From the editors of *Farm Equipment...*

Ag Equipment Intelligence

News, Information & Analysis for the Ag Equipment Marketer

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- **Sales Up Again in Nov.**
- **Claas Expands in India**
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Replacement Demand for Large Equipment Fuels Deere's Improved Outlook for 2018

Despite ongoing low crop prices, Deere & Co. is looking for solid sales growth of its ag equipment in the year ahead. During a conference call with analysts following the release of its earnings report on Nov. 22, Deere management cited farmers needing to replace equipment, evidenced by improving early order sales.

For FY2018, Deere is forecasting about a 9% increase in worldwide ag and turf sales and an operating margin of 12.5% vs. 10.8% in FY2017. It expects U.S. and Canada sales to improve 5-10%, EU28 sales up by 5%, and South America up 0-5%. According to Mircea (Mig) Dobre, analyst for RW Baird, "Small ag and turf product is expected to experience significant growth, benefitting from new product introductions. Despite the return of replacement demand as the U.S. and

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Deere & Co. — 4Q & Fiscal Year 2017 Financials
($ millions)

	4Q 2017	4Q 2016	% Change	Full Year 2017	Full Year 2016	% Change
Net Sales & Revenue						
Agriculture & Turf	$5,437	$4,441	+22%	$20,167	$18,487	+9%
Construction & Forestry	$1,657	$1,209	+37%	$5,718	$4,900	+17%
Total Net Sales	$7,094	$5,650	+26%	$25,885	$23,387	+11%
Operating Profit						
Agriculture & Turf	$584	$371	$+57%	$2,484	$1,700	+46%
Construction & Forestry	$85	($17)		$337	$180	+87%
Financial Services	$193	$164	+18%	$772	$709	+2%
Total Operating Profit	$862	$518	+66%	$3,543	$2,589	+37%
Reconciling Items	($130)	(93)	+40%	($413)	($365)	+13%
Income Taxes	($222)	($140)	+59%	($971)	($700)	+39%
Net Income Attributed to Deere & Co.	$510	$285	+79%	$2,159	$1,524	+42%

Source: Deere & Co. reports

Titan Machinery Back on Track? Posts Positive 3QFY18 Earnings

Citing "improved customer sentiment" in its agriculture segment and "continued growth" in its international markets, Titan Machinery raised its sales guidance for fiscal year 2018.

On Nov. 30, Titan, North America's largest farm equipment dealer group, reported total equipment revenue for the quarter was up 1.8%. Much of the improvement was attributed to a 54% year-over-year increase in Titan's international sales. At the same time, the company's net income rose to $2.4 million vs. $300,000 for the same period in FY2017.

Overall, total revenue for the period was $330 million, down less than 1% vs. a year earlier. Agriculture revenues were down 9.2%, construction was down 9.7%. Gross profit increased 5.2% to $61.5 million and gross profit margin was up a full percentage point to 18.6%.

Titan's ongoing effort to reduce used inventory contin-

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Quarterly Review — Titan Machinery 3QFY18 Results
($ millions)

	3Q18	2Q18	1Q18	4Q17	*3Q17*
Revenue	$330	$269	$264	$318	$332
Year-over-year	(0.6%)	(3.4%)	(7.3%)	(5.3%)	(3.7%)
Same-store sales	7.6%	2.2%	(4.4%)	(4.4%)	(3.6%)
Gross income	$61.0	$53.0	$49.0	$49.0	$58.0
Gross margin	18.6%	19.6%	18.5%	15.4%	17.6%
Adjusted EBITDA	$15.9	$6.7	$0.4	$0.8	$9.1
Operating income	$9.2	$0.5	($5.7)	($6.1)	$2.0
Operating margin	2.8%	0.2%	(2.2%)	(1.9%)	0.6%

Source: Company reports, RW Baird estimates

Canada large ag fleet ages (newer equipment reduces farmer break-evens), management sees FY18 demand as 25% below mid-cycle level. Management is not assuming dealer restocking in FY18," which he says, "could provide upside."

During the conference call, Deere managers confirmed improving order books for the coming year. "Despite current commodities prices the industry is experiencing stronger replacement demand for large equipment while demand for small equipment remains solid," says Josh Jepsen, Deere's manager of investor communications.

"Deere is experiencing strong order activity in both our early order programs for seasonal products and our order book for large tractors, which are supportive of the outlook. Industry retail sales of turf and utility equipment in the U.S. and Canada are projected to be roughly flat in 2018 though Deere expects to outpace the industry."

He adds that the projected 9% increase in ag and turf sales include 2 points of positive currency translations. "The sales increase is led by the U.S. market and to a lesser extent by the EU 28." **AEI**

Deere & Co. Forecasts — 2018

U.S. Farm Commodity Prices ***($/bushel)***

	2016	2017 Forecast	2017 Previous	2018 Forecast
Corn	$3.61	$3.36	$3.20	$3.30
Soybeans	$8.95	$9.50	$9.10	$9.30
Wheat	$4.89	$3.89	$4.60	$4.80
Cotton ($/lb.)	$0.58	$0.68	$0.60	$0.61

Source: Deere & Co. forecast as of Nov. 22, 2017 (previous forecast as of Aug. 18, 2017)

U.S. Farm Cash Receipts ***($ billions)***

	2016	2017 Forecast	2017 Previous	2018 Forecast
Crops	$189.6	$190.1	$186.8	$187.6
Livestock	$162.9	$176.5	$168.2	$169.6
Gov't Payments	$13.0	$10.0	$12.5	$11.1
Total Cash Receipts	**$365.4**	**$376.6**	**$367.4**	**$368.3**

U.S. Net Farm Cash Income ***($ billions)***

	2016	2017 Forecast	2017 Previous	2018 Forecast
Total Cash Receipts	$365.4	$376.6	$367.4	$368.3
Other Farm-Related Income	$27.9	$29.8	$34.4	$32.0
Gross Cash Income	$393.3	$406.4	$401.8	$400.3
Cash Expenses	($304.1)	($309.0)	($308.3)	($310.0)
Net Cash Income	**$89.2**	**$97.4**	**$93.5**	**$90.3**

Source: 2016 — USDA, Aug. 30, 2017 2017F–2018F — Deere & Co. forecast as of Nov. 22, 2017 (previous forecast as of Aug. 18, 2017)

Deere & Co. Net Sales by Major Markets — 2010-16

*(Equipment Operations — $ billions; *U.S. & Canada not to scale with other markets)*

While sales of farm and construction equipment has had its ups and downs during the past 7 years, Deere & Co. has managed to maintain its regional sales spread. Since 2010, Deere sales in the U.S. and Canada have averaged 63% of total sales. In Western Europe sales have averaged 15%, 11% in Latin America, 3% in Asia, Africa & Middle East, 5% in Central Europe and CIS, and 2% in Asia Pacific. *Source: Deere & Co.*

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Mud Hog Combine Rear-Drive Goes Tracked

Mud Hog combine "push drive" specialist Terra Drive Systems (TDS), Brookston, Ind., is evaluating a track option to sell alongside its long established wheel drive rear axles.

"We now have two years of laboratory and field testing under our belts and are putting out more sets to farmers with tough harvesting conditions to complete the evaluation," Joe Messman, director of international sales, told *Ag Equipment Intelligence* at the Agritechnica show in Germany.

"With tracks having become a regular option for the drive axle on most combine harvesters, it's logical to add track drive to the rear axle for the toughest harvest conditions and get the full flotation and traction benefits," he adds.

"We need to be sure the track system we use handles the particular requirements of a steering axle, so we're looking to put out another 25 sets next year with a view to full production in 2019."

With a range of more than 100 models built up since the mid-1970s, TDS claims to be the largest supplier of hydraulic drive steering axles for front drive agricultural vehicles. It supplies direct to OEM factories in the U.S., Europe, Brazil and China, and also for dealer installation, catering to Case IH, Challenger, Deere, Gleaner, Massey Ferguson and New Holland harvesters, and just about any other brand.

For its rear drive tracked option, TDS is working with Camso and its Conversion Track System (CTS), which features rubber blocks between the upper and lower frames to absorb shock loads, two-way pivoting rollers and hydraulic traction belt tensioning with a nitrogen charged cylinder.

With oil bath idler wheel hubs and just one greaser, this design promises low maintenance requirements, heavy duty build and a belt life estimated at around 2,500 hours.

"The surface contact area of one set of tracks is equivalent to 6.6 size 600/70 R28 tires, so they dramatically increase flotation and reduce soil compaction," says Messman. "Increased steering maneuverability, especially with tracks on the front axle, and a smoother ride — especially in tiled fields — are other benefits."

The current product, which has been installed on combines harvesting rice in the Mississippi Delta and the Red River Valley where front tracks are already commonplace because of ground conditions, is for Class 8/9 combines or smaller, but plans are in place to cater to larger machines.

At Agritechnica, Camso introduced the CTS High Speed, which has an integrated final drive to achieve gearing for a top road speed of up to 30 kph for faster journeys between fields. It's currently engineered for New Holland and John Deere combines. **AEI**

FARM MACHINERY TICKER (AS OF 12/11/17)

MANUFACTURERS	Symbol	12/11/17 Price	11/11/17 Price	1-Year High	1-Year Low	P/E Ratio	Avg. Volume	Market Cap.
Ag Growth Int'l.	AFN	$53.27	$49.92	$60.26	$47.08	27.00	52,590	805.08M
AGCO	AGCO	$72.49	$67.97	$75.58	$57.06	28.60	657,990	5.77B
AgJunction Inc.	AJX	$0.53	$0.51	$0.67	$0.44	N/A	29,210	61.93M
Alamo	ALG	$112.75	$112.08	$119.58	$70.53	27.02	64,270	1.31B
Art's Way Mfg.	ARTW	$3.00	$2.55	$4.70	$2.00	N/A	20,230	12.48M
Buhler Industries	BUI	$4.19	$4.60	$4.90	$4.14	77.59	217	104.75M
Caterpillar	CAT	$143.77	$136.48	$145.19	$90.34	96.30	3,490,000	85.53B
CNH Industrial	CNHI	$13.05	$12.85	$13.37	$8.40	40.78	1,620,000	17.80B
Deere & Co.	DE	$151.33	$132.23	$152.68	$100.05	22.65	2,270,000	48.62B
Kubota	KUBTY	$93.39	$86.96	$95.78	$70.24	18.13	10,290	23.37B
Lindsay	LNN	$91.61	$88.79	$96.22	$72.85	42.22	84,970	979.95M
Raven Industries	RAVN	$33.80	$32.50	$38.35	$23.65	33.14	139,820	1.22B
Titan Int'l.	TWI	$11.86	$11.03	$14.23	$7.97	N/A	241,350	708.20M
Trimble Navigation	TRMB	$41.49	$40.37	$43.97	$28.61	54.20	1,020,000	10.37B
Valmont Industries	VMI	$163.60	$158.45	$176.35	$135.95	19.54	110,830	3.70B
RETAILERS								
Cervus Equipment	CERV	$15.35	$14.97	$16.42	$10.98	10.18	13,920	239.57M
Rocky Mountain Equipment	RME	$13.80	$12.39	$13.97	$9.18	16.03	33,070	267.50M
Titan Machinery	TITN	$21.71	$14.14	$23.12	$11.68	N/A	160,6400	463.07M
Tractor Supply	TSCO	$67.15	$62.67	$78.25	$49.87	19.90	2,100,000	8.43B

2017 Illinois Grain Farm Net Income to Drop Below 2016, But Better vs. Earlier Forecasts

While crop receipts are usually a good signpost for farmers' ability to spend on capital goods like machinery, more often than not, farm net income is the determining factor whether or not growers pull out their checkbooks.

Based on data from a composite of grain farms enrolled in Illinois Farm Business Farm Management, Gary Schnitkey, a professor and farm management specialist in the Dept. of Agricultural and Consumer Economics, University of Illinois, is forecasting average net income for 2017 to come in at about $60,000 per farm. This compares to about $94,000 in 2016.

In addition to lower corn and soybean prices in 2017, Schnitkey also points to lower Agricultural Risk Coverage (ARC) payments for the drop off in net income. Decreased non-land costs offset the decline in crop prices somewhat. "Overall, 2017 net farm incomes could have been worse as yields on many farms turned out better than expected," he says. "Still, deterioration of working capital on most farms should be expected."

In August, Schnitkey issued his preliminary forecast for 2017 net income. While the differences between the August and November projections for net income did not vary significantly, yield and crop prices did change. Corn yield was 188 bushels per acre in August vs. 198 in the November forecast. The projected corn price in August was $3.65 per bushel compared to the November price of $3.35. Soybean prices were forecasted at $9 per bushel in August and raised to $9.55 in the November forecast.

2017 vs. 2016 Revenues & Costs Impacting Grain Farm Net Income

		Year		
	Unit	2017	2016	Difference
Marketing gain				
Corn	$/acre	$30.00	$14.00	$16.00
Soybeans	$/acre	-$5.00	$41.00	-$46.00
Corn				
Yield	bu./acre	198	197	
Price	$/bu.	$3.35	$3.45	
Revenue	$/acre	$663.30	$679.65	-$16.35
Soybean				
Yield	bu./acre	58	59	
Price	$/bu.	$9.55	$9.74	
Revenue	$/acre	$554.00	$575.00	-$21.00
ARC-CO/PLC Payments				
	$/acre	$10.00	$17.00	-$7.00
Non-land costs				
Corn	$/acre	$553.00	$576.00	-$23.00
Soybeans	$/acre	$337.00	$352.00	-$15.00
Cash	**$/acre**	**$218.00**	**$221.00**	**-$3.00**
Difference in income				
Corn	$/acre			$19.00
Soybeans	$/acre			-$56.00
Average	$/acre			-$19.00

Source: Dept. of Agricultural and Consumer Economics, University of Illinois

Regarding ARC-CO payments, he notes that these are received a year after production. "In the fall of 2016, farmers and land owners received 2015 payments which averaged $36 per acre. The ARC-CO payment received in the fall of 2017 will average about $17 per acre, much lower than in 2016. This suggests that cashflow will be lower in 2017 than is indicated by changes in accrual income.

"The $60,000 per farm income would be lower than the 2016 income. If projections hold, the 2017 income would be the second lowest income since 2005," says Schnitkey. "The only income since 2005 that is below $60,000 occurred in 2015 when per farm net income was near zero." **AEI**

JCB Hits Engine Production Milestone

For a relative newcomer such as JCB, hitting the half-million mark is a significant milestone. The producer of Loadall farm telehandlers, Fastrac tractors, wheeled loaders and other vehicles used in agriculture is also the world's third largest manufacturer of construction equipment, so it has a big appetite for engines.

Having relied upon outside suppliers until 2004, when the JCB Power Systems division employing just 64 people introduced its first engine, 70% of the group's machines now have JCB engines, which are mainly built in the U.K. but also in India for the market there.

Earlier in 2017, a $13.4 million investment brought production of cylinder heads, engine blocks and bedplates in-house for the first time, and a new 3 liter, 4 cylinder JCB engine is the culmination of a near $42 million engineering and development program.

Intended for light industrial equipment, this power unit joins the 4.4 and 4.8 liter 4 cylinder engine produced up to Tier 4 final emissions standards, and the 7.2 liter 6 cylinder motor that meets earlier rules. **AEI**

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ues to improve the company's overall performance. It reduced its used inventory in the period by nearly $21 million and by $46 million, or 29%, year-to-date. The company increased its new equipment inventories by nearly $38 million based on growing customer confidence and improved fourth quarter demand.

Agriculture Segment. Revenue for the third quarter of fiscal 2018 was $186.5 million, compared to $205.5 million in the third quarter last year. Pre-tax income for the third quarter of fiscal 2018 was $4.9 million, compared to pre-tax loss of $1.8 million in the third quarter last year.

Titan's ongoing effort to reduce used inventory continues to improve the company's overall performance. It reduced its used inventory in the period by nearly $21 million and by $46 million, or 29%, year-to-date. The company increased its new equipment inventories by nearly $38 million based on growing customer confidence and improved fourth quarter demand.

In a note, Mircea (Mig) Dobre, analyst with RW Baird, said, "International was the star of the quarter, yet performance in U.S. improved as well — U.S. same store sales growth of 3% was the highest in 4 years — with equipment margins trending higher. The U.S. large ag recovery is in the early innings with demand bouncing off multi-decade lows."

Replacement demand should power earnings into FY19. "Management called replacement as a driver for new equipment demand while used equipment trends remain stable, with used equipment pricing firming up," said Dobre. "This is consistent with most recent Deere commentary; potential for higher commodity prices into CY18 (Latin American dryness) could further ignite demand. Equally important is the impact of an older fleet on parts and service demand, where gross margin is considerably higher than equipment, demand inflexion here would have material impact on earnings particularly as Titan cut operating costs by nearly 30% over the past three years."

Restructuring. Restructuring costs were $2.6 million in the third quarter, according to Rick Nelson, analyst for Stephens. "These costs reflect the restructuring Titan announced in February to reduce overall expenses. The company closed one construction location during the fourth quarter 2016 and closed 14 agriculture locations during the first half of fiscal 2018. Titan aims to mitigate the revenue impact of the store closures by strategically reducing store density in selected markets and serving affected customers through adjacent locations."

Better, More Profitable? In a Nov. 30 Seeking Alpha post, independent financial blogger Spencer Ross said, Titan is "emerging as a much leaner and profitable company. As the agriculture equipment cycle continues to break out of its multi-year downturn, Titan will be a clear winner with its corporate restructuring largely behind it.

"Agriculture, the company's largest segment, although still experiencing sales declines, the sales declines are beginning to moderate and even more importantly the business is now benefitting from better margins and corporate restructuring as it registered a huge pre-tax income of $5.5 million vs. losses of $2.3 a year ago and $1.7 in the second quarter," said Ross.

With the ag machinery cycle on the upswing and international posting strong growth, "Titan is poised to play catch up for the growth it missed out in the last several years. With a leaner corporate structure, any incremental bump in sales is going to make an even bigger impact on earnings." AEI

Titan Machinery — Fiscal Year 2018 Outlook

	Current Outlook	Previous Outlook
Agriculture	Down 5-10%	Down 10-15%
Construction	Down 5-10%	Down 5-10%
International	Up 30-35%	Up 20-25%

Source: Company reports

Michelin Adds Tire Inflation Pressure Control Technology with Acquisitions

French ag tire manufacturer Michelin has acquired two specialist companies in a bid to lead the potentially growing market for tire inflation pressure management systems.

Emmanuel Ladent, president of Michelin Agriculture, says the acquisitions herald a new approach to the company's product line that goes beyond just supplying tires. "Our ambition is to continue innovating to provide increasingly complete solutions, guaranteed by Michelin, that help farmers optimize the performance of their machines while protecting their soil."

Michelin has worked with the two small companies it has now acquired to develop Zen@Terra, a central tire inflation system for use with the new EvoBib tire, which has an adaptive tread for different applications. At low pressures, the VF (Very-high Flexion) classified tire's carcass deforms to place as much rubber on the ground as possible — typically 20% more than Michelin's IF (Increased Flexion) AxioBib.

For road travel, increasing inflation pressure not only stiffens the sidewalls but also re-shapes the tread so that primary contact is provided by a central band of rubber, resulting in sharper steering response and less vibration.

"This is a complete solution for farmers that manages all aspects of the tires and their interaction with the field and the road, involving an easy-to-use in-cab dashboard control system, all backed by a Michelin warranty," says Ladent.

The acquired businesses are PTG, a manufacturer of tire inflation systems for vehicles and trailers based in Germany, and Téléflow, located in France where it makes tire pressure control systems for military and OEM customers. One of its systems automatically regulates pressures on the move according to terrain and load data entered by the vehicle operator. AEI

South American Ag Equipment Intelligence

Double-Digit Sales Growth Continues in Argentina

Investments in agricultural machinery continue to grow in Argentina, even with low commodity prices. Data from Argentina's National Institute of Census and Statistics (INDEC), tractor unit sales grew 37% in the third quarter, while sales of combines jumped 33% year-over-year. The unit sales of seeders and ag implements grew by 11% and 5%, respectively.

Tractors represented the largest revenue for manufacturers in Argentina with 45.1% of total sales, or AR$3.7 billion pesos (nearly US$211 million), followed by harvesters with 22.1%, ag implements with 22.1% and seeders with 15.8%.

In an interview with *Ag Equipment Intelligence*, Ricardo Fragueyra, executive director of the Argentinian Chamber of Agricultural Machinery Manufacturers, explained the impetus for the farm investments in the South American country were government measures that took place in December 2015 by the Macri administration. These included the elimination of export taxes for most grains, a gradual reduction in taxes on soybeans, and a unified currency exchange rate, with a floating rate set by the market.

"Prior to that, profitability was really low or zero in most cases," says Fragueyra. "It was natural that with more profitability the investments would grow significantly because new machinery brings a lot of savings for farmers. But I would say that a unified currency exchange was the most important measure," he said.

For 2018, Fragueyra believes that growth will continue, but that it will be smaller because of inflation and fewer incentives. Official inflation was 41% in Argentina in 2016 and somewhere between 20-22% in 2017, according to market experts. In these 2 years, the government offered a subsidized rate between 11-13% a year for investments in machinery through state-run banks.

"Profitability tends to fall in the coming year and the subsidized rates won't be available again. But we feel that there will be continued growth because the machinery is still old," Fraguayera says. Some 90% of farm products manufactured in Argentina are for grain and oilseed growers.

New Brazilian Startup Offers Machinery Sharing Program

Many Brazilian farmers are unable to buy large new combines or maintain older equipment. Faced with this reality, a new startup called AgriShare is aiming to create a community of rural producers willing to share machinery through a web application. The program can be accessed on smartphones, tablets and computers free of charge for registered users.

Currently, the startup has 400 active users with over 800 machines being rented and 200 farmers who rent frequently. AgriShare also has a staff that helps connect equipment owners and users. The price charged per farmer is R$10 per hectare, limited to a total of R$6,000 per machine for harvesters and planters. For other machines, like sprayers or soil compactors, the rate is 5% of the rental price.

"We understand that monetizing the periods of idleness of producers and service providers brings extra revenue, leverage and new cashflow," said Paulo Corigliano, a co-founder of AgriShare, in an e-mail to *Ag Equipment Intelligence*. During the next marketing year (2017-18), he expects users to grow six fold. **AEI**

Claas to Expand Farm Equipment Business in India

Looking at the immense scope in the farm equipment business, Germany-based ag machinery manufacturer, Claas, has signed agreements with two Indian states. This agreement will allow Claas to expand its coverage in southern India, as the company has an established presence in northern India.

Under the agreements with the Telangana and Andhra Pradesh governments, Claas will distribute forage harvesters to farmers with a 50% subsidy from the state governments.

Speaking on this, Claas India managing director, Mrityunjaya Singh, says that with this equipment farmers can increase their dairy output. Forage harvesters are used to cut and chop corn and prepare a higher quality of fodder called silage, that is used as cattle feed. This type of fodder can improve productivity of dairy herds.

Even though India is the largest milk producing nation, its per cattle yield is just 4-6 liters per day because of low quality forage, compared to milk producing cows in other countries that average of 18-20 liters per day. However, by using this harvester, productivity can be increased by 1-2 liters per animal per day, Singh adds.

The director says that these machines have huge potential for growth because of the enormous size of India's dairy sector.

Apart from distributing these forage harvesters that has been customized for Indian dairy farmers and entrepreneurs, the company is also looking to sell 1,000 units by 2025 in Andhra Pradesh, Telangana, Gujarat, Punjab and Haryana, which carries a price tag of $6,200 to $7,500 per harvester.

Along with other machines like paddy harvesters, forage harvesters will be manufactured in India. Claas is a leader in paddy harvesting machines in India with more than 55% market share. Claas is also a market leader in forage harvesters globally with more than 50% share.

Claas, a 103 year old family owned German company, with an annual global turnover of over $4 billion, has a production facility at Chandigarh, which has the capacity to manufacture 2,000 agricultural machines per year. **AEI**

Replacement Demand Spurs Sales Growth

Large ag equipment sales growth continued in November, although moderated from the highs reported in October to +5%, according to the latest numbers released by the Assn. of Equipment Manufacturers.

Row-crop tractor demand increased in both the U.S. and Canada, while 4WD (U.S. down, Canada up) and combine (U.S. up, Canada down) were mixed, says Mircea (Mig) Dobre, analyst with RW Baird. "Inventories dropped substantially across large ag categories in absolute and days-sales terms after robust sales growth last month (increasing likelihood of future stocking). November is a below average sales month, but continued growth reflects replacement demand despite still challenged fundamentals," he says.

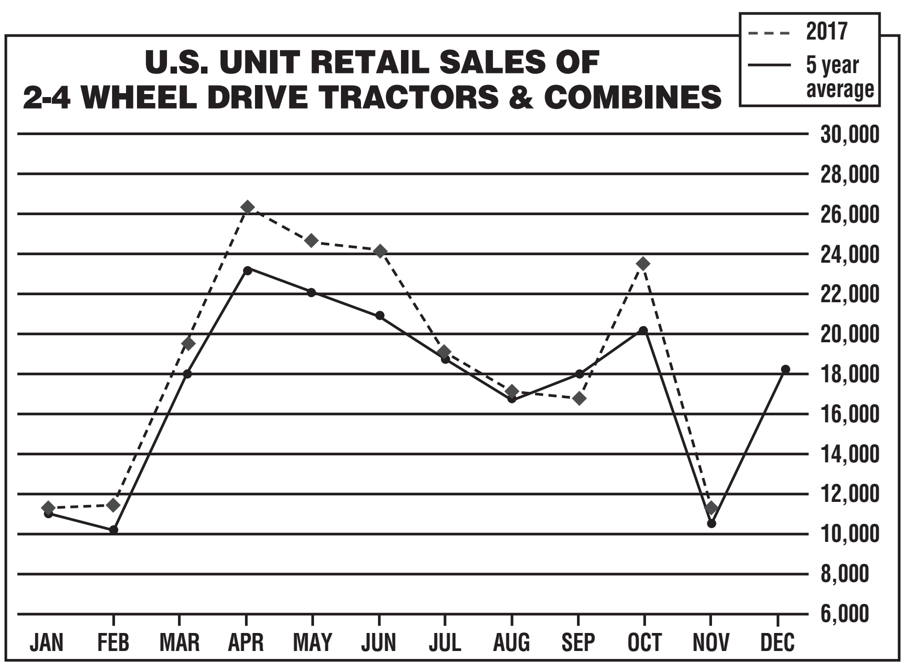
- North American large tractor and combine retail sales increased 5% year-over-year in November after increasing 36% in October and decreasing 10% in September. U.S. sales increased 5% year-over-year (row-crop +3%, 4WD –22%, combines +41%); Canadian sales were also up 5% (row-crop +12%, 4WD +18%, combines -11%).
- 4WD tractor sales decreased 8.8% year-over-year in November following the 16.2% increase in October. Last three month (L3M) sales increased 14.5% year-over-year after the 25.5% growth in the October L3M period. U.S. dealer inventories of 4WD tractors decreased 16.4% year-over-year in October.
- Row-crop tractor sales grew 5.4% year-over-year after growing 38% in October; L3M sales increased 13.6%. U.S. row-crop tractor inventories decreased 18.9% year-over-year in October.
- Combine sales increased 14.0% in November following 47.0% growth in October. L3M sales increased 22.4% on a year-over-year basis after a 23.3% L3M increase last month. U.S. combine inventories decreased 10.1% year-over-year in October.
- Mid-range tractor sales grew 12.5% in November after growing 2.8% last month. Compact tractor sales increased 9.9% year-over-year after an 11.5% increase last month. **AEI**

NOVEMBER U.S. UNIT RETAIL SALES

Equipment	November 2017	November 2016	Percent Change	YTD 20 17	YTD 2016	Percent Change	October 2017 Field Inventory
Farm Wheel Tractors-2WD							
Under 40 HP	7,078	6,461	9.5	134,221	123,826	8.4	71,581
40-100 HP	3,281	2,963	10.7	51,439	51,367	0.1	30,423
100 HP Plus	680	661	2.9	15,404	16,770	–8.1	7,468
Total-2WD	11,039	10,085	9.5	201,064	191,963	4.7	109,472
Total-4WD	107	137	–21.9	2,144	2,074	3.4	631
Total Tractors	11,146	10,222	9.0	203,208	194,037	4.7	110,103
SP Combines	199	141	41.1	3,638	3,481	4.5	674

NOVEMBER CANADIAN UNIT RETAIL SALES

Equipment	November 2017	November 2016	Percent Change	YTD 2017	YTD 2016	Percent Change	October 2017 Field Inventory
Farm Wheel Tractors-2WD							
Under 40 HP	1,074	955	12.5	13,041	10,850	20.2	7,392
40-100 HP	828	688	20.3	5,898	5,272	11.9	4,079
100 HP Plus	272	242	12.4	3,474	3,341	4.0	2,086
Total-2WD	2,174	1,885	15.3	22,413	19,463	15.2	13,557
Total-4WD	80	68	17.6	893	736	21.3	231
Total Tractors	2,254	1,953	15.4	23,306	20,199	15.4	13,788
SP Combines	135	152	–11.2	1,988	1,587	25.3	378



— Assn. of Equipment Manufacturers

Continental Back in Ag Tire Market

German tire maker Continental has returned to the agricultural sector, 13 years after exiting the market by selling its designs and assets.

Production of the first new designs — the Tractor70 and Tractor80 — has begun at a brand new €50 million ($58.7 million) plant in Portugal, and a small team at Continental's North American headquarters in Fairfield, Ohio, is working on plans for their introduction in the U.S. and Canada.

Nikolai Setzer, head of Continental's tire division, told *Ag Equipment Intelligence* during the Agritechnica show last month that the initial plan is to sell replacement tires for high performance tractors in Europe and North America, then also in Australia.

"We're targeting the premium sector with tires that draw on our long-standing experience and expertise in farm tire engineering and production," he says. "We have the advantage of the latest all-new manufacturing technology — but also the challenge of building a full range of tire designs and sizes to attract business from original equipment manufacturers."

On that note, explained Ralf Krieger, head of agricultural product development, the portfolio will have 14 sizes by the end of this year, with an ambitious program to add another size about every week until the range encompasses 100 sizes by the end of 2019.

The 70 and 80 series "Tractor" tires have a new bead design and patent-pending reinforcement using what Continental describes as "an innovative nylon material" providing strength with flexibility.

It was back in 2004 that Continental managers chose to accept a generous offer for the group's ag tire assets in Europe and the U.S. from CGS Holdings, the Czech tire maker that wanted to expand and move into the premium and OEM market.

CGS increasingly adopted its Mitas brand for the Continental designs as the end of a licensing agreement drew near, and that made it easier for Continental — having completed investments and restructuring in its core passenger and truck tire operations — to consider re-entering the ag sector.

"We still had a lot of expertise in off-highway tires and could use the Continental brand once more, so the decision was taken to make a comeback," says Setzer. "We were able to attract many key personnel who left with the business when it was sold."

Continental now has a foot in both traction solution camps because in January 2015 the group completed a near $2 billion deal for Veyance Technologies, a Goodyear spin-off for engineered rubber products. Now part of the ContiTech division, whose North American headquarters are in Fairlawn, Ohio, the business produces a growing range of Trackman rubber traction belts for tractors and harvesters. AEI

Mahindra Brings Dewulf Potato Planting Equipment to India

Mahindra & Mahindra has signed a memorandum of understanding (MOU) agreement with Belgium-based Dewulf, a supplier of a full line of potato and root crop machinery. Under the agreement, Mahindra will manufacture and market potato planting equipment in India, for which the co-branded planter is developed and is currently being field tested.

With ever-increasing focus toward potato processing in India, both the companies will develop potato planters for the Indian market, which will enable the potato farmers to perform precise planting, thereby leading to higher yields, a reduction in cost and an improved quality of output.

Mahindra farm equipment sector President Rajesh Jejurikar commenting on the MOU said, "Other than being delighted to announce a partnership with Dewulf, a world class manufacturer of agricultural machinery, our licensing agreement will allow us to bring the latest planting technology to potato farmers in India."

"We look forward to introducing our innovations and technology to the world's second largest potato market. With Mahindra as our partner, we believe that we will be able to transform potato farming techniques in India," Dewulf CEO René Boeijenga said.

According to estimates, India is the second largest producer of potatoes with a production of about 40 million tons planted on over 2 million hectares every year.

The agreement was signed at Agritechnica Trade Fair in November in Hanover, Germany. AEI

Ag Growth Int'l Making Moves to Expand Its Presence in Brazil

Winnipeg, Canada-based farm equipment maker Ag Growth International "plans an aggressive expansion through acquisitions in Brazil following the overhaul of its first South American plant, which it bought last year," according to a Dec. 4 Reuters report.

Wilfried Toth, head of AGI operations in Brazil, told Reuters that AGI spent $40 million to buy and modernize the factory in Sao Paulo. AGI is a manufacturer of grain, feed and fertilizer handling, storage and conditioning equipment.

According to Toth, the company has mapped out 59 grain storage manufacturers in Brazil which are potential acquisition targets. He says, tight credit from state banks had shrunk Brazil's grain storage market by about 25% from its peak at the beginning of the 2000s. "AGI wants to stand out in Brazil by financing clients through a barter program, which local producers now use for fertilizer and pesticides but not equipment," he said. AEI