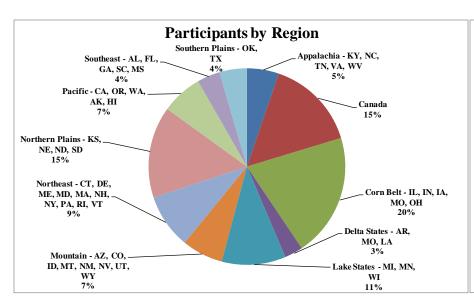
# Ag Equipment Intelligence

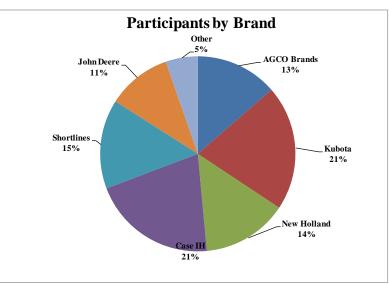
# October 2014 Dealer Sentiments & Business Conditions Update

#### **Monthly Ag Equipment Intelligence North American Dealer Survey**

#### **Background:**

- We are pleased to announce the results of the October 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 October survey had ~134 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.
- 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.





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#### **Highlights / Summary Thoughts**

- Industry Sales Down 6% y/y in September Dealers reported sales were down 6% on avg. in September vs down 5% in August and down 4% in July. Case IH dealers reported the largest declines on average at down 13% for the month.
- Order Intake Down 10% y/y in September, Slightly Worse than Last Month Orders for the month were reported down 10% y/y on avg. in our survey, 1 in every 6 respondents reported that orders were down 20% or more y/y, suggesting that avg orders could be down further. Our conversations with dealers suggest that early order programs for large ag equipment are likely down 30-50% y/y.
- **2014 Dealer Outlook for Sales Down 4% y/y vs Down 8% Last Month** For 2014, dealers are expecting sales to decline 4% vs the 8% decline expected last month. Through the first nine months of the year, monthly sales have averaged down 3% y/y in our survey, implying the expectation for the last three months of the year is for sales down ~7%.
- Initial 2015 Dealer Outlook for Sales Down 9% y/y Dealers in our survey gave their first look into 2015 and are expecting whole goods sales at down 9% y/y on average. Similar to orders, however, a significant number of dealers expect 2015 to be down 20% or more. Our conversations with dealers and suppliers suggests that new high hp equipment sales could be down more than 25% next year, while small ag equipment is expected to outperform.
- Used Inventories Slightly Better While New Inventories Inch Higher A net 38% of dealers reported used inventories "too high" in September, 5 points below the net 43% last month. New inventories were higher with a net 32% of dealers reported levels "too high" compared to a net 24% last month.

## **Monthly Sales Growth**

- Dealers report average sales were down 6% y/y in September vs down 5% y/y last month.
- Case IH dealers reported the largest declines y/y on average at down 13%, while "Shortlines" dealers reported the strongest growth of up 5% y/y on average.
- Sales were relatively inline with plan again in September, similar to most of 2014 as dealers had anticipated the sales declines.

			N	. Americ	an Farm l	Equipmer	nt Dealer	Survey -	Average	Dealer S	ales Grov	vth					
% Change y/y	May-13	Jun-13	Jul-13	Aug-13	Sept-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14
Overall	6%	5%	3%	3%	4%	4%	2%	3%	-1%	0%	-2%	-4%	-2%	-4%	-4%	-5%	-6%
By Brand	May-13	Jun-13	Jun-13	Aug-13	Sept-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14
AGCO	1%	1%	-1%	-2%	-3%	-1%	4%	-4%	-3%	0%	-2%	-3%	1%	-3%	4%	-3%	4%
John Deere	9%	6%	4%	-7%	5%	7%	2%	5%	-2%	2%	0%	-3%	-2%	-3%	-6%	-4%	-6%
New Holland	5%	7%	2%	4%	2%	4%	5%	5%	-1%	-2%	-2%	-4%	-10%	2%	-2%	-3%	0%
Case IH	-1%	5%	5%	12%	6%	3%	2%	3%	0%	-2%	-6%	-5%	-1%	-10%	-5%	-9%	-13%
Kubota	-2%	10%	3%	4%	4%	0%	2%	6%	6%	-3%	1%	-1%	-1%	2%	0%	-2%	1%
Shortlines	5%	4%	11%	-1%	11%	12%	5%	6%	-2%	0%	-2%	1%	3%	-2%	-1%	0%	5%
Other	7%	3%	13%	0%	0%	5%	na	-1%	13%	0%	1%	na	na	-2%	6%	11%	na

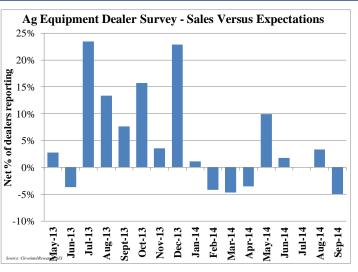
Source: Cleveland Research

				N. Ameri	can Farm	Equipmo	ent Deale	r Survey	- Sales V	Versus E	xpectation	s					
% of Dealers Reporting	May-13	Jun-13	Jul-13	Aug-13	Sept-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14
Better than expected	23%	19%	38%	33%	27%	32%	24%	39%	25%	20%	21%	21%	29%	25%	26%	28%	24%
In line with expectations	57%	58%	48%	47%	54%	51%	56%	45%	51%	55%	54%	54%	52%	53%	49%	47%	47%
Worse than expected	20%	23%	14%	20%	19%	17%	20%	16%	24%	25%	26%	25%	19%	23%	26%	25%	29%
Net % (Better - Worse)	3%	-4%	23%	13%	8%	16%	4%	23%	1%	-4%	-5%	-4%	10%	2%	0%	3%	-5%

Source: Cleveland Research, AEI.

## **Monthly Sales Growth Continued**





			N. Ame	erican Fa	rm Equip	ment Dea	aler Surv	ey - Aver	age Deal	er Reven	ue Growth	Trends					
% of Dealers Reporting	May-13	Jun-13	Jul-13	Aug-13	Sept-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14
Positive Sales Growth	58%	52%	64%	53%	57%	59%	45%	63%	40%	45%	49%	39%	50%	46%	42%	37%	37%
Flat Sales	19%	21%	21%	21%	25%	20%	35%	18%	24%	17%	22%	20%	12%	18%	21%	22%	18%
Negative Sales Growth	23%	27%	15%	26%	18%	22%	20%	19%	36%	37%	29%	40%	39%	36%	37%	42%	46%
Net % Reporting Growth	35%	25%	49%	26%	39%	37%	26%	44%	3%	8%	20%	-1%	11%	11%	5%	-5%	-9%
Average % Change y/y	6%	5%	3%	3%	4%	4%	2%	3%	-1%	0%	-2%	-4%	-2%	-4%	-4%	-5%	-6%

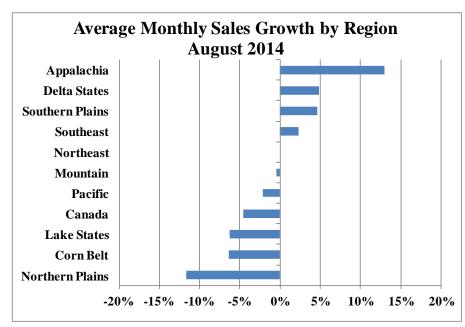
						Optimis	m/Sentin	nent vs. L	ast Mont	h							
	May-13	Jun-13	Jul-13	Aug-13	Sept-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14
More Optimistic	27%	26%	21%	19%	14%	15%	14%	9%	12%	24%	26%	24%	25%	23%	13%	12%	16%
Same	52%	50%	58%	50%	62%	60%	45%	52%	52%	50%	51%	44%	45%	42%	45%	50%	46%
Less Optimistic	21%	24%	21%	31%	23%	25%	41%	39%	36%	26%	23%	32%	30%	35%	42%	38%	38%
Net % Dealer Optimism	6%	2%	1%	-12%	-9%	-11%	-27%	-30%	-23%	-1%	3%	-9%	-5%	-11%	-28%	-26%	-22%

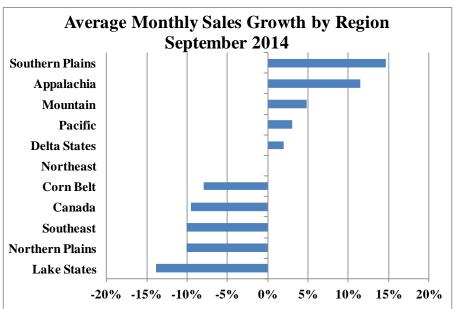
Source: Cleveland Research

Source: Farm Equipment Magazine Survey

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

- Five out of eleven regions showed positive average monthly sales growth in September, up from four in August. The Southern Plains region was the strongest with average sales growth of 15%, while the Lake States reported the largest sales declines of 14%.
- Compared to last month, the Southern Plains region saw the strongest pick up in growth, while the Southeast saw the largest deceleration vs last month.

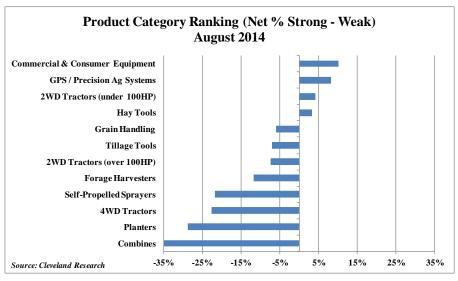


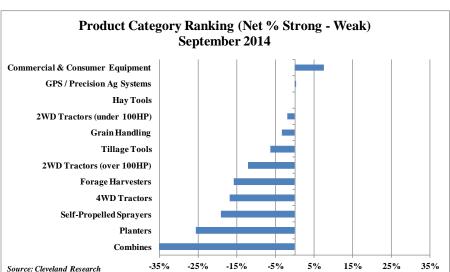


Source: Farm Equipment Magazine Survey

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

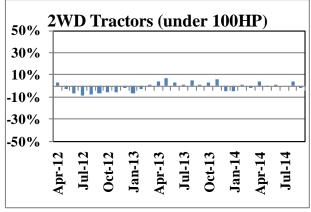
- Commercial/Consumer Equipment was the only product category of twelve to rank in net positive territory in September vs four categories last month. Combines were the weakest category for the 17<sup>th</sup> straight month (net 39% reporting weakness vs net 39% last month).
- Comparing September to August, 4WD Tractors saw the largest improvement of the group (although still net 17% reporting weakness) while GPS/Precision Ag Systems took the largest step down.

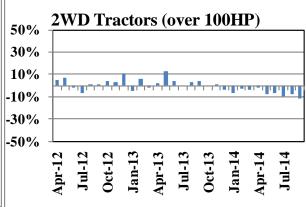


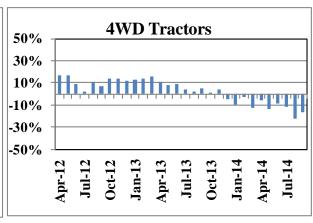


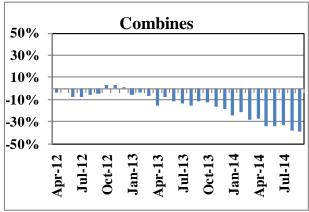
Source: Farm Equipment Magazine Survey

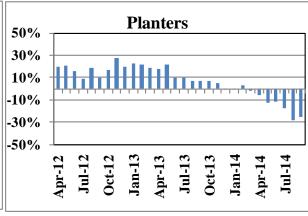
#### **Equipment Category Sales Trends**

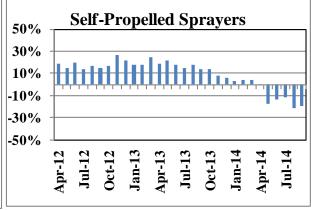




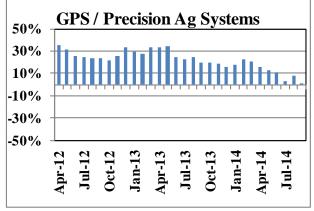


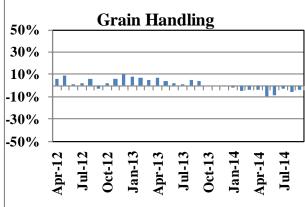


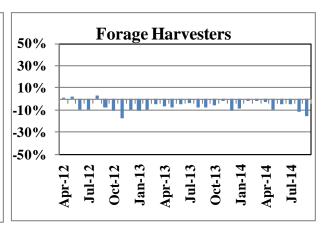


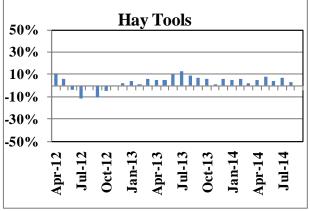


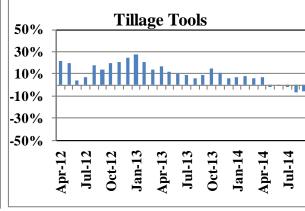
#### **Equipment Category Sales Trends (Continued)**

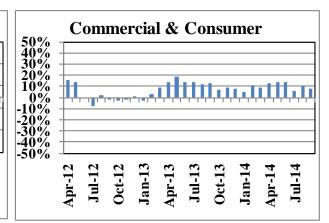












#### **Most Interesting Commentary - Monthly Sales and Outlook**

- Grain prices and no Sec 179 has folks waiting. Very different than last 4 yrs.
- Large cash crop equipment sales very quiet. Used combine sales did not happen, and then we did not sell the related heads and equipment. Tractor sales are also slow.
- Market is soft, really LATE harvest, high equipment prices, low commodity prices, poor grain quality.
- Layoffs at most manufacturing plants indicates an overall downturn in the ag sector.
- 0 combines on order, 0 4wd tractors on order, 0 sprayers on order.
- I can see December turning to a very busy month if Section 179 is reinstated.
- Dropping grain prices as well as tax laws are heavily influencing buyer hold back.
- For 2015, my expectations are that it will be 30 % lower in dollars and only down by 10 % in unit sales. We expect more lower priced livestock equipment will be sold. For the remainder of 2014 sales will drop 20% from last year.
- We are in dairy country and milk prices are high. we are confident our sales will be strong for year end.
- Case IH has emphasized a new devotion to pre-sell retail orders. They are even stating that the discounts will be greater on pre-sell orders than on inventory orders. This has driven a strong desire to commit to this program ourselves.
- We have talked to a lot of people throughout the year and there is a lot of interest with the income tax law changing and their need to spend money before year end.
- We are operating under the assumption that Section 179 will return come the end of November.
- Farmers have been commenting in general conversation that they are very expecting a large decrease in revenue.
- The amount of new sales the last few years and commodity prices dropping along with Section 179 will have a severe impact on large ag sales.
- My major supplier is more interested in short term financials, and has lost sight of the sales trend for the coming months.

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#### **Monthly Order Trends**

#### **Overall Orders**

- Incoming orders declined 10% y/y on avg for the month of September, however our conversations with dealers suggest early orders for large ag equipment could be down significantly more in the 30-50% range.
- All dealer brands saw declines in orders during the month with Deere dealers reporting the largest declines of 14% y/y.

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

• Combine order intentions decreased again vs last month, with a net 62% of dealers now planning to order fewer combines than last year. September marks the weakest month in the history of our survey.

				N. Ame	rican Far	m Equip	nent Dea	ler Surve	ey - Avera	age Orde	rs Growth						
% Change y/y	May-13	Jun-13	Jul-13	Aug-13	Sept-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14
Overall	2%	0%	0%	2%	1%	1%	-2%	-3%	-3%	-2%	-4%	-5%	-4%	-8%	-9%	-9%	-10%
By Brand	May-13	Jun-13	Jul-13	Aug-13	Sept-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14
AGCO	-1%	0%	-7%	-2%	-5%	-2%	-2%	-5%	1%	-4%	0%	-1%	-5%	-8%	-3%	-7%	-4%
John Deere	3%	2%	2%	7%	2%	2%	-2%	-3%	-4%	-1%	-5%	-6%	-5%	-8%	-11%	-7%	-14%
New Holland	-1%	-1%	-1%	-12%	0%	0%	-3%	-1%	-6%	-3%	-4%	-8%	-5%	-8%	-5%	-7%	-4%
Case IH	0%	-2%	1%	3%	1%	4%	-1%	-1%	-4%	-1%	-7%	-4%	-6%	-8%	-9%	-14%	-11%
Kubota	1%	0%	-5%	-1%	0%	0%	-4%	1%	-6%	-2%	-3%	-7%	-8%	-6%	-4%	-9%	-9%
Shortlines	0%	1%	9%	15%	5%	5%	-3%	-1%	-8%	0%	-6%	-2%	-5%	-13%	-10%	-13%	-9%
Other	1%	0%	0%	-1%	0%	0%	na	1%	6%	0%	3%	na	na	-6%	1%	0%	na

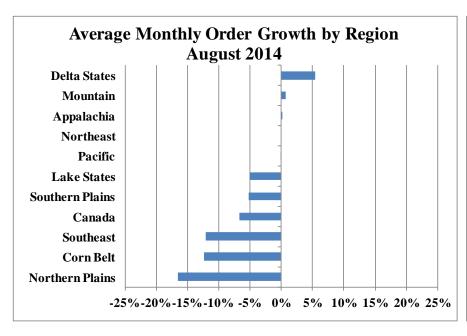
Source: Cleveland Research

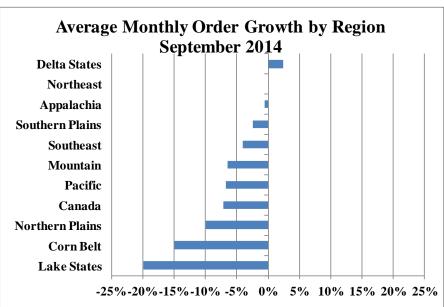
						New Con	bine Oro	ler Intent	tions vs. l	Last Year							
	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14
More	9%	9%	14%	8%	16%	10%	11%	17%	8%	10%	7%	9%	11%	6%	6%	10%	4%
Same	68%	62%	46%	49%	45%	39%	38%	44%	48%	44%	51%	50%	46%	43%	38%	30%	30%
Less	23%	29%	41%	43%	39%	51%	52%	39%	44%	46%	42%	41%	43%	51%	56%	60%	66%
Net % (More-Less)	-14%	-20%	-27%	-35%	-22%	-40%	-41%	-22%	-36%	-37%	-35%	-32%	-32%	-44%	-50%	-51%	-62%

Source: Cleveland Research

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

- The Delta States was the only geography to show positive order growth in September at 2% y/y on average, while dealers in the Lake States reported the most significant decline in orders at down 20% y/y.
- Compared to last month, the Southeast region saw the largest improvement in orders while the Lake States saw the most significant deceleration.





#### **2014 Sales Outlook**

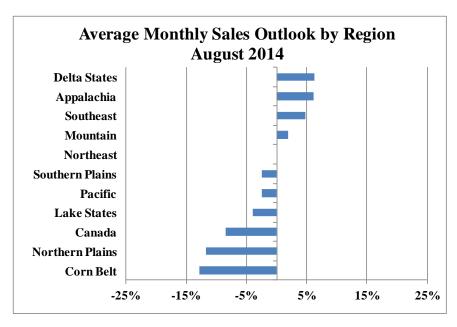
- The average dealer outlook for 2014 sales improved to down 4% y/y in September vs the down 8% forecast last month. Deere is forecasting the N. America Ag equipment industry to be down 5-10% in units in 2014, AGCO expects a 5% decline, and CNH Industrial is forecasting tractor sales up 0-5% and combine sales down 20-25%.
- Among the survey participants, AGCO dealers were again the most optimistic (projecting 2% growth in 2014), while Case IH dealers are forecasting the largest sales declines of 7% y/y for 2014 (although improved from the 14% declines forecast by Case IH dealers last month).

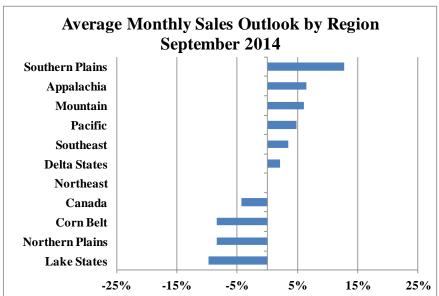
		N. A	merican	Farm Eq	uipment	Dealer S	urvey - Fu	ll Year S	ales Forec	ast			
							2014 Out	look					
% change y/y	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14
AGCO	-1%	-3%	-2%	0%	-2%	-1%	2%	0%	0%	-1%	2%	-4%	2%
John Deere	2%	2%	0%	-3%	-2%	-1%	-3%	-3%	-2%	-6%	-6%	-6%	-4%
New Holland	2%	1%	-2%	-2%	-5%	0%	-1%	-6%	-9%	-3%	-3%	-6%	1%
Case IH	-3%	0%	-1%	-7%	-5%	-5%	-5%	-6%	-9%	-11%	-9%	-14%	-7%
Kubota	-1%	-1%	-3%	-2%	-3%	-1%	-2%	-2%	-10%	-3%	-4%	-7%	-1%
Shortlines	4%	6%	-3%	0%	-4%	-3%	-4%	1%	-2%	-8%	-2%	-5%	1%
Other	2%	2%	na	0%	3%	3%	7%	na	na	-4%	3%	2%	na
Overall	0%	1%	-1%	-4%	-4%	-2%	-3%	-4%	-4%	-6%	-6%	-8%	-4%

Source: Cleveland Research

#### 2014 Sales Outlook Continued

• Six of eleven regions are now projecting sales to grow for the full year 2014 in September, up from four regions over the past several months. The two new regions projecting growth this month are the Southern Plains and the Pacific region.



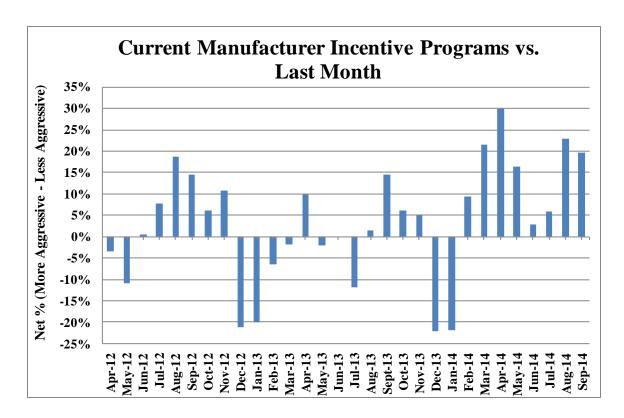


#### **Initial 2015 Sales Outlook**

- Dealers in our survey gave their first look into 2015 and are expecting 9% sales declines on avg. vs 2014 sales.
- Similar to orders, a significant proportion of dealers are expecting sales declines of 20% or more next year, suggesting that a more representative outlook may actually be lower. Our recent conversations with dealers suggest that the average outlook for 2015 is for 25-30% sales declines.
  - Large Ag equipment is expected to see greater declines, while small ag equipment is expected to meaningfully outperform.
- The public equipment manufacturers have not yet given expectations for 2015 sales, however several have commented on order boards:
  - □ AGCO noted on July 29<sup>th</sup> that orders globally were down between 15-30% compared to last year:
    - > Down 15% in Europe
    - > Down 30% in S. America
    - N. America was not disclosed, but implied between 15-30% y/y
  - John Deere, on August 13<sup>th</sup>, stated that Early Order Programs are running down double-digits (did not disclose specifics)
- Additionally, AGCO preannounced that earnings per share for 3Q14 are expected to be down ~50% y/y.

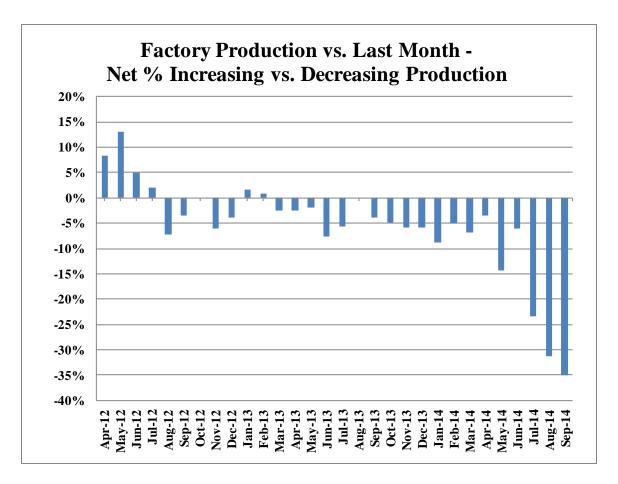
#### **Current Manufacturer Incentive Programs**

• A net 20% of dealers report that manufacturers are more aggressive with incentives in September (25% more aggressive; 70% same; 5% less aggressive), down slightly from the net 23% reporting more aggressive incentives last month.



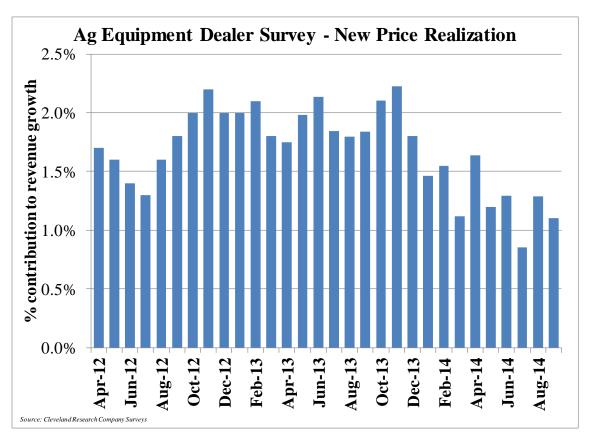
#### **Factory Production**

• A net 35% of dealers report that factory production was down in September compared to August, even after a net 31% reported lower production levels in August.



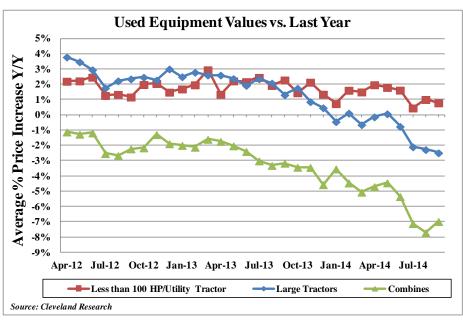
#### **Pricing Trends**

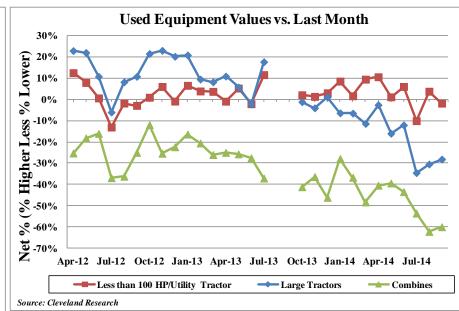
• Dealers report price contributed roughly ~1.1% to total September revenue growth vs the 1.3% last month. Final tier 4 price increases are expected to be ~5-10% on average, although not impacting all lines of equipment.



#### **Used Equipment Pricing**

- Used combine values are reported at down 7.0% y/y vs down 7.7% y/y last month, while used HHP tractors values are reported at down 2.5% y/y vs down 2.3% last month.
- Comparing September to August, a net 60% of dealers reported the used combine were lower while a net 28% reported Large Tractor values were lower.





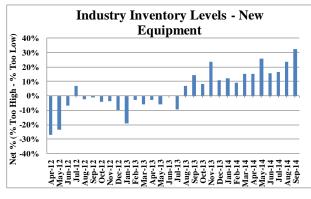
#### **Inventory Levels**

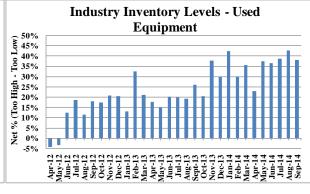
#### **New Equipment Inventory**

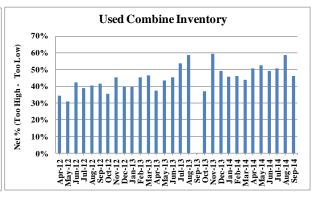
• A net 32% of dealers categorize their new inventory as "too high" (42% too high; 49% about right; 9% too low), up from the net 24% last month, continuing an upward trend over the past several months.

#### **Used Equipment Inventory**

- A net 38% of dealers reported used equipment inventory as "too high" in September (47% too high; 44% about right; 9% too low), below the net 43% last month.
  - For used combines, a net 46% reported inventories "too high," a significant improvement from the net 59% last month.
  - For used HHP tractors, a net 21% of dealers reported used HHP tractor inventories "too high," up from the net 14% last month.
  - For used sprayers, a net 39% of dealers reported inventories "too high" vs a net 25% last month.

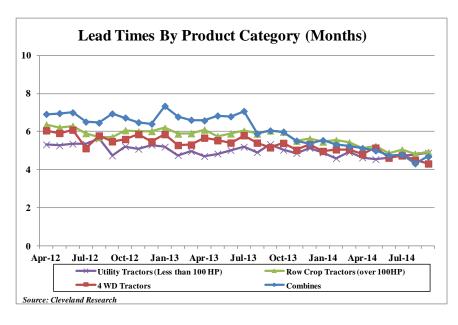


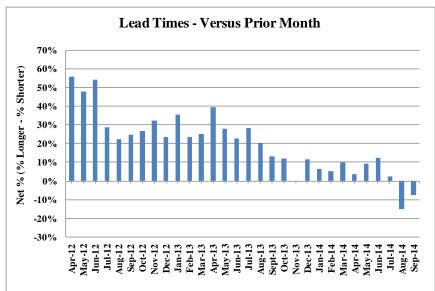




## **Equipment Availability**

- Overall, a net 8% of dealers report shorter factory lead-times compared to last month (18% longer; 57% same; 25% shorter).
- Combine lead times were reported at 4.7 months (4.3 last month), row crop tractor lead times were 4.9 months (4.8 last month) and 4WD tractors were 4.3 months (4.5 last month)





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

- We have some worries about current model, low hour trades eating away at new equipment opportunities.
- Declining values with multiple auctions ahead are concerning. How do we still realize some profit while moving the used?
- Late model equipment inventory is to high.
- Late model trade ins. But sales are picking up
- *Used combine and used seeding inventory too high.*
- Too many combines and large late model tractors.
- Too many high hp tractors, otherwise inventory is about right.
- Maybe high on tillage and used tractors, but all else ok.
- We are trying to lower our used inventory by year end.
- High HP Tractors are in strong supply everywhere. It makes no sense to continue trading these in at pre 2014 values.
- In dollars maybe a little high, light on loader tractors, light on compacts, heavy on discs, combines and heads.
- Combines, planters and self-propelled sprayers are all too high.
- We need to move some used round hay balers.
- Used hay equipment has moved well.
- Dumped \$500,000 at auction lost \$200,000. It's gone though and we're not paying interest. We're still on the high side but bearable now.

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

- The lack of interest in grain handling and fall tillage equipment.
- That we were still selling lawn mowers, with all the rain, grass keeps growing.
- Lack of communication from our major supplier.
- Grain markets staying flat still hoping for a surge ounce harvest gets going.
- *The amount of tillage tool activity has greatly increased.*
- I'm surprised dealers aren't being proactive about this widespread inventory glut, in both inventory reductions and trade-in values.
- Still inquiring on tillage purchases but the problem is availability.
- Continue increased sales.
- We finally got rain, thank God.
- Sales of used windrowers were brisk due to snowfall.
- Sudden downturn of consumer buying
- CNH stock is at 52 week low and new policy's they are coming with, change of co-op, cancelation of meetings, hiring freeze. Is this company broke?

# **NA Farm Equipment Industry Retail Sales**

				Units						% chan	ge year-ov	er-year		
	< 40 HP	Utility	Row Crop	4-Wheel	Total Tractor	Row Crop & 4WD	Combines	< 40 HP	Utility	Row Crop		Total Tractor	Row Crop & 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%
/Jar-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%
/lay-12	13,562	5,984	2,911	611	23,068	3,522	691	8%	17%	21%	4%	11%	18%	-15%
un-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%
ug-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%
an-13	4,694	4,087	2,960	678	12,419	3,638	621	20%	11%	27%	89%	21%	35%	18%
eb-13	5,111	3,701	2,589	669	12,070	3,258	620	17%	4%	27%	37%	16%	29%	69%
<b>I</b> ar-13	8,311	4,941	3,464	706	17,422	4,170	1,199	-3%	8%	28%	-5%	5%	21%	67%
pr-13	13,907	5,615	4,301	851	24,674	5,152	1,144	4%	-7%	28%	-4%	4%	21%	62%
Tay-13	17,189	6,239	3,483	554	27,465	4,037	883	27%	4%	20%	-9%	19%	15%	28%
un-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%
ug-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%
)ct-13	9,665	6,747	5,943	1,228	23,583	7,171	1,671	-3%	-2%	5%	-18%	-2%	0%	-28%
Nov-13	5,628	3,873	2,651	644	12,796	3,295	903	9%	-3%	7%	2%	4%	6%	26%
ec-13	7,683	6,944	4,940	962	20,529	5,902	1,547	-7%	10%	14%	7%	4%	13%	37%
an-14	4,762	4,172	3,314	631	12,879	3,945	824	1%	2%	12%	-7%	4%	8%	33%
eb-14	5,310	3,655	2,423	575	11,963	2,998	526	4%	-1%	-6%	-14%	-1%	-8%	-15%
Iar-14	10,156	5,149	3,157	657	19,119	3,814	906	22%	4%	-9%	-7%	10%	-9%	-24%
pr-14	14,163	6,029	3,744	746	24,682	4,490	999	2%	7%	-13%	-12%	0%	-13%	-13%
lay-14	16,815	6,602	2,929	474	26,820	3,403	671	-2%	6%	-16%	-14%	-2%	-16%	-24%
un-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%
ug-14	9,691	5,444	2,575	371	18,081	2,946	946	4%	9%	-9%	-37%	2%	-14%	-24%
ep-14	11,333	6,193	3,276	492	21,294	3,768	1,142	32%	28%	-2%	-14%	23%	-4%	-11%

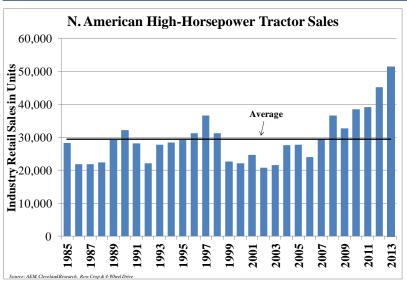
Source: AEM; Cleveland Research Company estimates. High hp tractors are row crop & 4-wheel drive.

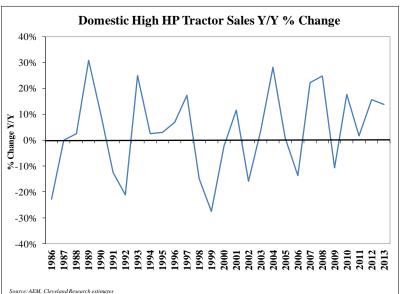
# **NA Farm Equipment Industry Inventory**

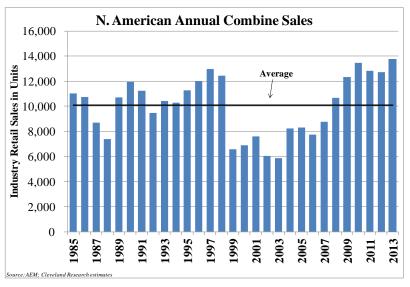
					NORTH A	MERICAN	FARM EQU	IPMENT IN	VENTORY	<i>l</i>				
			Inv	entory (Uni	its)					Invento	ory to 12-m	o. Sales		
					Total	Row Crop	)					Total	Row Crop	
	< 40 HP	Utility	Row Crop	4-Wheel	Tractor	& 4WD	Combines	<40HP	Util	RC	4-WD	Tractor	& 4WD	Comb
Dec-11	59,746	26,551	7,666	1,035	94,998	8,701	1,250	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%

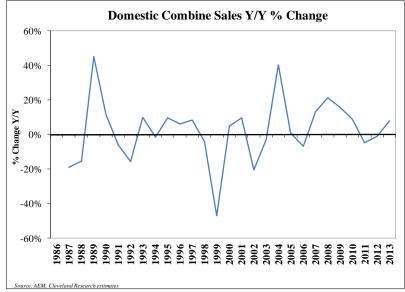
Source: AEM; Cleveland Research Company estimates

## **Annual Ag Equipment Industry Sales (1985 - 2013)**

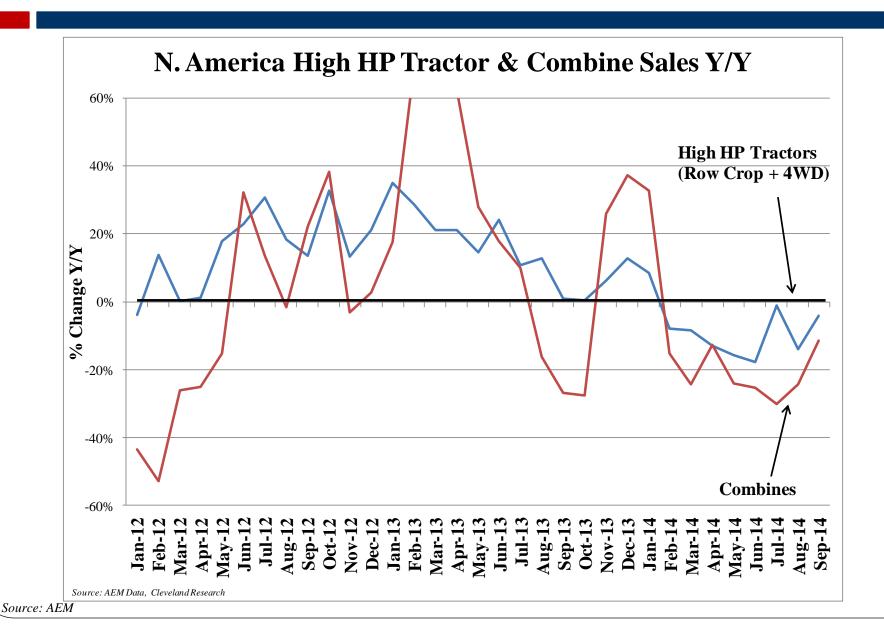






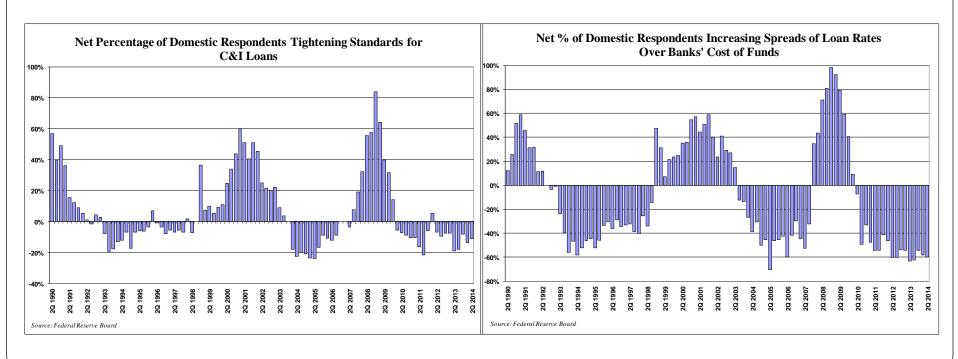


#### **NA Ag Equipment Sales**



## Credit – C&I Loan Demand Increases as Standards Loosen Slightly

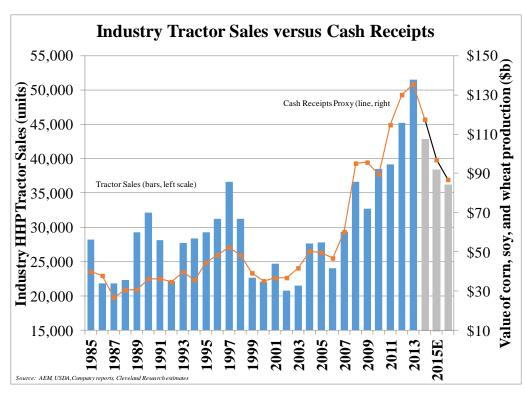
- The 2Q14 Senior Loan Officer survey saw a slight tightening of loan standards. A net 11% of loan officers reported easier credit standards in 2Q14 compared with a net 14% in 1Q14.
- Bank rate spreads saw a slight decrease in 2Q14 with a net 60% of loan officers reporting lower lending spreads, down from a net 58% in 1Q14.
- Demand for commercial and industrial loans decelerated slightly in 2Q as a net 14% of loan officers reported stronger demand for commercial and industrial loans, below the net 16% of loan officers reporting stronger demand for loans in 1Q14.



28

#### **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 17% 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 October USDA report raised out cash receipts outlook for 2013/14 slightly to down 11% vs down 12% y/y prior. The 2014/15 cash receipts outlook, however, was revised lower to down 17% vs down 15% last month. The correlation between equipment sales and cash receipts has historically provided a good proxy for next year's equipment demand.



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

						эцрэ, ша	Demand Estin	muses (starming		T DIFFERENCE	TTO STATE	
				DOMESTIC	<b>7.</b> 10. 1	G. 1 677				N - INTERNA		G. 1 677
Year	Production	Domestic Use	Exports	Total Use	End Stocks	Stocks/Use	Avg Price	Year	Production	Total Use	End Stocks	Stocks/Use
2011/12	12,360	10,985	1,543	12,528	989	7.9%	\$6.22	2011/12	22,010	23,171	4,235	18.3%
2012/13	10,780	10,379	731	11,111	821	7.4%	\$6.89	2012/13	22,963	23,626	4,179	17.7%
2013/14	13,925	11,629	1,917	13,546	1,236	9.1%	\$4.46	2013/14	24,993	25,898	5,575	21.5%
2014/15	11205		4.550	12 505	2.002	4.4.50	02.20.02.00	2014/15	24.402	25.250		20.004
September	14,395	11,855	1,750	13,605	2,002	14.7%	\$3.20-\$3.80	September	24,482	26,360	5,475	20.8%
October	14,475	11,905	1,750	13,655	2,081	15.2%	\$3.10-\$3.70	October	24,527	26,404	5,422	20.5%
						Sutures Price:	\$3.46					
Change m/m	80	50	0	50	79	0.5%	(\$0.10)	Change m/m	45	45	-52	-0.2%
Change y/y	550	276	-167	109	845	6.1%	(\$1.06)	Change y/y	-466	506	-153	-1.0%
			SOYBFANS	S - DOMESTIC	r				SOYBE	ANS - INTERN	NATIONAL.	
Year	Production	Domestic Use	Exports	Total Use	End Stocks	Stocks/Use	Avg Price	Year	Production	Total Use	End Stocks	Stocks/Use
2011/12	3,094	3,155	1,365	4,520	169	3.7%	\$12.50	2011/12	5,629	7,536	1,785	23.7%
2012/13	3,034	3,099	1,320	4,419	141	3.2%	\$14.40	2012/13	6,873	7,777	2,170	27.9%
2013/14	3,358	3,478	1,647	5,125	92	1.8%	\$13.00	2013/14	7,114	8,121	2,351	29.0%
2014/15	3,550	3,170	1,017	5,125	72	1.070	Ψ15.00	2014/15	,,	0,121	2,001	25.070
September	3,913	3,583	1,700	5,283	475	9.0%	\$9.00-\$11.00	September	7,519	8,588	2,838	33.0%
October	3,927	3,583	1,700	5,283	450	8.5%	\$9.00-\$11.00	October	7,508	8,564	2,881	33.6%
October	3,721	3,303	1,700	3,203				October	7,500	0,504	2,001	33.070
					•	Tutures Price:	\$9.94					
Change m/m	14	0	0	0	-25	-0.5%	\$0.00	Change m/m	-11	-24	43	0.6%
Change y/y	569	105	53	158	358	6.7%	(\$3.00)	Change y/y	394	443	530	4.7%
			WHEAT -	DOMESTIC					WHEA	T - INTERNA	ATIONAL	
Year	Production	Domestic Use	Exports	Total Use	End Stocks	Stocks/Use	Avg Price	Year	Production	Total Use	End Stocks	Stocks/Use
2011/12	1,999	1,180	1,051	2,231	743	33.3%	\$7.24	2011/12	23,506	24,369	6,458	26.5%
2012/13	2,266	1,406	1,007	2,413	718	29.8%	\$7.77	2012/13	21,821	23,418	5,889	25.1%
2013/14	2,135	1,256	1,176	2,432	590	24.3%	\$6.87	2013/14	24,141	24,630	6,229	25.3%
2014/15								2014/15				
September	2,030	1,191	900	2,091	698	33.4%	\$5.50-\$6.30	September	24,424	24,897	6,517	26.2%
October	2,035	1,216	925	2,141	654	30.5%	\$5.55-\$6.25	October	24,461	25,022	6,422	25.7%
					Wheat l	Sutures Price:	\$5.20					
Change m/m	5	25	25	50	-44	-2.8%	\$0.00	Change m/m	37	125	-95	-0.5%
Change y/y	-100	-40	-251	-291	64	6.3%	(\$0.97)	Change y/y	319	392	193	0.4%
					EADAGE	R CROP RECI	EDTC DDOVV					
		Production:			FARNIE	Average Price			C	op Cash Rece	ninte*	
Year	Corn	Sovbeans	Wheat		Corn	Sovbeans	Wheat	Corn	Sovbeans	Wheat	Total	% change v/
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%
		3,034	2,266		\$6.89	\$14.40	\$7.77	\$74,274	\$43,690	\$17,607	\$135,571	4%
	10.780							Ψ17,417				
2012/13	10,780							\$62 106				
2012/13 2013/14 2014/15	10,780 13,925	3,358	2,135		\$4.46	\$13.00	\$6.87	\$62,106	\$43,654	\$14,667	\$120,427	-11%
2012/13 2013/14								\$62,106 \$50,383				

\$10.00

\$5.90

\$49,215

\$39,270

\$12,007

\$100,492

-17%

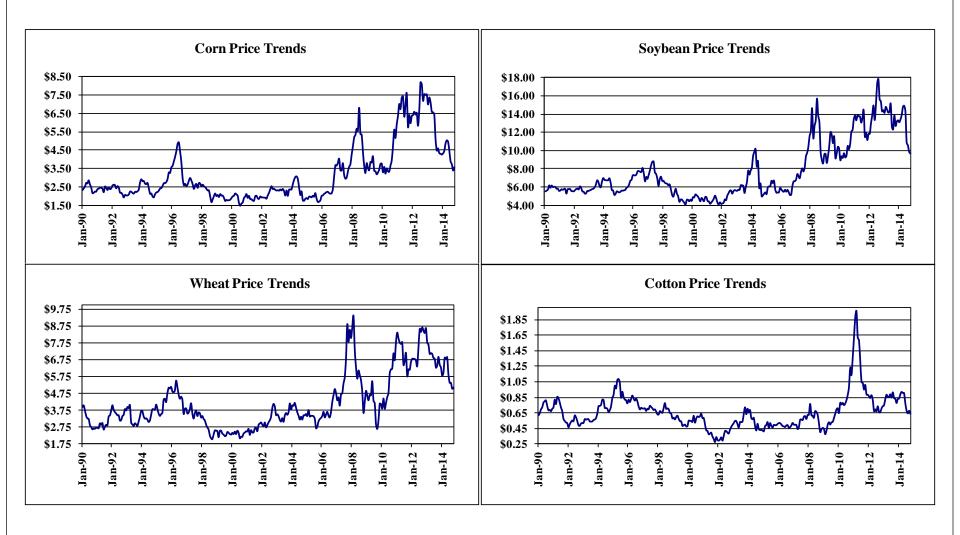
Source: USDA; Cleveland Research estimates. \*Note: Cash reciepts estimated as USDA production X USDA average price forecast

2,035

September October

14,475

## **Long Term Commodity Price Trends**



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

CORN - DON		14 USDA - Long	Run Crop Su	pply and Dema	nd Projections		
Year	Production	Domestic Use	Exports	Total Use	End Stocks	Stocks/Use	Avg Price
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		
SOYBEANS	- DOMESTIC						
<u>Year</u>	Production	Domestic Use	Exports	Total Use	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
2006/07	3,197	1,965	1,116	3,081	574	18.6%	\$6.43
2007/08	2,677	1,897	1,159	3,056	205	6.7%	\$10.10
2008/09	2,967	1,768	1,279	3,047	138	4.5%	\$9.97
2009/10	3,359	1,862	1,499	3,361	151	4.5%	\$9.59
2010/11	3,329	1,779	1,501	3,280	215	6.6%	\$11.30
2011/12	3,094	1,791	1,362	3,153	169	5.4%	\$12.50
2012/13	3,034	1,779	1,320	3,099	141	4.5%	\$14.40
2013/14	3,258	1,794	1,450	3,244	170	5.2%	\$12.15
2014/15	3,480	1,821	1,640	3,461	204	5.9%	\$9.75
2015/16	3,500	1,836	1,650	3,486	232	6.7%	\$8.85
2015/17	3,525	1,852	1,675	3,527	245	6.9%	\$8.90
2017/18	3,580	1,873	1,725	3,598	243	6.8%	\$9.05
2018/19	3,615	1,898	1,735	3,633	240	6.6%	\$9.25
2019/20	3,650	1,918	1,750	3,668	237	6.5%	\$9.45
2020/21	3,685	1,943	1,755	3,698	239	6.5%	\$9.60
2021/22	3,720	1,969	1,765	3,734	241	6.5%	\$9.75
2022/23	3,750	1,989	1,775	3,764	241	6.4%	\$9.95
2023/24	3,785	2,009	1,790	3,799	243	6.4%	\$10.15
10-yr Avg	3,629	1,889	1,692	3,581	229	6.4%	\$9.67

10-yr Avg	2,151	1,260	1,057	2,317	724	31.3%	\$4.95
2023/24	2,185	1,287	1,115	2,402	713	29.7%	\$5.35
2022/23	2,165	1,279	1,100	2,379	725	30.5%	\$5.20
2021/22	2,155	1,271	1,085	2,356	739	31.4%	\$5.05
2020/21	2,135	1,263	1,070	2,333	745	31.9%	\$4.90
2019/20	2,120	1,255	1,055	2,310	753	32.6%	\$4.75
2018/19	2,100	1,247	1,045	2,292	758	33.1%	\$4.60
2017/18	2,080	1,239	1,035	2,274	770	33.9%	\$4.45
2015/17	2,145	1,231	1,025	2,256	794	35.2%	\$4.30
2015/16	2,205	1,227	1,025	2,252	745	33.1%	\$4.35
2014/15	2,220	1,258	1,025	2,283	642	28.1%	\$4.90
2013/14	2,130	1,333	1,100	2,433	565	23.2%	\$7.00
2012/13	2,266	1,406	1,007	2,413	718	29.8%	\$7.77
2011/12	1,999	1,180	1,051	2,231	743	33.3%	\$7.24
2010/11	2,207	1,126	1,291	2,417	862	35.7%	\$5.70
2009/10	2,218	1,138	879	2,018	976	48.4%	\$4.87
2008/09	2,499	1,260	1,015	2,275	657	28.9%	\$6.78
2007/08	2,051	1,051	1,263	2,314	306	13.2%	\$6.48
2006/07	1,808	1,137	908	2,045	456	22.3%	\$4.26
2005/06	2,103	1,151	1,003	2,154	571	26.5%	\$3.42
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2014 USDA - Long Run Crop Supply and Demand Projection

Source: USDA; Cleveland Research estimates

WHEAT - DOMESTIC

2004/05

Source: USDA; Cleveland Research estimates

Avg Price

\$3.40

24.2%

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

