

# ***Ag Equipment Intelligence***

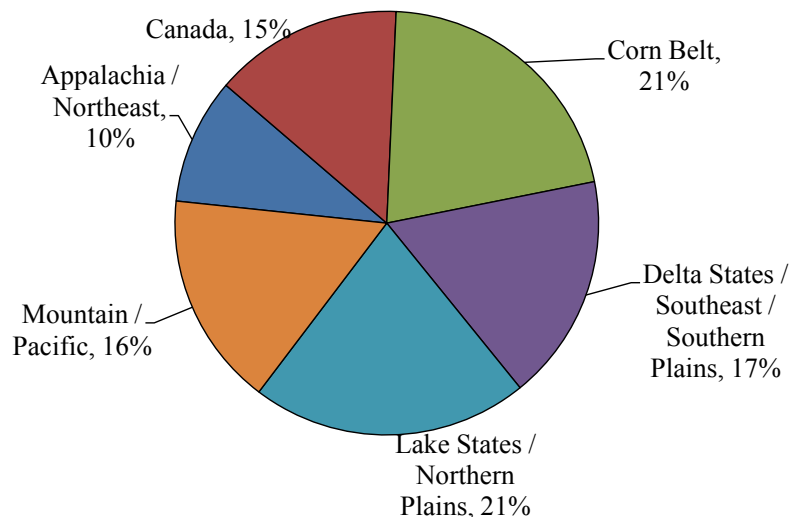
September 2015 Dealer Sentiments &  
Business Conditions Update

# Monthly Ag Equipment Intelligence North American Dealer Survey

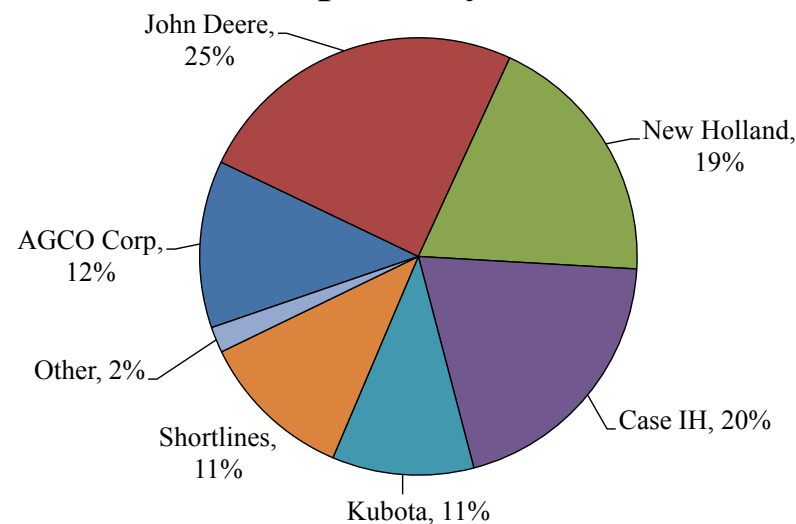
## Background:

- We are pleased to announce the results of the September *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 September survey had 104 respondents representing combined annual revenues of roughly \$4.7 billion. Participants representing a broad cross section of geographies and brands are summarized in the charts below.

### Survey Participants by Region



### Participants by Brand



**Appalachia / Northeast** – CT, DE, KY, MA, MD, ME, NC, NH, NY, NJ, PA, RI, TI, TN, VA, VT, WV, **Corn Belt** – IL, IN, IA, MO, OH, **Delta States / Southeast / Southern Plains** – AL, AR, FL, GA, LA, MS, OK, SC, TX, **Lake States / Northern Plains** – KS, MI, MN, NE, ND, SD, WI, **Mountain / Pacific** – AK, AZ, CA, CO, HI, ID, MT, NM, NV, OR, UT, WA, WY. Note AGCO represents Massey Ferguson and Challenger brands. \*Note regions have been condensed.

## Highlights / Summary Thoughts

- **Sales** – Average dealer sales were reported down 15% in August, an improvement from the 18% decline reported in July. A net 12% of dealers missed their sales budget in August, making for the seventh consecutive month of net budget misses. Commercial and consumer lawn equipment and GPS/precision ag sales showed strength, while most large equipment demand remains very weak.
- **Orders** – Orders were reported down 18% y/y on average in August, a slight improvement from the 19% decline reported in July.
- **Outlook** – The full year dealer average sales growth forecast increased to down 15% for the year from forecasts of down 16% last month, with a net 35% of dealers forecasting a sales decline for the year vs. 46% in July.
- **Inventory** – A net 35% of dealers report new equipment inventories as too high, an improvement from a net 39% in July. Used inventory levels worsened with 42% of dealers reporting inventory as too high vs. 32% in July.
- **Pricing** – Dealers have reported a 1-1.5% uptick in new equipment price realization in the last five months due to Tier 4 sales and OEM price push. Used large tractor pricing is reported down 4% on average, roughly inline with the July survey results, while utility tractor pricing remained flat. Used combine prices remain weak at down 9%, inline with the July reading.

# Monthly Sales Growth

- Average dealer sales were reported down 15% y/y in August, a 3% improvement over July's 18% decline, but below the 12% average decline in 2Q. A net 8% of dealers missed their sales budgets in August with over 25% reporting worse than expected sales.
- A net 32% of dealers report they are less optimistic about overall business conditions, the 17<sup>th</sup> consecutive month of deterioration in optimism and the lowest reading in 2015.

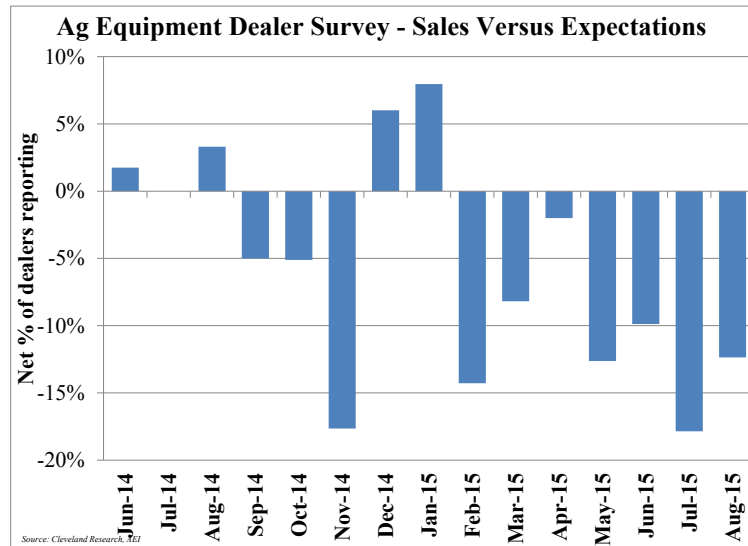
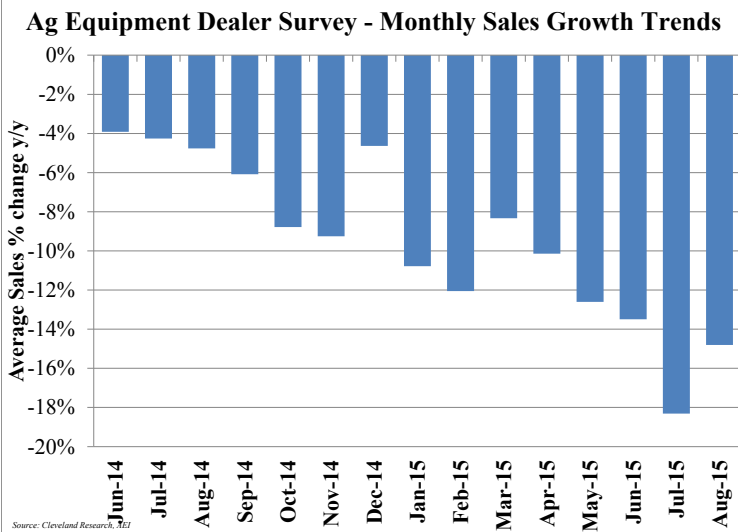
N. American Farm Equipment Dealer Survey - Average Dealer Sales Growth															
% Change y/y	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15
AGCO	-3%	4%	-3%	4%	-1%	4%	-13%	-15%	3%	-8%	-1%	4%	-12%	-24%	-13%
John Deere	-3%	-6%	-4%	-6%	-4%	-6%	-3%	-9%	-22%	-8%	-11%	-15%	-14%	-19%	-14%
New Holland	2%	-2%	-3%	0%	-1%	-10%	-1%	0%	-5%	-3%	-2%	-7%	-5%	-17%	-12%
Case IH	-10%	-5%	-9%	-13%	-9%	-14%	-6%	-19%	-10%	-13%	-16%	-19%	-19%	-17%	-19%
Kubota	2%	0%	-2%	1%	8%	-11%	7%	5%	-6%	-4%	-1%	0%	0%	0%	-3%
Shortlines/Other	-2%	3%	5%	5%	5%	-1%	1%	-9%	-4%	-18%	-8%	-6%	-16%	-7%	-38%
<b>Total</b>	<b>-4%</b>	<b>-4%</b>	<b>-5%</b>	<b>-6%</b>	<b>-9%</b>	<b>-9%</b>	<b>-5%</b>	<b>-11%</b>	<b>-12%</b>	<b>-8%</b>	<b>-10%</b>	<b>-13%</b>	<b>-13%</b>	<b>-18%</b>	<b>-15%</b>

Source: Cleveland Research, AEI

N. American Farm Equipment Dealer Survey - Sales Versus Expectations															
% of Dealers Reporting	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15
Better than expected	25%	26%	28%	24%	22%	21%	29%	26%	13%	20%	27%	23%	21%	18%	16%
In line with expectations	53%	49%	47%	47%	51%	40%	47%	57%	59%	50%	44%	39%	48%	45%	56%
Worse than expected	23%	26%	25%	29%	27%	39%	23%	18%	28%	28%	29%	36%	31%	36%	28%
<b>Net % (Better - Worse)</b>	<b>2%</b>	<b>0%</b>	<b>3%</b>	<b>-5%</b>	<b>-5%</b>	<b>-18%</b>	<b>6%</b>	<b>8%</b>	<b>-14%</b>	<b>-8%</b>	<b>-2%</b>	<b>-13%</b>	<b>-10%</b>	<b>-18%</b>	<b>-12%</b>

Source: Cleveland Research, AEI.

# Monthly Sales Growth Continued



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

% of Dealers Reporting	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15
Positive Sales Growth	46%	42%	37%	37%	40%	27%	33%	32%	13%	20%	27%	29%	26%	20%	19%
Flat Sales	18%	21%	22%	18%	14%	16%	16%	25%	59%	50%	11%	17%	11%	16%	16%
Negative Sales Growth	36%	37%	42%	46%	46%	58%	51%	43%	28%	28%	62%	54%	63%	64%	65%
<b>Net % Reporting Growth</b>	<b>11%</b>	<b>5%</b>	<b>-5%</b>	<b>-9%</b>	<b>-6%</b>	<b>-31%</b>	<b>-19%</b>	<b>-11%</b>	<b>-14%</b>	<b>-8%</b>	<b>-35%</b>	<b>-25%</b>	<b>-37%</b>	<b>-43%</b>	<b>-46%</b>
<b>Average % Change y/y</b>	<b>-4%</b>	<b>-4%</b>	<b>-5%</b>	<b>-6%</b>	<b>-9%</b>	<b>-9%</b>	<b>-5%</b>	<b>-11%</b>	<b>-12%</b>	<b>-8%</b>	<b>-10%</b>	<b>-13%</b>	<b>-13%</b>	<b>-18%</b>	<b>-15%</b>

Source: Cleveland Research

**Optimism/Sentiment vs. Last Month**

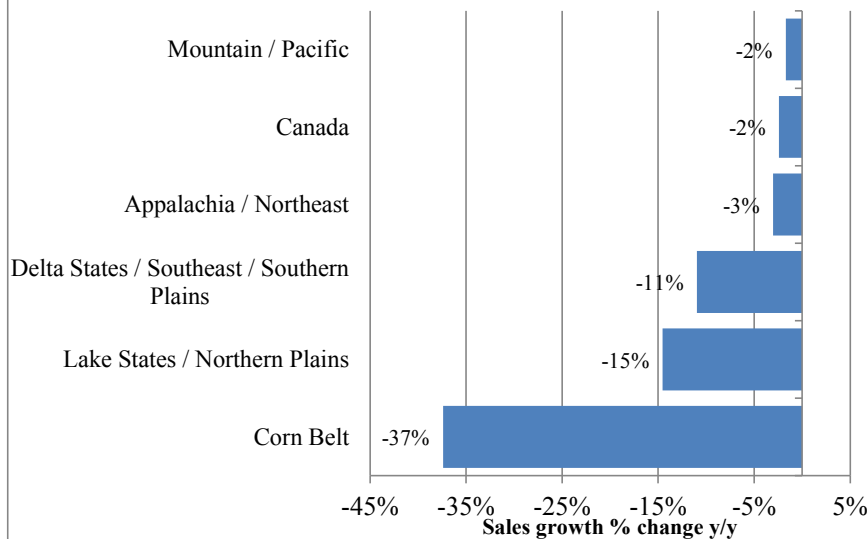
% of Dealers Reporting	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15
More Optimistic	23%	13%	12%	16%	8%	9%	12%	12%	9%	14%	14%	12%	13%	14%	11%
Same	42%	45%	50%	46%	48%	38%	39%	52%	50%	42%	47%	48%	58%	52%	45%
Less Optimistic	35%	42%	38%	38%	44%	53%	49%	36%	41%	43%	40%	40%	30%	35%	43%
<b>Net % Dealer Optimism</b>	<b>-11%</b>	<b>-28%</b>	<b>-26%</b>	<b>-22%</b>	<b>-36%</b>	<b>-44%</b>	<b>-37%</b>	<b>-25%</b>	<b>-31%</b>	<b>-29%</b>	<b>-26%</b>	<b>-26%</b>	<b>-18%</b>	<b>-21%</b>	<b>-32%</b>

Source: Cleveland Research

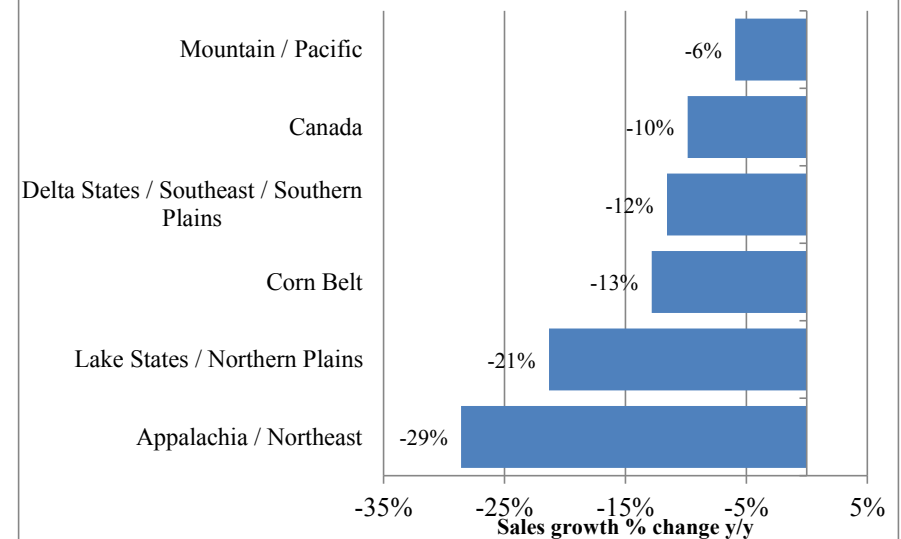
# Monthly Sales Growth by Region

- Sales trends remain weak across geographies, but relative changes have been mixed. Appalachia / Northeast, Lake States / Northern Plains, and the Corn Belt are the weakest regions. The Mountain / Pacific region and Canada remain the strongest comparatively, but remain in negative territory.
- Notably all regions showed a decline from prior trend, with the exception of the Corn Belt which improved from a 37% decline in July to a decline of 13% in August.

**Average Sales Growth by Region July 2015**

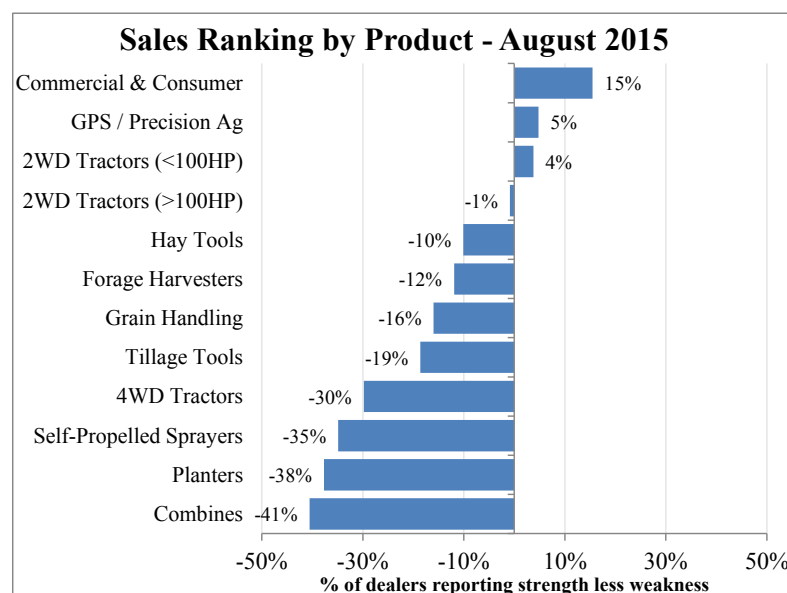
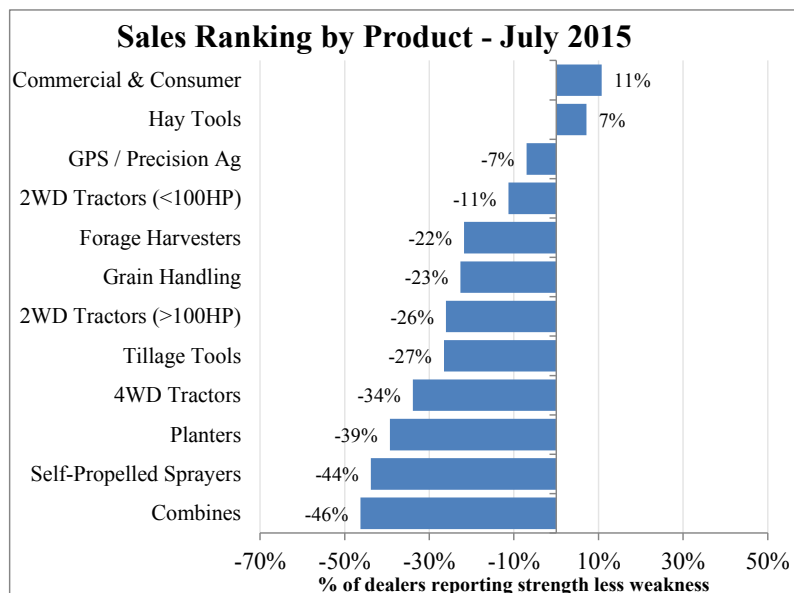


**Average Sales Growth by Region August 2015**

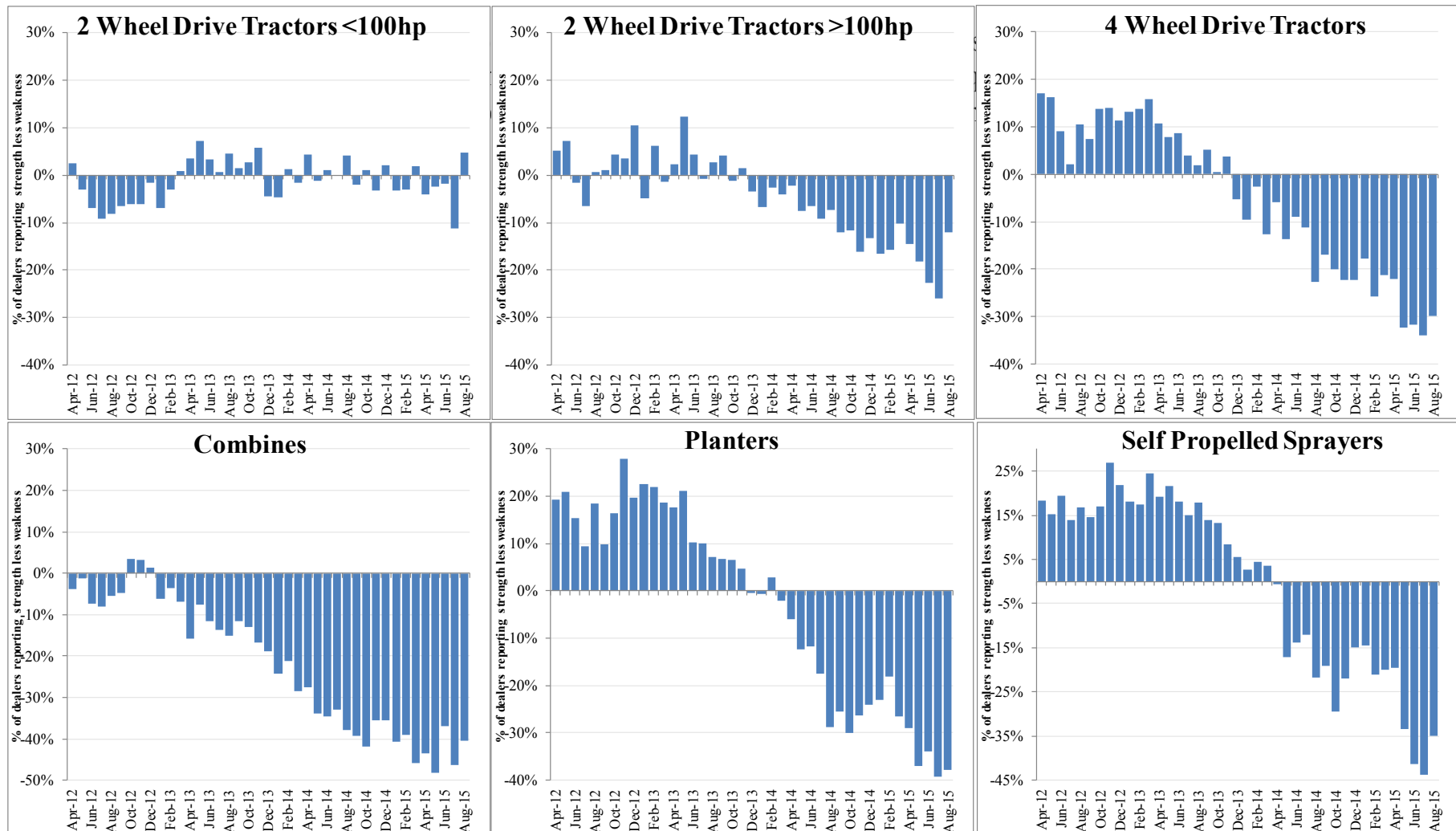


# Equipment Category Sales Trends

- Commercial & consumer lawn equipment continues to show strength in contrast to declines in other categories (combines, planters, and sprayers in particular). Dealers reported GPS / precision ag equipment showing strength in August vs weakness in the last several months. We continue to see headwinds to large equipment sales.

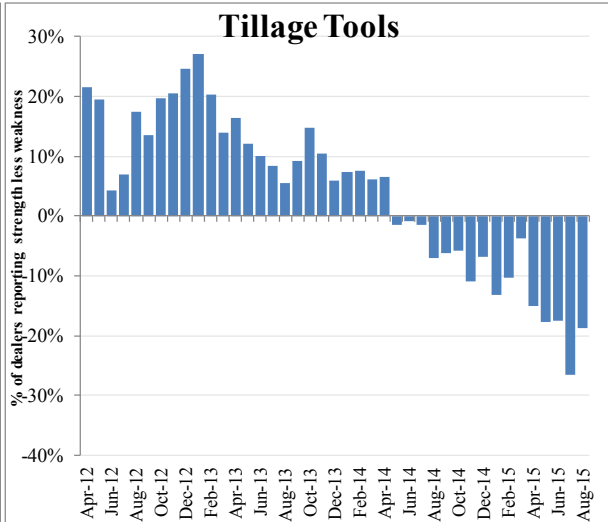
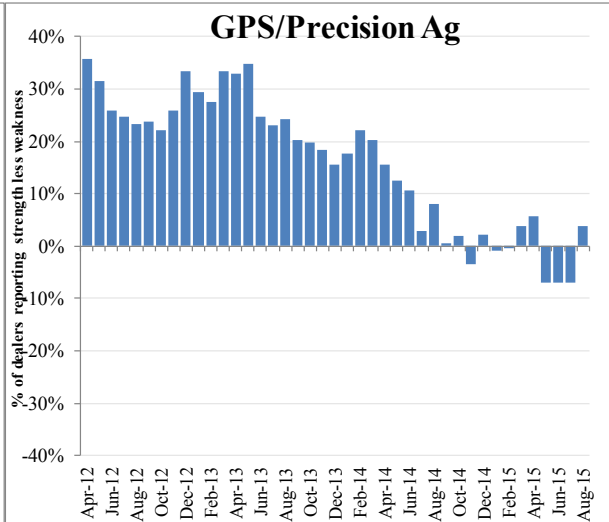
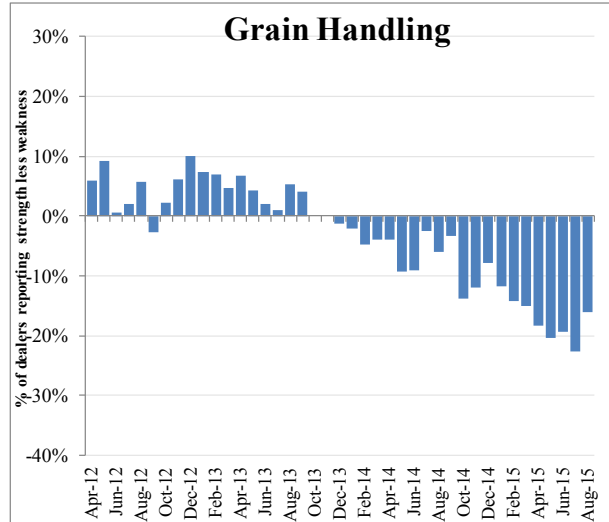
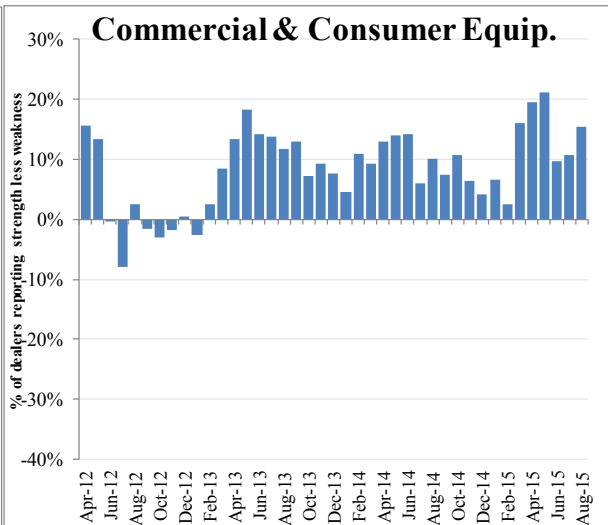
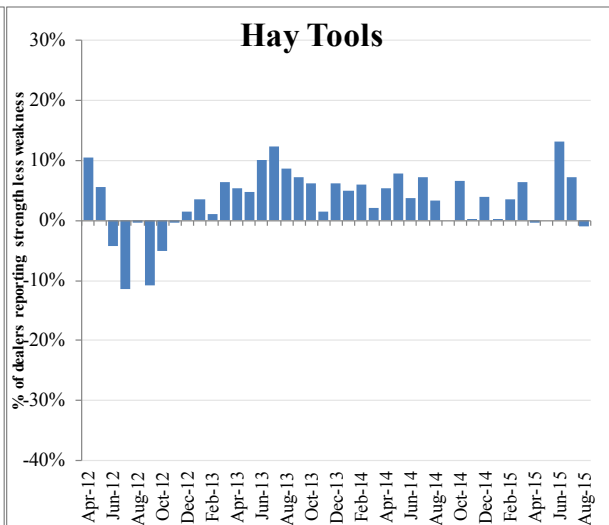
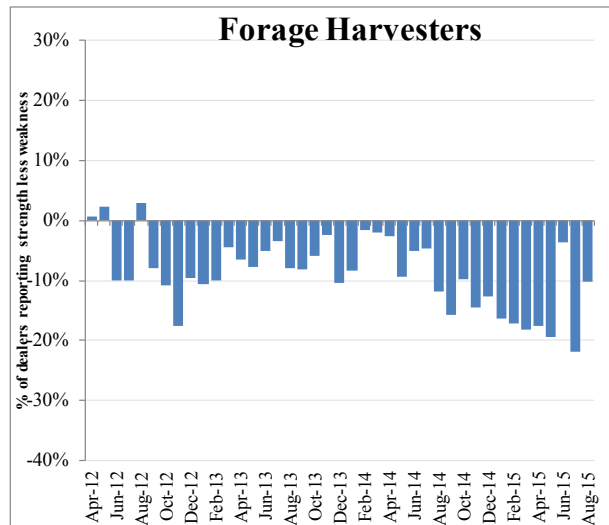


# Equipment Category Sales Trends





# Equipment Category Sales Trends (Continued)



## Most Interesting Commentary - Monthly Sales and Outlook

- *Record drought in the Northwest has slowed some retail sales for 2015, but has caused some customers to begin considering irrigation options.*
- *Deterioration in milk prices continues to be a headwind to sales.*
- *Customers have significant sticker shock when they walk in, because of the US/CAN exchange rate.*
- *Used inventory levels and continued weak crop prices remain the key limitation to our current order book. With low farm cash receipts we are having trouble moving new products.*
- *Demand in Texas continues to be promising, especially with favorable weather patterns and high beef prices.*
- *Parts and service sales are driving increases in sales this year.*
- *We have seen particular strength coming from small ag products, notably utility tractors and hay tools.*
- *Deere now offers a 3-year, interest free loan on used tractors. This is the first deviation we have seen from their pool fund programs on used equipment.*
- *New Holland is getting more aggressive on hay baler incentives and pricing.*
- *Dealers continue to flood the market with large ag equipment, it is destroying resale values.*
- *Shortline company reps have become more assertive in wanting me to stock more inventory.*
- *Parts and service demand hasn't picked up to offset equipment sale declines. I think this is directly related to the fact this is one of the youngest farm equipment fleets we've seen in 30 years.*
- *August has had the best month of the entire year for us.*
- *August has come in stronger than July, we have actually seen a pickup in traffic and sales.*
- *We have had the best sales year in our history even with the drought in California. The telling period won't come until December/January, however, because most of the products we sell are sold ahead of time.*
- *OEMs have significant early order programs and continue to push us to deliver them orders.*
- *I think farmers will continue to face pressure to reduce spending. There has been a lot of activity in the past 5 years and I think folks will be able to get by with their current equipment.*

# Monthly Order Trends

- Orders were reported down 18% y/y on average in August, an improvement from the 19% decline reported in July. John Deere and Case IH Dealers had the largest order declines at over 20%.
- Combine orders strengthened in August with 55% of dealers reporting ordering fewer combines than last year. This comes after a steep decline in July, which was the highest decline reported in our survey's history.

N. American Farm Equipment Dealer Survey - Average Orders Growth															
% Change y/y	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15
AGCO	-8%	-3%	-7%	-4%	-2%	-16%	-7%	-18%	-2%	-19%	-11%	-5%	-18%	-20%	-2%
John Deere	-8%	-11%	-7%	-14%	-17%	-14%	-10%	-10%	-21%	-12%	-20%	-22%	-16%	-19%	-23%
New Holland	-8%	-5%	-7%	-4%	-5%	-10%	-6%	-11%	-10%	-4%	-10%	-17%	-6%	-19%	-12%
Case IH	-8%	-9%	-14%	-11%	-18%	-21%	-20%	-17%	-19%	-17%	-25%	-23%	-25%	-20%	-22%
Kubota	-6%	-4%	-9%	-9%	-4%	-15%	-1%	22%	0%	-4%	-24%	-18%	-4%	0%	1%
Shortlines/Other	-9%	-4%	-7%	-9%	-12%	-17%	-6%	-14%	5%	-24%	-16%	-10%	-50%	-5%	-17%
<b>Total</b>	<b>-8%</b>	<b>-9%</b>	<b>-9%</b>	<b>-10%</b>	<b>-15%</b>	<b>-16%</b>	<b>-12%</b>	<b>-12%</b>	<b>-15%</b>	<b>-12%</b>	<b>-19%</b>	<b>-17%</b>	<b>-17%</b>	<b>-19%</b>	<b>-18%</b>

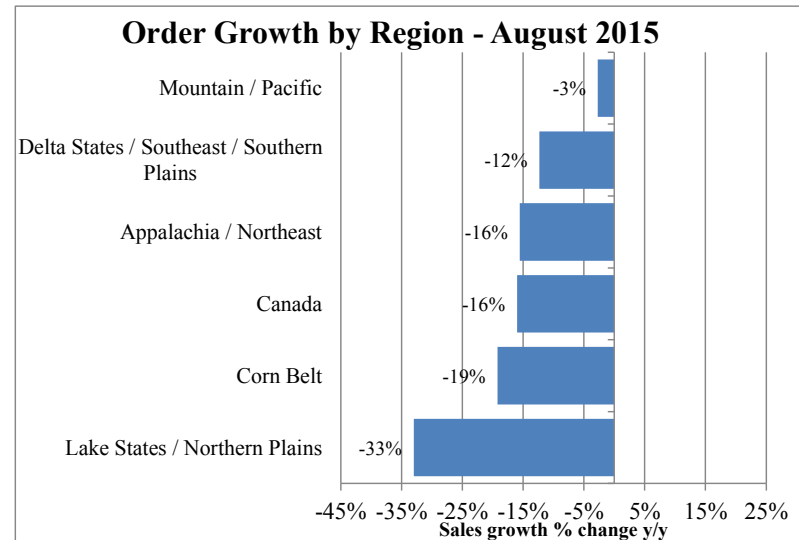
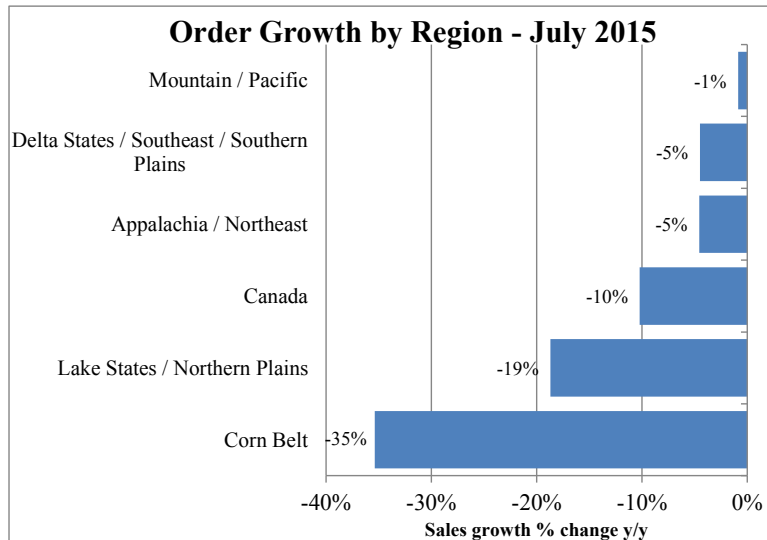
Source: Cleveland Research, AEI

New Combine Order Intentions vs. Last Year													
% of Dealers Ordering..	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	
More	4%	3%	5%	1%	7%	6%	6%	3%	5%	11%	2%	7%	
Same	30%	29%	23%	34%	26%	26%	34%	35%	23%	30%	18%	30%	
Less	66%	68%	72%	65%	67%	69%	60%	62%	73%	59%	80%	63%	
<b>Net % (More- Less)</b>	<b>-62%</b>	<b>-64%</b>	<b>-67%</b>	<b>-63%</b>	<b>-60%</b>	<b>-63%</b>	<b>-54%</b>	<b>-59%</b>	<b>-68%</b>	<b>-48%</b>	<b>-79%</b>	<b>-55%</b>	

Source: Cleveland Research, AEI

# Order Trends by Region

- The Mountain / Pacific region continues to show relative strength compared to the Lake States / Northern Plains and the Corn Belt. The Lake States / Northern Plains deteriorated from a decline of 19% in July to a decline of 33% in August.



## Average Dealer Sales Outlook

- The full year dealer average sales growth forecast improved slightly in August to down 15% for the year from down 16% in July. A net 35% of dealers are forecasting a sales decline for the year, an improvement from the net 46% of dealers forecasting a decline in July.
- Initial 2016 average dealer sales forecasts are for a 9% decline. A net 22% of dealers are forecasting a sales decline for the year.
- The second table below details the industry outlooks from Deere, Case IH/New Holland and AGCO.

N. American Farm Equipment Dealer Survey - Full Year Sales Forecast												
% change y/y	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15
AGCO	6%	0%	-9%	0%	-10%	-11%	-12%	-5%	-3%	-9%	-15%	-4%
John Deere	-12%	-14%	-9%	-9%	-11%	-18%	-8%	-15%	-18%	-14%	-14%	-14%
New Holland	9%	-8%	-10%	-3%	-6%	-11%	-10%	-4%	-9%	-8%	-10%	-17%
Case IH	-12%	-11%	-16%	-11%	-14%	-17%	-17%	-14%	-20%	-24%	-22%	-20%
Kubota	7%	-6%	-14%	-6%	-11%	-13%	-17%	-10%	-14%	1%	3%	-1%
Shortlines/Other	1%	-4%	-16%	-9%	-7%	-10%	-13%	-10%	-7%	-8%	-11%	-16%
<b>Overall</b>	<b>-9%</b>	<b>-11%</b>	<b>-10%</b>	<b>-8%</b>	<b>-11%</b>	<b>-15%</b>	<b>-10%</b>	<b>-12%</b>	<b>-15%</b>	<b>-15%</b>	<b>-16%</b>	<b>-15%</b>

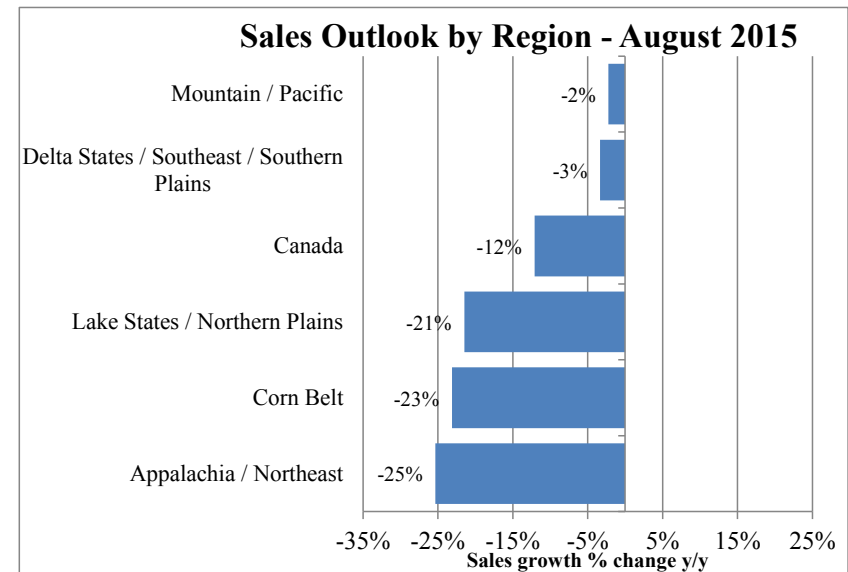
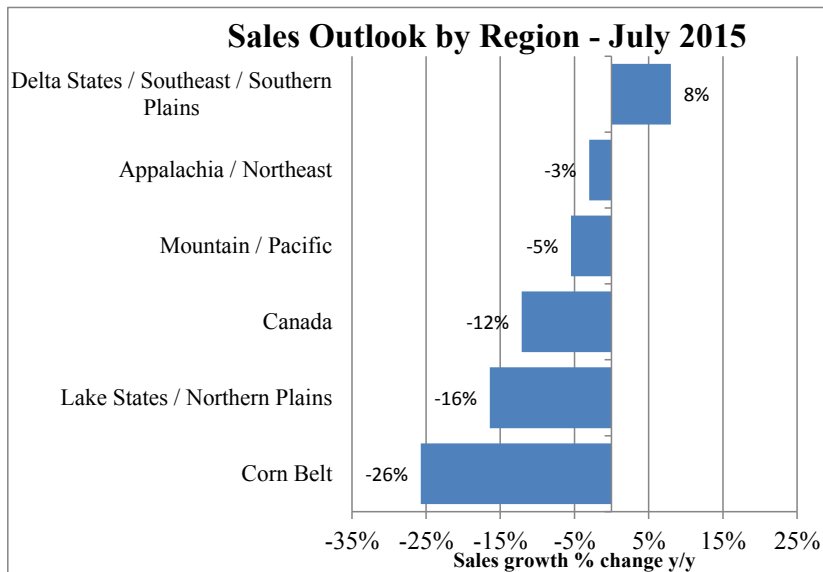
Source: Cleveland Research, AEI

2015 Ag Equipment Outlook - Deere, AGCO, CNH			
Geography	Deere	CNH Industrial	AGCO Corp.
N. America	Down ~25%	Tractors (0-5%); Combines (25-30%)	Down 5-10% (HHP down over 20%)
Western Europe	Down ~10%	Tractors (0-5%), Combines (5-10%)	Down 5-10%
Latin America	Down ~20-25%	Tractors (15-20%), Combines (25-30%)	Down ~20%
CIS or ROW	Down Significantly	na	na
Asia	Down Modestly	Tractors (10-15%), Combines (15-20%)	na

Source: Company reports, CRC estimates

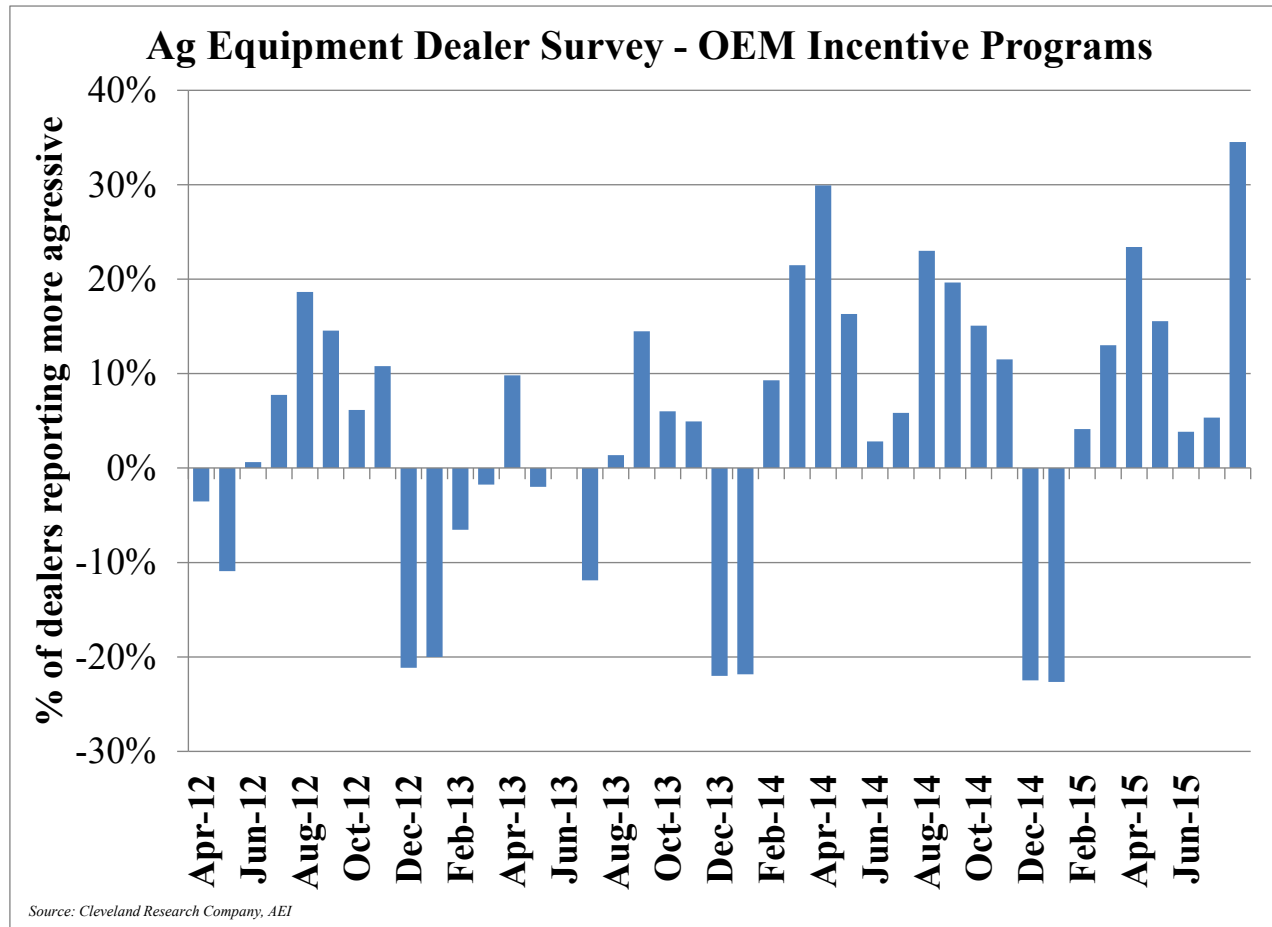
## 2015 Sales Outlook Continued

- The Mountain / Pacific and Delta States / Southeast / Southern Plains region are showing relative strength, expecting mid-single digit declines for the year. Appalachia / Northeast, Corn Belt, and Lake States / Northern Plains regions forecast continued weakness with greater than 20% declines. Appalachia / Northeast notably saw a 22% decline from July's full year outlook.



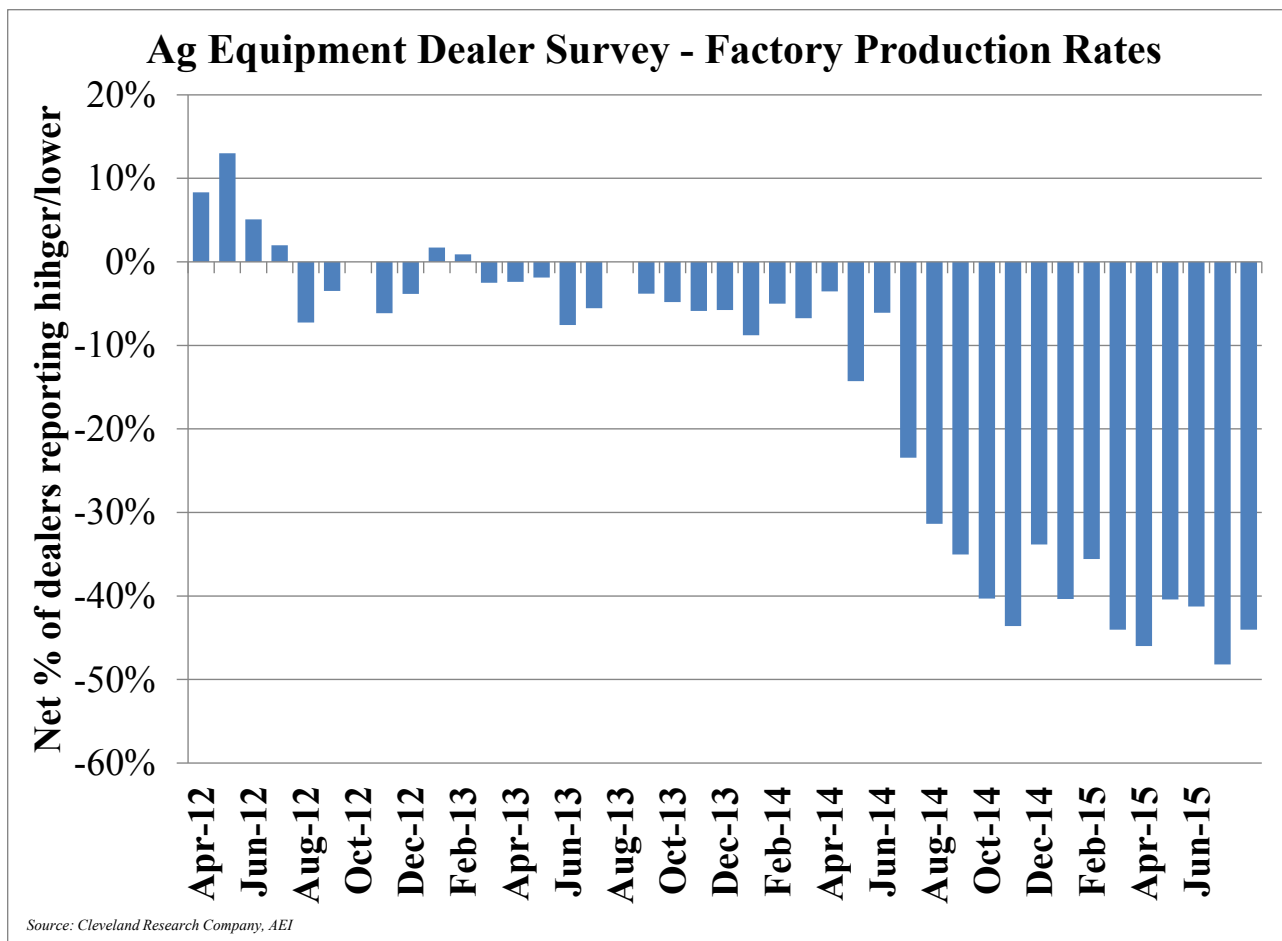
# Current Manufacturer Incentive Programs

- OEM incentive programs were reported by dealers to be more aggressive in August by a net 35% of dealers vs a net 5% of dealers in July. This is the most significant uptick in several years.



# Factory Production

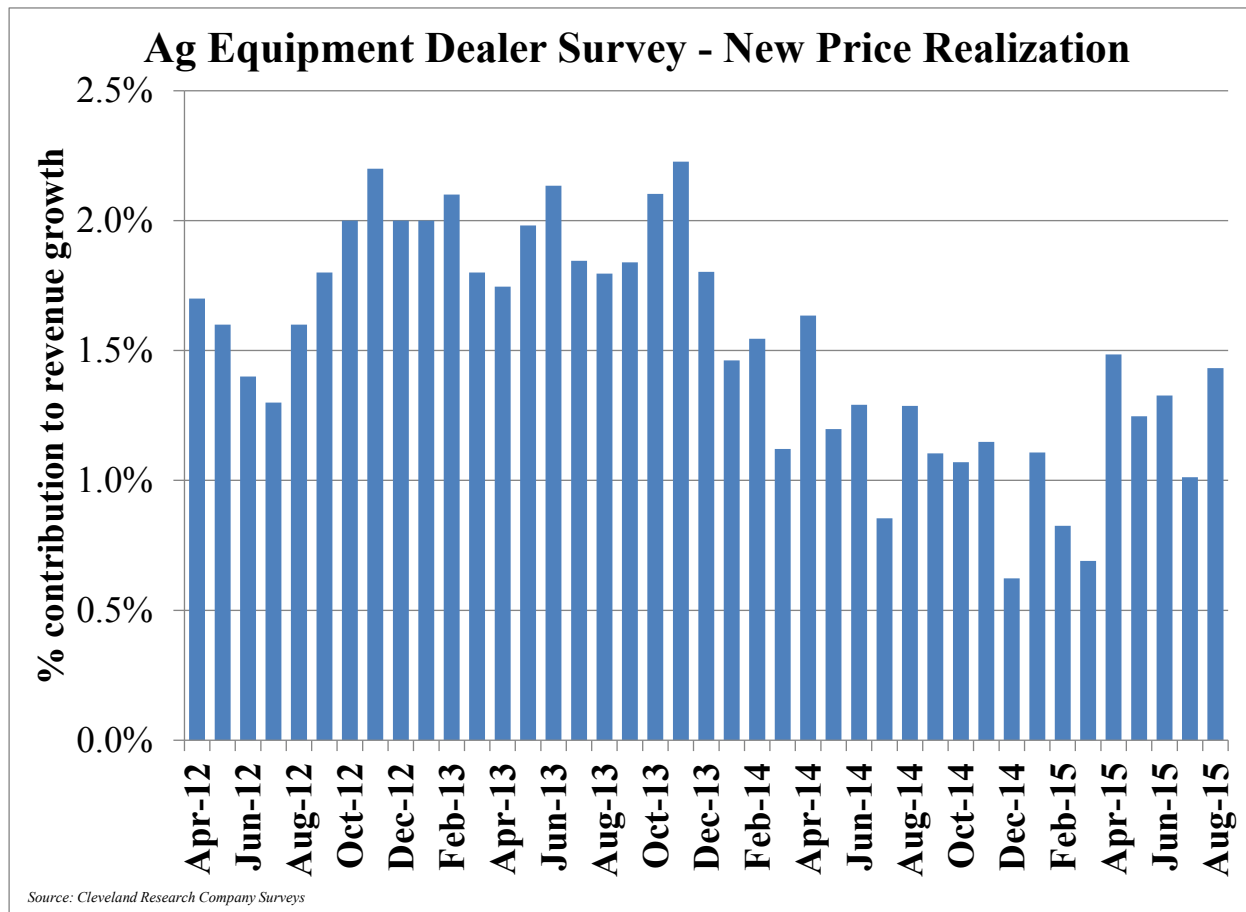
- A net 44% of dealers report OEM production rates are declining, similar to the last several month trend.





## Pricing Trends

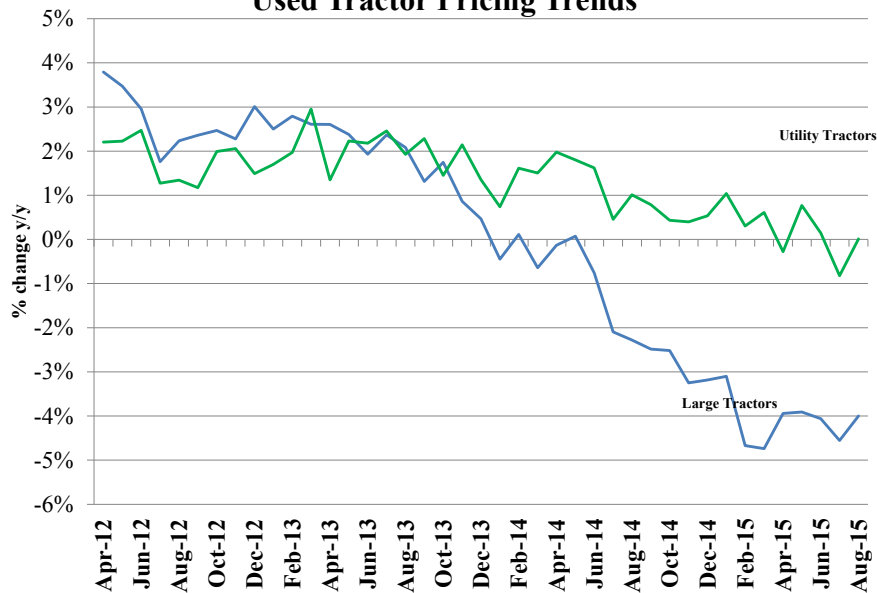
- Dealers report several OEMs pushed through small price increases in recent months, which raised the average new equipment price realization across the dealer sample to 1-1.5% over the last five months. Tier 4 final emissions related price increases are also noted as driving higher pricing.



# Used Equipment Pricing

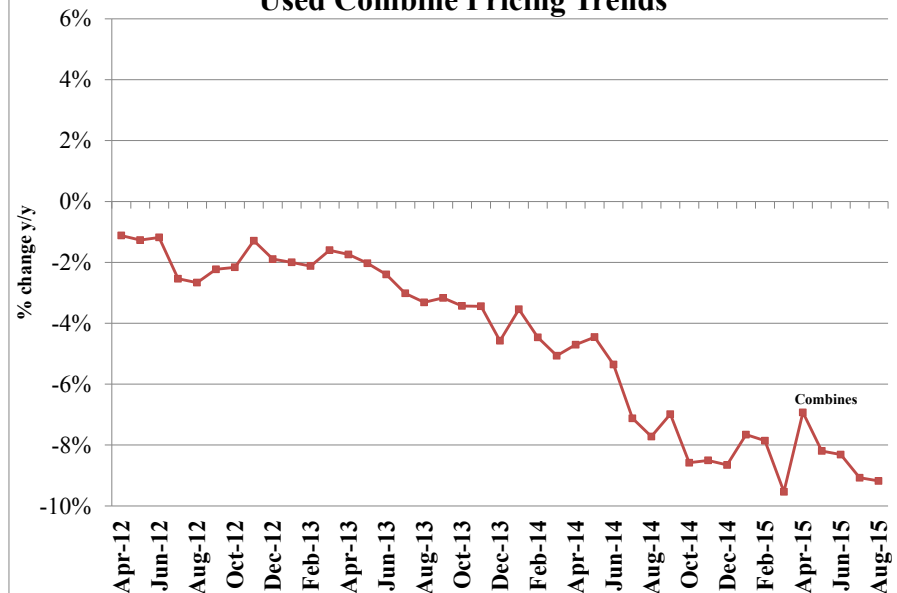
- Used large tractor pricing is reported down 4% y/y on average, roughly inline with July results. Utility tractors returned to flat pricing after a one month drop into negative territory.
- Used combine prices remain weak at down 9% on average, inline with July's results.

**Used Tractor Pricing Trends**



Source: Cleveland Research, AEI

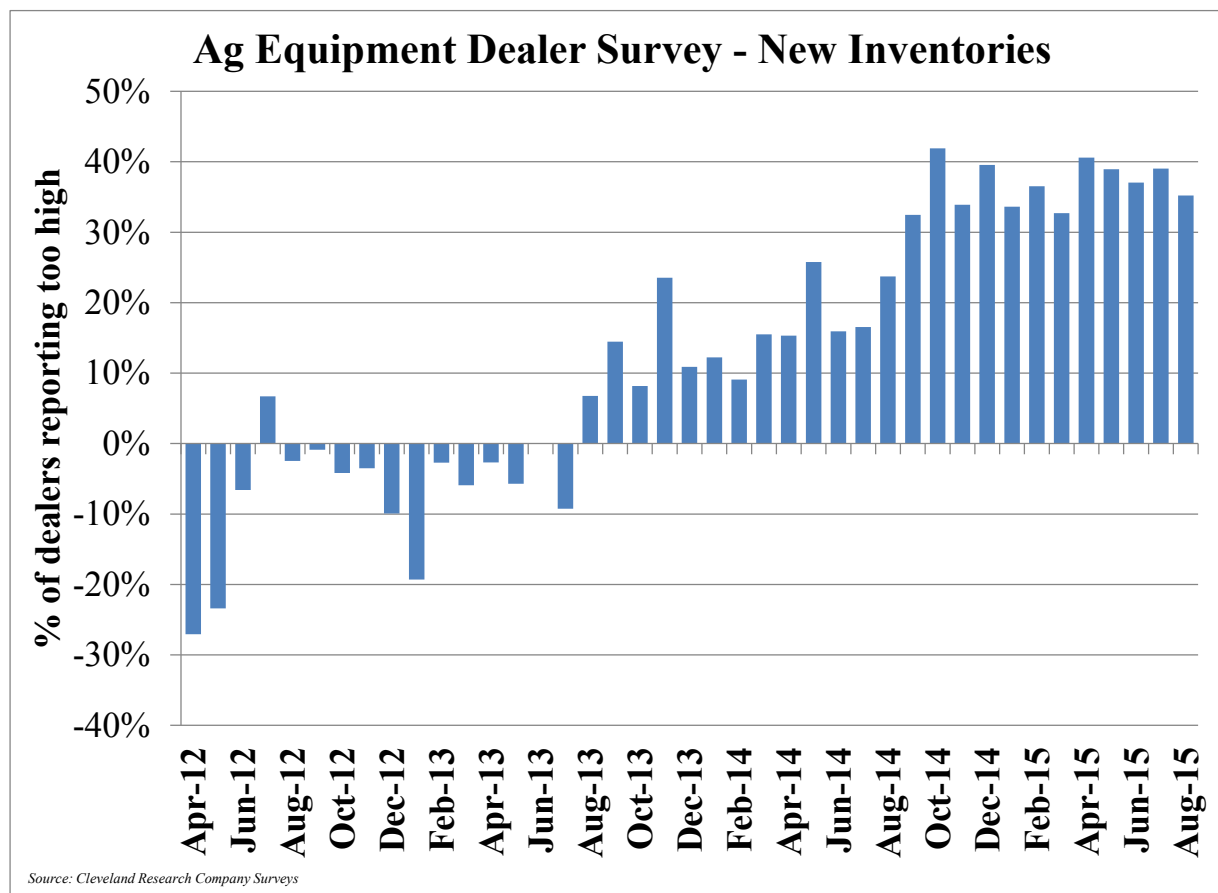
**Used Combine Pricing Trends**



Source: Cleveland Research, AEI

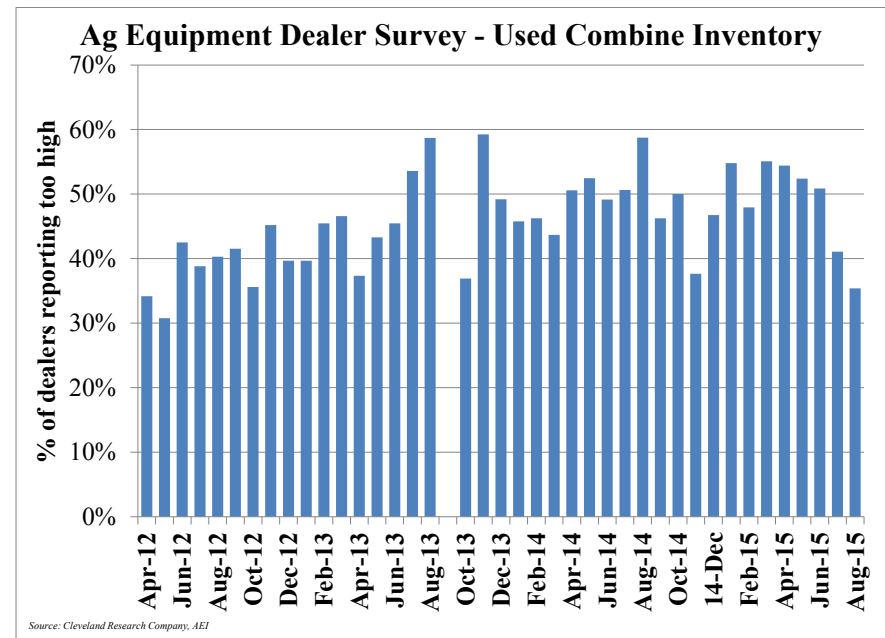
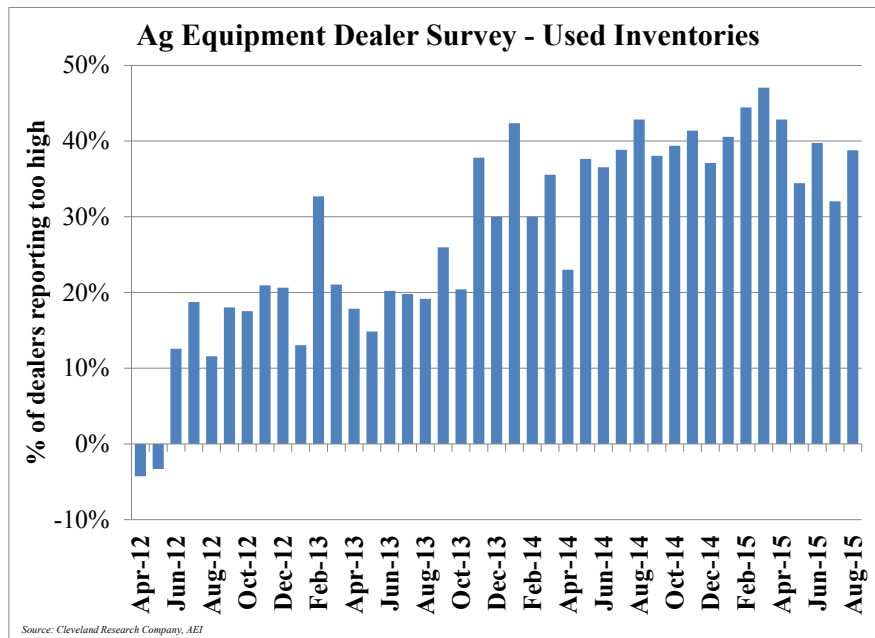
# New Equipment Inventory Levels

- A net 35% of dealers reported new equipment inventories are too high vs 39% in July. This marks 12 months of new inventory levels reported as too high by more than a net 30% of dealers.



# Used Equipment Inventory Levels

- A net 42% of dealers reported used equipment inventory is too high vs. 32% in July.
- The used combine inventory remains too high with a net 36% of dealers reporting inventories above where they would like them. However, this was the most favorable level seen in 2015 and anecdotally continues to be a key focus area for dealers.



# North American 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 & 4WD	Combines	<40 HP	Utility	Row Crop	4-Wheel	Total Tractor	Row Crop & 4WD	Combines
May-13	17,189	6,239	3,483	554	27,465	4,037	883	27%	4%	20%	-9%	19%	15%	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	10,739	5,542	3,168	491	19,940	3,659	1,480	24%	15%	15%	-11%	19%	11%	10%
Aug-13	9,359	5,006	2,840	587	17,792	3,427	1,250	15%	11%	16%	0%	13%	13%	-16%
Sep-13	8,595	4,834	3,356	571	17,356	3,927	1,289	7%	7%	8%	-26%	6%	1%	-27%
Oct-13	9,644	6,687	5,938	1,225	23,494	7,163	1,665	-3%	-3%	5%	-18%	-2%	0%	-28%
Nov-13	5,646	3,871	2,646	643	12,806	3,289	897	9%	-3%	7%	2%	4%	6%	25%
Dec-13	7,623	6,903	4,919	960	20,405	5,879	1,538	-7%	10%	13%	7%	3%	12%	36%
Jan-14	4,755	4,152	3,303	631	12,841	3,934	824	1%	2%	12%	-7%	3%	8%	33%
Feb-14	5,308	3,745	2,423	575	12,051	2,998	526	4%	1%	-6%	-14%	0%	-8%	-15%
Mar-14	10,108	5,110	3,155	655	19,028	3,810	899	22%	3%	-9%	-7%	9%	-9%	-25%
Apr-14	14,191	6,010	3,752	745	24,698	4,497	996	2%	7%	-13%	-12%	0%	-13%	-13%
May-14	16,828	6,586	2,928	474	26,816	3,402	669	-2%	6%	-16%	-14%	-2%	-16%	-24%
Jun-14	15,245	6,488	2,733	408	24,874	3,141	837	13%	2%	-16%	-25%	5%	-18%	-25%
Jul-14	11,245	5,934	3,206	389	20,774	3,595	1,034	5%	7%	1%	-21%	4%	-2%	-30%
Aug-14	9,691	5,444	2,575	371	18,081	2,946	946	4%	9%	-9%	-37%	2%	-14%	-24%
Sep-14	11,333	6,193	3,276	492	21,294	3,768	1,142	32%	28%	-2%	-14%	23%	-4%	-11%
Oct-14	10,934	7,115	4,929	734	23,712	5,663	994	13%	6%	-17%	-40%	1%	-21%	-40%
Nov-14	5,857	4,177	1,891	354	12,279	2,245	450	4%	8%	-29%	-45%	-4%	-32%	-50%
Dec-14	8,142	7,520	3,749	514	19,925	4,263	931	7%	9%	-24%	-46%	-2%	-27%	-39%
Jan-15	5,382	4,506	3,124	220	13,232	3,344	384	13%	9%	-5%	-65%	3%	-15%	-53%
Feb-15	5,305	3,250	1,955	348	10,858	2,303	399	0%	-13%	-19%	-39%	-10%	-23%	-24%
Mar-15	9,735	4,851	2,547	500	17,633	3,047	470	-4%	-5%	-19%	-24%	-7%	-20%	-48%
Apr-15	16,624	6,461	3,131	430	26,646	3,561	664	17%	8%	-17%	-42%	8%	-21%	-33%
May-15	16,028	5,643	1,994	260	23,925	2,254	549	-5%	-14%	-32%	-45%	-11%	-34%	-18%
Jun-15	15,664	6,558	2,411	300	24,933	2,711	505	3%	1%	-12%	-26%	0%	-14%	-40%
Jul-15	14,342	7,097	2,473	272	24,184	2,745	807	28%	20%	-23%	-30%	16%	-24%	-22%
Aug-15	9,688	5,120	1,771	167	16,746	1,938	679	0%	-6%	-31%	-55%	-7%	-34%	-28%

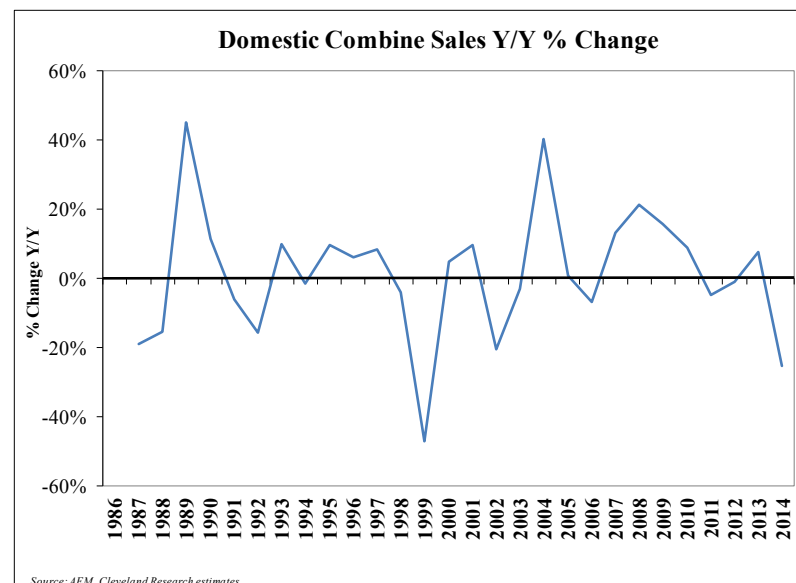
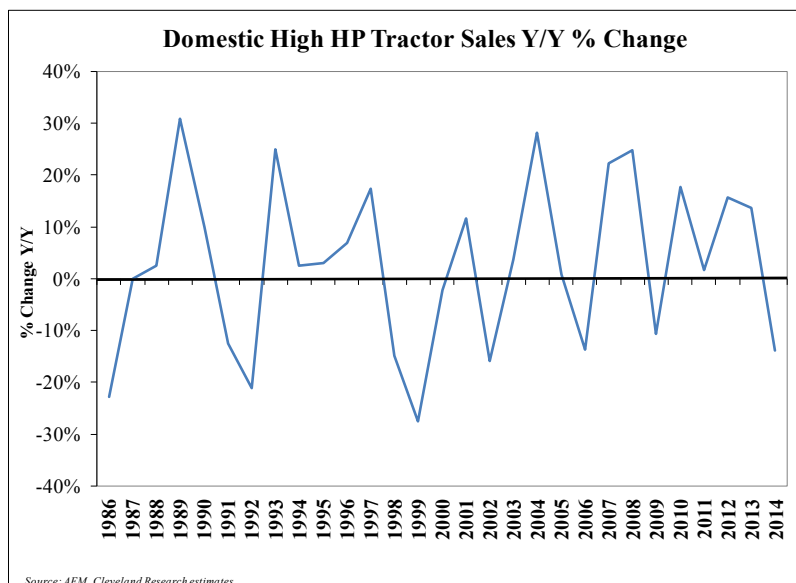
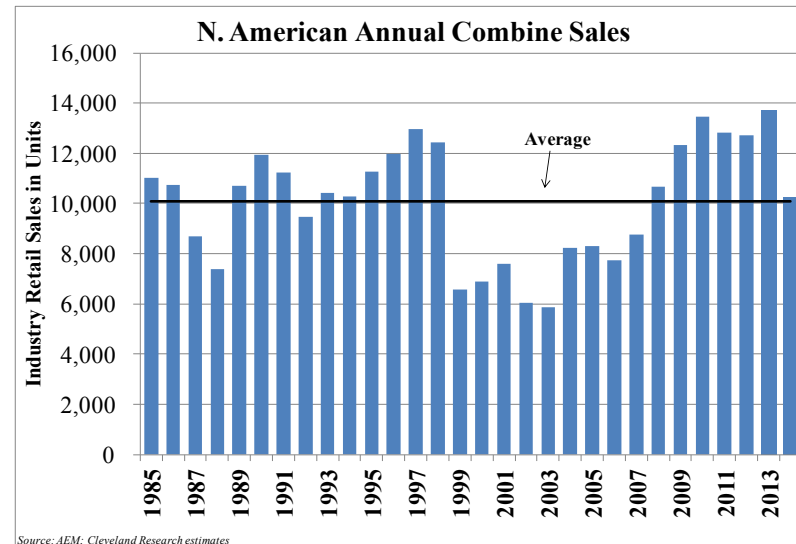
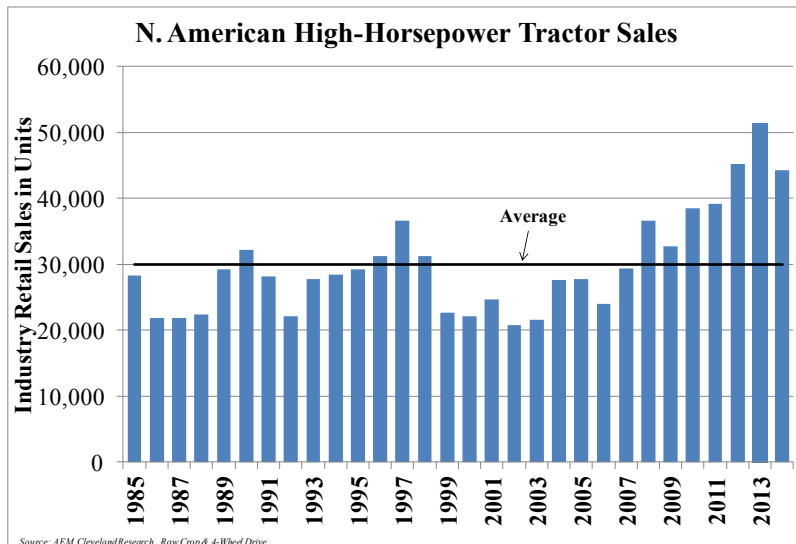
Source: AEM; Cleveland Research Company estimates. High hp tractors are row crop & 4-wheel drive.

# North American Farm Equipment Industry Inventory

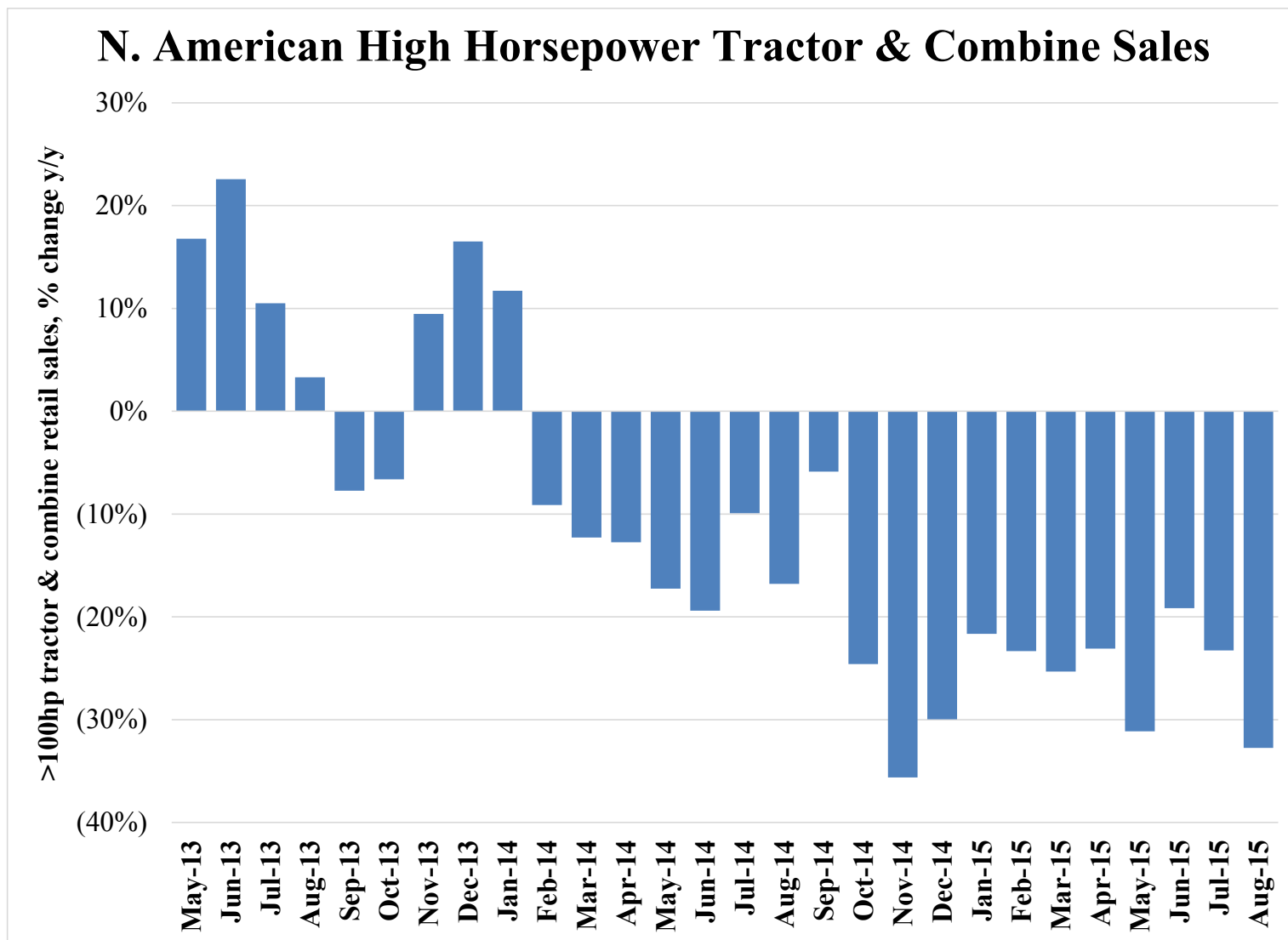
NORTH AMERICAN FARM EQUIPMENT INVENTORY														
	Inventory (Units)							Inventory to 12-mo. Sales						
	< 40 HP	Utility	Row Crop	4-Wheel	Total Tractor	Row Crop & 4WD	Combines	<40HP	Util	RC	4-WD	Total Tractor	Row Crop & 4WD	Comb
Apr-13	70,567	30,512	12,507	1,883	115,469	14,390	2,577	66%	50%	32%	21%	53%	30%	18%
May-13	65,268	30,400	13,202	2,068	110,938	15,270	2,866	59%	49%	33%	23%	50%	31%	20%
Jun-13	62,097	29,271	13,330	2,158	106,856	15,488	3,249	56%	47%	33%	24%	48%	31%	23%
Jul-13	59,174	29,628	14,138	2,177	105,117	16,315	3,208	52%	47%	34%	25%	47%	33%	22%
Aug-13	58,941	30,907	15,063	2,307	107,218	17,370	3,325	52%	49%	36%	26%	47%	34%	23%
Sep-13	60,787	31,714	15,372	2,507	110,380	17,879	3,255	53%	50%	37%	29%	48%	35%	24%
Oct-13	63,364	31,876	14,009	2,094	111,343	16,103	2,222	55%	50%	33%	25%	49%	32%	17%
Nov-13	67,922	33,406	14,847	2,312	118,487	17,159	2,343	59%	53%	35%	27%	52%	34%	18%
Dec-13	67,863	32,028	13,318	2,049	115,258	15,367	2,083	59%	50%	31%	24%	50%	30%	15%
Jan-14	69,111	33,240	12,620	2,028	116,999	14,648	1,681	60%	52%	29%	24%	51%	28%	12%
Feb-14	71,514	34,326	13,267	2,046	121,153	15,313	2,063	62%	54%	31%	25%	53%	30%	15%
Mar-14	71,249	35,256	14,058	2,218	122,781	16,276	2,456	61%	55%	33%	27%	53%	32%	18%
Apr-14	69,986	35,615	13,298	2,117	121,016	15,415	2,467	60%	55%	31%	26%	52%	31%	18%
May-14	66,364	34,755	13,505	2,255	116,879	15,760	2,734	57%	54%	32%	28%	51%	32%	21%
Jun-14	62,025	34,004	14,531	2,294	112,854	16,825	3,101	53%	52%	35%	29%	49%	34%	24%
Jul-14	61,829	34,393	14,836	2,159	113,217	16,995	3,144	52%	53%	36%	27%	49%	35%	25%
Aug-14	62,466	35,692	15,060	2,193	115,411	17,253	3,360	53%	54%	37%	29%	49%	36%	28%
Sep-14	61,811	35,926	16,185	2,399	116,321	18,584	2,891	51%	54%	40%	32%	49%	38%	24%
Oct-14	63,713	35,965	14,640	1,802	116,120	16,442	2,187	52%	53%	37%	25%	49%	35%	19%
Nov-14	67,691	37,110	14,840	1,652	121,293	16,492	2,046	55%	55%	38%	24%	51%	36%	19%
Dec-14	69,876	35,550	14,638	1,426	121,490	16,064	1,674	57%	52%	39%	22%	51%	36%	16%
Jan-15	73,716	35,405	13,934	1,439	124,494	15,373	1,713	59%	51%	37%	24%	53%	35%	17%
Feb-15	78,177	36,676	13,981	1,436	130,270	15,417	1,820	63%	54%	38%	25%	55%	36%	19%
Mar-15	81,662	37,881	14,179	1,346	135,068	15,525	2,040	66%	56%	39%	24%	58%	37%	22%
Apr-15	80,348	37,047	13,193	1,353	131,941	14,546	2,116	64%	54%	37%	26%	56%	35%	24%
May-15	78,880	37,037	13,177	1,400	130,494	14,577	2,058	63%	55%	38%	28%	56%	36%	23%
Jun-15	76,286	36,584	13,006	1,416	127,292	14,422	2,276	61%	54%	37%	29%	55%	36%	27%
Jul-15	72,876	35,232	12,507	1,354	121,969	13,861	2,218	56%	51%	37%	28%	52%	36%	27%

Source: AEM; Cleveland Research Company estimates

# Annual Agricultural Equipment Industry Sales (1985 - 2014)



# North America Large Ag Equipment Sales

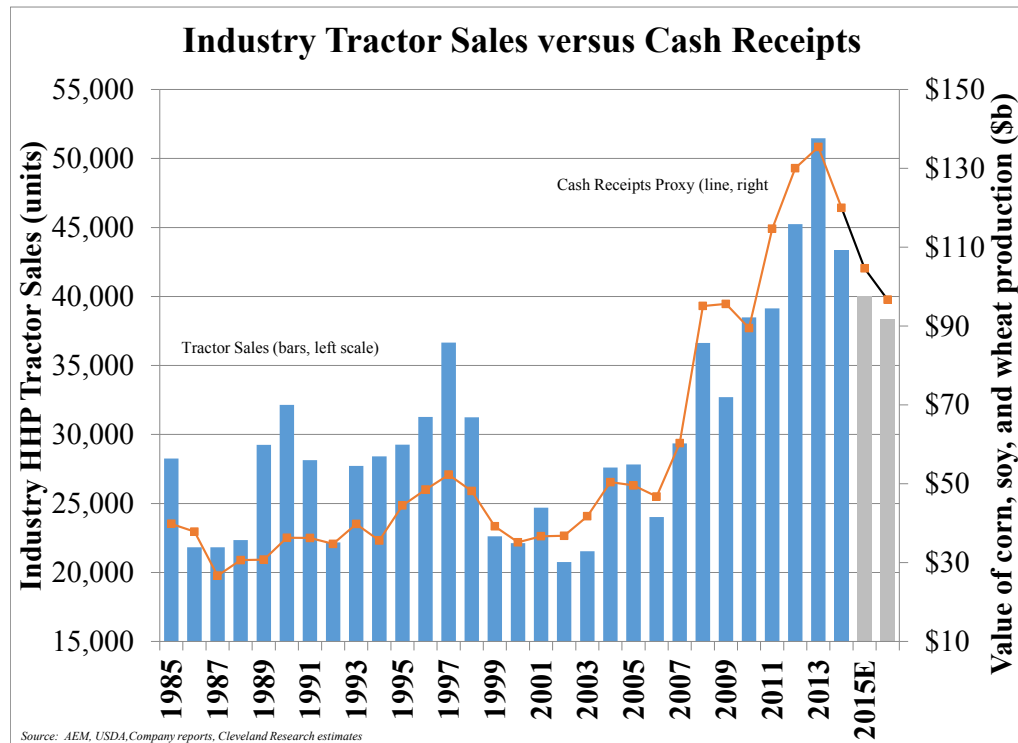




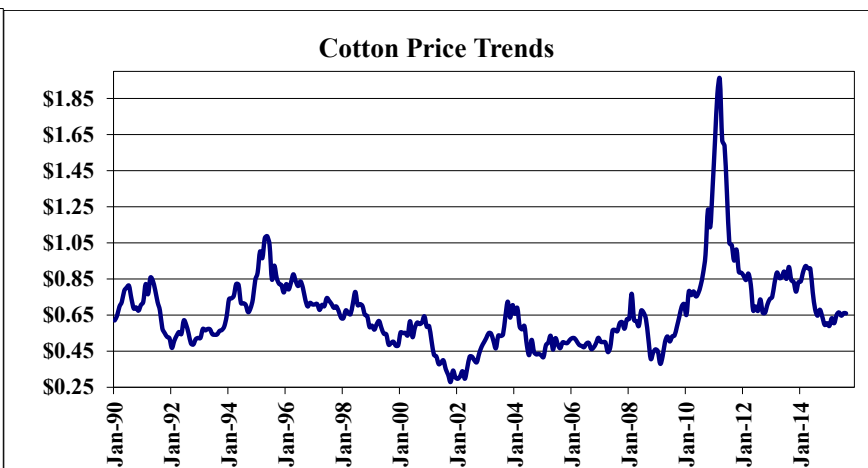
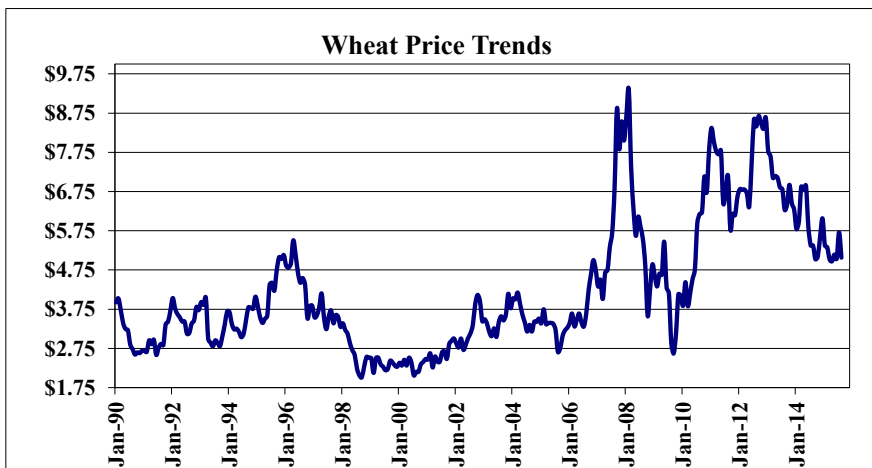
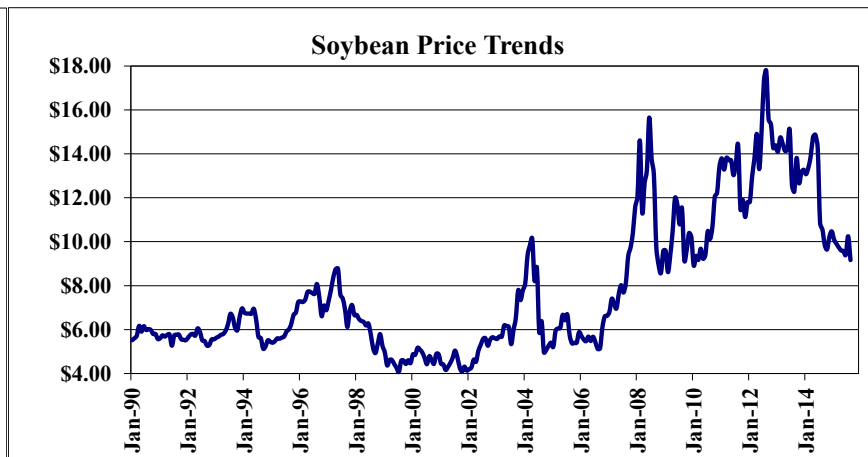
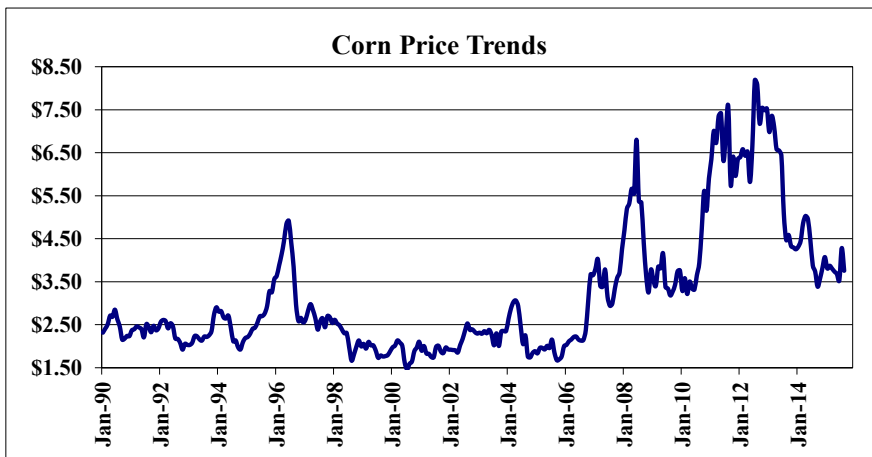
# Commodity Prices – Cash Receipts vs. Next Year Equipment Sales

**USDA's August WASDE Update Highlights** – The following chart illustrates the historical relationship between the value of production of corn, soybeans, and wheat in the U.S. compared to annual industry sales of high horsepower tractors.

USDA's September crop report remained negative for future industry tractor sales, but was better than the August report. The USDA raised its season average corn price forecast by 3% to reflect lower yield expectations. Soybean price forecasts held steady. Our cash receipts proxy now forecasts receipts down 7% y/y in 2015/2016 compared to the August forecast of down 8% and the 2014/2015 decline of 13%.



# Long Term Commodity Price Trends



# Commodity Trends – Long Run Supply and Demand Projections

US Corn, Soy, and Wheat Supply and Demand - Long Term Annual Forecast 2015

## US Corn Balance Sheet - USDA Long Term Forecast (Feb 2015)

Millions of bushels	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Planted	88	92	97	95	91	88	90	90	90	90	90	89	89	89	89
Harvested	81	84	87	88	83	80	82	82	82	82	82	81	81	81	81
Yield (bu/acre)	153	147	123	159	173	167	169	171	173	175	177	179	181	183	185
Beginning Stocks (MM bu)	1,708	1,128	989	821	1,236	2,008	1,733	1,738	1,753	1,773	1,748	1,753	1,703	1,683	1,668
Production (MM bu)	12,447	12,360	10,780	13,925	14,407	13,445	13,940	14,105	14,270	14,355	14,520	14,595	14,760	14,920	15,085
Imports (MM bu)	28	29	162	35	25	25	25	25	25	25	25	25	25	25	25
<b>Total Supply (MM bu)</b>	<b>14,183</b>	<b>13,517</b>	<b>11,931</b>	<b>14,781</b>	<b>15,668</b>	<b>15,478</b>	<b>15,698</b>	<b>15,868</b>	<b>16,048</b>	<b>16,153</b>	<b>16,293</b>	<b>16,373</b>	<b>16,488</b>	<b>16,628</b>	<b>16,778</b>
Feed & Residual (MM Bu)	4,792	4,557	4,329	5,300	5,375	5,225	5,375	5,500	5,600	5,650	5,700	5,750	5,800	5,875	5,925
Food, Seed, & Industrial (excl. Ethanol)	1,407	1,428	1,403	1,435	1,385	1,420	1,435	1,440	1,450	1,455	1,465	1,470	1,480	1,485	1,495
Ethanol & By-Products	5,021	5,000	4,648	5,000	5,150	5,200	5,150	5,100	5,075	5,075	5,075	5,100	5,125	5,150	5,200
Exports	1,835	1,543	731	1,900	1,750	1,900	2,000	2,075	2,150	2,225	2,300	2,350	2,400	2,450	2,500
<b>Total Use</b>	<b>13,054</b>	<b>12,528</b>	<b>11,111</b>	<b>13,635</b>	<b>13,660</b>	<b>13,745</b>	<b>13,960</b>	<b>14,115</b>	<b>14,275</b>	<b>14,405</b>	<b>14,540</b>	<b>14,670</b>	<b>14,805</b>	<b>14,960</b>	<b>15,120</b>
Ending Stocks	1,128	989	820	1,146	2,008	1,733	1,738	1,753	1,773	1,748	1,753	1,703	1,683	1,668	1,658
Ending Stocks/Use	8.6%	7.9%	7.4%	8.4%	14.7%	12.6%	12.4%	12.4%	12.4%	12.1%	12.1%	11.6%	11.4%	11.1%	11.0%
Weeks Carryover	4.5	4.1	3.8	4.4	7.6	6.6	6.5	6.5	6.5	6.3	6.3	6.0	5.9	5.8	5.7
<b>Average Farm Price (\$/bu)</b>	<b>\$5.18</b>	<b>\$6.22</b>	<b>\$6.89</b>	<b>\$4.55</b>	<b>\$3.50</b>	<b>\$3.40</b>	<b>\$3.50</b>	<b>\$3.50</b>	<b>\$3.50</b>	<b>\$3.55</b>	<b>\$3.55</b>	<b>\$3.60</b>	<b>\$3.65</b>	<b>\$3.70</b>	<b>\$3.75</b>
Value of Production	\$64,475	\$76,879	\$74,274	\$63,359	\$50,425	\$45,713	\$48,790	\$49,368	\$49,945	\$50,960	\$51,546	\$52,542	\$53,874	\$55,204	\$56,569
% change y/y	39%	19%	-3%	-15%	-20%	-9%	7%	1%	1%	2%	1%	2%	3%	2%	2%

## U.S. Soybean Balance Sheet - USDA Long Term Forecast (Feb 2015)

Millions of bushels	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Planted	77	75	77	77	84	84	79	78	78	79	79	79	79	79	79
Harvested	77	74	76	76	83	83	78	77	77	78	78	78	78	78	78
Yield Per Harvested Acre (Bushels)	44	42	40	43	48	46	47	47	47	48	48	49	49	50	50
Beginning Stocks	151	215	169	140	92	450	519	396	282	243	238	232	237	241	244
Production	3,329	3,094	3,034	3,289	3,958	3,820	3,630	3,620	3,655	3,715	3,750	3,810	3,845	3,885	3,920
Imports	14	16	36	90	15	15	15	15	15	15	15	15	15	15	15
<b>Total Supplies</b>	<b>3,495</b>	<b>3,325</b>	<b>3,239</b>	<b>3,519</b>	<b>4,065</b>	<b>4,285</b>	<b>4,164</b>	<b>4,031</b>	<b>3,952</b>	<b>3,973</b>	<b>4,003</b>	<b>4,057</b>	<b>4,097</b>	<b>4,141</b>	<b>4,179</b>
Crush	1,648	1,703	1,689	1,700	1,780	1,835	1,850	1,850	1,855	1,880	1,900	1,925	1,940	1,960	1,975
Exports	1,501	1,362	1,320	1,600	1,720	1,820	1,810	1,790	1,745	1,745	1,760	1,785	1,805	1,825	1,845
Seed & Residual	131	88	90	95	115	111	109	109	109	110	111	111	111	111	111
<b>Total Use</b>	<b>3,280</b>	<b>3,155</b>	<b>3,099</b>	<b>3,395</b>	<b>3,615</b>	<b>3,766</b>	<b>3,769</b>	<b>3,749</b>	<b>3,709</b>	<b>3,735</b>	<b>3,771</b>	<b>3,821</b>	<b>3,856</b>	<b>3,896</b>	<b>3,931</b>
Ending Stocks	215	169	140	124	450	519	396	282	243	238	232	237	241	244	248
Stocks/Use	6.6%	5.4%	4.5%	3.7%	12.4%	13.8%	10.5%	7.5%	6.6%	6.4%	6.2%	6.2%	6.3%	6.3%	6.3%
<b>Average Price (\$/bu)</b>	<b>\$11.30</b>	<b>\$12.50</b>	<b>\$14.40</b>	<b>\$13.10</b>	<b>\$10.00</b>	<b>\$8.50</b>	<b>\$8.55</b>	<b>\$8.80</b>	<b>\$9.10</b>	<b>\$9.20</b>	<b>\$9.30</b>	<b>\$9.35</b>	<b>\$9.40</b>	<b>\$9.45</b>	<b>\$9.55</b>
Value of Production	\$37,620	\$38,669	\$43,690	\$43,086	\$39,580	\$32,470	\$31,037	\$31,856	\$33,261	\$34,178	\$34,875	\$35,624	\$36,143	\$36,713	\$37,436
% change y/y	17%	3%	13%	-1%	-8%	-18%	-4%	3%	4%	3%	2%	2%	1%	2%	2%

# Commodity Trends – Long Run Supply and Demand Projections (Cont.)

## US Corn, Soy, and Wheat Supply and Demand - Long Term Annual Forecast 2015 (continued)

### U.S. Wheat Balance Sheet - USDA Long Term Forecast (Feb 2015)

Millions of bushels	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Planted	54	54	56	56	57	56	53	53	53	53	53	52	52	52	52
Harvested	48	46	49	45	46	47	45	45	45	45	45	44	44	44	44
Yield Per Harvested Acre (Bushels)	46	44	46	47	44	46	46	47	47	47	48	48	49	49	49
Beginning Stocks	976	862	743	718	590	644	700	680	663	654	653	666	662	661	663
Production	2,207	1,999	2,266	2,130	2,026	2,155	2,075	2,075	2,090	2,105	2,125	2,115	2,135	2,145	2,165
Imports	97	112	123	170	170	150	155	160	165	170	175	180	185	190	195
<b>Total Supplies</b>	<b>3,279</b>	<b>2,974</b>	<b>3,131</b>	<b>3,018</b>	<b>2,786</b>	<b>2,949</b>	<b>2,930</b>	<b>2,915</b>	<b>2,918</b>	<b>2,929</b>	<b>2,953</b>	<b>2,961</b>	<b>2,982</b>	<b>2,996</b>	<b>3,023</b>
Food	926	941	945	950	960	967	974	981	988	995	1,002	1,009	1,016	1,023	1,030
Seed	71	76	73	74	76	72	71	71	71	71	70	70	70	70	70
Feed&residual	129	162	388	220	180	190	180	170	170	170	170	170	180	180	190
Exports	1,291	1,051	1,007	1,180	925	1,020	1,025	1,030	1,035	1,040	1,045	1,050	1,055	1,060	1,065
<b>Total Use</b>	<b>2,417</b>	<b>2,231</b>	<b>2,414</b>	<b>2,424</b>	<b>2,141</b>	<b>2,249</b>	<b>2,250</b>	<b>2,252</b>	<b>2,264</b>	<b>2,276</b>	<b>2,287</b>	<b>2,299</b>	<b>2,321</b>	<b>2,333</b>	<b>2,355</b>
Ending Stocks	862	743	718	593	644	700	680	663	654	653	666	662	661	663	668
Stocks/Use	35.7%	33.3%	29.7%	24.5%	30.1%	31.1%	30.2%	29.4%	28.9%	28.7%	29.1%	28.8%	28.5%	28.4%	28.4%
<b>Average Price (\$/bu)</b>	<b>\$5.70</b>	<b>\$7.24</b>	<b>\$7.77</b>	<b>\$6.87</b>	<b>\$5.90</b>	<b>\$5.00</b>	<b>\$4.65</b>	<b>\$4.75</b>	<b>\$4.80</b>	<b>\$4.80</b>	<b>\$4.80</b>	<b>\$4.80</b>	<b>\$4.85</b>	<b>\$4.85</b>	<b>\$4.85</b>
Value of Production	\$12,579	\$14,475	\$17,607	\$14,631	\$11,953	\$10,775	\$9,649	\$9,856	\$10,032	\$10,104	\$10,200	\$10,152	\$10,355	\$10,403	\$10,500
% change y/y	16%	15%	22%	-17%	-18%	-10%	-10%	2%	2%	1%	1%	0%	2%	0%	1%

### Total Acreage and Value of U.S. Corn, Soy and Wheat Production - USDA February 2015 Projection

	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
<b>Total Corn, Soy, Wheat</b>															
Planted (mm acres)	219	221	230	228	232	228	222	221	221	221	221	220	220	220	220
Harvested (mm acres)	206	204	213	209	213	211	205	204	204	204	204	204	204	204	204
Yield (bu/acre)	87	86	76	93	96	92	96	97	98	99	100	101	102	103	104
Production	17,983	17,453	16,080	19,344	20,391	19,420	19,645	19,800	20,015	20,175	20,395	20,520	20,740	20,950	21,170
Average Price (\$/bu)	\$6.38	\$7.45	\$8.43	\$6.26	\$5.00	\$4.58	\$4.55	\$4.60	\$4.66	\$4.72	\$4.74	\$4.79	\$4.84	\$4.88	\$4.94
<b>Value of Production</b>	<b>\$114,675</b>	<b>\$130,024</b>	<b>\$135,571</b>	<b>\$121,076</b>	<b>\$101,958</b>	<b>\$88,958</b>	<b>\$89,475</b>	<b>\$91,080</b>	<b>\$93,238</b>	<b>\$95,242</b>	<b>\$96,621</b>	<b>\$98,318</b>	<b>\$100,372</b>	<b>\$102,321</b>	<b>\$104,505</b>
% change y/y	28%	13%	4%	-11%	-16%	-13%	1%	2%	2%	2%	1%	2%	2%	2%	2%

# U.S. Acreage Planted Per Crop Year

