inventory as “too high”. This marks the 4<sup>th</sup> consecutive month in that new inventories are “too high” and the highest net % since we began this survey in April 2011.
- **Used Combine Inventories Worsen** – A net 59% of dealers reported used combines inventories were “too high” (59% too high, 41% comfortable, 0% too low) vs a net 37% last month. The November number is tied with August for the highest net % reporting combine inventories “too high” in the history of the survey.

# Monthly Sales Growth

- Ag equipment dealers reported year-over-year sales grew 2% on average in November, down slightly from the 4% reported in October.
- All brands saw similar growth in November of low to mid single digits (between 2 and 5%).
- A net 4% of dealers reported better than expected results for November, down from the net 16% beating plan in October.

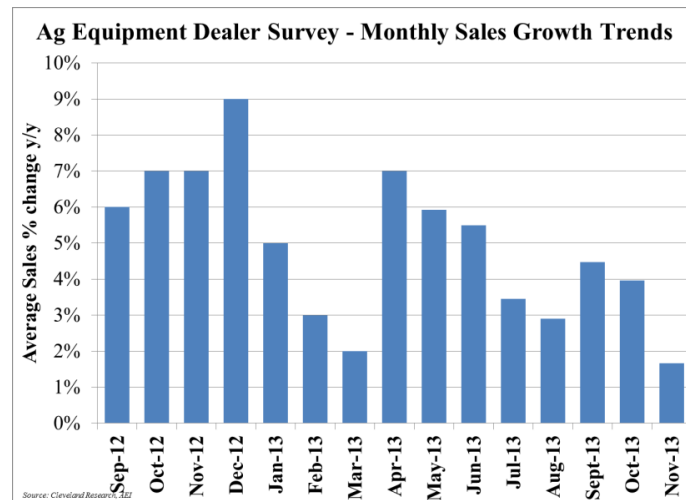
N. American Farm Equipment Dealer Survey - Average Dealer Sales Growth															
% Change y/y	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sept-13	Oct-13	Nov-13
<b>Overall</b>	6%	7%	7%	9%	5%	3%	2%	7%	6%	5%	3%	3%	4%	4%	2%
By Brand	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sept-13	Oct-13	Nov-13
AGCO	4%	3%	7%	13%	-2%	0%	5%	5%	1%	1%	-1%	-2%	-3%	-1%	4%
John Deere	10%	10%	7%	9%	6%	4%	1%	9%	9%	6%	4%	-7%	5%	7%	2%
New Holland	5%	0%	6%	6%	3%	1%	4%	5%	5%	7%	2%	4%	2%	4%	5%
Case IH	3%	7%	8%	5%	7%	4%	3%	6%	-1%	5%	5%	12%	6%	3%	2%
Kubota	-1%	3%	-2%	8%	4%	3%	6%	13%	-2%	10%	3%	4%	4%	0%	2%
Shortlines	5%	7%	5%	3%	1%	-2%	4%	3%	5%	4%	11%	-1%	11%	12%	5%
Other	0%	1%	3%	4%	6%	-3%	NA	5%	7%	3%	13%	0%	0%	5%	na

Source: Cleveland Research

N. American Farm Equipment Dealer Survey - Sales Versus Expectations															
% of Dealers Reporting	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sept-13	Oct-13	Nov-13
Better than expected	25%	26%	35%	38%	23%	18%	27%	25%	23%	19%	38%	33%	27%	32%	24%
In line with expectations	56%	54%	48%	49%	59%	60%	55%	52%	57%	58%	48%	47%	54%	51%	56%
Worse than expected	19%	20%	17%	13%	18%	22%	18%	24%	20%	23%	14%	20%	19%	17%	20%
<b>Net % (Better - Worse)</b>	<b>6%</b>	<b>5%</b>	<b>18%</b>	<b>25%</b>	<b>5%</b>	<b>-4%</b>	<b>9%</b>	<b>1%</b>	<b>3%</b>	<b>-4%</b>	<b>23%</b>	<b>13%</b>	<b>8%</b>	<b>16%</b>	<b>4%</b>

Source: Cleveland Research

# Monthly Sales Growth Continued



**N. American Farm Equipment Dealer Survey - Average Dealer Revenue Growth Trends**

% of Dealers Reporting	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sept-13	Oct-13	Nov-13
Positive Sales Growth	58%	61%	70%	69%	48%	44%	51%	60%	58%	52%	64%	53%	57%	59%	45%
Flat Sales	21%	17%	12%	14%	28%	35%	30%	20%	19%	21%	21%	21%	25%	20%	35%
Negative Sales Growth	21%	22%	18%	17%	24%	21%	19%	20%	23%	27%	15%	26%	18%	22%	20%
<b>Net % Reporting Growth</b>	<b>37%</b>	<b>39%</b>	<b>52%</b>	<b>52%</b>	<b>25%</b>	<b>23%</b>	<b>32%</b>	<b>40%</b>	<b>35%</b>	<b>25%</b>	<b>49%</b>	<b>26%</b>	<b>39%</b>	<b>37%</b>	<b>26%</b>
<b>Average % Change y/y</b>	<b>6%</b>	<b>7%</b>	<b>7%</b>	<b>9%</b>	<b>5%</b>	<b>3%</b>	<b>2%</b>	<b>7%</b>	<b>6%</b>	<b>5%</b>	<b>3%</b>	<b>3%</b>	<b>4%</b>	<b>4%</b>	<b>2%</b>

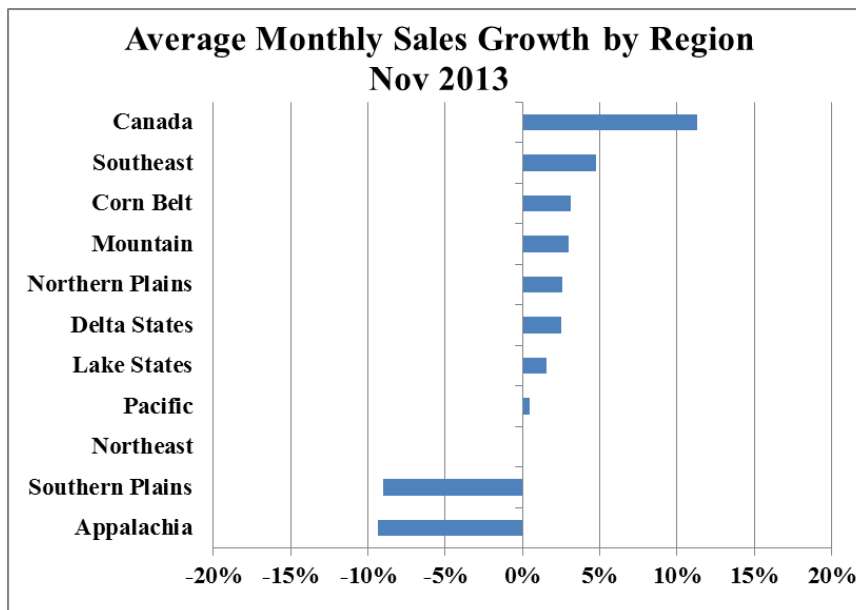
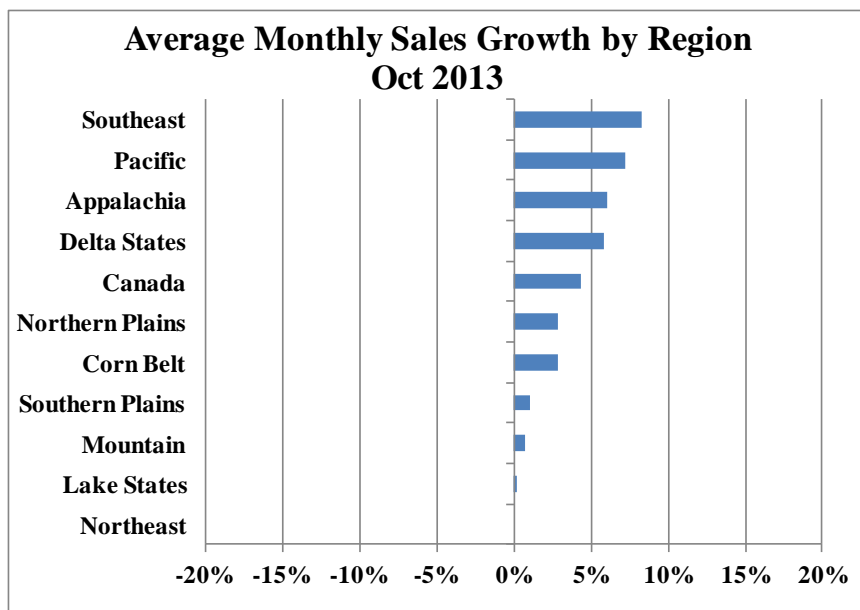
**Optimism/Sentiment vs. Last Month**

	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sept-13	Oct-13	Nov-13
More Optimistic	31%	27%	28%	28%	34%	34%	21%	27%	27%	26%	21%	19%	14%	15%	14%
Same	54%	54%	52%	55%	51%	50%	54%	58%	52%	50%	58%	50%	62%	60%	45%
Less Optimistic	15%	20%	20%	18%	15%	16%	26%	15%	21%	24%	21%	31%	23%	25%	41%
<b>Net % Dealer Optimism</b>	<b>15%</b>	<b>7%</b>	<b>8%</b>	<b>10%</b>	<b>19%</b>	<b>18%</b>	<b>-5%</b>	<b>13%</b>	<b>6%</b>	<b>2%</b>	<b>1%</b>	<b>-12%</b>	<b>-9%</b>	<b>-11%</b>	<b>-27%</b>

*Source: Cleveland Research*

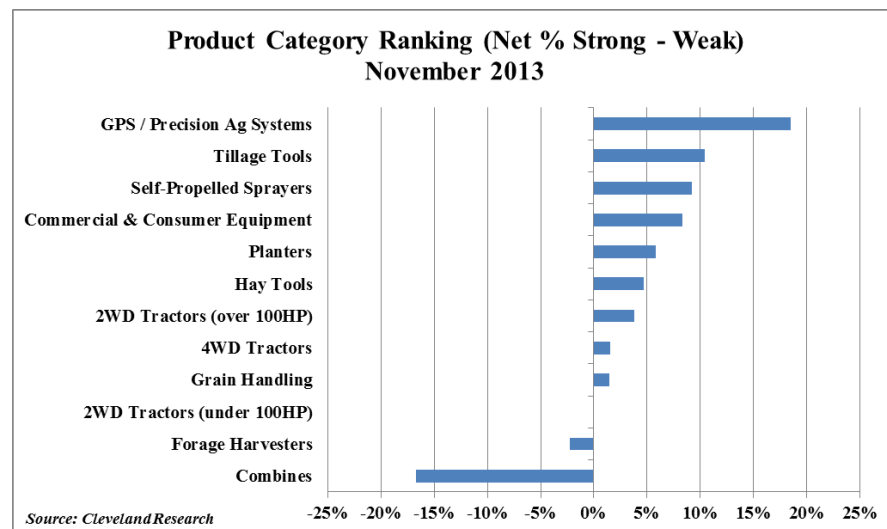
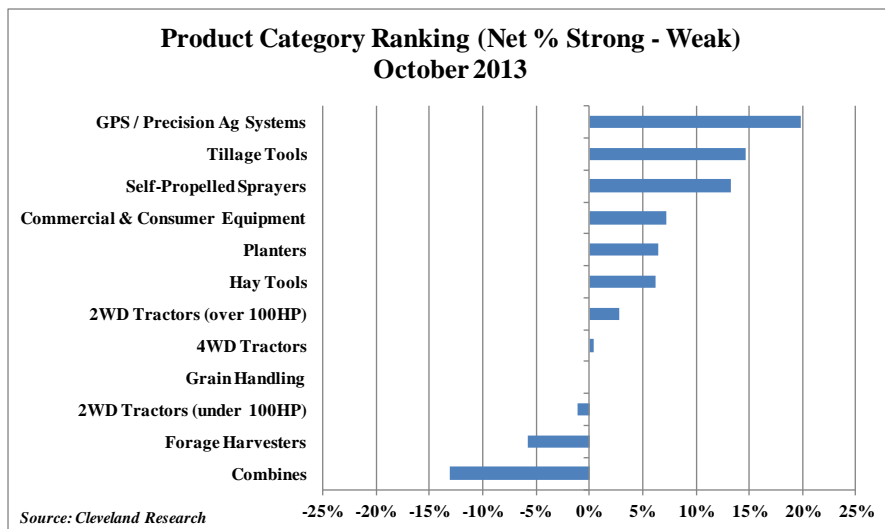
# Monthly Sales Growth by Region

- Seven out of eleven regions showed positive average monthly sales growth in November compared to 9 of 11 regions in October. The Southern Plains and Appalachia regions were the weakest performing this month, both at down 9% y/y for month.
- Compared to last month, Appalachia saw the most deceleration with average sales down 9% y/y this month compared to up 6% in October. Canada had the largest growth acceleration with average sales up 11% y/y vs up 4% in October.

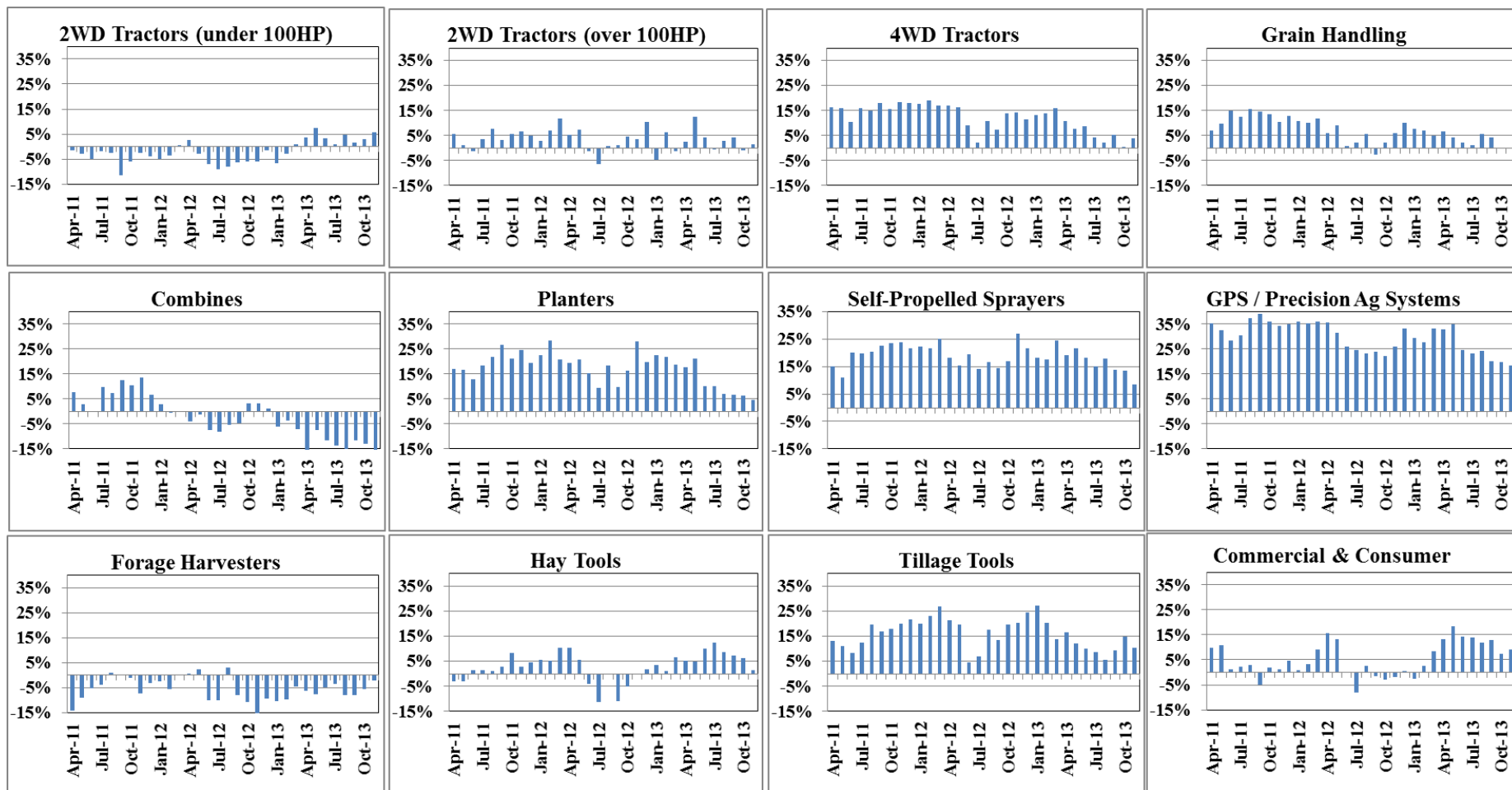


# Equipment Category Sales Trends

- Nine out of twelve product categories ranked in net positive territory in November, similar to last month. GPS/precision ag systems were the best performing category for the twelfth straight month, while Combines were the weakest category for the seventh straight month.
- Compared to last month, seven of the twelve product categories saw sales growth slow in November. Self-Propelled Sprayers and Hay Tools saw the largest slowdown (though both still growing y/y in Nov), while 2WD Tractors (under 100 hp) saw the largest improvement.



# Equipment Category Sales Trends





# Dealer Commentary on Monthly Sales and Outlook

- *Availability was an issue for us in the month (i.e. backorder).*
- *A lot of sales decrease has to do with equipment delivery dates. In 11/2012, we had several pre-sold pieces on the ground - not the case in 2013 - the equipment is coming in later.*
- *Customers continue to be positive despite dropping grain prices.*
- *Concern for changes in depreciation/tax rules.*
- *Late harvest postponed purchase...I hope.*
- *Lack of new large tractor sales in the month.*
- *Have had several good years, history shows things will go down.*
- *Lower commodity prices and increased equipment cost due to tier 4 requirements are becoming apparent.*
- *Commodity prices.*
- *Commodity prices down although cattle gains should be good. Still watching farm program and tax laws.*
- *Increased gross revenue for producers.*
- *Dropping grain prices.*
- *Crop price and depreciation will become a major factor next year. We are expecting lower sales of new.*
- *Lack of farm bill and commodity prices beginning to dip.*
- *The clouds are aligning for a reduction in the business but not sure how much.*
- *We have to have section 179 or we are in trouble.*
- *Lower commodity prices.*
- *No pre buys going on at this time - tractor business is slow.*

# Order Growth

## Overall Orders

- Incoming orders declined 2% on average in November, down from 1% growth in October. This marks the first month of negative orders since we began the survey in April 2011.
- All dealers saw declines in order growth for November with Kubota seeing the largest decline at -4%.

## New Combine Order Intentions

- Combine order intentions were consistent with last month among dealers with a net 41% of dealers planning to order fewer combines than last year.

N. American Farm Equipment Dealer Survey - Average Orders Growth															
% Change y/y	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sept-13	Oct-13	Nov-13
<b>Overall</b>	2%	4%	2%	4%	3%	3%	1%	2%	2%	0%	0%	2%	1%	1%	-2%
<b>By Brand</b>	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sept-13	Oct-13	Nov-13
AGCO	-1%	2%	1%	7%	2%	0%	0%	3%	-1%	0%	-7%	-2%	-5%	-2%	-2%
John Deere	4%	5%	3%	5%	5%	4%	3%	2%	3%	2%	2%	7%	2%	2%	-2%
New Holland	0%	-1%	0%	-1%	0%	-1%	0%	0%	-1%	-1%	-1%	-12%	0%	0%	-3%
Case IH	-2%	4%	2%	2%	3%	4%	0%	3%	0%	-2%	1%	3%	1%	4%	-1%
Kubota	-1%	2%	0%	5%	2%	0%	1%	2%	1%	0%	-5%	-1%	0%	0%	-4%
Shortlines	0%	2%	3%	3%	5%	1%	0%	1%	0%	1%	9%	15%	5%	5%	-3%
Other	1%	0%	3%	0%	4%	0%	na	1%	1%	0%	0%	-1%	0%	0%	na

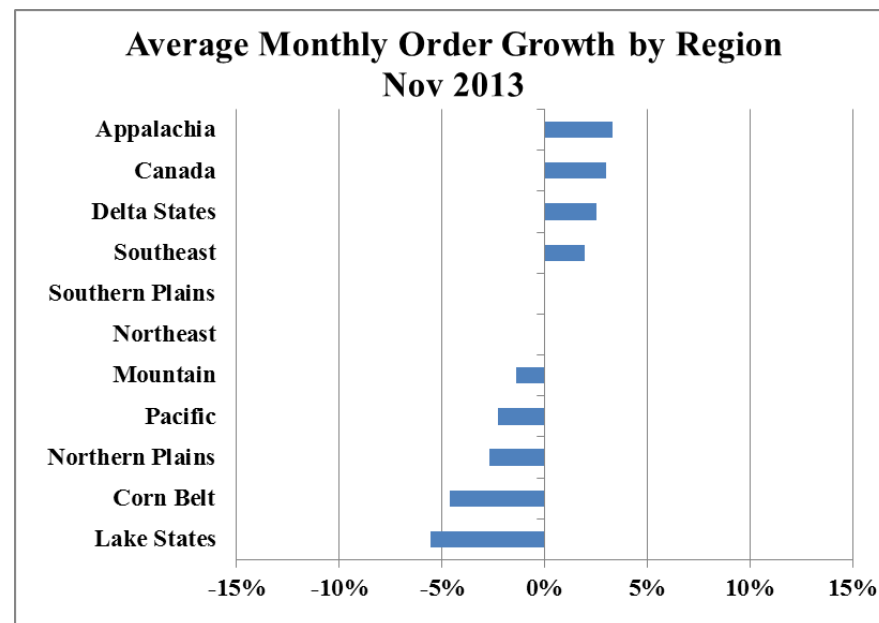
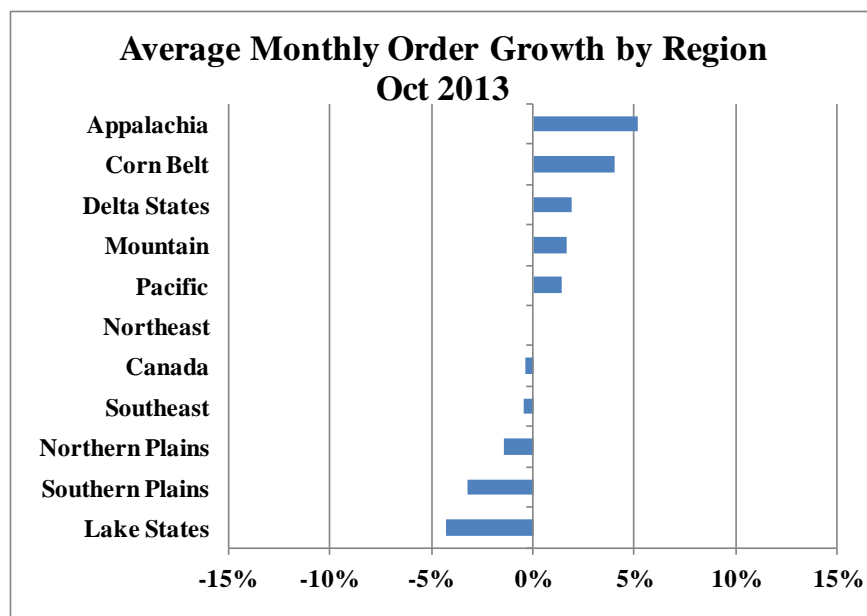
Source: Cleveland Research

New Combine Order Intentions vs. Last Year															
	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sept-13	Oct-13	Nov-13
More	6%	15%	21%	20%	20%	18%	16%	24%	9%	9%	14%	8%	16%	10%	11%
Same	68%	52%	52%	54%	59%	55%	60%	60%	68%	62%	46%	49%	45%	39%	38%
Less	26%	32%	28%	26%	21%	27%	23%	16%	23%	29%	41%	43%	39%	51%	52%
<b>Net % (More- Less)</b>	<b>-20%</b>	<b>-17%</b>	<b>-7%</b>	<b>-7%</b>	<b>-2%</b>	<b>-9%</b>	<b>-7%</b>	<b>8%</b>	<b>-14%</b>	<b>-20%</b>	<b>-27%</b>	<b>-35%</b>	<b>-22%</b>	<b>-40%</b>	<b>-41%</b>

Source: Cleveland Research

## Order Growth by Region

- Four out of eleven regions showed positive monthly order growth in November, down from five of eleven in October. Appalachia, Canada, the Delta States and the Southeast all saw low single digit order growth while the Lake States reported average orders down 6% y/y.
- Compared to last month, Canada and the Southern Plains showed the most significant improvement in order growth, while the Corn Belt demonstrated the most significant deceleration in order growth.



# 2014 Sales Outlook

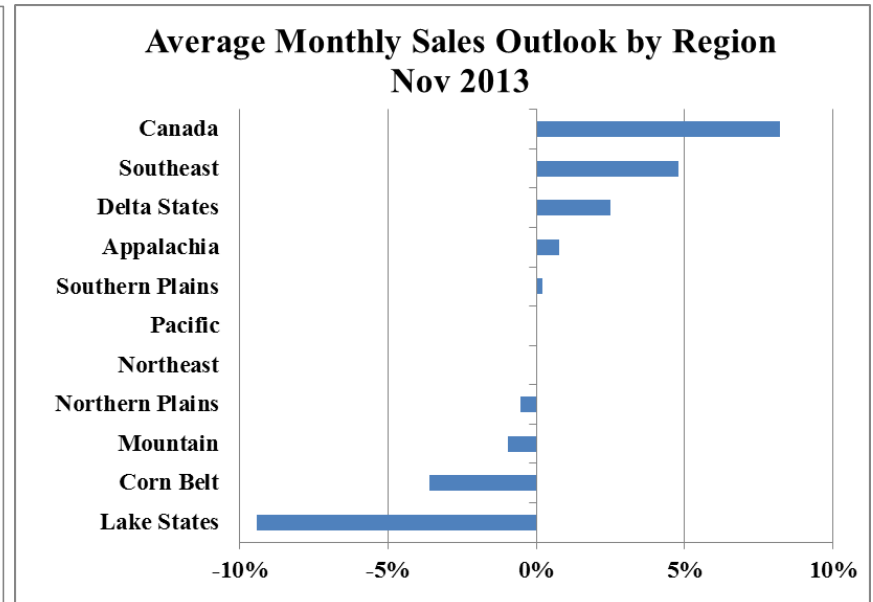
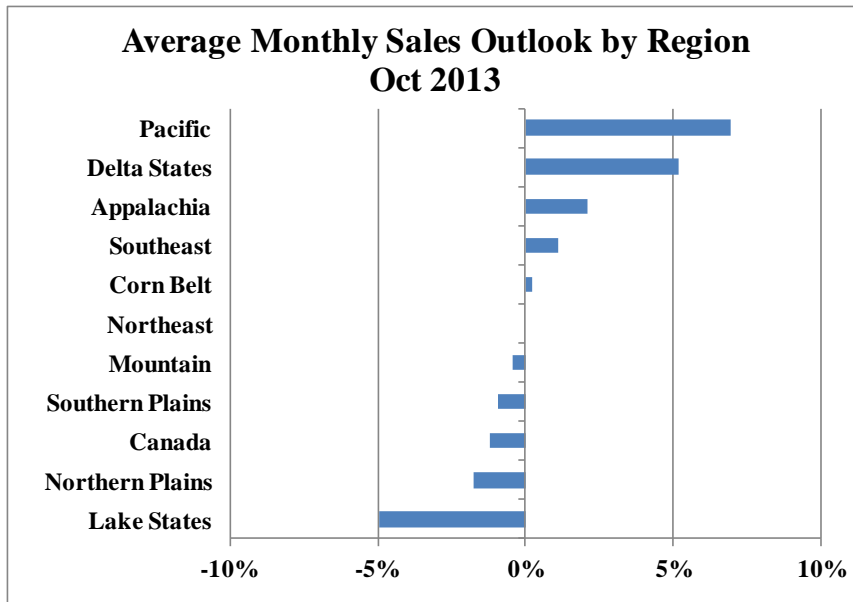
- For 2014, average dealer outlook is for a 1% sales decline, down from the 1% growth outlook reported last month. Deere is forecasting the N. American Ag equipment market to be down 5-10% in 2014, while AGCO recently forecast the market down 0-5%.
- No particular brand is meaningfully more/less optimistic than the others. All dealers are expecting sales to be between flat and down 3% in 2014.

Dealer Outlook															
(% chg y/y)	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sept-13	Oct-13	Nov-13
	2013 Outlook												2014 Outlook		
Overall	3%	2%	4%	2%	4%	4%	3%	5%	5%	3%	3%	3%	0%	1%	-1%
By Brand	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sept-13	Oct-13	Nov-13
AGCO	4%	4%	3%	3%	2%	2%	6%	6%	2%	3%	-4%	2%	-1%	-3%	-2%
John Deere	4%	2%	6%	3%	4%	4%	3%	5%	8%	4%	6%	1%	2%	2%	0%
New Holland	1%	0%	0%	-1%	1%	0%	2%	4%	1%	6%	0%	-3%	2%	1%	-2%
Case IH	2%	2%	2%	-1%	3%	4%	1%	5%	0%	0%	3%	-5%	-3%	0%	-1%
Kubota	3%	2%	0%	0%	4%	4%	3%	7%	4%	8%	-3%	3%	-1%	-1%	-3%
Shortlines	5%	0%	2%	0%	4%	4%	2%	3%	3%	2%	12%	5%	4%	6%	-3%
Other	3%	3%	-2%	2%	1%	5%	NA	1%	3%	1%	4%	1%	2%	2%	na

Source: Cleveland Research

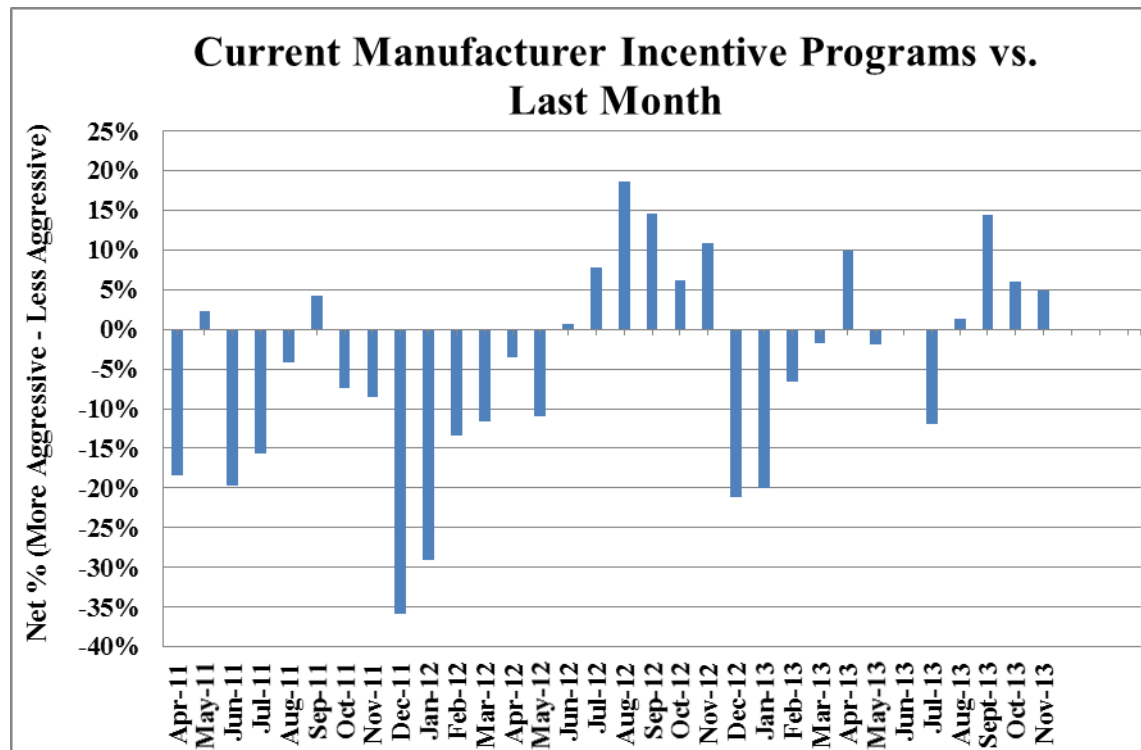
## 2014 Sales Outlook Continued

- Four out of eleven regions are projecting a positive full year 2014 sales outlook in November, similar to last month. Canada is the most optimistic (expecting 8% growth), while the Lake States region is expecting sales to decline 9% in 2014.



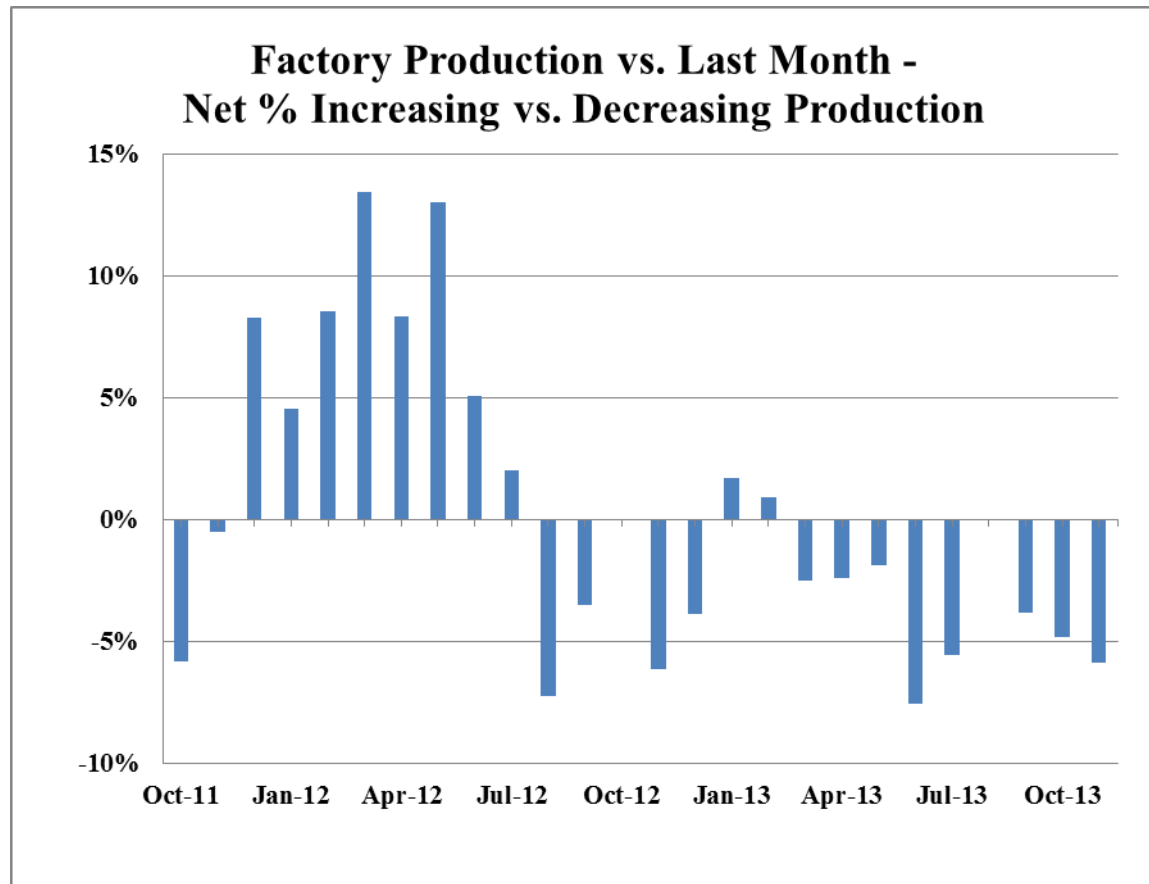
# Current Manufacturer Incentive Programs

- A net 5% of dealers report that manufacturers are more aggressive with incentives in November (21% more aggressive; 63% same; 16% less aggressive) compared to 6% reporting more aggressiveness in October.



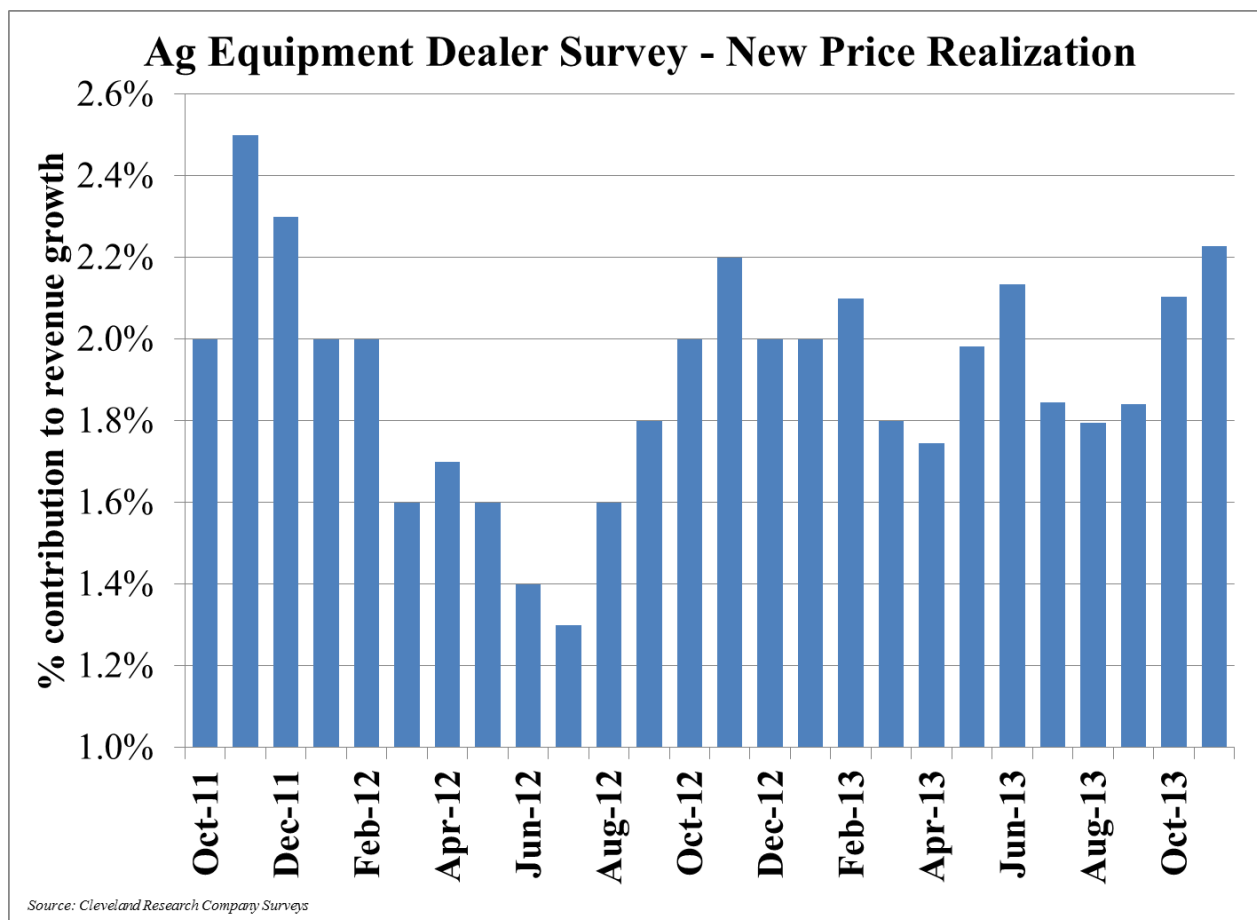
# Factory Production

- A net 6% of dealers report that factory production was down compared to last month (8% increasing production; 78% no change in production; 14% decreasing production).



# Pricing Trends

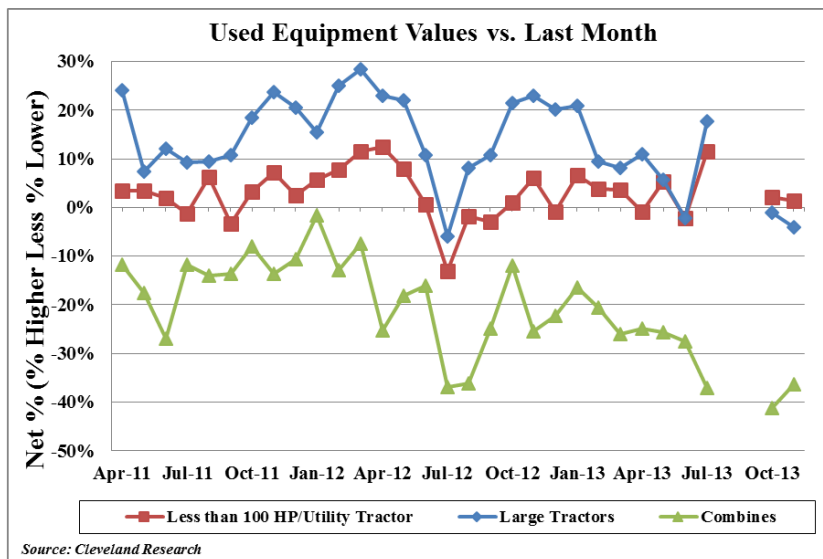
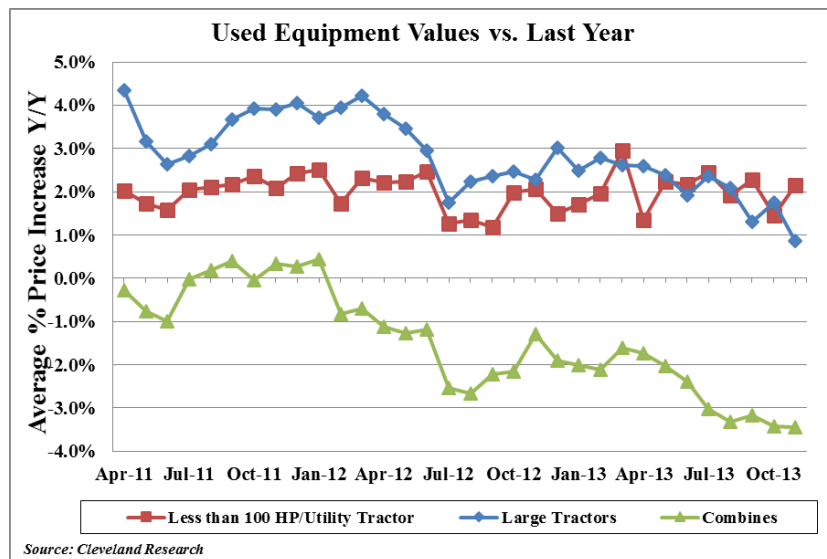
- Dealers report price contributed roughly ~2.2% to total November revenue growth, the highest rate since November of 2012. We would expect this trend to move higher in the coming months as new Model Year price increase announcements are made, as well Final Tier 4 price increases.





# Used Equipment Pricing

- By category, used prices for tractors over 100HP are up 1% year-over-year on average, down from 1.7% reported last month. Prices for used tractors under 100HP are up 2.1%, while used combine values remained down 3.4% y/y.
- A net 36% of dealers reported that used combine values were lower in November compared to October, up slightly from the net 41% who reported used combine values were lower in October than September.



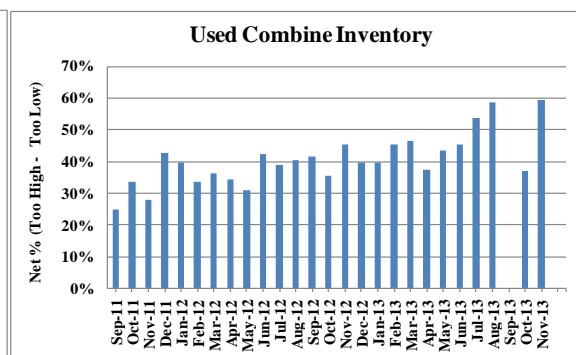
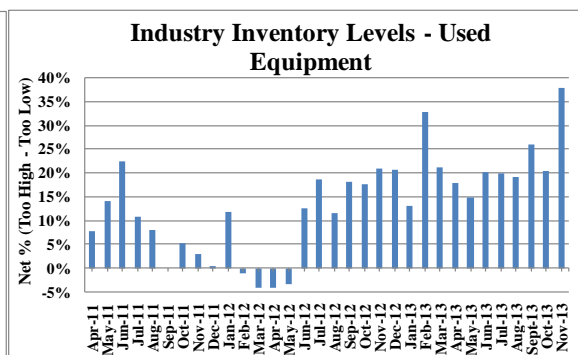
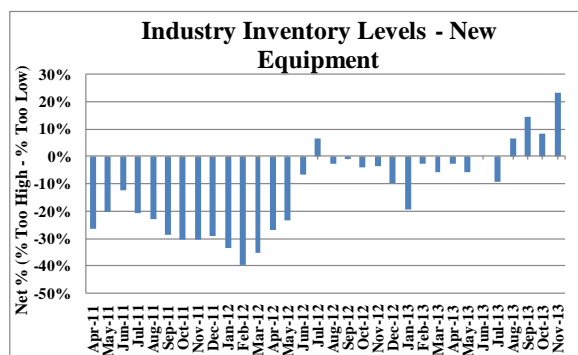
# Inventory Levels

## New Equipment Inventory

- A net 24% of dealers categorize their new inventory as “too high” (31% too high; 62% about right; 7% too low), vs. 8% of dealers last month who categorized their new inventory as “too high”. This marks the 4<sup>th</sup> consecutive month in which more dealers reported that new inventories are “too high” vs “too low” and the highest net % since we began this survey in April 2011.

## Used Equipment Inventory

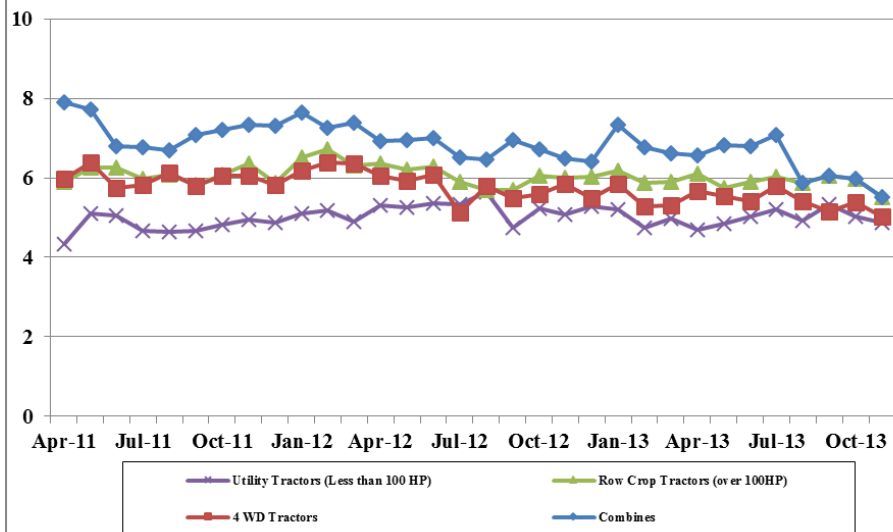
- Used equipment inventory overall also rose to the highest level in the history of the survey with a net 38% of dealers reporting used inventories as “too high” (48% too high; 43% about right; 10% too low), well above the net 20% reporting “too high” last month.
- A net 59% of dealers reported used combines inventories were “too high” (59% too high, 41% comfortable, 0% too low) vs a net 37% last month.



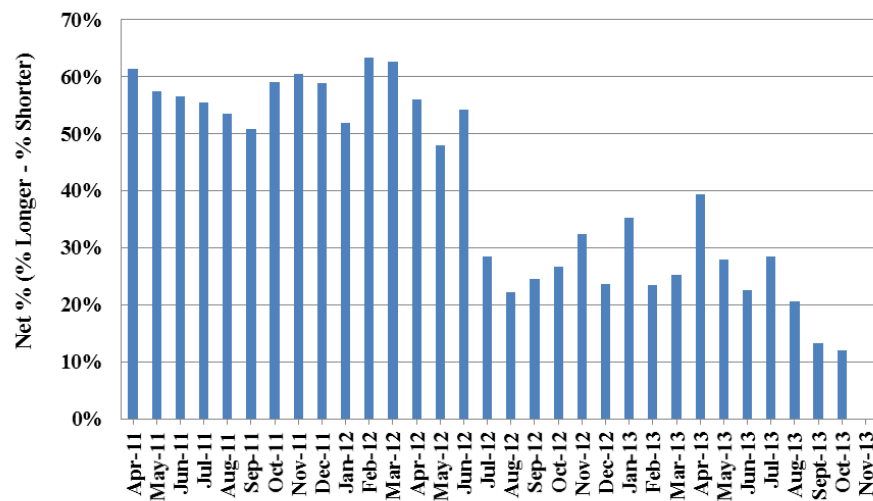
# Equipment Availability

- Overall, a net 0% of dealers report longer factory lead-times compared to last month (16% longer; 67% same; 16% shorter), similar to last month.
- On average combine and row crop tractor lead times are 5.5 months; 4WD are 5.0 months; and smaller tractors (<100 HP) lead times are 4.9 months.

**Lead Times By Product Category (Months)**



**Lead Times - Versus Prior Month**



# Dealer Commentary on Used Inventory Levels

- *Used inventory is increasing due to rolling of equipment.*
- *Hay and small ag used levels are rising.*
- *December is usually high used combine month.*
- *Market is very soft in large ag products (combines/ 4WD/Row Crop) in our area.*
- *Combines, flex heads and late model row crop tractors are heavy.*
- *Combines are still the issue.*
- *All combines & hay tools need to go...Too much age!*
- *Too many row crop tractors.*
- *Tillage units and combine heads are selling slow. Most tractors are still ok. Combines are picking up in December.*
- *Too many late model used combines and large tractors*
- *High dollar late model trades done on pre-sells this summer. may have too much.*
- *With softness in order book, manufacturer gets more aggressive to fill slots.*
- *Too many combines and large corn planters.*
- *Used planters are a growing concern*
- *High level of used combines.*

# Dealer Commentary on Biggest Surprise in the Month

- *Sales still holding for tax reasons.*
- *How strong year-end interest is. We are looking at a great December.*
- *Continued strong purchases due to strong commodity prices, air quality money for tractor replacement and depreciation.*
- *Continued buying with commodities free falling.*
- *There is no sales motivator greater than "tax savings credits" at least my sales ability has to take this in stride. This really no surprise.*
- *Customers are starting to see the effect of weaker crop prices for 2014 on next years income.*
- *Strong year-end demand, especially from John Deere farmers.*
- *The extreme cold snap and snow.*
- *Nothing with NH surprises me anymore.*
- *The slow down.*
- *Hay tools*
- *I do not think farmers totally get what section 179 is. Taking delivery until next year affects them.*
- *Our customers seem to be waiting till the last minute to decide. I hope it will be busy in the next month.*
- *Lack of interest in taking advantage of the tax incentives that are set to expire in 2014.*
- *Grain Prices are lower.*

# NA Farm Equipment Industry Retail Sales

NORTH AMERICAN FARM EQUIPMENT RETAIL SALES														
	Units							% change year-over-year						
	< 40 HP	Utility	Row Crop	4-Wheel	Total Tractor	Row Crop & 4-Wheel	Combines	<40HP	Util	RC	4-WD	Total	High hp	Comb
Jan-12	3,899	3,698	2,335	359	10,291	2,694	528	5%	6%	2%	-29%	3%	-4%	-44%
Feb-12	4,360	3,547	2,046	488	10,441	2,534	367	-2%	15%	16%	6%	7%	14%	-53%
Mar-12	8,589	4,559	2,703	743	16,594	3,446	718	-3%	-8%	-4%	19%	-4%	0%	-26%
Apr-12	13,365	6,016	3,369	887	23,637	4,256	705	17%	11%	1%	0%	12%	1%	-25%
May-12	13,562	5,984	2,911	611	23,068	3,522	691	8%	17%	21%	4%	11%	18%	-15%
Jun-12	12,503	6,118	2,571	502	21,694	3,073	954	3%	3%	24%	17%	5%	23%	32%
Jul-12	8,632	4,830	2,755	551	16,768	3,306	1,345	12%	2%	33%	21%	12%	31%	14%
Aug-12	8,146	4,514	2,452	585	15,697	3,037	1,491	11%	8%	15%	35%	11%	18%	-2%
Sep-12	8,002	4,531	3,120	773	16,426	3,893	1,760	1%	-1%	14%	11%	3%	14%	22%
Oct-12	9,918	6,891	5,644	1,499	23,952	7,143	2,312	25%	16%	33%	33%	25%	33%	38%
Nov-12	5,186	3,981	2,474	632	12,273	3,106	718	5%	17%	10%	31%	11%	13%	-3%
Dec-12	8,239	6,333	4,350	902	19,824	5,252	1,137	14%	4%	19%	37%	12%	21%	3%
Jan-13	4,723	4,114	2,956	677	12,470	3,633	616	21%	11%	27%	89%	21%	35%	17%
Feb-13	5,102	3,734	2,588	669	12,093	3,257	622	17%	5%	26%	37%	16%	29%	69%
Mar-13	8,311	4,941	3,464	706	17,422	4,170	1,199	-3%	8%	28%	-5%	5%	21%	67%
Apr-13	13,883	5,652	4,269	855	24,659	5,124	1,149	4%	-6%	27%	-4%	4%	20%	63%
May-13	17,193	6,326	3,406	556	27,481	3,962	887	27%	6%	17%	-9%	19%	12%	28%
Jun-13	13,449	6,363	3,272	541	23,625	3,813	1,123	8%	4%	27%	8%	9%	24%	18%
Jul-13	10,725	5,563	3,177	492	19,957	3,669	1,480	24%	15%	15%	-11%	19%	11%	10%
Aug-13	9,280	5,034	2,846	588	17,748	3,434	1,252	14%	12%	16%	1%	13%	13%	-16%
Sep-13	8,527	4,871	3,360	574	17,332	3,934	1,291	7%	8%	8%	-26%	6%	1%	-27%
Oct-13	9,665	6,747	5,943	1,228	23,583	7,171	1,671	-3%	-2%	5%	-18%	-2%	0%	-28%
Nov-13	5,628	3,873	2,651	644	12,796	3,295	903	9%	-3%	7%	2%	4%	6%	26%

Source: AEM; Cleveland Research Company estimates. High hp tractors are row crop & 4-wheel drive.

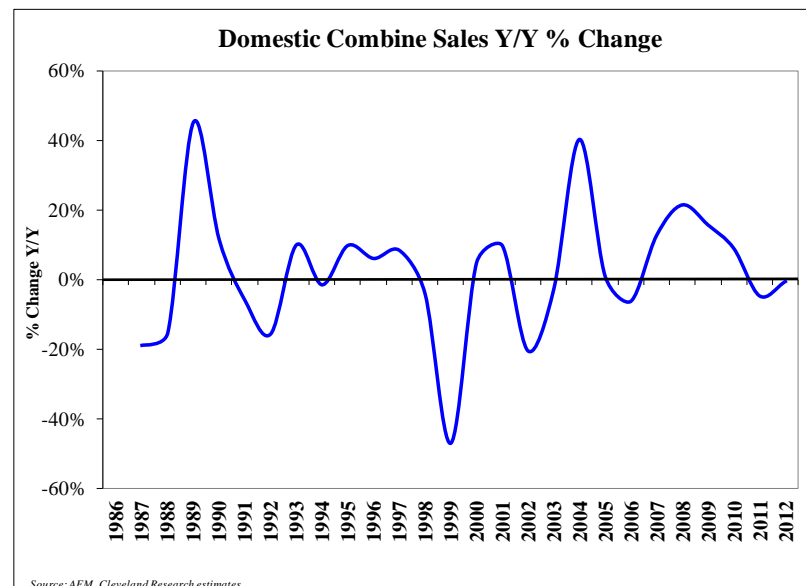
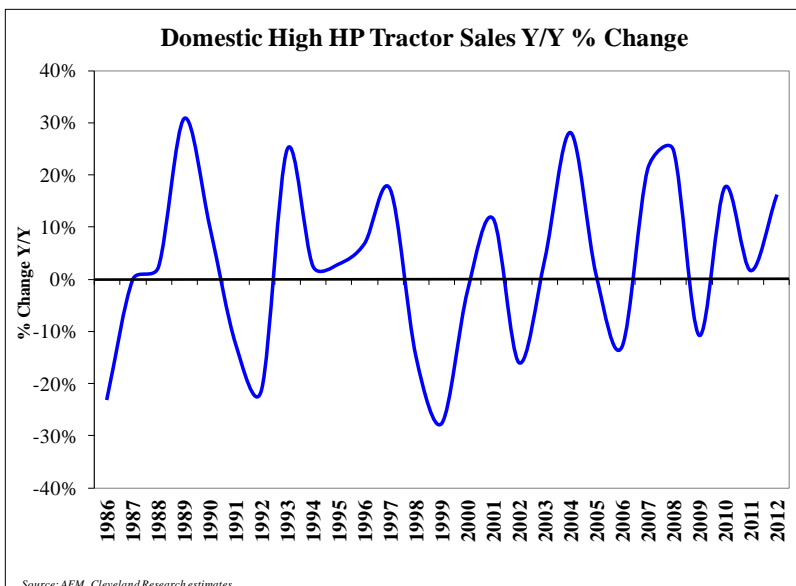
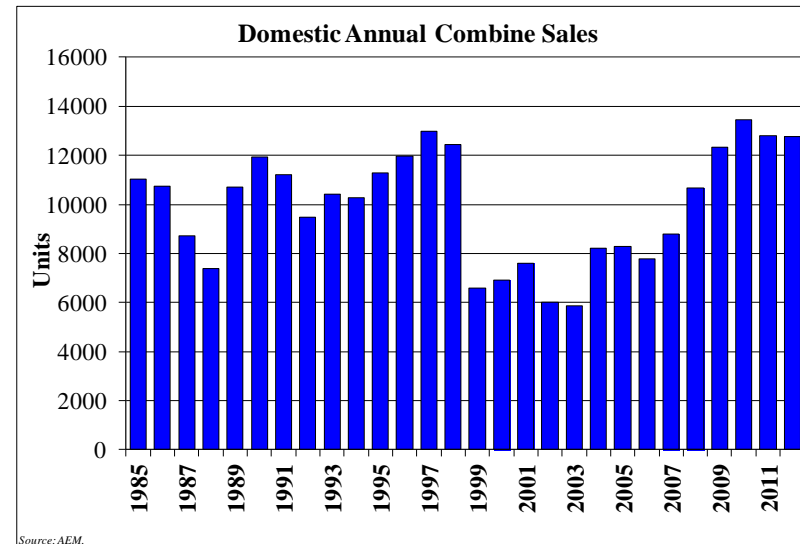
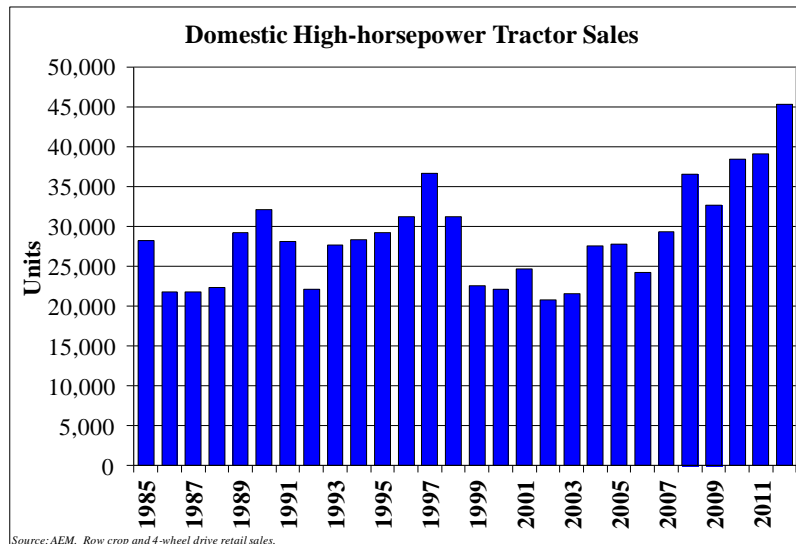
# NA Farm Equipment Industry Inventory

## NORTH AMERICAN FARM EQUIPMENT INVENTORY

	Inventory (Units)							Inventory to 12-mo. Sales						
	<u>&lt; 40 HP</u>	<u>Utility</u>	<u>Row Crop</u>	<u>4-Wheel</u>	<u>Total Tractor</u>	<u>Memo: High hp</u>	<u>Combines</u>	<u>&lt;40HP</u>	<u>Util</u>	<u>RC</u>	<u>4-WD</u>	<u>Total</u>	<u>High HP</u>	<u>Comb</u>
<b>Dec-11</b>	59,746	26,551	7,666	1,035	94,998	8,701	1,250	62%	47%	24%	14%	49%	22%	10%
<b>Jan-12</b>	61,967	27,298	7,277	1,222	97,764	8,499	1,338	64%	48%	23%	17%	51%	22%	11%
<b>Feb-12</b>	65,727	28,689	7,763	1,360	103,539	9,123	1,676	68%	50%	24%	19%	54%	23%	14%
<b>Mar-12</b>	68,756	29,144	8,199	1,518	107,617	9,717	1,955	72%	51%	26%	21%	56%	25%	17%
<b>Apr-12</b>	66,562	28,743	8,241	1,472	105,018	9,713	1,961	68%	50%	26%	20%	54%	25%	17%
<b>May-12</b>	65,188	28,322	8,930	1,659	104,099	10,589	2,258	66%	48%	27%	22%	53%	27%	20%
<b>Jun-12</b>	62,380	27,773	9,395	1,665	101,213	11,060	2,476	63%	47%	28%	22%	51%	27%	21%
<b>Jul-12</b>	61,495	28,135	10,351	1,950	101,931	12,301	2,791	61%	48%	31%	26%	51%	30%	24%
<b>Aug-12</b>	61,108	28,892	11,307	2,248	103,555	13,555	3,008	60%	49%	33%	29%	51%	32%	26%
<b>Sep-12</b>	62,319	29,587	11,580	2,398	105,884	13,978	2,870	62%	50%	34%	31%	52%	33%	24%
<b>Oct-12</b>	61,918	29,266	10,573	1,931	103,688	12,504	1,662	60%	49%	30%	24%	50%	28%	13%
<b>Nov-12</b>	65,873	29,835	11,232	2,079	109,019	13,311	1,520	64%	49%	31%	25%	52%	30%	12%
<b>Dec-12</b>	67,319	29,137	10,335	1,753	108,544	12,088	1,409	64%	48%	28%	21%	52%	27%	11%
<b>Jan-13</b>	69,290	30,182	10,399	1,803	111,674	12,202	1,659	66%	49%	28%	20%	52%	26%	13%
<b>Feb-13</b>	72,473	30,842	11,375	1,850	116,540	13,225	2,186	68%	50%	30%	20%	54%	28%	17%
<b>Mar-13</b>	72,499	30,869	11,700	1,931	116,999	13,631	2,518	69%	50%	30%	21%	54%	29%	19%
<b>Apr-13</b>	70,567	30,512	12,507	1,883	115,469	14,390	2,577	66%	50%	32%	21%	53%	30%	18%
<b>May-13</b>	65,268	30,400	13,202	2,068	110,938	15,270	2,866	59%	49%	33%	23%	50%	31%	20%
<b>Jun-13</b>	62,097	29,271	13,330	2,158	106,856	15,488	3,249	56%	47%	33%	24%	48%	31%	23%
<b>Jul-13</b>	59,174	29,628	14,138	2,177	105,117	16,315	3,208	52%	47%	34%	24%	47%	33%	22%
<b>Aug-13</b>	58,941	30,907	15,063	2,307	107,218	17,370	3,325	52%	49%	36%	26%	47%	34%	23%
<b>Sep-13</b>	60,787	31,714	15,372	2,507	110,380	17,879	3,255	53%	50%	37%	29%	48%	35%	24%
<b>Oct-13</b>	63,364	31,876	14,009	2,094	111,343	16,103	2,222	55%	50%	33%	25%	49%	32%	17%

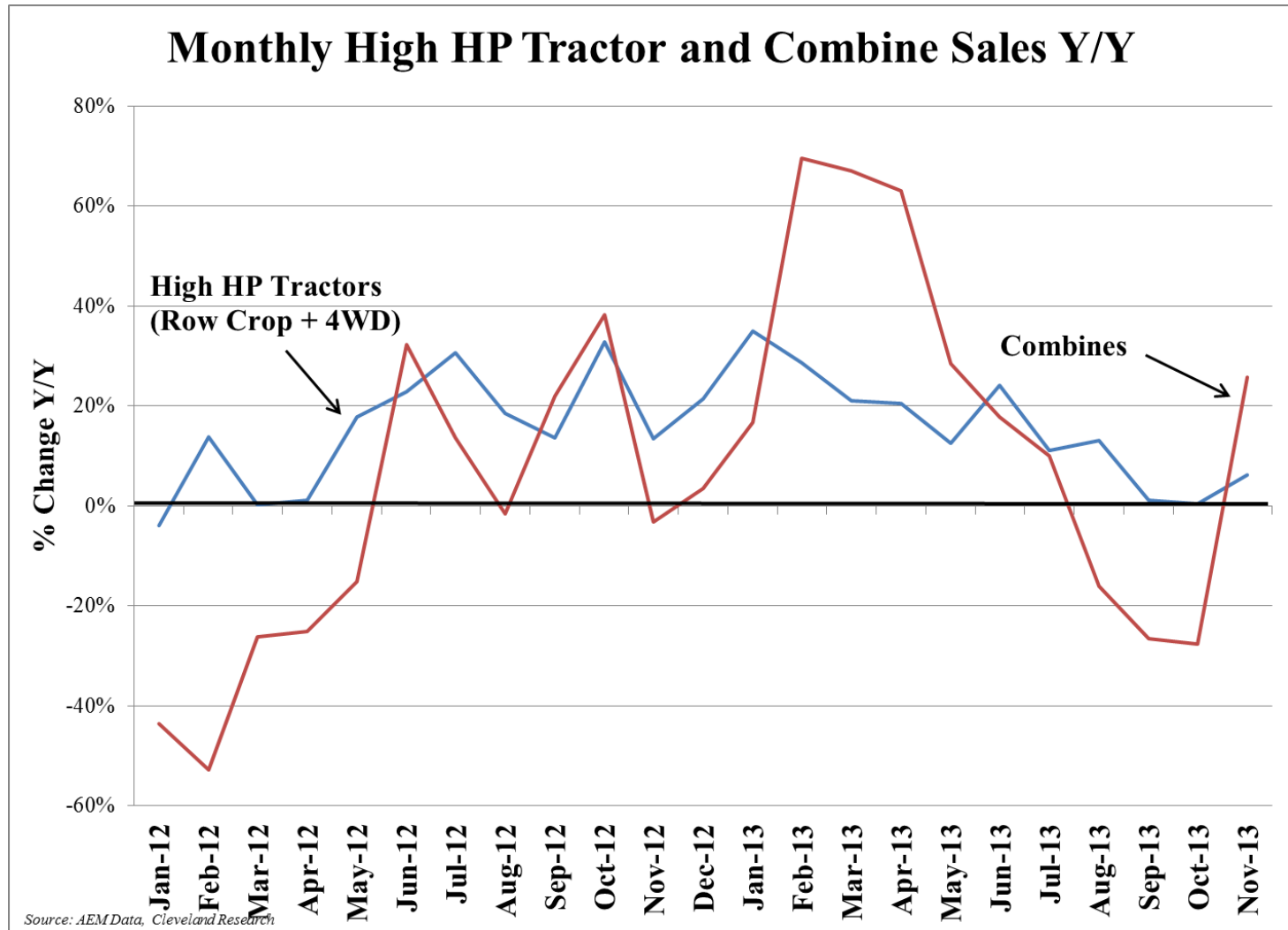
Source: AEM; Cleveland Research Company estimates

# Annual Ag Equipment Industry Sales – 1985-2012





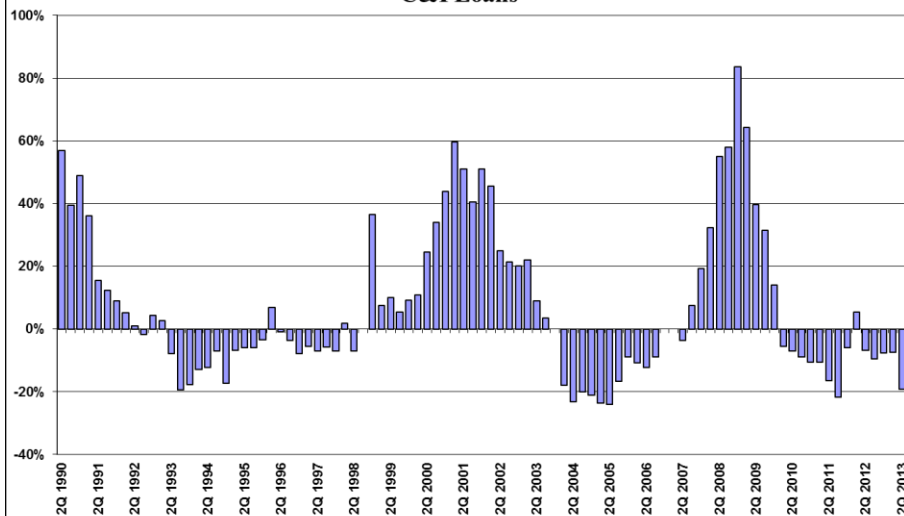
# NA Ag Equipment Sales



# Credit – C&I Loan Demand Declines as Lending Standards Loosen

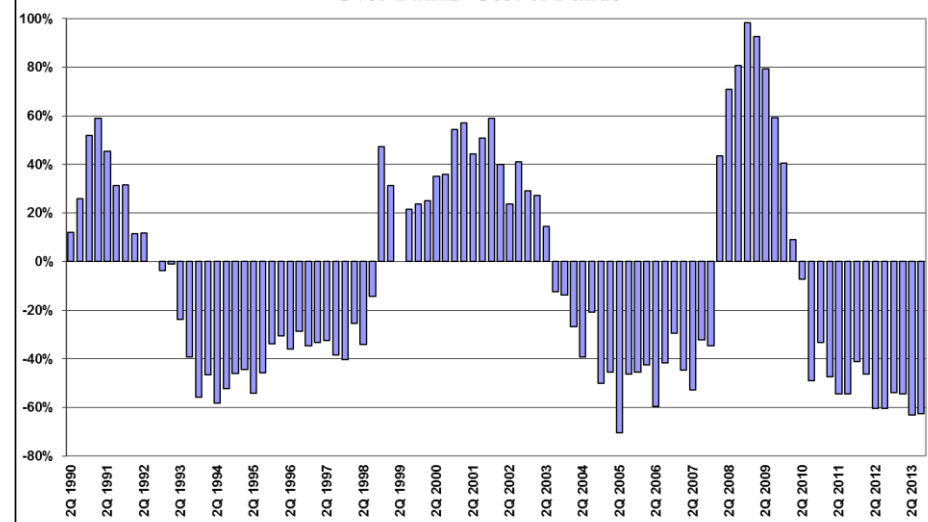
- The 3Q13 Senior Loan Officer survey saw a slight uptick in tightening of loan standards. A net 18% of loan officers reported easier credit standards in 3Q13 compared with a net 19% in 2Q.
- Bank rate spreads also saw a slight increase in 3Q13 with a net 62.5% of loan officers reporting lower lending spreads, up from a net 63% in 2Q.
- Demand for commercial and industrial loans accelerated in 3Q as a net 15% of loan officers reported stronger demand for commercial and industrial loans, up from the net 6% of loan officers reporting stronger demand for loans in 2Q.

**Net Percentage of Domestic Respondents Tightening Standards for C&I Loans**



Source: Federal Reserve Board

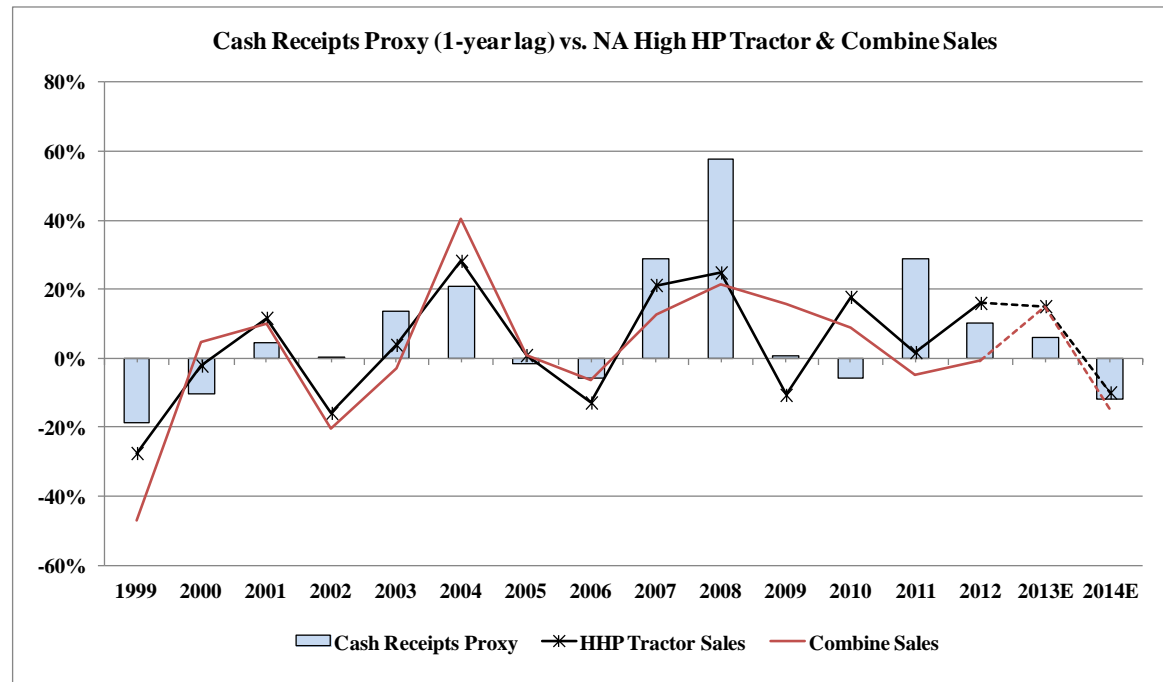
**Net % of Domestic Respondents Increasing Spreads of Loan Rates Over Banks' Cost of Funds**



Source: Federal Reserve Board

# Commodity Price Trends - Cash Receipts vs. Next Year Equipment Sales

**The USDA's Updated crop supply and demand forecast for the 2013/14 crop year points to a (13%) decline in our simplified cash receipts proxy, inline with the November forecast.** The chart below depicts N. American high HP tractor and combine sales on a one year lag vs. our simplified farm cash receipts proxy as illustrated using the three most important crops – corn, soybeans, and wheat. The updated December USDA cash receipts outlook for 2013 is for down 13% over 2012, consistent with the November forecast. If historical trends hold, this would imply that 2014 could be a challenging year for equipment demand vs. 2013, as the correlation between equipment sales and cash receipts has provided a good proxy for future equipment demand.



# Commodity Price Trends – Simplified Cash Receipts Proxy

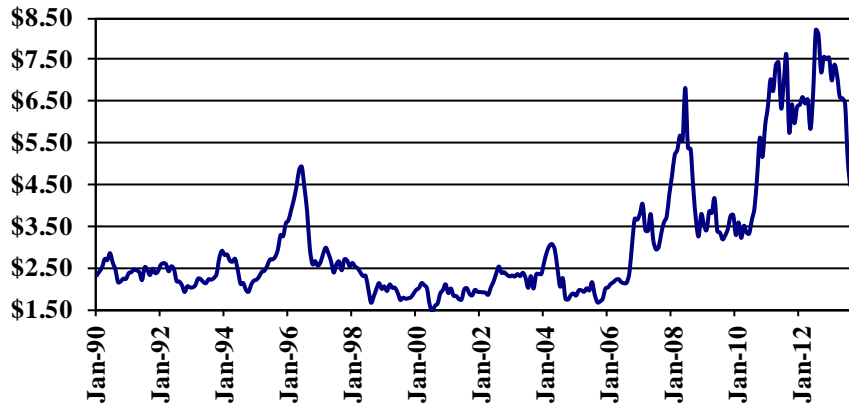
USDA - World Agricultural Supply and Demand Estimates (in millions)												
CORN - DOMESTIC								CORN - INTERNATIONAL				
Year	Production	Domestic Use	Exports	Total Use	End Stocks	Stocks/Use	Avg Price	Year	Production	Total Use	End Stocks	Stocks/Use
2010/11	12,447	11,220	1,835	13,055	1,128	10.1%	\$5.18	2010/11	20,194	22,192	3,766	17.0%
2011/12	12,358	11,005	1,650	12,655	851	7.7%	\$5.95-\$6.25	2011/12	22,010	23,171	4,235	18.3%
2012/13	10,780	10,385	750	11,135	759	7.3%	\$6.70-\$7.10	2012/13	22,963	23,626	4,179	17.7%
2013/14								2013/14				
September	13,843	11,450	1,225	12,675	1,855	16.2%	\$4.40-\$5.20	September	23,820	25,078	4,107	16.4%
November	13,989	11,550	1,400	12,950	1,887	16.3%	\$4.10-\$4.90	November	23,916	25,195	4,582	18.2%
December	13,989	11,600	1,450	13,050	1,792	15.4%	\$4.05-\$4.75	December	23,973	25,277	4,603	18.2%
Revision to 2013/14:								Corn Futures Price: <b>\$4.38</b>				
Change m/m	0	50	50	100	-95	-0.9%	-\$0.10	m/m chg	57	82	21	0.0%
Change y/y	3,209	1,215	700	1,915	1,033	8.1%	(\$2.50)	y/y chg	1,010	1,652	425	0.5%
SOYBEANS - DOMESTIC								SOYBEANS - INTERNATIONAL				
Year	Production	Domestic Use	Exports	Total Use	End Stocks	Stocks/Use	Avg Price	Year	Production	Total Use	End Stocks	Stocks/Use
2010/11	3,329	3,280	1,501	4,781	215	6.6%	\$11.30	2010/11	6,397	7,457	2,361	31.7%
2011/12	3,056	3,111	1,335	4,446	175	5.6%	\$12.30	2011/12	5,629	7,536	1,785	23.7%
2012/13	3,015	3,080	1,350	4,430	125	4.1%	\$14.30	2012/13	6,873	7,777	2,170	27.9%
2013/14								2013/14				
September	3,149	3,140	1,370	4,510	150	4.8%	\$11.50-\$13.50	September	7,200	8,110	2,479	30.6%
November	3,258	3,243	1,450	4,693	170	5.2%	\$11.15-\$13.15	November	7,160	8,127	2,410	29.7%
December	3,258	3,274	1,475	4,749	150	4.6%	\$11.50-\$13.50	December				
Revision to 2013/14: NA								Soybean Futures Price: <b>\$13.44</b>				
Change m/m	0	31	25	56	-20	-0.7%	\$0.35	m/m chg	-7,160	-8,127	-2,410	-29.7%
Change y/y	243	194	125	319	25	0.5%	(\$1.80)	y/y chg	-6,873	-7,777	-2,170	-27.9%
WHEAT - DOMESTIC								WHEAT - INTERNATIONAL				
Year	Production	Domestic Use	Exports	Total Use	End Stocks	Stocks/Use	Avg Price	Year	Production	Total Use	End Stocks	Stocks/Use
2010/11	2,207	1,128	1,289	2,417	862	76.4%	\$5.70	2010/11	21,718	22,919	6,385	27.9%
2011/12	1,999	1,199	1,055	2,254	728	60.7%	\$7.25	2011/12	23,506	24,369	6,458	26.5%
2012/13	2,269	1,381	1,025	2,406	731	52.9%	\$7.80	2012/13	21,821	23,418	5,889	25.1%
2013/14								2013/14				
September	2,114	1,311	1,100	2,411	561	42.8%	\$6.50-\$7.50	September	23,933	24,647	5,916	24.0%
November	2,130	1,333	1,100	2,433	565	42.4%	\$6.70-\$7.30	November	23,825	24,515	5,993	24.4%
December	2,130	1,333	1,100	2,433	575	43.1%	\$6.65-\$7.15	December	24,010	24,551	6,142	25.0%
Revision to 2013/14: NA								Wheat Futures Price: <b>\$6.51</b>				
Change m/m	0	0	0	0	10	0.8%	-\$0.10	m/m chg	185	36	148	0.6%
Change y/y	-139	-48	75	27	-156	-9.8%	(\$0.90)	y/y chg	2,189	1,133	252	-0.1%
FARMER CROP RECEIPTS												
Production:			Avg Price:			Crop Cash Receipts*						
Corn	Soybeans	Wheat	Corn	Soybeans	Wheat	Corn	Soybeans	Wheat	Total	y/y % Chg		
2004/05	11,807	3,124	2,158	\$2.06	\$5.74	\$3.40	\$22,228	\$17,337	\$7,199	\$46,764	-6%	
2005/06	11,114	3,063	2,105	\$2.00	\$5.66	\$3.42	\$32,014	\$20,499	\$7,719	\$60,232	29%	
2006/07	10,531	3,188	1,812	\$3.04	\$6.43	\$4.26	\$54,760	\$27,038	\$13,290	\$95,088	58%	
2007/08	13,038	2,677	2,051	\$4.20	\$10.10	\$6.48	\$49,094	\$29,581	\$16,943	\$95,618	1%	
2008/09	12,092	2,967	2,499	\$3.60	\$9.97	\$6.78	\$47,131	\$31,911	\$10,868	\$89,910	-6%	
2009/10	13,092	3,359	2,218	\$5.25	\$11.40	\$5.65	\$65,347	\$37,951	\$12,470	\$115,767	29%	
2010/11	12,447	3,329	2,207	\$6.10	\$12.35	\$7.25	\$75,384	\$37,742	\$14,493	\$127,618	10%	
2011/12	12,358	3,056	1,999	\$6.90	\$14.30	\$7.80	\$74,382	\$43,115	\$17,698	\$135,195	6%	
2012/13	10,780	3,015	2,269									
2013/14												
September	13,843	3,149	2,114	\$4.80	\$12.50	\$7.00	\$66,446	\$39,363	\$14,798	\$120,607	-11%	
November	13,989	3,258	2,130	\$4.50	\$12.15	\$7.00	\$62,951	\$39,585	\$14,910	\$117,445	-13%	
December	13,989	3,258	2,130	\$4.40	\$12.50	\$6.90	\$61,552	\$40,725	\$14,697	\$116,974	-13%	

\*Note: Cash receipts estimated as USDA production X USDA average price forecast

Source: USDA; Cleveland Research estimates

# Long Term Commodity Price Trends

## Corn Price Trends



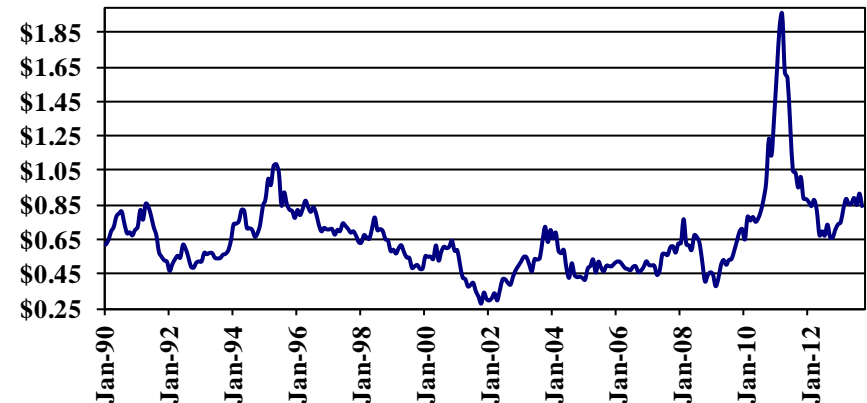
## Wheat Price Trends



## Soybean Price Trends



## Cotton Price Trends



# Commodity Trends – Long Run Supply and Demand Projections

2013 USDA - Long Run Crop Supply and Demand Projections								
CORN - DOMESTIC								
Year	Production	Domestic Use	Use for Ethanol	Exports	Total Use	End Stocks	Stocks/Use	Avg Price
2004/05	11,807	8,848	1,323	1,814	10,662	2,114	19.8%	\$2.06
2005/06	11,114	9,122	1,603	2,147	11,270	1,967	17.5%	\$2.00
2006/07	10,531	9,081	2,150	2,125	11,206	1,304	11.6%	\$3.04
2007/08	13,038	10,302	3,026	2,436	12,738	1,624	12.7%	\$4.20
2008/09	12,092	10,198	3,677	1,858	12,056	1,673	13.9%	\$4.06
2009/10	13,092	11,086	4,568	1,980	13,066	1,708	13.1%	\$3.55
2010/11	12,447	11,220	4,800	1,835	13,055	1,128	8.6%	\$5.18
2011/12	12,358	10,984	5,011	1,543	12,527	988	7.9%	\$6.22
2012/13	10,725	10,017	4,500	1,150	11,167	647	5.8%	\$7.60
2013/14	14,435	11,340	4,675	1,700	13,040	2,067	15.9%	\$5.40
2014/15	13,610	11,570	4,825	1,900	13,470	2,232	16.6%	\$4.10
2015/16	13,105	11,545	4,825	2,000	13,545	1,817	13.4%	\$4.30
2015/17	13,595	11,715	4,850	2,050	13,765	1,672	12.1%	\$4.40
2017/18	13,925	11,880	4,900	2,125	14,005	1,617	11.5%	\$4.50
2018/19	14,255	12,070	4,975	2,200	14,270	1,627	11.4%	\$4.55
2019/20	14,500	12,260	5,075	2,275	14,535	1,617	11.1%	\$4.60
2020/21	14,750	12,450	5,175	2,350	14,800	1,592	10.8%	\$4.65
2021/22	15,000	12,645	5,275	2,425	15,070	1,547	10.3%	\$4.75
2022/23	15,260	12,835	5,375	2,500	15,335	1,497	9.8%	\$4.85
10-yr Avg	14,244	12,031	4,995	2,153	14,184	1,729	12.3%	\$4.61

2013 USDA - Long Run Crop Supply and Demand Projections								
SOYBEANS - DOMESTIC								
Year	Production	Domestic Use	Exports	Total Use	End Stocks	Stocks/Use	Avg Price	
2004/05	3,124	2,986	1,103	4,089	256	6.3%	\$5.74	
2005/06	3,063	1,927	947	2,874	449	15.6%	\$5.66	
2006/07	3,188	3,073	1,118	4,191	574	13.7%	\$6.43	
2007/08	2,677	3,056	1,161	4,217	205	4.9%	\$10.10	
2008/09	2,967	3,047	1,283	4,330	138	3.2%	\$9.97	
2009/10	3,359	3,361	1,499	4,860	151	3.1%	\$9.59	
2010/11	3,329	3,280	1,501	4,781	215	4.5%	\$11.30	
2011/12	3,094	1,793	1,362	3,155	169	5.4%	\$12.30	
2012/13	2,971	1,676	1,345	3,021	140	4.6%	\$14.30	
2013/14	3,335	1,790	1,515	3,305	185	5.6%	\$11.35	
2014/15	3,280	1,802	1,480	3,282	197	6.0%	\$10.35	
2015/16	3,360	1,838	1,530	3,368	204	6.1%	\$10.65	
2015/17	3,415	1,869	1,560	3,429	205	6.0%	\$10.75	
2017/18	3,470	1,900	1,575	3,475	215	6.2%	\$10.85	
2018/19	3,505	1,926	1,590	3,516	219	6.2%	\$10.90	
2019/20	3,535	1,956	1,590	3,546	222	6.3%	\$10.95	
2020/21	3,570	1,982	1,600	3,582	226	6.3%	\$11.05	
2021/22	3,600	2,012	1,605	3,617	223	6.2%	\$11.20	
2022/23	3,635	2,038	1,610	3,648	226	6.2%	\$11.35	
10-yr Avg	3,471	1,911	1,566	3,477	212	6.1%	\$10.94	

2013 USDA - Long Run Crop Supply and Demand Projections								
WHEAT - DOMESTIC								
Year	Production	Domestic Use	Exports	Total Use	End Stocks	Stocks/Use	Avg Price	
2004/05	2,158	1,172	1,063	2,235	540	24.2%	\$3.40	
2005/06	2,105	1,146	1,009	2,155	571	26.5%	\$3.42	
2006/07	1,812	1,140	909	2,049	456	22.3%	\$4.26	
2007/08	2,051	1,050	1,264	2,314	306	13.2%	\$6.48	
2008/09	2,499	1,260	1,015	2,275	657	28.9%	\$6.78	
2009/10	2,218	1,138	879	2,017	976	48.4%	\$4.87	
2010/11	2,207	1,128	1,289	2,417	862	35.7%	\$5.70	
2011/12	1,999	1,182	1,050	2,231	743	33.3%	\$7.24	
2012/13	2,269	1,338	1,100	2,438	704	28.9%	\$8.10	
2013/14	2,190	1,281	1,000	2,281	733	32.1%	\$7.20	
2014/15	2,105	1,234	925	2,159	804	37.2%	\$5.40	
2015/16	2,005	1,231	930	2,161	778	36.0%	\$5.65	
2015/17	2,025	1,238	935	2,173	765	35.2%	\$5.75	
2017/18	2,040	1,244	940	2,184	761	34.8%	\$5.85	
2018/19	2,035	1,251	940	2,191	745	34.0%	\$5.90	
2019/20	2,050	1,258	940	2,198	737	33.5%	\$5.95	
2020/21	2,065	1,265	940	2,205	737	33.4%	\$6.00	
2021/22	2,080	1,272	940	2,212	745	33.7%	\$6.10	
2022/23	2,080	1,279	940	2,219	746	33.6%	\$6.20	
10-yr Avg	2,068	1,255	943	2,198	755	34.4%	\$6.00	

# U.S. Acreage Planted Per Crop Year

