

# ***Ag Equipment Intelligence***

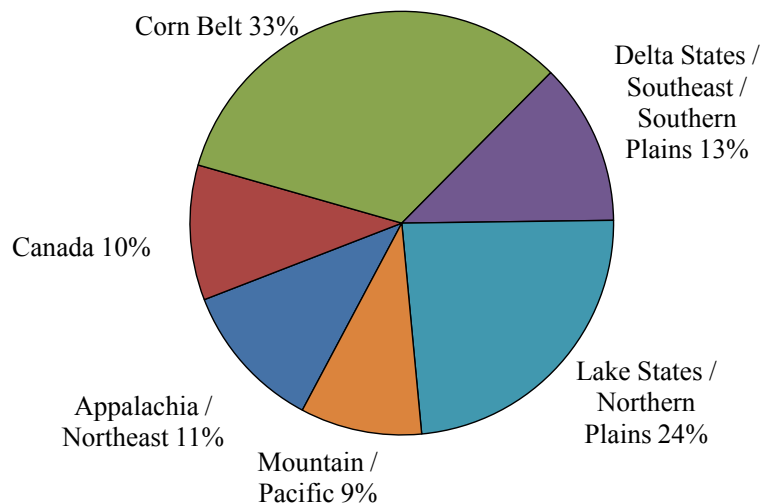
January 2016 Dealer Sentiments &  
Business Conditions Update

# Monthly Ag Equipment Intelligence North American Dealer Survey

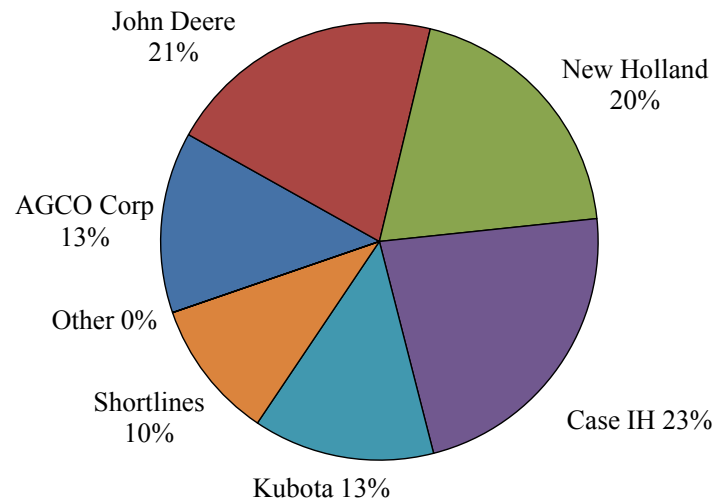
## Background:

- We are pleased to announce the results of the January *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 January survey had 127 respondents representing combined annual revenues of roughly \$5.8 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 December, slightly better than the 16% decline in November. A net 15% of dealers missed their sales budget in December, making for the 21<sup>st</sup> consecutive month of net budget misses. The full year dealer average sales growth was reported down 13%, inline with the forecasts reported in November. A net 45% dealers saw a decline for the year vs. a net 38% forecasting a decline in November. Commercial and consumer lawn equipment sales continue to show strength, while most large equipment demand remains very weak.
- **Outlook** – The full year 2016 dealer average sales growth forecast was reported at down 9%, inline with November with a net 48% of dealers forecasting a sales decline for the year vs. a net 43% forecasting a decline in November.
- **Inventory** – A net 41% of dealers reported new equipment inventories as too high, an improvement from the net 55% in November. Used inventory levels got slightly worse with a net 38% of dealers reporting inventory as too high vs. 37% last month.
- **Pricing** – Dealers have reported a slight (~0.5-1.0%) uptick in new equipment price realization in 4Q due to Tier 4 sales and OEM price increase that have come through recently. Used large tractor pricing is reported down 9% on average, a decline from the down 8% in November, while small tractor pricing saw a ~1% increase. Used combine prices remain down 14%, in line with the average in 4Q.

# Monthly Sales Growth

- Average dealer sales were reported down 15% y/y in December and down 16% in 4Q. A net 15% of dealers missed their sales budgets in December with ~35% reporting worse than expected sales, better than the 25% that missed budget in November.
- A net 35% of dealers report they are less optimistic about overall business conditions, the 21<sup>st</sup> consecutive month of deterioration in optimism.

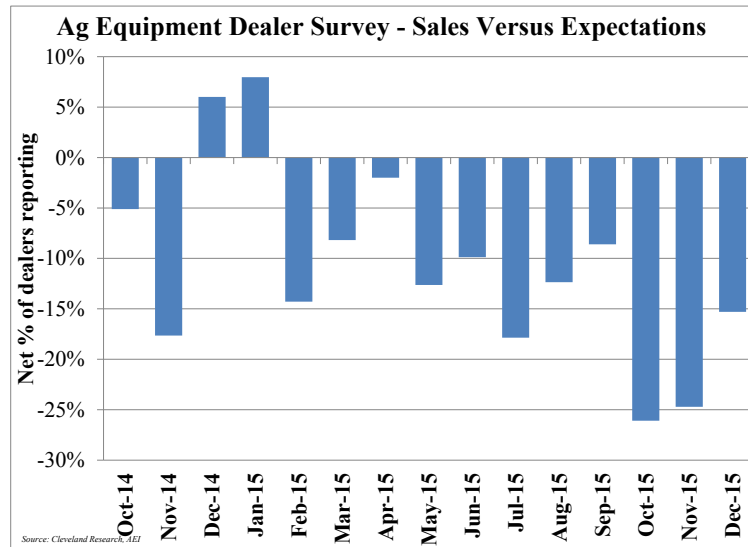
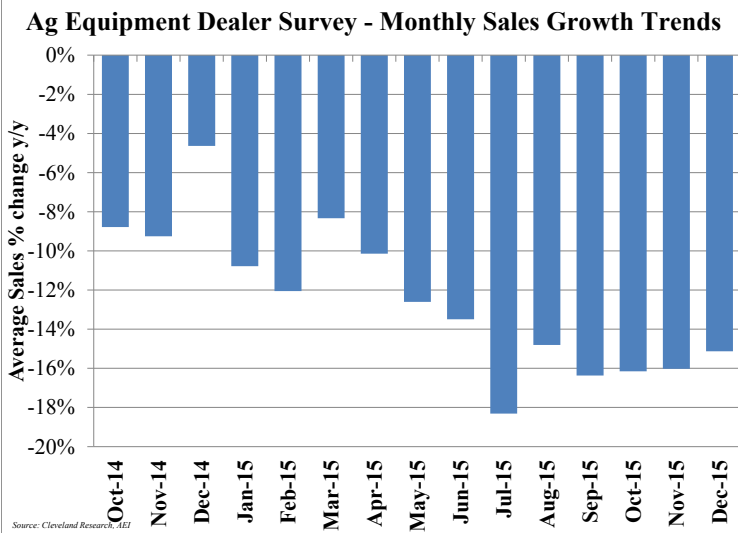
N. American Farm Equipment Dealer Survey - Average Dealer Sales Growth															
% Change y/y	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15
AGCO	-1%	4%	-13%	-15%	3%	-8%	-1%	4%	-12%	-24%	-13%	-14%	-22%	-27%	-9%
John Deere	-4%	-6%	-3%	-9%	-22%	-8%	-11%	-15%	-14%	-19%	-14%	-15%	-16%	-12%	-16%
New Holland	-1%	-10%	-1%	0%	-5%	-3%	-2%	-7%	-5%	-17%	-12%	-23%	-14%	-13%	-15%
Case IH	-9%	-14%	-6%	-19%	-10%	-13%	-16%	-19%	-19%	-17%	-19%	-20%	-19%	-22%	-18%
Kubota	8%	-11%	7%	5%	-6%	-4%	-1%	0%	0%	0%	-3%	-2%	2%	-5%	-11%
Shortlines/Other	5%	-1%	1%	-9%	-4%	-18%	-8%	-6%	-16%	-7%	-38%	-7%	-9%	-8%	-8%
<b>Total</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>	<b>-16%</b>	<b>-16%</b>	<b>-16%</b>	<b>-15%</b>

Source: Cleveland Research, AEI

N. American Farm Equipment Dealer Survey - Sales Versus Expectations															
% of Dealers Reporting	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15
Better than expected	22%	21%	29%	26%	13%	20%	27%	23%	21%	18%	16%	19%	15%	12%	19%
In line with expectations	51%	40%	47%	57%	59%	50%	44%	39%	48%	45%	56%	53%	43%	51%	47%
Worse than expected	27%	39%	23%	18%	28%	28%	29%	36%	31%	36%	28%	28%	41%	37%	34%
<b>Net % (Better - Worse)</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>	<b>-9%</b>	<b>-26%</b>	<b>-25%</b>	<b>-15%</b>

Source: Cleveland Research, AEI.

# Monthly Sales Growth Continued



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

% of Dealers Reporting	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15
Positive Sales Growth	40%	27%	33%	32%	13%	20%	27%	29%	26%	20%	19%	24%	20%	16%	18%
Flat Sales	14%	16%	16%	25%	59%	50%	11%	17%	11%	16%	16%	16%	15%	17%	10%
Negative Sales Growth	46%	58%	51%	43%	28%	28%	62%	54%	63%	64%	65%	60%	65%	67%	72%
<b>Net % Reporting Growth</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>-35%</b>	<b>-46%</b>	<b>-52%</b>	<b>-54%</b>
<b>Average % Change y/y</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>	<b>-16%</b>	<b>-16%</b>	<b>-16%</b>	<b>-15%</b>

Source: Cleveland Research

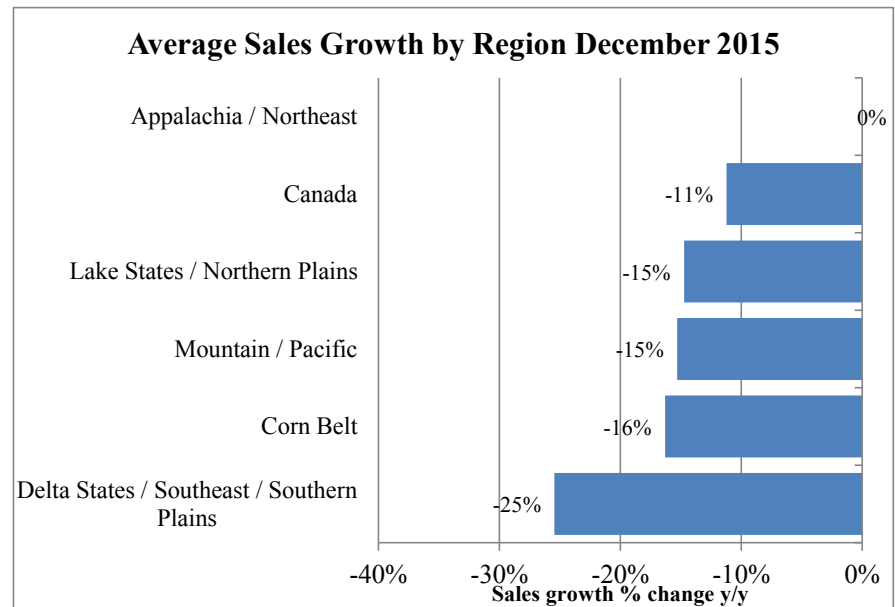
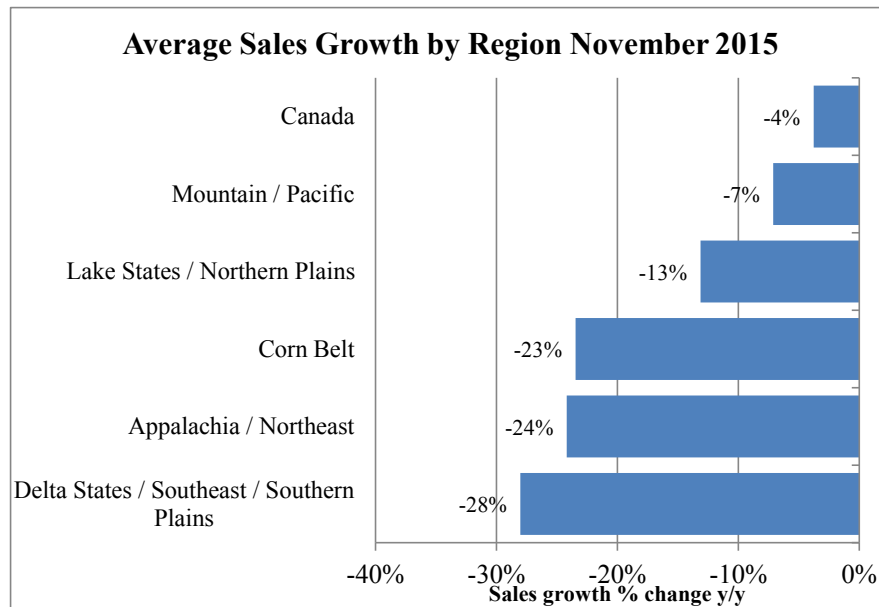
**Optimism/Sentiment vs. Last Month**

% of Dealers Reporting	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15
More Optimistic	8%	9%	12%	12%	9%	14%	14%	12%	13%	14%	11%	12%	8%	10%	8%
Same	48%	38%	39%	52%	50%	42%	47%	48%	58%	52%	45%	51%	60%	52%	48%
Less Optimistic	44%	53%	49%	36%	41%	43%	40%	40%	30%	35%	43%	37%	33%	38%	44%
<b>Net % Dealer Optimism</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>	<b>-26%</b>	<b>-25%</b>	<b>-28%</b>	<b>-35%</b>

Source: Cleveland Research

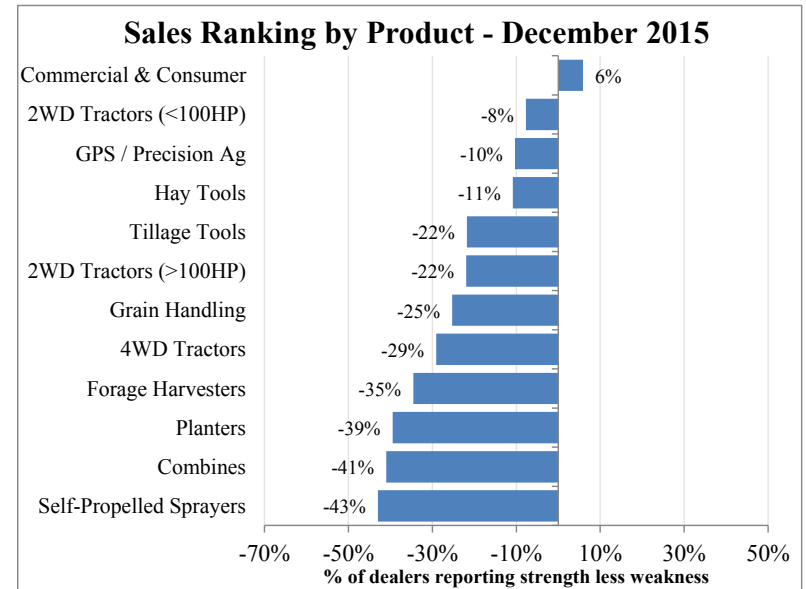
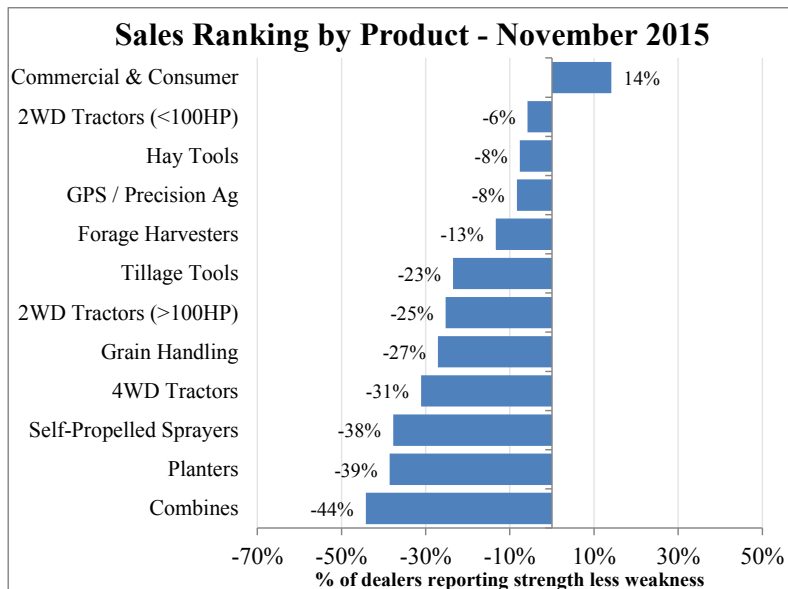
# Monthly Sales Growth by Region

- Sales trends were mixed by geography, with most regions posting double digit declines in December. The Delta States / Southeast / Southern Plains remain the weakest region, down 25% y/y. Appalachia / Northeast was the strongest at flat sales and showed the most improvement after 20%+ declines in November.

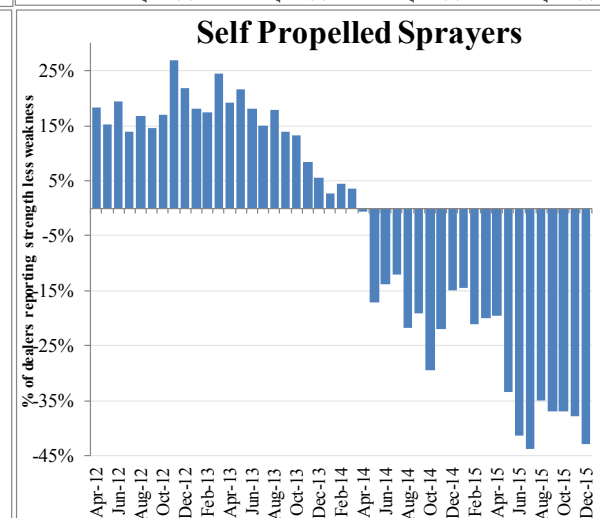
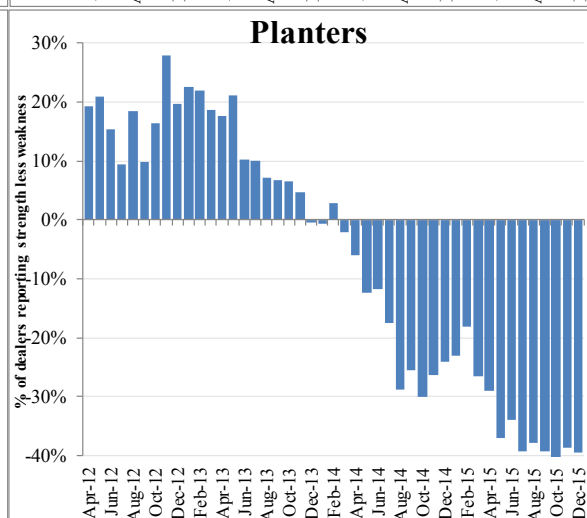
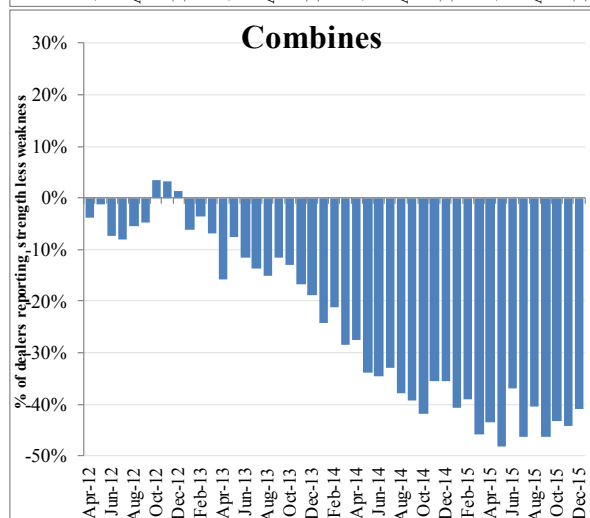
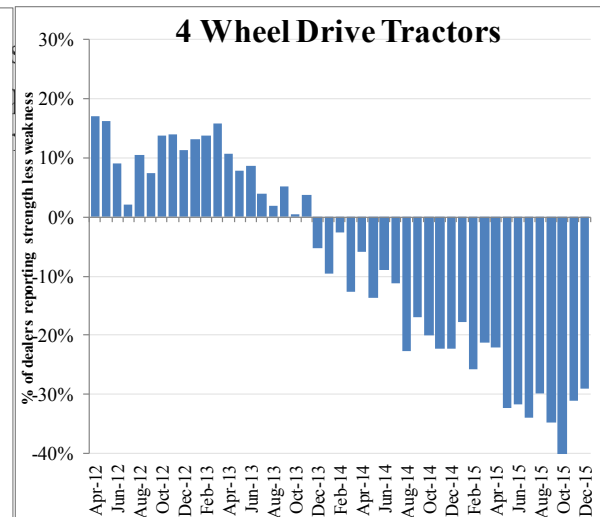
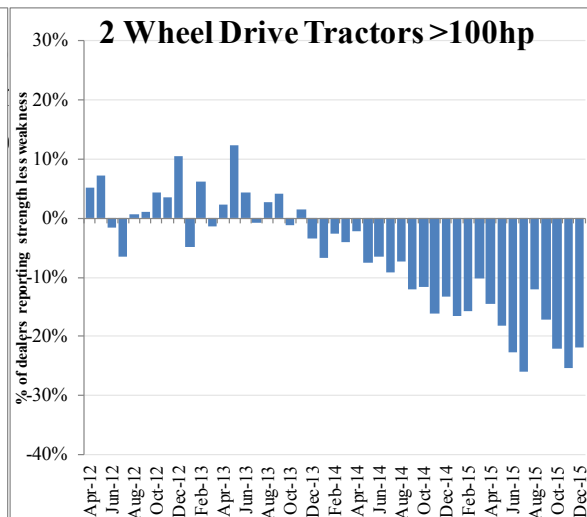
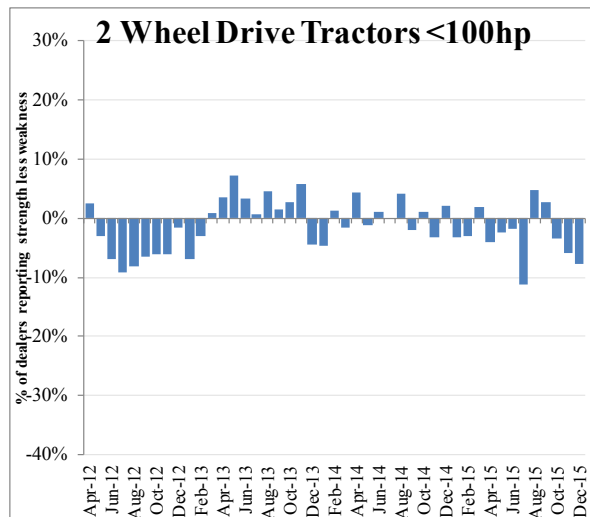


# Equipment Category Sales Trends

- Commercial & consumer lawn equipment continues to show strength in contrast to declines in other categories (combines, planters, and sprayers in particular). We continue to see significant headwinds to large equipment sales.

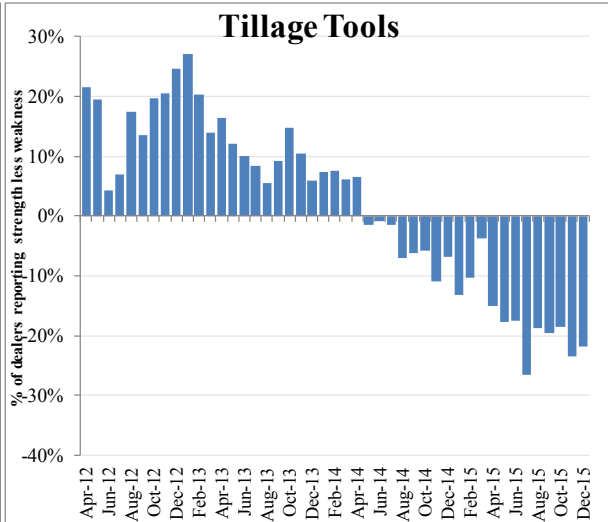
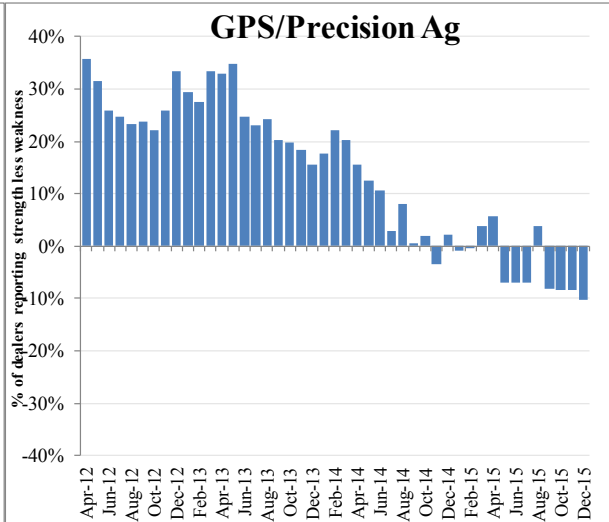
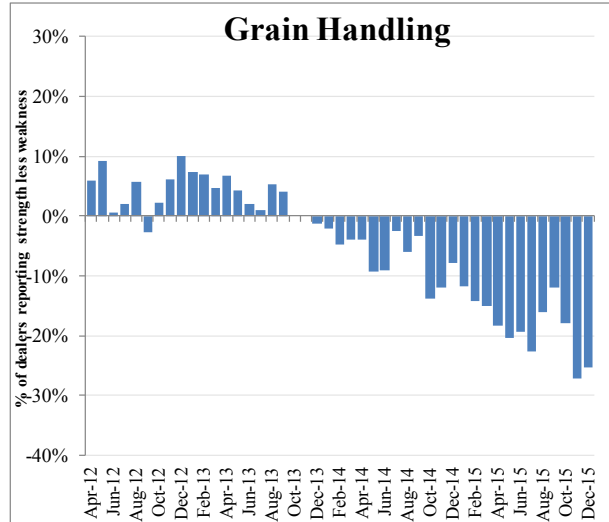
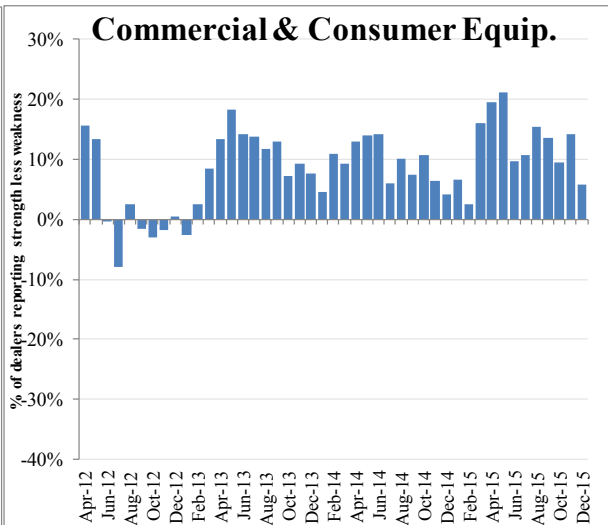
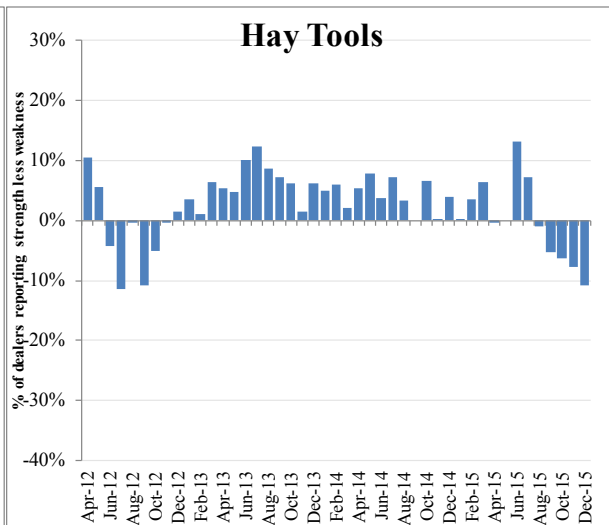
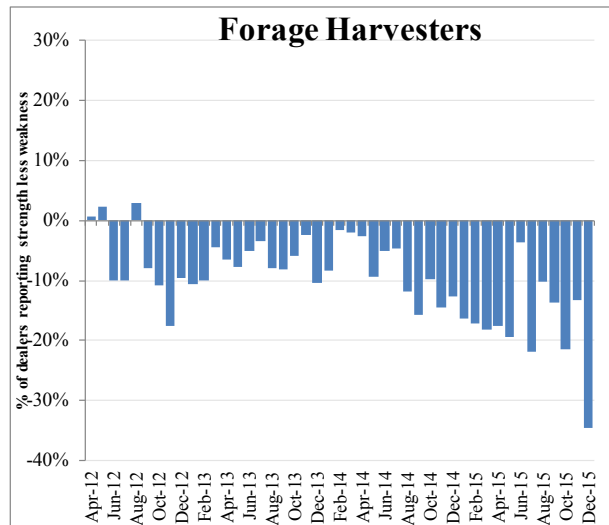


# Equipment Category Sales Trends





# Equipment Category Sales Trends (Continued)



## Most Interesting Commentary - Monthly Sales and Outlook

- *The bottom is not in yet, 2016 will be the year we find out who has the cash to weather the storm.*
- *Cattle and crop pricing being where they are has forced farmers to hold on to a greater proportion of their inventory, this has made for a bad liquidity situation. This will continue to pressure equipment sales.*
- *Customers are being forced into holding some equipment as bankers better understand 2016 market projections. In our area lending activity has become extremely conservative in the past few months.*
- *Farmers aren't willing to go into debt to upgrade even with 5 years at 0% down. Our customers are ready to ride out a storm for years, and many are wondering if their dealer will be able to do the same.*
- *The top 20% of key customers are the only ones with cash available to spend, especially with farmers holding grain.*
- *Section 179 came too late in the month, customers had already made up their mind on purchase intentions.*
- *There was a total lack of year end tax purchases for the first time since the mid 80's in our business.*
- *Farmers, bankers, and writers are all up in arms with doom and gloom these days.*
- *The strong dollar, rising rates, high commodity stocks, Argentina entering the market, high levels of equipment on farms, high levels of late used equipment at dealerships, down trending cattle prices, emissions driven price increases, and corn, wheat, and soybean pricing below the cost of production on rented land – to quote Blinkin in Robin Hood Men in Tights “ain't life grand?”*
- *We need more inventory in older and smaller hp equipment, but it is difficult to trade down to that part of the market right now. We are still having trouble selling the first and second trades after we've sold a new piece.*
- *Used equipment values continue to suffer from attractive auction pricing and heavy OEM discounts.*
- *We were underwater on 7 units and sold 5 at a \$50k loss and I'm glad we did. Lots of dealers are sticking their head in the sand and holding onto inventory, a day of reckoning is coming for them.*
- *10+ dealerships dumped late model equipment in local auctions, it made for a real cat fight.*
- *Selling customers on service is one of the few ways we can make sales right now with all the attractive prices in the market for customers.*
- *Growers still show little to no optimism looking forward to 2016.*
- *We continue to sell smaller tractors, hay equipment, and consumer-based products than in the past.*

# Average Dealer Sales Outlook

- The 2015 dealer average sales forecast ended down 13% y/y, inline with November's projection. A net 44% of dealers disclosed a sales decline for the year, worse than the 38% forecast in November.
- The 2016 average dealer sales forecasts are for a 9% decline, in line with last month. A net 47% of dealers are forecasting a sales decline for the year.
- The second table below details the 2016 industry outlooks from Deere and AGCO.

N. American Farm Equipment Dealer Survey - Full Year Sales Forecast															
% change y/y	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15
AGCO	0%	-9%	0%	-10%	-11%	-12%	-5%	-3%	-9%	-15%	-4%	-15%	-14%	-15%	-11%
John Deere	-14%	-9%	-9%	-11%	-18%	-8%	-15%	-18%	-14%	-14%	-14%	-11%	-15%	-10%	-12%
New Holland	-8%	-10%	-3%	-6%	-11%	-10%	-4%	-9%	-8%	-10%	-17%	-11%	-12%	-15%	-9%
Case IH	-11%	-16%	-11%	-14%	-17%	-17%	-14%	-20%	-24%	-22%	-20%	-26%	-16%	-19%	-18%
Kubota	-6%	-14%	-6%	-11%	-13%	-17%	-10%	-14%	1%	3%	-1%	13%	10%	7%	-2%
Shortlines/Other	-4%	-16%	-9%	-7%	-10%	-13%	-10%	-7%	-8%	-11%	-16%	-9%	-11%	-11%	-18%
<b>Overall</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>	<b>-14%</b>	<b>-14%</b>	<b>-13%</b>	<b>-13%</b>

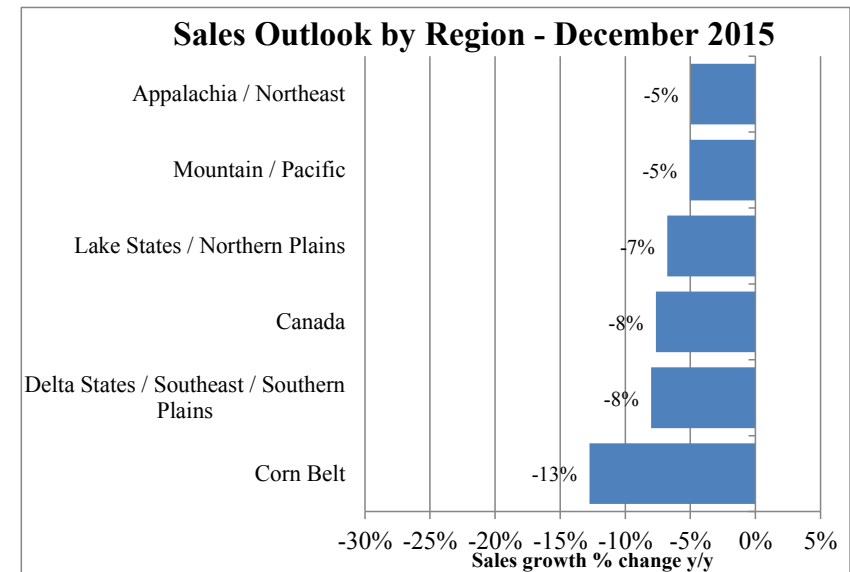
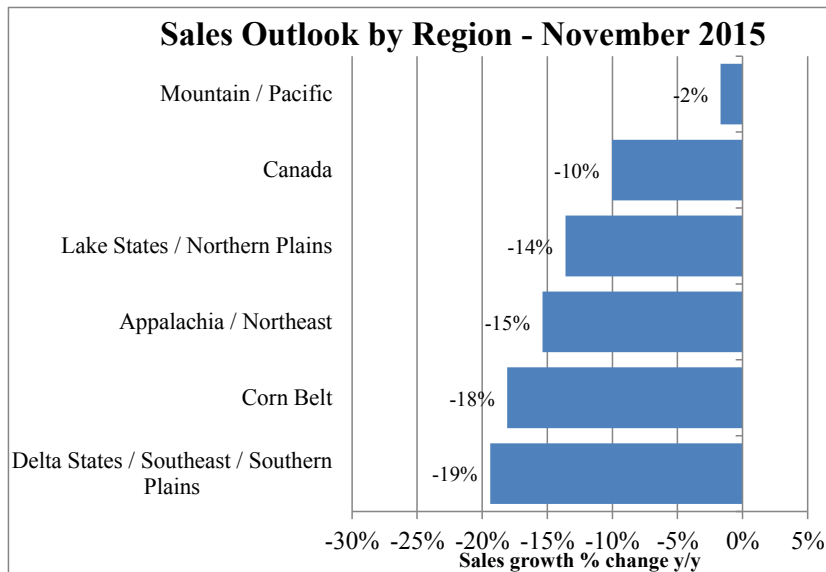
Source: Cleveland Research, AEI

2016 Ag Equipment Outlook		
Geography	Deere	AGCO Corp.
N. America	Down 15-20%	Down 10-15%
Western Europe	Flat to Down 5%	Flat to Down 5%
Latin America	Down 10-15%	Down 10-15%
CIS or ROW	na	na
Asia	Flat to Down Slightly	na

Source: Company reports, CRC estimates

# 2016 Sales Outlook

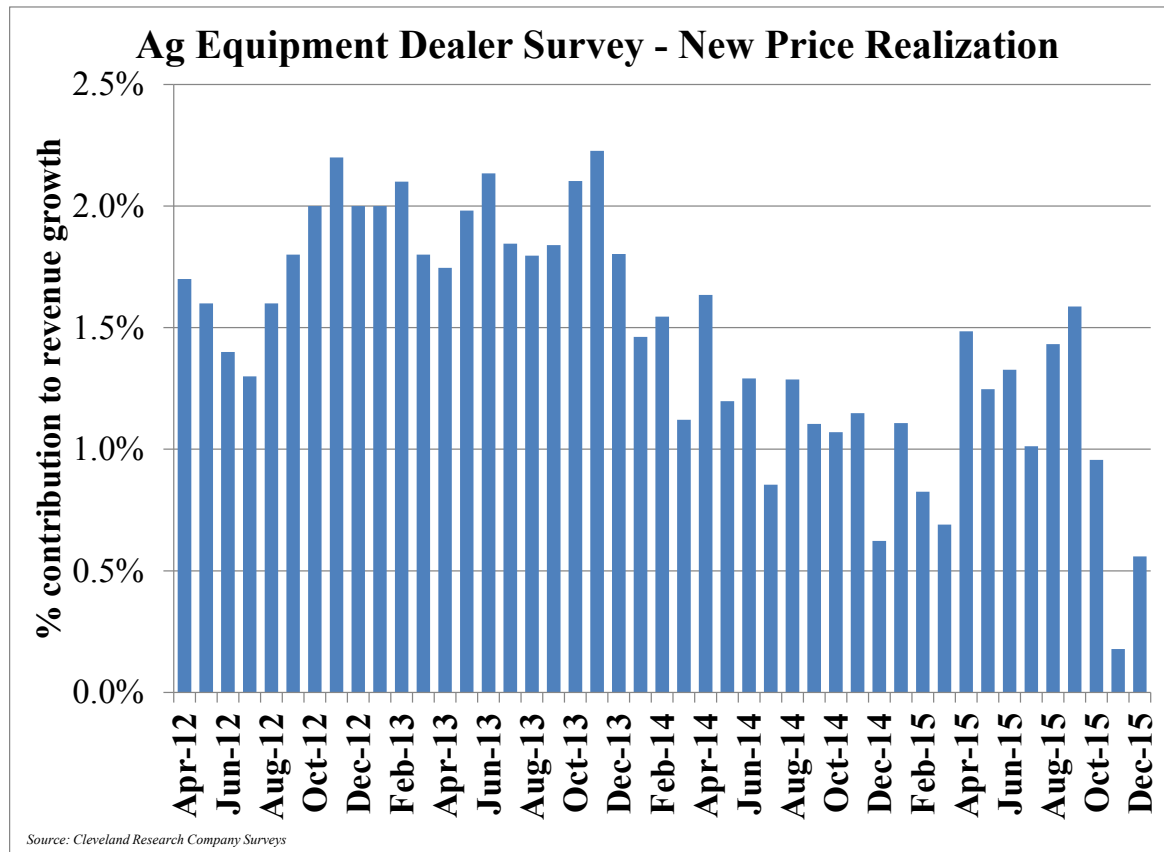
- Initial 2016 expectations by region show broad-based weakness. The Mountain / Pacific and Appalachia / Northeast regions forecast the lowest decline at 5% y/y for 2016. The Corn Belt remains the weakest region forecasting declines of 13% in 2016, followed closely by Canada and the Delta States / Southeast / Southern Plains regions that forecast a decline of 8%. This is roughly inline with what we saw in 2015.



*Note: November forecasts are for 2015*

# Pricing Trends

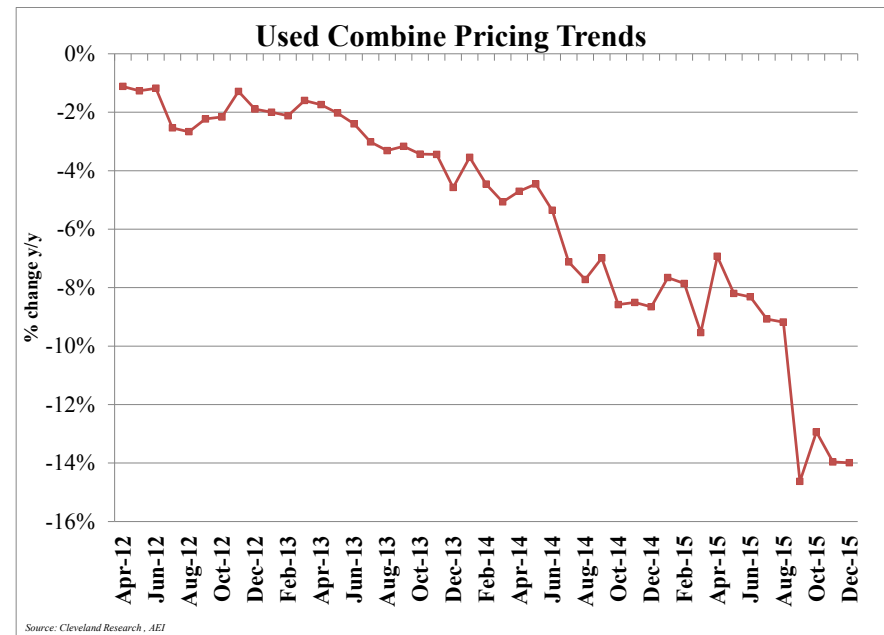
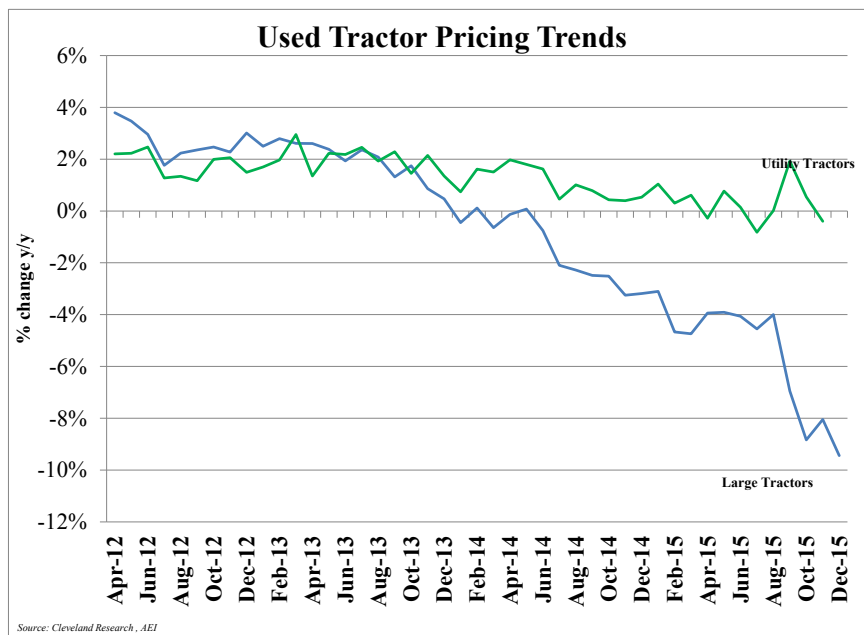
- Dealers report several OEMs pushed through small price increases in 4Q (~0.5-1.0%), with respondents reporting pricing in December improving 0.6% y/y. The effect of the strong US dollar on Canadian exchange rate has also, played a part in pricing inflation within North America.



# Used Equipment Pricing

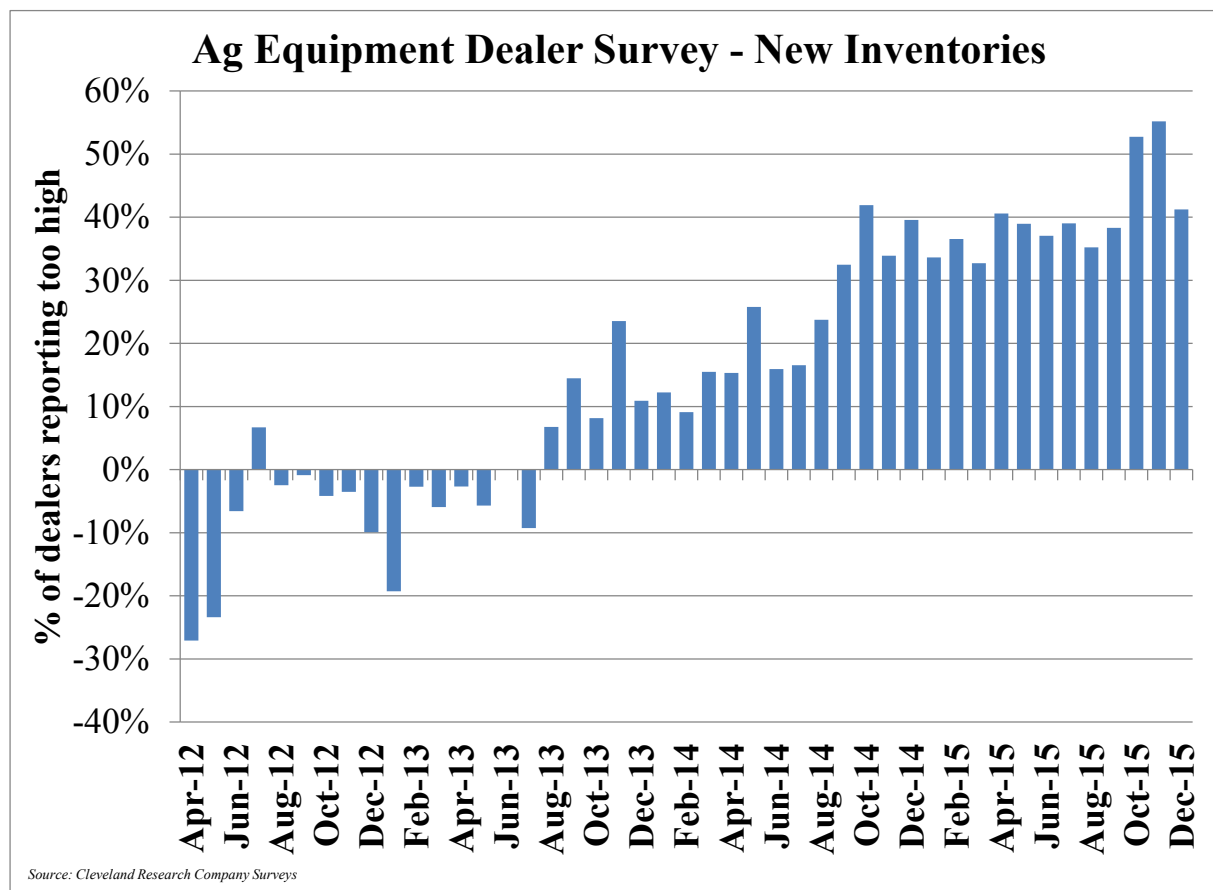
- December saw a ~1% pricing increase in small tractors, an improvement from flat pricing in November and 4Q. Large tractors were reported down 9% y/y on average vs. November's decline of 8%, but in line with 4Q decline of 9%. Used combine pricing was down 14% y/y, in line with November and 4Q results.

Used Tractor and Combine Equipment Values					
	Compact (<40HP)	Utility (40-100HP)	Row Crop (100HP+)	4WD	Combines
Sep-15	2%	2%	-4%	-9%	-15%
Oct-15	1%	0%	-6%	-11%	-13%
Nov-15	-1%	0%	-7%	-9%	-14%
Dec-15	0%	1%	-8%	-11%	-14%



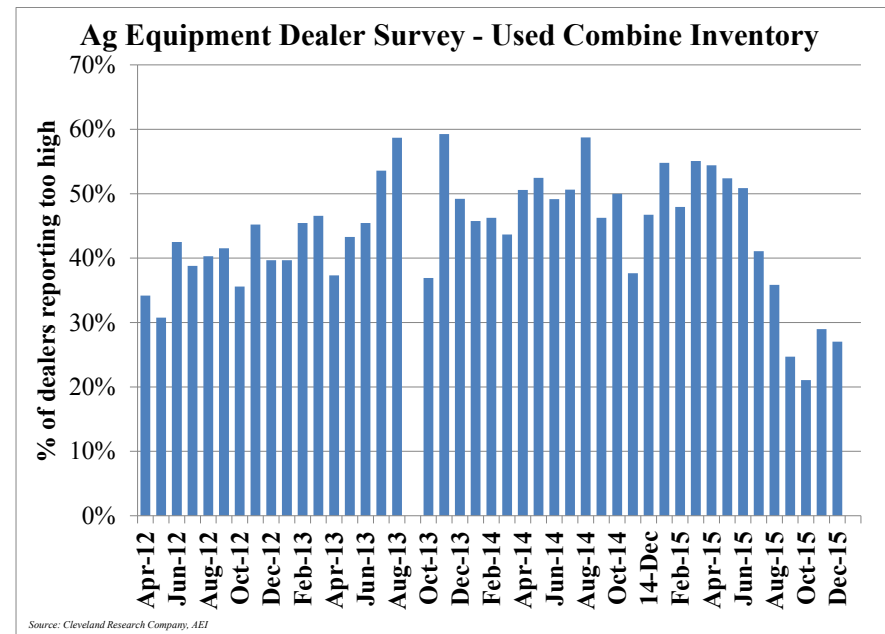
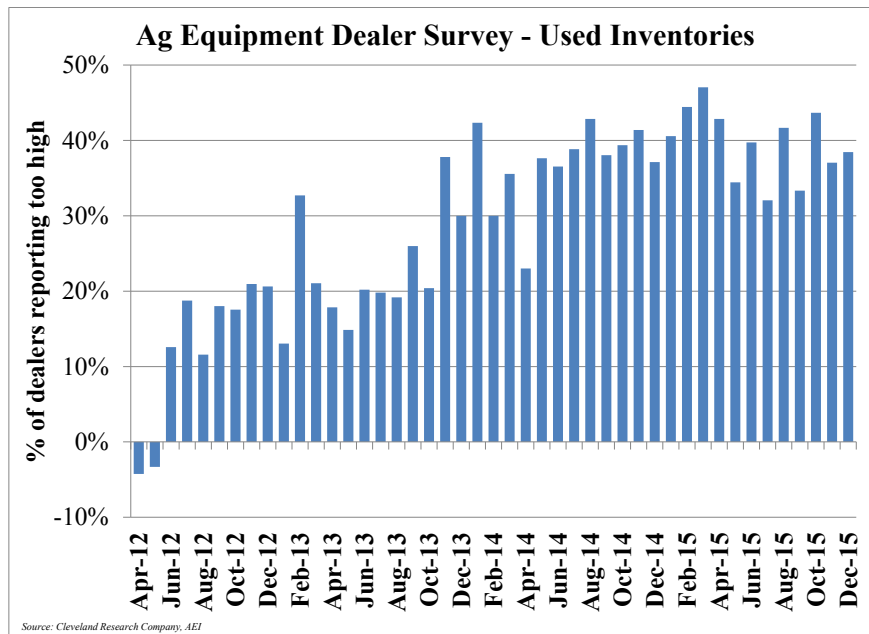
# New Equipment Inventory Levels

- A net 41% of dealers reported new equipment inventories are too high vs. 55% in November and an average 50% in 4Q. This marks 16 months of new inventory levels reported as too high by more than a net 30% of dealers, but the best reading since September.



# Used Equipment Inventory Levels

- A net 38% of dealers reported used equipment inventory as too high vs. 37% in November.
- The used combine inventory remains too high with a net 27% of dealers reporting inventories above where they would like them. Used combine inventory has been reported in better shape than general used inventory levels since August, and improved from a net 29% reporting high inventories in November.





# 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
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	10,950	7,085	4,920	733	23,688	5,653	983	14%	6%	-17%	-40%	1%	-21%	-41%
Nov-14	5,857	4,177	1,891	354	12,279	2,245	450	4%	8%	-29%	-45%	-4%	-32%	-50%
Dec-14	8,089	7,473	3,730	512	19,804	4,242	920	6%	8%	-24%	-47%	-3%	-28%	-40%
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%
Sep-15	10,787	5,394	1,941	250	18,372	2,191	848	-5%	-13%	-41%	-49%	-14%	-42%	-26%
Oct-15	12,876	6,855	3,263	515	23,509	3,778	799	18%	-3%	-34%	-30%	-1%	-33%	-19%
Nov-15	5,940	3,697	1,164	221	11,022	1,385	344	1%	-11%	-38%	-38%	-10%	-38%	-24%
Dec-15	8,693	6,350	2,559	515	18,117	3,074	886	7%	-15%	-31%	1%	-9%	-28%	-4%

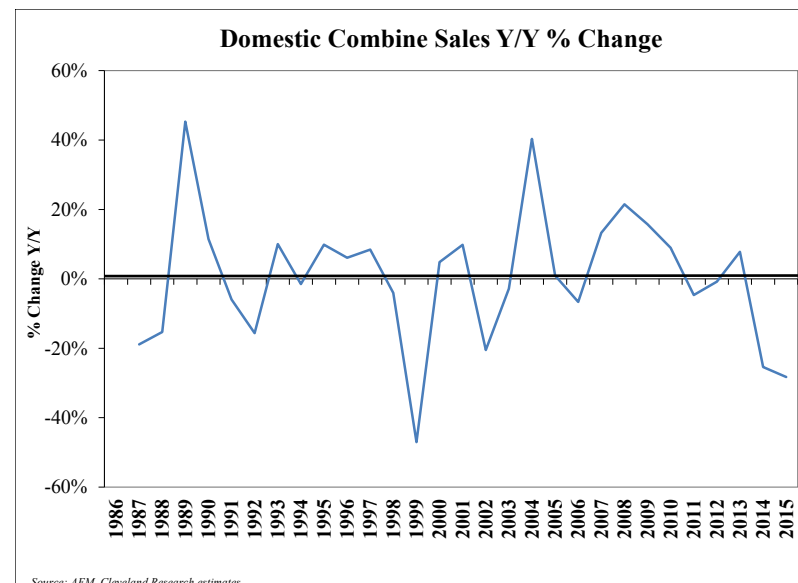
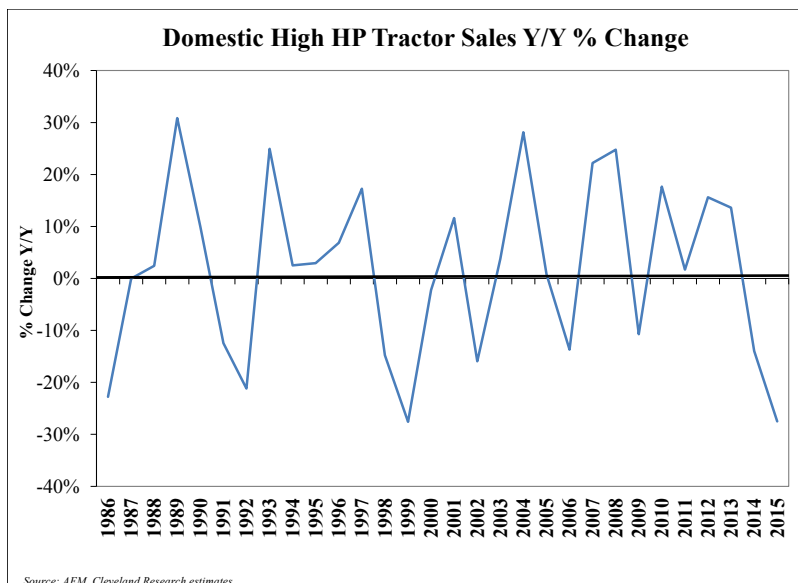
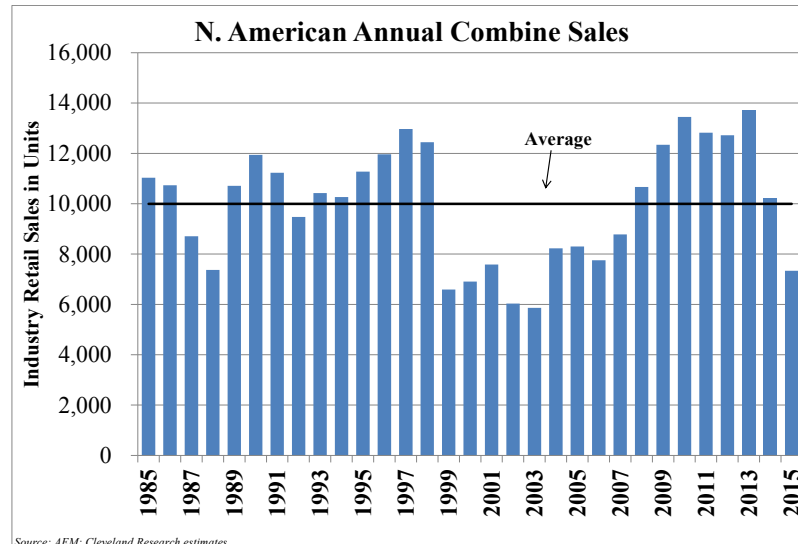
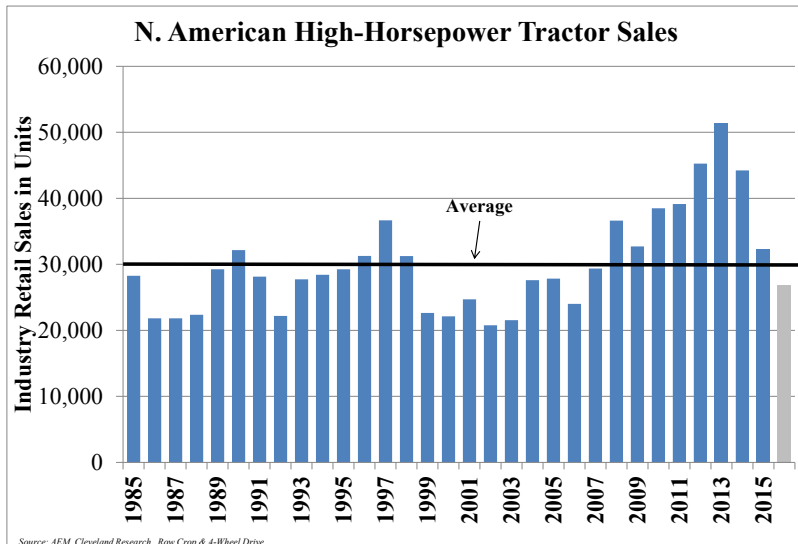
Source: AEM; Cleveland Research Company estimates. High hp tractors are row crop & 4-wheel drive.

# North American Farm Equipment Industry Inventory

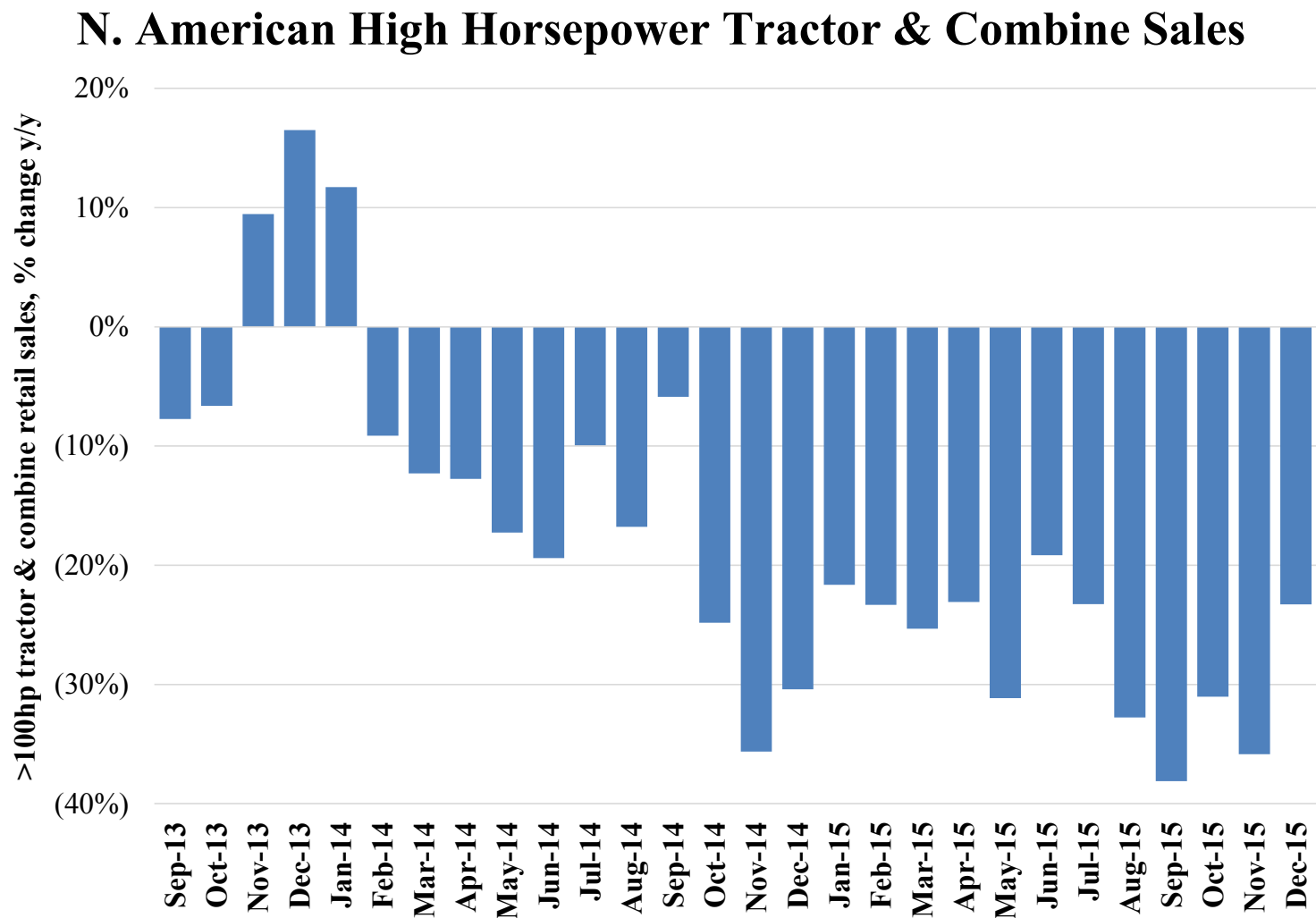
NORTH AMERICAN FARM EQUIPMENT INVENTORY														
	Inventory (Units)							Inventory to 12-mo. Sales						
	< 40 HP	Utility	Row Crop	4-Wheel	Total Tractor	Row Crop & 4WD	Combines	<40HP	Util	RC	4-WD	Total Tractor	Row Crop & 4WD	Comb
Aug-13	58,941	30,907	15,063	2,307	107,218	17,370	3,325	52%	49%	36%	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%	18%
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%
Aug-15	74,247	36,442	12,555	1,343	124,587	13,898	2,232	58%	53%	38%	29%	53%	37%	28%
Sep-15	65,844	37,545	12,551	1,374	117,314	13,925	2,001	51%	56%	39%	32%	51%	38%	26%
Oct-15	75,042	37,885	11,906	1,266	126,099	13,172	1,504	58%	56%	39%	31%	54%	38%	20%
Nov-15	79,228	39,911	12,983	1,317	133,439	14,300	1,492	61%	60%	44%	33%	58%	43%	20%

Source: AEM; Cleveland Research Company estimates

# Annual Agricultural Equipment Industry Sales (1985 - 2014)



# North America Large Ag Equipment Sales

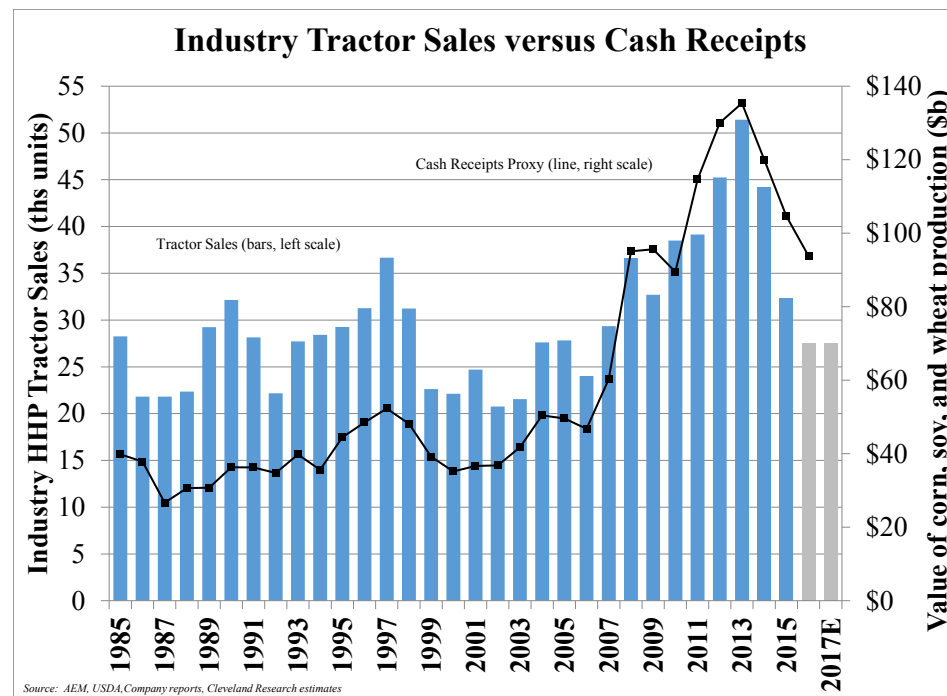


Source: AEM, CRC estimates

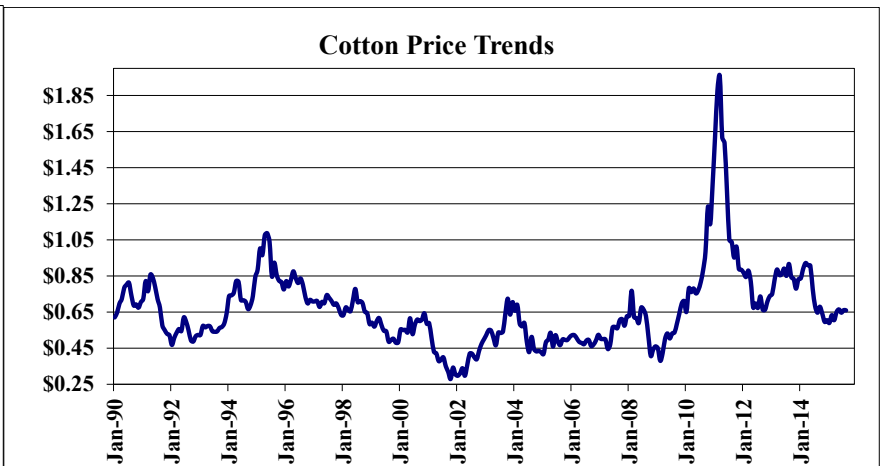
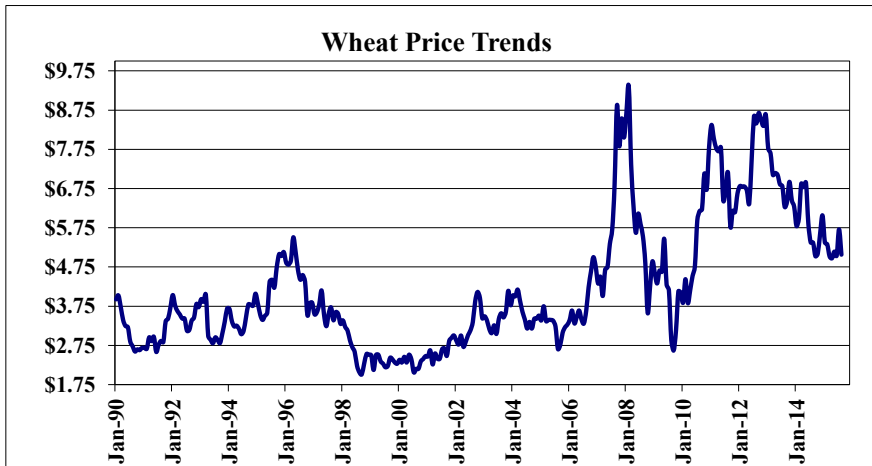
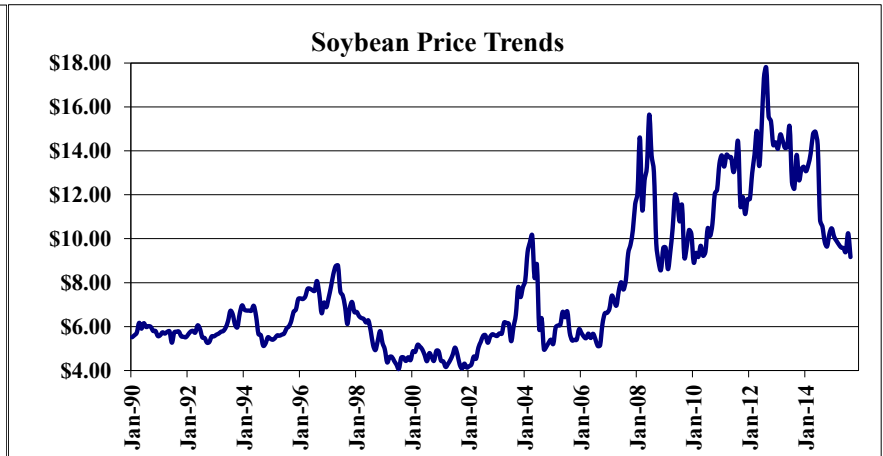
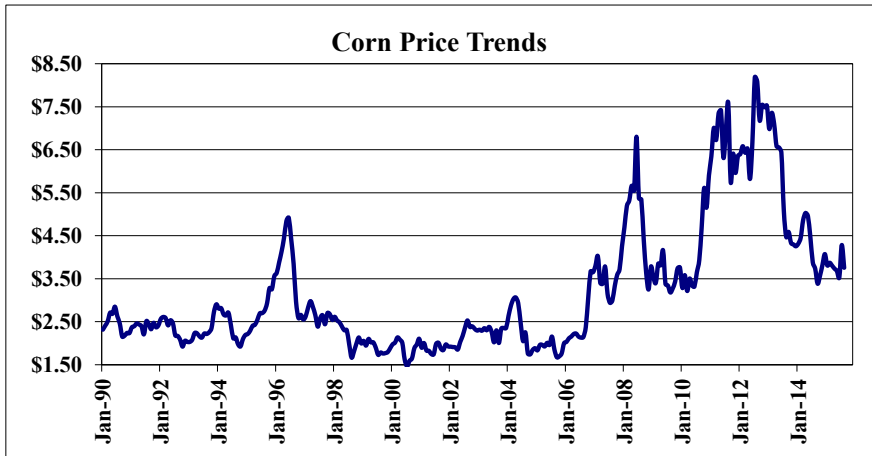
## Commodity Prices – Cash Receipts vs. Next Year Equipment Sales

**USDA's January 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 January crop report was incrementally negative for tractor sales, with our cash receipts proxy now forecast down 10% y/y in 2015/2016 compared to a decline of 9% forecast in December 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

