# Ag Equipment Intelligence

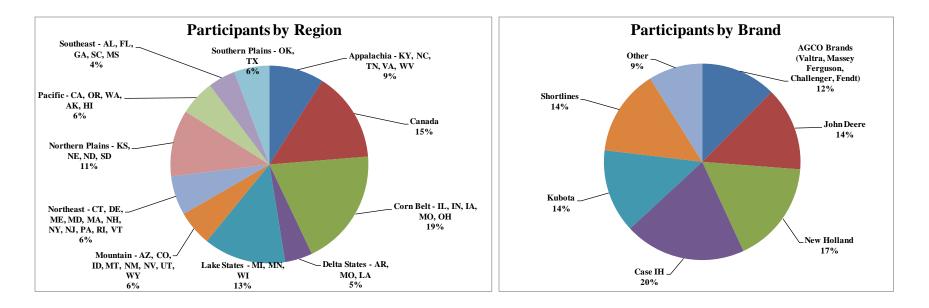
# January 2015 Dealer Sentiments & Business Conditions Update

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## 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 ~156 respondents representing combined annual revenues of roughly \$6.3 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 Down 5% y/y in December Dealers reported sales were down 5% on avg. in December which compares to sales declines of 9% in November and October. Feedback suggests the impact from the Section 179 reinstatement was highly mixed, but it appears to have provided a modest benefit overall.
- Orders Down 12% y/y in December vs down 16% Last Month Orders for the month were reported down 12% y/y on avg. in our survey which compares to the 16% avg. order declines in November. Case IH dealers reported the largest declines on average at down 19% y/y.
- **Dealers Expecting 2015 Sales Down 8% y/y** Dealers are now expecting sales to decline 8% y/y on average for the full year 2015, slightly better than the down 10% forecast last month. Several manufacturers were noted as stuffing the dealer channel with early equipment delivery.
- New Inventories Creep Back Up in December; Used Inventories Slightly Better A net 37% of dealers reported used inventories "too high" in December, slightly less than the net 41% last month. New inventories, however, were worse with a net 40% of dealers reporting levels "too high" compared to a net 34% last month.

#### **Monthly Sales Growth**

- Dealers report average sales were down 5% y/y in December an improvement vs the 9% sales declines last month. The section 179 reinstatement appears to have provided a modest tailwind to December sales.
- AGCO dealers reported the largest declines y/y on average at down 13%, while "Other" dealers reported the strongest growth of up 9% y/y on average.
- A net 6% of dealers reported that sales were better than expected in the month given the improvement in yearover-year trends compared to the past two months.

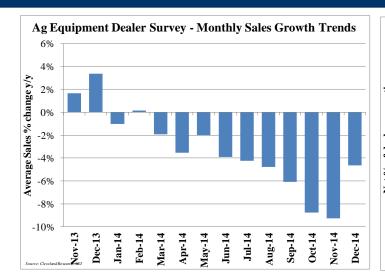
		N	. America	an Farm H	Equipment I	Dealer Sur	vey - Averag	ge Dealer S	Sales Gro	wth				
% Change y/y	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14
Owerall	2%	3%	-1%	0%	-2%	-4%	-2%	-4%	-4%	-5%	-6%	-9%	-9%	-5%
By Brand	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14
AGCO	4%	-4%	-3%	0%	-2%	-3%	1%	-3%	4%	-3%	4%	5%	5%	-13%
John Deere	2%	5%	-2%	2%	0%	-3%	-2%	-3%	-6%	-4%	-6%	-11%	-8%	-3%
New Holland	5%	5%	-1%	-2%	-2%	-4%	-10%	2%	-2%	-3%	0%	0%	-9%	-1%
Case IH	2%	3%	0%	-2%	-6%	-5%	-1%	-10%	-5%	-9%	-13%	-15%	-14%	-6%
Kubota	2%	6%	6%	-3%	1%	-1%	-1%	2%	0%	-2%	1%	1%	-8%	-6%
Shortlines	5%	6%	-2%	0%	-2%	1%	3%	-2%	-1%	0%	5%	-6%	-1%	-6%
Other	na	-1%	13%	0%	1%	na	na	-2%	6%	11%	na	17%	na	9%

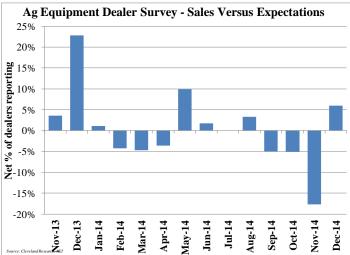
Source: Cleveland Research

N. American Farm Equipment Dealer Survey - Sales Versus Expectations														
% of Dealers Reporting	% of Dealers Reporting Nov-13 Dec-13 Jan-14 Feb-14 Mar-14 Apr-14 May-14 Jun-14 Jul-14 Aug-14 Sep-14 Oct-14 Nov-14 Dec-14													
Better than expected	24%	39%	25%	20%	21%	21%	29%	25%	26%	28%	24%	22%	21%	29%
In line with expectations	56%	45%	51%	55%	54%	54%	52%	53%	49%	47%	47%	51%	40%	47%
Worse than expected	20%	16%	24%	25%	26%	25%	19%	23%	26%	25%	29%	27%	39%	23%
Net % (Better - Worse)	4%	23%	1%	-4%	-5%	-4%	10%	2%	0%	3%	-5%	-5%	-18%	6%

Source: Cleveland Research, AEI.

#### **Monthly Sales Growth Continued**



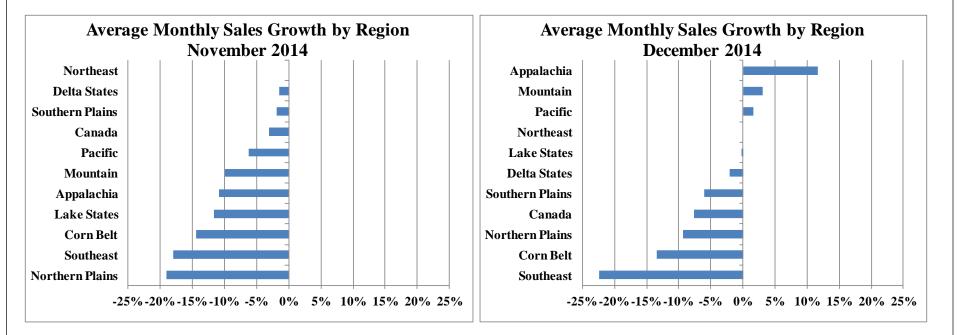


N. American Farm Equipment Dealer Survey - Average Dealer Revenue Growth Trends														
% of Dealers Reporting	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14
Positive Sales Growth	45%	63%	40%	45%	49%	39%	50%	46%	42%	37%	37%	40%	27%	33%
Flat Sales	35%	18%	24%	17%	22%	20%	12%	18%	21%	22%	18%	14%	16%	16%
Negative Sales Growth	20%	19%	36%	37%	29%	40%	39%	36%	37%	42%	46%	46%	58%	51%
Net % Reporting Growth	26%	44%	3%	8%	20%	-1%	11%	11%	5%	-5%	-9%	-6%	-31%	-19%
Average % Change y/y	2%	3%	-1%	0%	-2%	-4%	-2%	-4%	-4%	-5%	-6%	-9%	-9%	-5%
					Optimism/S	Sentiment	ws. Last Mo	nth						
% of Dealers Reporting	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14
More Optimistic	14%	9%	12%	24%	26%	24%	25%	23%	13%	12%	16%	8%	9%	12%
Same	45%	52%	52%	50%	51%	44%	45%	42%	45%	50%	46%	48%	38%	39%
Less Optimistic	41%	39%	36%	26%	23%	32%	30%	35%	42%	38%	38%	44%	53%	49%
Net % Dealer Optimism	-27%	-30%	-23%	-1%	3%	-9%	-5%	-11%	-28%	-26%	-22%	-36%	-44%	-37%

Source: Cleveland Research

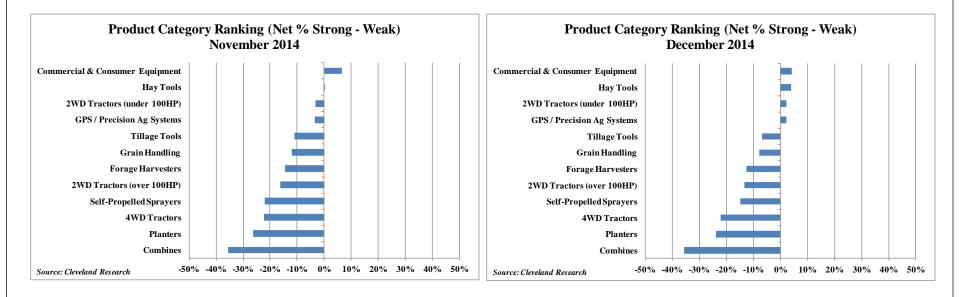
#### **Monthly Sales Growth by Region**

- Three of eleven regions showed positive average monthly sales growth in December compared to zero last month. The Appalachia region reported the most positive trends in the month with sales up 12% y/y on average, while the Southeast region reported the largest declines with sales down 22% y/y.
- Compared to last month, the Appalachia region saw the strongest improvement, while the Southeast, Canada and Southern Plains all saw slightly worse trends vs last month.

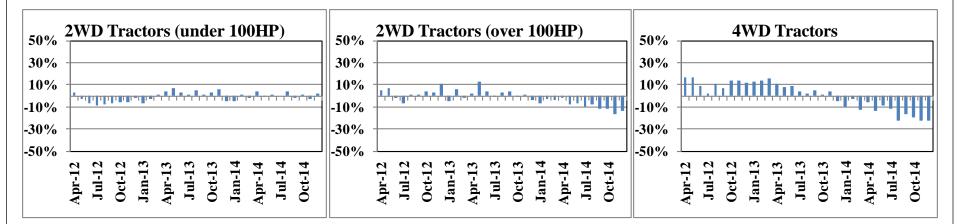


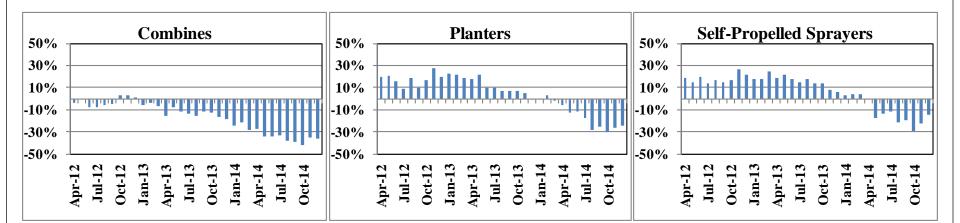
#### **Equipment Category Sales Trends**

- Commercial/Consumer Equipment was strongest category in December for the 5<sup>th</sup> consecutive month, while combines were again reported as the weakest performing category.
- Comparing December to November, self-propelled sprayers showed largest improvement while commercial and consumer equipment was reported as slightly less positive vs last month (despite being the strongest category).



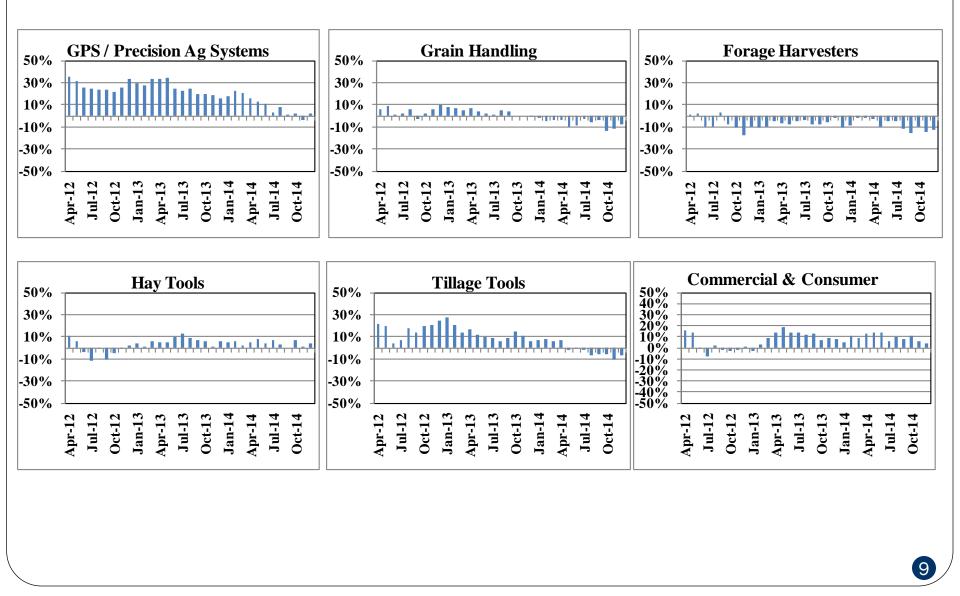
#### **Equipment Category Sales Trends**





Source: Farm Equipment Magazine Survey

#### **Equipment Category Sales Trends (Continued)**



## **Most Interesting Commentary - Monthly Sales and Outlook**

- Section 179 definitely had a positive impact on sales activity prior to year end. The month was way down until we got section 179, without it we would be down much more.
- 179 being signed made the last week fun but not enough to make up the difference from last year. Another week earlier and I'd have considered becoming a democrat.
- Section 179 accounted for 50% or more of the deals getting closed. Many were deals which had been on the table for up to 12months.
- Corn and soybean prices are down, dairy is down some also. Most farmers in this area spent their yearend profits to pay down debt.
- Sales in December were better than we had planned we're selling a better tractor, has a lot more features. LS Tractor is just a better brand. AGCO has fallen off we are in the small to mid range market.
- There's still a cloud over the ag equipment industry. Every dollar counts, as it would seem to be. Farmers have turned to doing repairs not purchases.
- New Holland is pushing us to order more than we wanted to order.
- We've got no combine orders and even less 4WD tractor orders. There's still too much equipment on hand at the dealer level.
- CNH is already shipping orders at the end of 2014 that were supposed to arrive mid to late 2015!
- All manufacturers are pushing for more orders. They are hounding us playing the old game, stuff the dealer. We are not biting.
- The dollar exchange rate and price increases related to tier 4B technology are creating sticker shock here in Canada.
- We knew that a downturn was coming and it's here. The amount of dealer auctions combined with customer attitudes makes it tough.
- Customers are realizing that their gross farm income is substantially below 2013. And, that 2015 gross farm income is likely to be even lower. Also, we got very little sales response from section 179 December approval.

#### **Monthly Order Trends**

#### **Overall Orders**

• Incoming orders declined 12% y/y on avg. in December which compares to the 16% declines on avg. in November. Our conversations with dealers suggest early orders for large ag equipment are down significantly in comparison to small ag equipment.

#### **New Combine Order Intentions**

• A net 63% of dealers planning to order fewer combines for 2015 in comparison to 2014, relatively similar to the last several months.

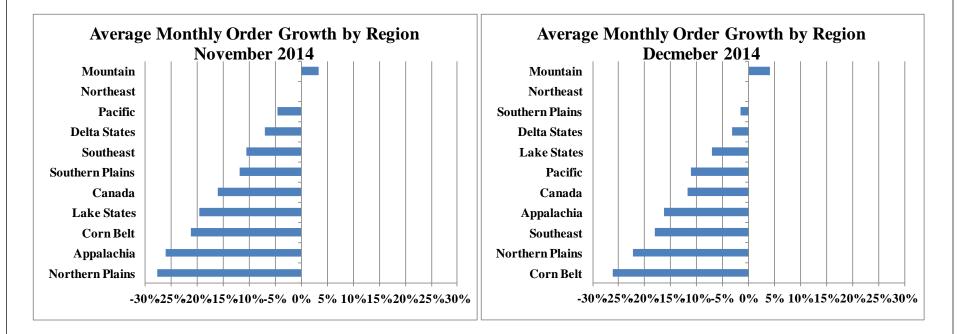
N. American Farm Equipment Dealer Survey - Average Orders Growth														
% Change y/y	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14
Overall	-2%	-3%	-3%	-2%	-4%	-5%	-4%	-8%	-9%	-9%	-10%	-15%	-16%	-12%
<b>By Brand</b>	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14
AGCO	-2%	-5%	1%	-4%	0%	-1%	-5%	-8%	-3%	-7%	-4%	-2%	-17%	-8%
John Deere	-2%	-3%	-4%	-1%	-5%	-6%	-5%	-8%	-11%	-7%	-14%	-17%	-14%	-10%
New Holland	-3%	-1%	-6%	-3%	-4%	-8%	-5%	-8%	-5%	-7%	-4%	-5%	-15%	-6%
Case IH	-1%	-1%	-4%	-1%	-7%	-4%	-6%	-8%	-9%	-14%	-11%	-18%	-21%	-19%
Kubota	-4%	1%	-6%	-2%	-3%	-7%	-8%	-6%	-4%	-9%	-9%	-4%	-16%	-8%
Shortlines	-3%	-1%	-8%	0%	-6%	-2%	-5%	-13%	-10%	-13%	-9%	-23%	-17%	-10%
Other	na	1%	6%	0%	3%	na	na	-6%	1%	0%	na	0%	na	-3%
Source: Cleveland Research					1. 0	1 7 / 2	• <del>,</del>	4 \$7						
				New C	ombine Or	ier Inten	ions vs. La	ast year						
	Nov-	13 Dec-	13 Jan	-14 Feb	14 Mar-1	4 Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14
More	11%	5 179	% 89	% 10	% 7%	9%	11%	6%	6%	10%	4%	3%	5%	1%
Same	38%	5 449	% 48	% 44	% 51%	50%	46%	43%	38%	30%	30%	29%	23%	34%
Less	52%	5 399	% 44	-% 46	% 42%	41%	43%	51%	56%	60%	66%	68%	72%	65%
Net % (More-Less)	-41%	· -22	% -36	% -37	% -35%	-32%	-32%	-44%	-50%	-51%	-62%	-64%	-67%	-63%

Source: Cleveland Research

Source: Farm Equipment Magazine Survey

#### **Order Trends by Region**

- Mountain State dealers were again the only region to report positive y/y orders on average for the month at up 4% y/y (last month orders were up 3%), while Corn Belt dealers reported the largest avg order declines at down 26% y/y.
- Compared to last month, Lake State dealers showed the largest improvement in y/y orders while Pacific region dealers saw the most significant order deceleration.



#### **Average Dealer Sales Outlook**

- The average dealer outlook for 2015 is for sales down 8% y/y, which is a slight improvement vs the down 10% forecast last month. AGCO dealers are the most optimistic while Case IH and "Other" dealers are more pessimistic.
- The second table below details the industry outlooks from Deere, Case IH/New Holland and AGCO.

		<b>N.</b> .	America	n Farm I	Equipmen	t Dealer	Survey -	Full Yea	r Sales F	orecast				
							<b>2014</b> O	utlook						
% change y/y	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14
Overall	-1%	-4%	-4%	-2%	-3%	-4%	-4%	-6%	-6%	-8%	-4%	-9%	-6%	-4%
							<b>2015</b> O	utlook						
% change y/y	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14
AGCO											6%	0%	-9%	0%
John Deere											-12%	-14%	-9%	-9%
New Holland											9%	-8%	-10%	-3%
Case IH											-12%	-11%	-16%	-11%
Kubota											7%	-6%	-14%	-6%
Shortlines											3%	-12%	-16%	-7%
Other											0%	3%	na	-11%
Overall											-9%	-11%	-10%	-8%

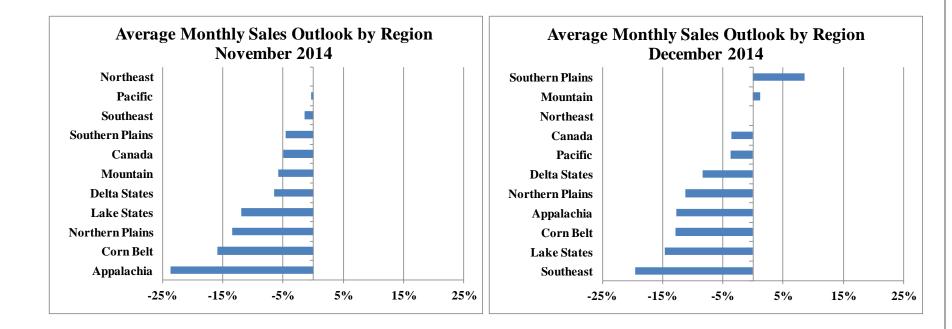
Source: Cleveland Research

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

Source: Company reports, CRC estimates

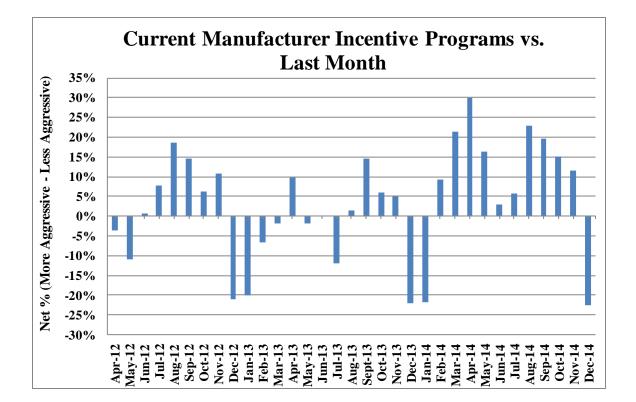
#### **2015 Sales Outlook Continued**

• Dealers in the Southern Plains region have the most optimistic 2015 outlook, as average sales are expected up 9% y/y. By contrast, dealers in the Southeast are the least optimistic with average sales forecast down 20% y/y.



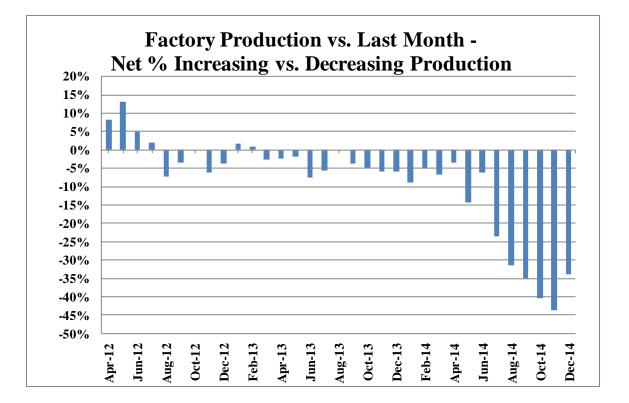
#### **Current Manufacturer Incentive Programs**

• A net 22% of dealers report that manufacturers are less aggressive with incentives in December (12% more aggressive; 53% same; 35% less aggressive). Historically, manufacturer incentives in December have been reported as less aggressive vs November.



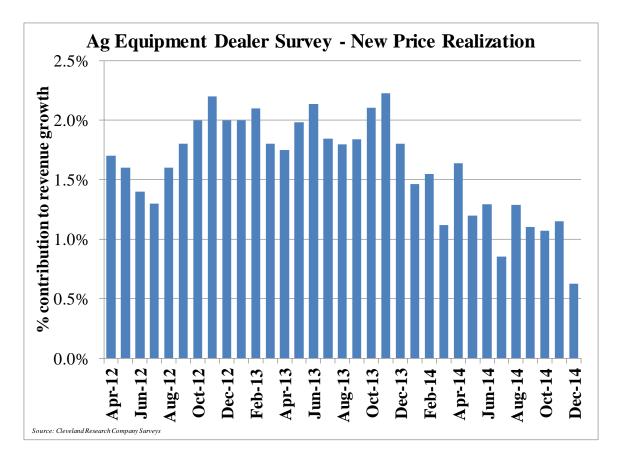
#### **Factory Production**

• A net 34% of dealers report that factory production was down in December compared to November vs a net 44% of dealers reporting lower production volume last month.



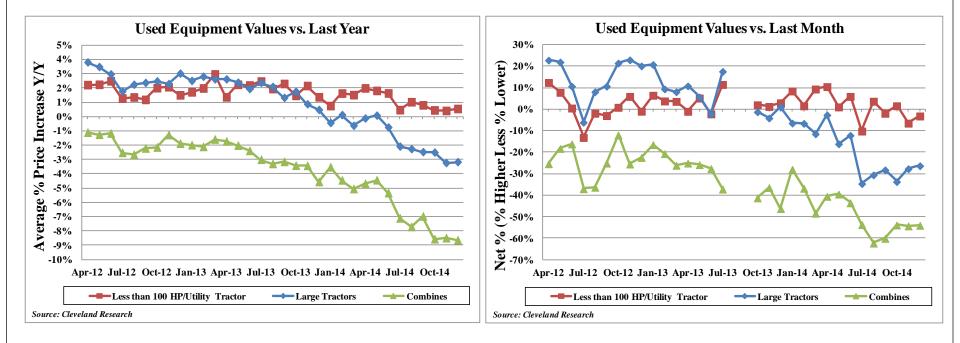
#### **Pricing Trends**

• Dealers report price contributed roughly  $\sim 0.6\%$  to total revenues in December vs the 1.1% contribution in November.



#### **Used Equipment Pricing**

- Used combine values are reported at down 9% y/y, similar to last month while large tractor values are reported at down 3% y/y and small tractor values are relatively flat y/y.
- On an absolute basis, all three product category values were reported as declining in December vs November.



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#### **Inventory Levels**

#### New Equipment Inventories Slightly Higher vs Last Month

• A net 40% of dealers report new inventory as "too high" (46% too high; 47% about right; 7% too low) compared to a net 34% last month.

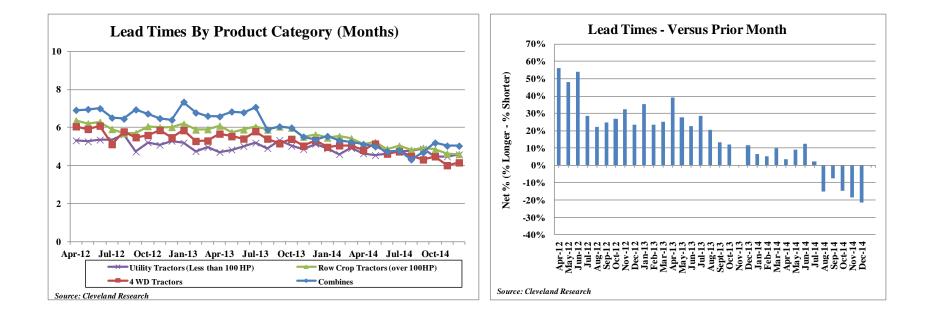
#### **Used Equipment Inventories Still Too High**

- A net 37% of dealers reported used equipment inventory as "too high" in December (49% too high; 39% about right; 12% too low), slightly below the net 41% last month.
  - Used Combines a net 47% reported inventories "too high," well above the net 38% last month.
  - Used HHP tractors a net 10% of reported inventories "too high," below the net 18% last month.
  - Used Sprayers a net 28% of dealers reported inventories "too high," inline with the net 27% last month.



#### **Equipment Availability**

- Overall, a net 22% of dealers report shorter factory lead-times compared to last month (12% longer; 54% same; 34% shorter).
- Combine, 4WD, Row Crop and Utility tractor lead times were relatively similar on average vs last month, while, implying the shorter lead times are within other product categories.



#### **Most Interesting Commentary - Used Inventory**

- Used inventories are still in bad shape used combines, used round hay balers etc are a problem.
- Values are not quite in line with the market, although we are getting closer.
- We've still got too many planters and large tractors.
- Most of the items are about right, but too high on planters, combines and cornheads.
- Late model high value air drills and combines.
- Combines and large planters are all over. The larger the unit, the more pressure.
- We are pushing to get this down.
- Late model high horsepower MFD tractor inventory is too high.
- We are buying used and reselling. The first buyer is losing \$60,000 to \$80,000 but it is great for us.
- customers are looking for HHP tractors at low prices.
- There are still too many combines in our area.
- *Price of good equipment is to high, people buying new.*
- Way too many used floaters/chemical applicators.
- We're still in a situation where there is too much \$\$\$\$ in used combines and HHP tractors among dealers.
- I am not as aggressive I should be on trades. There is going to be an adjustment in the values of some items. It is just a matter of time before manufacturers get more aggressive with their discounts to keep their plants running. That has to make used equipment cheaper.

#### **Dealer Commentary on Biggest Surprise in the Month**

- Sales were a little stronger than expected.
- The weak Canadian dollar, soft sales, slow manufacturer response to the market, and manufacturer indifferent to dealer needs.
- The last week of the year was very strong.
- I thought more customers would have taken advantage of the Sec179.
- Strong need to curb tax with depreciation in spite of last minute govt. approval.
- Knew things would slow up at 1st of year, but it has virtually screeched to a stop.
- Thought Section 179 would have more of an impact... It did not.
- New Holland came out with a no interest, no payments for 1 year in addition to the already announced programs. We garnered very little interest in this program and did not really lead to any increased sales. I was surprised by the farmers not taking advantage of it.
- We had less Section 179 activity than anticipated. It just was signed too late!
- Passing of the Advance Depreciation IRS 179A spiked year end sales, without the passing of the 179A it would have been a down December.
- The way people have bough LS tractor compare to JD an Kubota, We have made them aware of LS tractors.
- Just a lot slower than normal. Not even much pricing. Hate to say but it was expected with the late signing of the 179 extension.
- Lack of customer purchasing after passage of section 179. Some said that their CPA advised against further 2014 purchases.

# NA Farm Equipment Industry Retail Sales

				N	ORTH AN	<b>MERICAN H</b>	ARM EQUI	PMENT RE	FAIL SAL	ÆS				
Γ				Units						% char	ige year-ov	er-year		· · · · · · · · · · · · · · · · · · ·
-					Total	Row Crop						Total	Row Crop	
	< 40 HP	Utility	Row Crop	4-Wheel	Tractor	& 4WD	Combines	< 40 HP	Utility	Row Crop	4-Wheel	Tractor	& 4WD	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	8,233	6,294	4,338	900	19,765	5,238	1,128	13%	4%	18%	37%	12%	21%	3%
Jan-13	4,694	4,087	2,960	678	12,419	3,638	621	20%	11%	27%	89%	21%	35%	18%
Feb-13	5,111	3,701	2,589	669	12,070	3,258	620	17%	4%	27%	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	13,907	5,615	4,301	851	24,674	5,152	1,144	4%	-7%	28%	-4%	4%	21%	62%
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	4,762	4,172	3,314	631	12,879	3,945	824	1%	2%	12%	-7%	4%	8%	33%
Feb-14	5,310	3,655	2,423	575	11,963	2,998	526	4%	-1%	-6%	-14%	-1%	-8%	-15%
Mar-14	10,156	5,149	3,157	657	19,119	3,814	906	22%	4%	-9%	-7%	10%	-9%	-24%
Apr-14	14,163	6,029	3,744	746	24,682	4,490	999	2%	7%	-13%	-12%	0%	-13%	-13%
May-14	16,815	6,602	2,929	474	26,820	3,403	671	-2%	6%	-16%	-14%	-2%	-16%	-24%
Jun-14	15,198	6,520	2,731	409	24,858	3,140	839	13%	2%	-17%	-24%	5%	-18%	-25%
Jul-14	11,249	5,943	3,225	389	20,806	3,614	1,035	5%	7%	2%	-21%	4%	-1%	-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%

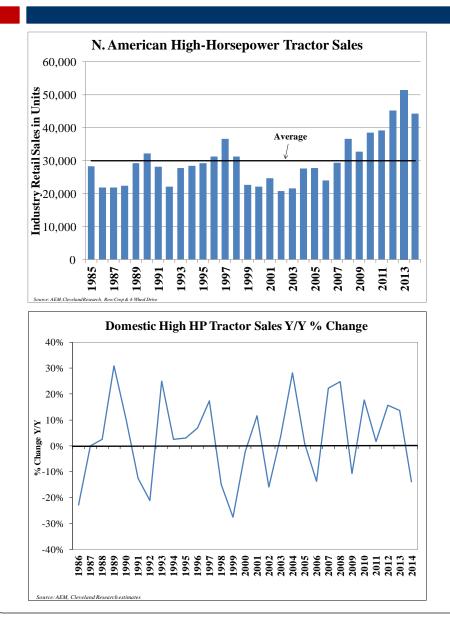
Source: AEM; Cleveland Research Company estimates. High hp tractors are row crop & 4-wheel drive.

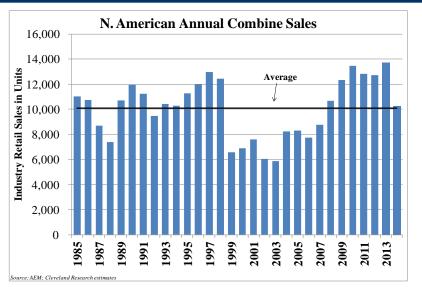
# NA Farm Equipment Industry Inventory

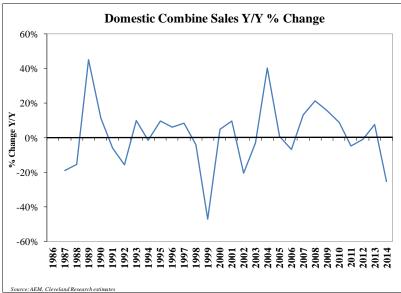
					NORTH A	MERICAN	FARM EQU	IPMENT IN	VENTORY	7				
l r			Inv	entory (Uni	its)					Invent	ory to 12-m	o. Sales		
-					Total	Row Crop						Total	Row Crop	
	< 40 HP	Utility	Row Crop	4-Wheel	Tractor	& 4WD	Combines	<40HP	Util	RC	4-WD	Tractor	& 4WD	Comb
Dec-11	59,746	26,551	7,666	1,035	94,998	8,701	1,250	62%	47%	24%	14%	49%	22%	10%
Jan-12	61,967	27,298	7,277	1,222	97,764	8,499	1,338	64%	48%	23%	17%	51%	22%	11%
Feb-12	65,727	28,689	7,763	1,360	103,539	9,123	1,676	68%	50%	24%	19%	54%	23%	14%
Mar-12	68,756	29,144	8,199	1,518	107,617	9,717	1,955	72%	51%	26%	21%	56%	25%	17%
Apr-12	66,562	28,743	8,241	1,472	105,018	9,713	1,961	68%	50%	26%	20%	54%	25%	17%
May-12	65,188	28,322	8,930	1,659	104,099	10,589	2,258	66%	48%	27%	22%	53%	27%	20%
Jun-12	62,380	27,773	9,395	1,665	101,213	11,060	2,476	63%	47%	28%	22%	51%	27%	21%
Jul-12	61,495	28,135	10,351	1,950	101,931	12,301	2,791	61%	48%	31%	26%	51%	30%	24%
Aug-12	61,108	28,892	11,307	2,248	103,555	13,555	3,008	60%	49%	33%	29%	51%	32%	26%
Sep-12	62,319	29,587	11,580	2,398	105,884	13,978	2,870	62%	50%	34%	31%	52%	33%	24%
Oct-12	61,918	29,266	10,573	1,931	103,688	12,504	1,662	60%	49%	30%	24%	50%	28%	13%
Nov-12	65,873	29,835	11,232	2,079	109,019	13,311	1,520	64%	49%	31%	25%	52%	30%	12%
Dec-12	67,319	29,137	10,335	1,753	108,544	12,088	1,409	64%	48%	28%	21%	52%	27%	11%
Jan-13	69,290	30,182	10,399	1,803	111,674	12,202	1,659	66%	49%	28%	20%	52%	26%	13%
Feb-13	72,473	30,842	11,375	1,850	116,540	13,225	2,186	68%	50%	30%	20%	54%	28%	17%
Mar-13	72,499	30,869	11,700	1,931	116,999	13,631	2,518	69%	50%	30%	21%	54%	29%	19%
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%	35%	28%
Sep-14	61,811	35,926	16,185	2,399	116,321	18,584	2,891	51%	53%	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%

Source: AEM; Cleveland Research Company estimates

#### Annual Ag Equipment Industry Sales (1985 - 2014)

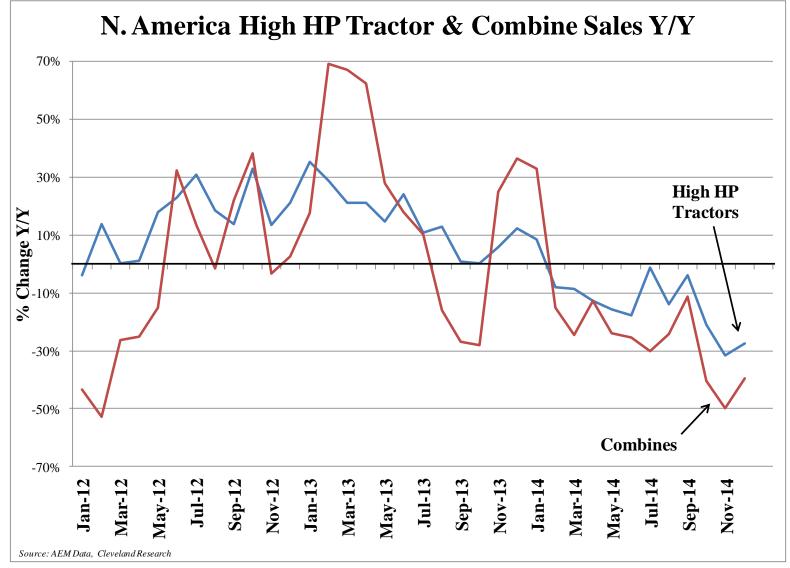






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#### NA Ag Equipment Sales

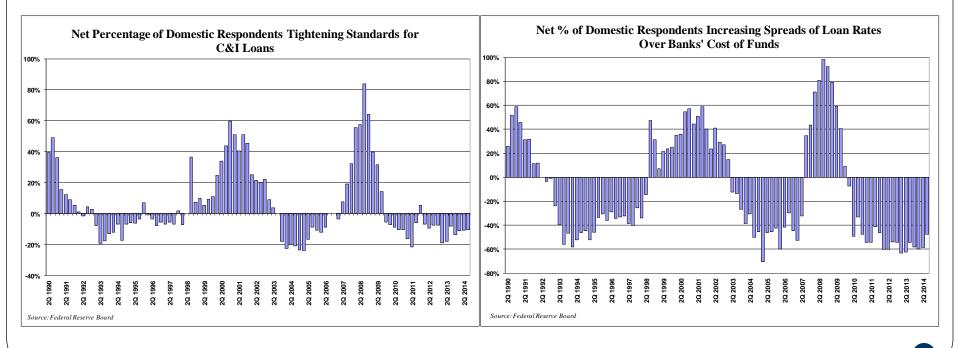


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Source: AEM

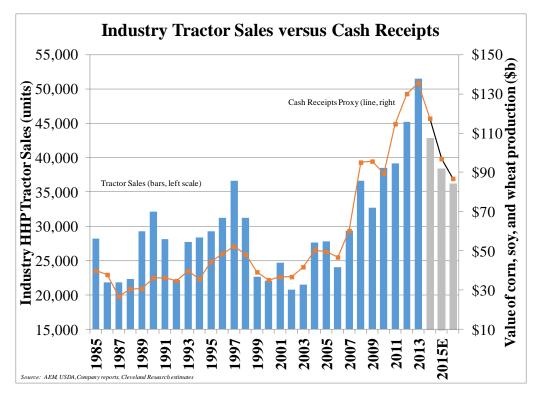
# **Credit – C&I Loan Standards Continue to Loosen Along with Continued Low Rates**

- The 3Q14 Senior Loan Officer survey saw continued loosening of loan standards as a net 11% of loan officers reported easier credit standards in 3Q14 (similar to 1Q and 2Q).
- Bank rate spreads continue to decline in 3Q14 (although slightly less broad-based) as a net 47% of loan officers reporting decreasing spreads. For reference, a net 60% of loan officers reported decreasing spreads in 1Q and 2Q.
- Demand for commercial and industrial loans decelerated slightly in 3Q as a net 16% of loan officers reported stronger demand for commercial and industrial loans, below the net 31% reporting stronger demand in 2Q14.



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

The USDA's updated WASDE report suggests cash receipts down 11% for 2013/14 and down 13% for 2014/15 in our simplified cash receipts proxy. The chart below depicts N. American high HP tractor and combine sales on a one year lag vs. our simplified farm cash receipts proxy (using the 3 most important crops - corn, soybeans, wheat). The updated January USDA report left the outlook for 2013/14 unchanged at down 11%, however the 2014/15 outlook was improved slightly to down 13% from down 15% previously. The correlation between equipment sales and cash receipts has historically provided a good proxy for next year's equipment demand.



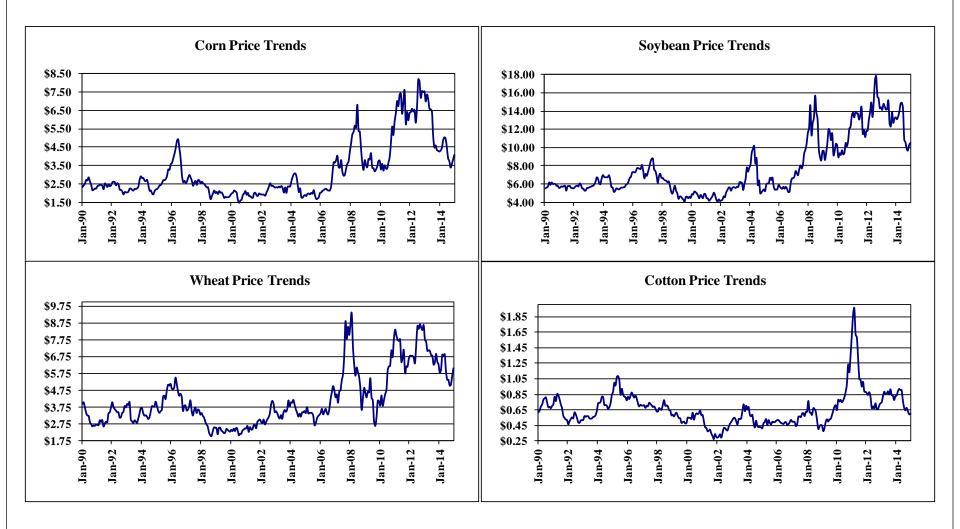
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## **Commodity Prices – Simplified Cash Receipts Proxy**

					u Agricultura	n Suppry and	Demand Estim					
			CORN - I	DOMESTIC					COR	N - INTERNA	TIONAL	
Year	Production	Domestic Use	Exports	Total Use	End Stocks	Stocks/Use	Avg Price	Year	Production	Total Use	End Stocks	Stocks/Use
2012/13	10,755	10,353	730	11,111	821	7.4%	\$6.89	2012/13	23,416	23,681	4,609	19.5%
2013/14	13,829	11,537	1,917	13,454	1,232	9.2%	\$4.46	2013/14	25,055	25,997	5,548	21.3%
2014/15								2014/15				
December	14,407	11,920	1,750	13,670	1,998	14.6%	\$3.20-\$3.80	December	24,630	26,354	5,569	21.1%
January	14,216	11,845	1,750	13,595	1,877	13.8%	\$3.35-3.95	January	24,684	26,388	5,569	21.1%
					Corn l	Futures Price:	\$4.00					
Change m/m	-191	-75	0	-75	-121	-0.8%	\$0.15	Change m/m	54	33	0	0.0%
Change y/y	387	308	-167	141	645	4.6%	(\$0.81)	Change y/y	-371	391	21	-0.2%
			SOVDEANS	- DOMESTI	C C				SOVE	ANS - INTER	NATIONAL	
Year	Production	Domestic Use	Exports	Total Use	End Stocks	Stocks/Use	Avg Price	Year	Production	Total Use	End Stocks	Stocks/Use
2012/13	3,042	3,111	1,317	4,428	141	3.2%	\$14.40	2012/13	6,833	7,803	1,959	25.1%
2012/13	3,358	3,478	1,647	5,125	92	1.8%	\$13.00	2012/13	7,068	8,178	2,339	28.6%
2013/14	3,338	3,478	1,047	5,125	92	1.070	\$15.00	2013/14	7,008	0,170	2,339	28.070
December	3,958	3,655	1,760	5,415	410	7.6%	\$9.00-\$11.00	December	7,535	8,616	2,892	33.6%
January	3,958	3,666	1,700	5,436	410	7.5%	\$9.45-10.95	January	7,582	8,622	2,892	33.9%
January	3,909	3,000	1,770	5,450				January	7,382	8,022	2,923	33.9%
					Soybean l	Futures Price:	\$10.52					
Change m/m	11	11	10	21	0	0.0%	\$0.20	Change m/m	47	6	34	0.4%
Change y/y	611	188	123	311	318	5.7%	(\$2.80)	Change y/y	515	445	586	5.3%
			WHEAT -	DOMESTIC					WHEA	T - INTERN	ATIONAL	
Year	Production	Domestic Use	Exports	Total Use	End Stocks	Stocks/Use	Avg Price	Year	Production	Total Use	End Stocks	Stocks/Use
2012/13	2,252	1,388	1,012	2,400	718	29.9%	\$7.77	2012/13	21,926	23,588	5,691	24.1%
2013/14	2,135	1,255	1,176	2,431	590	24.3%	\$6.87	2013/14	24,149	24,612	6,236	25.3%
2014/15	2,100	1,200	1,170	2, 101	270	211370	\$0.07	2014/15	2.,1.12	21,012	0,200	2010/10
December	2,026	1,216	925	2,141	654	30.5%	\$5.80-\$6.20	December	24,509	24,967	6,507	26.1%
January	2,026	1,184	925	2,109	687	32.6%	\$5.90-6.30	January	24,554	25,021	6,515	26.0%
vunuu y	2,020	1,101	/20	2,105				vunuu y	21,001	20,021	0,010	201070
						Futures Price:	\$5.64					
Change m/m	0	-32	0	-32	33	2.0%	\$0.10	Change m/m	44	54	8	0.0%
Change y/y	-109	-71	-251	-322	97	8.3%	(\$0.77)	Change y/y	405	409	278	0.7%
					FARME	R CROP RECI	EPTS PROXY					
		Production:				Average Price	:		C	rop Cash Rec	eipts*	
Year	Corn	Soybeans	Wheat		Corn	Soybeans	Wheat	Corn	Soybeans	Wheat	Total	% change y/
2008/09	12,092	2,967	2,499		\$4.06	\$9.97	\$6.78	\$49,094	\$29,581	\$16,943	\$95,618	1%
2009/10	13,092	3,359	2,218		\$3.55	\$9.59	\$4.87	\$46,477	\$32,213	\$10,802	\$89,491	-6%
2010/11	12,447	3,329	2,207		\$5.18	\$11.30	\$5.70	\$64,475	\$37,618	\$12,580	\$114,673	28%
2011/12	12,360	3,094	1,999		\$6.22	\$12.50	\$7.24	\$76,879	\$38,675	\$14,473	\$130,027	13%
2012/13	10,755	3,042	2,252		\$6.89	\$14.40	\$7.77	\$74,102	\$43,805	\$17,498	\$135,405	4%
2013/14	13,829	3,358	2,135		\$4.46	\$13.00	\$6.87	\$61,677	\$43,654	\$14,667	\$119,999	-11%
2014/15												
November	14,407	3,958	2,026		\$3.50	\$10.00	\$5.90	\$50,425	\$39,580	\$11,953	\$101,958	-15%
	14 407		2,026		\$3.50	\$10.00	\$6.00	\$50,425	\$39,580	\$12,156	\$102,161	-15%
December	14,407	3,958	2,020		\$5.50	φ10.00	\$0.00	$\phi_{30}, \tau_{23}$	\$59,500	$\phi_{12}, 150$		15/0

Source: USDA; Cleveland Research estimates. \*Note: Cash reciepts estimated as USDA production X USDA average price forecast

#### **Long Term Commodity Price Trends**



#### **Commodity Trends – Long Run Supply and Demand Projections**

Year	Production	Domestic Use	Exports	Total Use	End Stocks	Stocks/Use	Avg Pri
2004/05	11,807	8,848	1,814	10,662	2,114	19.8%	\$2.06
2005/06	11,114	9,122	2,147	11,269	1,968	17.5%	\$2.00
2006/07	10,535	9,086	2,125	11,210	1,304	11.6%	\$3.04
2007/08	13,038	10,300	2,437	12,737	1,624	12.8%	\$4.20
2008/09	12,092	10,207	1,849	12,056	1,674	13.9%	\$4.06
2009/10	13,092	11,079	1,987	13,066	1,708	13.1%	\$3.55
2010/11	12,447	11,220	1,835	13,054	1,128	8.6%	\$5.18
2011/12	12,360	10,985	1,543	12,528	989	7.9%	\$6.22
2012/13	10,780	10,377	731	11,108	823	7.4%	\$6.89
2013/14	13,989	11,550	1,400	12,950	1,888	14.6%	\$4.50
2014/15	14,260	11,865	1,700	13,565	2,607	19.2%	\$3.65
2015/16	14,010	11,965	1,800	13,765	2,877	20.9%	\$3.30
2015/17	13,840	12,035	1,900	13,935	2,807	20.1%	\$3.35
2017/18	13,830	12,100	1,950	14,050	2,612	18.6%	\$3.45
2018/19	13,990	12,190	2,000	14,190	2,437	17.2%	\$3.60
2019/20	14,155	12,305	2,050	14,355	2,262	15.8%	\$3.75
2020/21	14,405	12,425	2,100	14,525	2,167	14.9%	\$3.85
2021/22	14,565	12,540	2,150	14,690	2,067	14.1%	\$3.95
2022/23	14,730	12,655	2,200	14,855	1,967	13.2%	\$4.10
2023/24	14,890	12,750	2,250	15,000	1,882	12.5%	\$4.20
10-yr Avg	14,268	12.163	1.925	14.088	2,369	16.9%	\$3.75

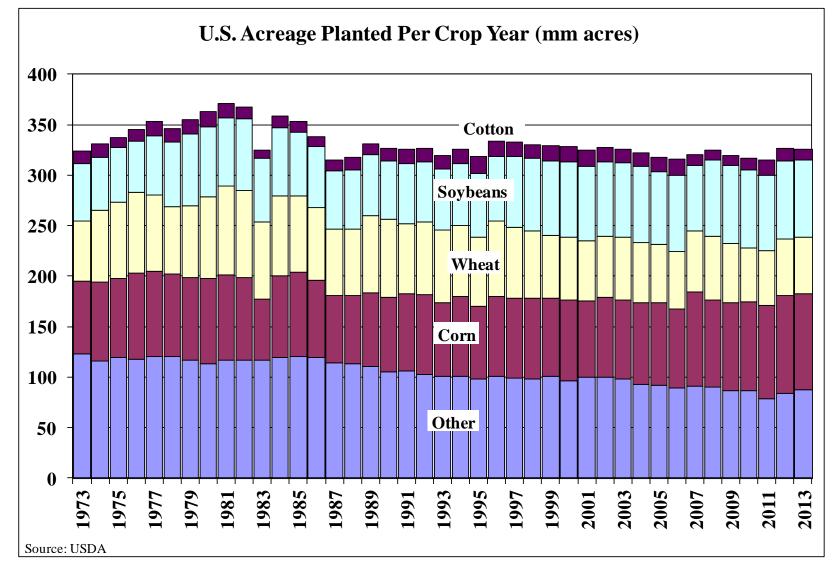
Source: USDA; Cleveland Research estimates

	20	14 USDA - Long	Run Crop Su	pply and Dema	nd Projections				20	14 USDA - Long	Run Crop Su	pply and Dema	nd Projections		
SOYBEANS -	- DOMESTIC							WHEAT - DO	OMESTIC						
<u>Year</u>	Production	Domestic Use	<u>Exports</u>	<u>Total Use</u>	End Stocks	Stocks/Use	Avg Price	Year	Production	Domestic Use	Exports	<u>Total Use</u>	End Stocks	Stocks/Use	Avg Price
2004/05	3,124	1,889	1,097	2,986	256	8.6%	\$5.74								
2005/06	3,068	1,938	940	2,878	449	15.6%	\$5.66	2004/05	2,157	1,168	1,066	2,234	540	24.2%	\$3.40
2006/07	3,197	1,965	1,116	3,081	574	18.6%	\$6.43	2005/06	2,103	1,151	1,003	2,154	571	26.5%	\$3.42
2007/08	2,677	1,897	1,159	3,056	205	6.7%	\$10.10	2006/07	1,808	1,137	908	2,045	456	22.3%	\$4.26
2008/09	2,967	1,768	1,279	3,047	138	4.5%	\$9.97	2007/08	2,051	1,051	1,263	2,314	306	13.2%	\$6.48
2009/10	3,359	1,862	1,499	3,361	151	4.5%	\$9.59	2008/09	2,499	1,260	1,015	2,275	657	28.9%	\$6.78
2010/11	3,329	1,779	1,501	3,280	215	6.6%	\$11.30	2009/10	2,218	1,138	879	2,018	976	48.4%	\$4.87
2011/12	3,094	1,791	1,362	3,153	169	5.4%	\$12.50	2010/11	2,207	1,126	1,291	2,417	862	35.7%	\$5.70
2012/13	3,034	1.779	1.320	3,099	141	4.5%	\$14.40	2011/12	1,999	1,180	1,051	2,231	743	33.3%	\$7.24
2013/14	3,258	1.794	1,450	3,244	170	5.2%	\$12.15	2012/13	2,266	1,406	1,007	2,413	718	29.8%	\$7.77
2014/15	3,480	1,821	1,640	3.461	204	5.9%	\$9.75	2013/14	2,130	1,333	1,100	2,433	565	23.2%	\$7.00
2015/16	3,500	1.836	1,650	3,486	232	6.7%	\$8.85	2014/15	2,220	1,258	1,025	2,283	642	28.1%	\$4.90
2015/17	3,525	1,852	1,675	3,527	245	6.9%	\$8.90	2015/16	2,205	1,227	1,025	2,252	745	33.1%	\$4.35
2017/18	3,580	1.873	1,725	3,598	243	6.8%	\$9.05	2015/17	2,145	1,231	1,025	2,256	794	35.2%	\$4.30
2018/19	3,615	1,898	1,735	3,633	240	6.6%	\$9.25	2017/18	2,080	1,239	1,035	2,274	770	33.9%	\$4.45
2019/20	3,650	1,918	1,750	3.668	240	6.5%	\$9.45	2018/19	2,100	1,247	1,045	2,292	758	33.1%	\$4.60
2020/21	3,685	1,943	1,755	3,698	239	6.5%	\$9.60	2019/20	2,120	1,255	1,055	2,310	753	32.6%	\$4.75
2020/21	3,720	1,969	1,765	3,734	237	6.5%	\$9.75	2020/21	2,135	1,263	1,070	2,333	745	31.9%	\$4.90
2022/23	3,750	1,989	1,775	3,764	241	6.4%	\$9.95	2021/22	2,155	1,271	1,085	2,356	739	31.4%	\$5.05
2022/23	3,785	2,009	1,775	3,799	241	6.4%	\$10.15	2022/23	2,165	1,279	1,100	2,379	725	30.5%	\$5.20
2023/24 10-yr Avg	3,785	1,889	1,790	3,799	245	6.4%	\$10.15 \$9.67	2023/24	2,185	1,287	1,115	2,402	713	29.7%	\$5.35
10-yi Avg	3,029	1,009	1,092	3,301	229	0.470	\$ <b>7.0</b> 7	10-yr Avg	2,151	1,260	1,057	2,317	724	31.3%	\$4.95

Source: USDA; Cleveland Research estimates

Source: USDA; Cleveland Research estimates

#### **U.S. Acreage Planted Per Crop Year**



Source: Deere, CRC estimates