

Ag Equipment Intelligence

News, Information & Analysis for the Ag Equipment Marketer

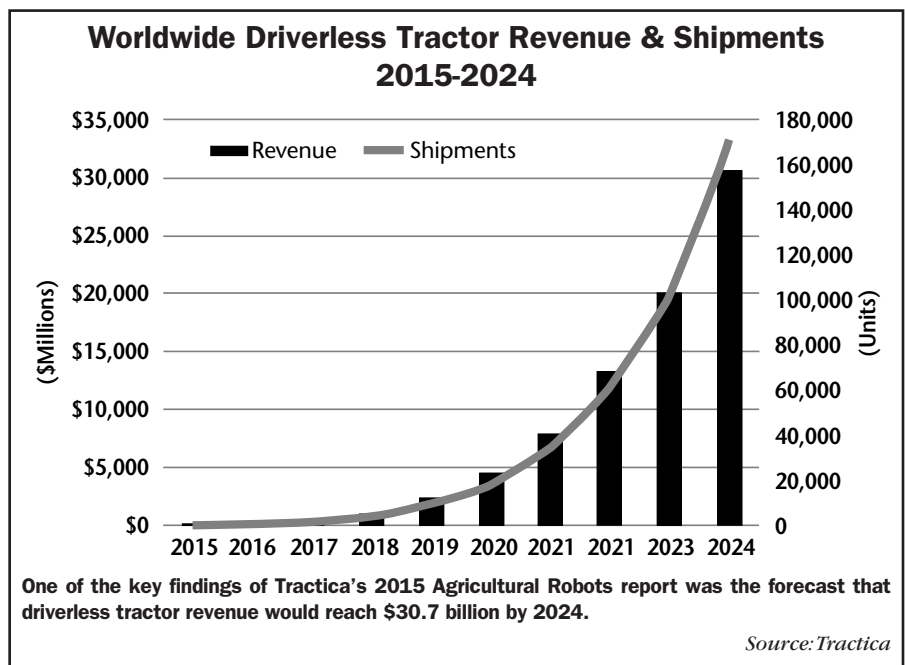
- Fendt Going 'Full Line'
- Titan Lowers Backlog
- Weak Sales in August

Report Suggests Driverless Tractor Sales Could Reach \$31B by 2024

"The impact of driverless tractors on farm operations will be dramatic, and the vehicles hold the potential to provide a huge boost to productivity," says Manoj Sahi of Tractica. In a report issued on Sept. 4, following the introduction of Case IH and New Holland's concept autonomous tractors at the Farm Progress Show on Aug. 30., Tractica expects rapid growth of driverless farm vehicles starting about 2020.

Based in Boulder, Colo., Tractica is a market intelligence firm that focuses on human interaction with technology. In 2015, the company conducted an extensive study of the agricultural robot market opportunity, the findings of which were published in a report entitled *Agricultural Robots*.

Sahi said, "The research was focused
Continued on page 2



Early Orders of Farm Machinery Remain Tough to Come By

Although a few more dealers say their early equipment orders are up compared to this time last year, overall, new farm machinery order books continue on a downward slide that began 3 years ago.

Slightly more than 14% of North American ag equipment dealers are reporting early orders are in better shape than they were when *Ag Equipment Intelligence* conducted its 2016 Dealer Business Outlook & Trends survey last September. This compares with 7% of dealers who reported an increase in early orders 12 months ago and about 10.5% the year before for 2015. These percentages are way down from the more than 27% of dealers who reported in 2014

	2017	2016	2015	2014
Up 10% or more	1.0%	0.0%	1.1%	0.0%
Up 6-10%	1.0%	0.4%	1.8%	7.2%
Up 1-5%	12.2%	6.5%	7.5%	20.0%
Same as Last Year	17.3%	29.8%	31.3%	45.0%
Down 1-5%	15.7%	10.5%	13.9%	16.7%
Down 6-10%	14.2%	12.1%	16.0%	11.1%
Down 10% or more	38.6%	40.7%	28.4%	0.0%

Source: Ag Equipment Intelligence

that their early orders had increased from the previous year.

The small increase in dealers reporting higher early orders for new 2016 equipment is pretty much offset with a larger percentage of dealers report-

ing decreases in their order books for 2017. This year nearly 70% of dealers say their early orders, or presells, for new 2017 equipment are lower than they were last year, which continues a

Continued on page 3

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on the applications, market drivers and key challenges that could impact the growth of agricultural robots. One of the key findings of our report was the forecast that driverless tractor revenue would reach \$30.7 billion by 2024. Like any other autonomous or semi-autonomous (supervised) unmanned ground vehicles (UGVs), driverless tractors are programmed to navigate, understand their position, determine speed and avoid obstacles, such as people, animals or objects in the field, while performing their tasks.”

According to Case IH Brand President Andreas Klauser, the concept was created to validate the technology and to collect customer feedback regarding their interest and need for future autonomous products for their operations. “In many parts of the world, finding skilled labor during peak use seasons is a constant challenge for our customers,” Klauser said.

Autonomous Solutions Inc. (ASI) is CNH Industrial’s technology pro-

vider responsible for developing and refining autonomous vehicle technology for concept autonomous tractors, including the Case IH Magnum and New Holland T8 NHDdrive. According to Tractica, ASI, which is based in Utah, is the industry leader in off-road autonomous solutions with nearly 2 decades of experience in the domain.

Sahi said, “As a smaller and more agile technology developer, ASI is able to partner with large global companies such as CNH Industrial to help them go to market with multi-vehicle autonomy faster and more economically than they could in any other way.

“These tractors will have the ability for autonomous seeding, planting and tillage for broadacre and row-crop farming. ASI believes that its advanced path planning technology, along with obstacle detection, would enable farmers to manage their fields more efficiently and safely,” said Sahi. “Through the use of radar, lidar and onboard video cameras, the vehicle could sense

stationary or moving obstacles in its path and would stop on its own until the operator, notified by audio and visual alerts, assigns a new path.”

According to Tractica, at present, apart from CNH Industrial and ASI, there are other companies including a few startups that have been actively working to produce marketable driverless tractors and have made strides toward substantial prototypes and testing. The prominent ones among these are John Deere, AGCO and Autonomous Tractor Corp.

Sahi went on to say, “In Tractica’s analysis, driverless tractors are certainly on the right track and the future looks promising.

“Tractica believes the driverless tractor market will continue to evolve relatively quickly and by 2020, the market opportunities should be attractive enough to pull in many of the non-agricultural companies that are currently involved with driverless technology,” he said. **AEI**

Claas Acquires Shredlage Technology for Producing Forage

A little over a year since licensing the U.S.-developed Shredlage system of processing forage corn, Claas has acquired the technology outright from its owners. Dairy nutritionists Ross Dale and Roger Olson will continue to advise the German manufacturer on successful adoption of the technology by dairy farmers.

Claas board member Hermann Lohbeck said, “We are convinced that shredlage delivers a clear benefit to customers. By taking over this well known brand, we are adding the finishing touches to our technology concept for self-propelled forage harvesters. We are thrilled that the inventors of the technology will remain on board to advise us and our customers.”

Shredlage LLC was formed in 2008 to promote a process that involves chopping forage corn into unusually long sections of 26-30 mm — a little

over an inch — and then processing it on board with specially configured corn cracking rollers.

The saw-tooth profile with a counter-rotating spiral groove is designed to fully break down the cob pieces

“We are convinced that shredlage delivers a clear benefit to customers. This adds the finishing touches to our technology concept for self-propelled harvesters...”

and crush and fully crack open the kernels, while peeling “bark” from the stalk material, which is shredded in a longitudinal direction.

Enlarging the surface area of the

chopped product many times over in this way is said to significantly improve bacterial fermentation after ensiling and during digestion in the cow’s rumen. Increased milk yield, lower feed costs through a reduction in concentrates and improved animal health are principal goals.

Shredlage LLC promoted the technology and supplied processing rollers for installation in forage harvesters. The license agreement — which has now been overtaken by the acquisition — allowed Claas to produce the MCC-Shredlage cracker assembly alongside existing corn cracking processors.

These are manufactured at the Claas Industrietechnik factory in Paderborn, Germany, for the Jaguar self-propelled forage harvesters supplied through Claas of North America and its dealers. **AEI**

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Early Orders of Farm Machinery Remain Tough to Come By...Continued from page 1

3 year run of significant declines.

In 2014, only 28% reported lower order levels than the previous year. This percentage grew to 53% in 2015 and 63% in 2016.

In this year's survey, which looks ahead to 2017 new equipment sales, nearly 39% of the 225 responding dealers report that their early order levels are down 10% or more vs. 12 months earlier. Another 14% says they have fallen off between 6-10%, and 16% are reporting their order books are off 1-5% vs. the previous year.

Overall, a net 54% of dealers are reporting a lower level of early orders for 2017. This compares with a net 56% for the previous year and 42% two years ago.

Equipment Lead Times. In his analysis of 2017 early orders, Michael Shlisky, analyst with Seaport Global Securities, noted "that early-order programs are less important in recent years, as much less lead time is needed for delivery given the reduced production levels across most heavy ag categories."

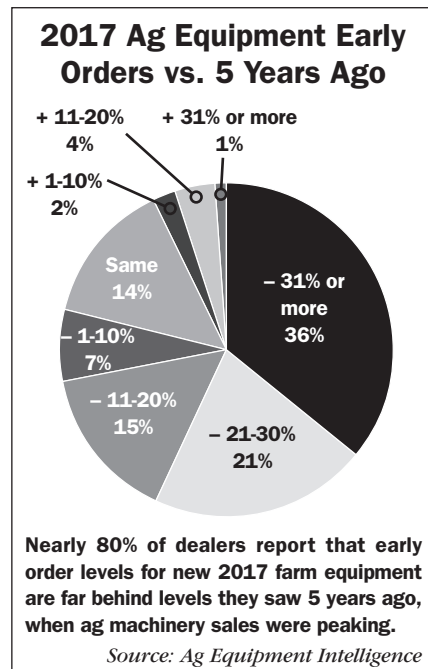
In fact, when *Ag Equipment Intelligence* and Cleveland Research

Co. initiated the monthly Dealer Sentiments & Business Conditions Update survey in April 2011, equipment delivery times were a major issue. In early 2012, dealers were reporting that the average time between when an order was placed and the equipment delivered was over 6 months. In February and March 2012, on average combine lead times were 7.6 months, 4WD tractors were 6.2 months, row-crop tractors 6.5 months and tractors under 100 horsepower 5.1 months.

By the first quarter of 2015, long lead times for equipment deliveries had greatly diminished. With broad availability of all types of large ag equipment, *Ag Equipment Intelligence* ceased surveying dealers about lead times in April 2015.

Early Orders vs. Peak. In this year's survey, dealers were also asked how the level of this year's early orders compares with 5 years ago when the sales of farm machinery hit its peak.

Overall, 78% of dealers report their early orders were less than they were in 2012 and 2013. Of this, nearly 38%



say they were down by 30% or more, and 21% say early orders for 2017 were down by between 21-30%.

Less than 7% reported that early orders for new equipment next year were higher for the year ahead than they were 5 years ago. **AEI**

FARM MACHINERY TICKER (AS OF 9/12/16)

MANUFACTURERS	Symbol	9/12/16 Price	8/15/16 Price	1-Year High	1-Year Low	P/E Ratio	Avg. Volume	Market Cap.
Ag Growth Int'l.	AFN	\$43.63	\$41.75	\$44.61	\$24.68	N/A	34,227	641.88M
AGCO	AGCO	\$47.48	\$47.85	\$56.00	\$41.91	21.34	806,036	3.85B
AgJunction Inc.	AJX	\$0.71	\$0.68	\$0.73	\$0.42	N/A	63,157	88.12M
Alamo	ALG	\$63.78	\$64.73	\$68.04	\$43.98	16.20	66,048	733.34M
Art's Way Mfg.	ARTW	\$2.82	\$3.00	\$4.39	\$2.46	N/A	5,381	11.99M
Buhler Industries	BUI	\$4.85	\$4.90	\$6.00	\$4.75	N/A	875	121.25M
Caterpillar	CAT	\$81.92	\$84.15	\$84.73	\$56.36	54.61	4,281,770	47.86B
CNH Industrial	CNHI	\$7.27	\$7.46	\$7.91	\$5.67	N/A	1,750,170	9.9B
Deere & Co.	DE	\$83.09	\$78.28	\$88.63	\$70.16	16.65	3,447,110	26.13B
Kubota	KUBTY	\$71.02	\$73.89	\$86.30	\$58.99	12.69	19,120	17.66B
Lindsay	LNN	\$71.19	\$71.70	\$79.27	\$62.99	85.56	105,188	756.76M
Raven Industries	RAVN	\$23.03	\$20.97	\$25.47	\$12.88	91.03	303,814	832.74M
Titan Int'l.	TWI	\$9.10	\$9.07	\$9.98	\$2.50	N/A	416,970	491.82M
Trimble Navigation	TRMB	\$26.61	\$27.85	\$28.09	\$15.90	57.85	1,417,020	6.63B
Valmont Industries	VMI	\$128.29	\$131.05	\$145.94	\$92.33	52.17	119,800	2.9B
RETAILERS								
Cervus Equipment	CVL	\$11.73	\$11.30	\$15.35	\$10.41	15.62	4,372	183.2M
Rocky Mountain Equipment	RME	\$9.19	\$8.39	\$9.29	\$5.50	14.03	29,095	178.14M
Titan Machinery	TITN	\$10.97	\$10.95	\$14.42	\$7.87	N/A	73,216	232.42M
Tractor Supply	TSCO	\$69.11	\$86.03	\$97.25	\$68.02	22.16	1,495,910	9.24B

Titan Machinery Makes Strides in Inventory Reduction; Announces Note Repurchase

Titan Machinery, Case IH's larger dealership group, reported on Aug. 25 that revenues for the second quarter of fiscal 2017 were down 19.3% to \$285 million vs. \$353 million a year ago. Revenue from the sales of farm machinery was down by 25.5% and construction equipment revenue declined by nearly 4%. Sales of equipment by its overseas operations also fell by 13%.

In addition to its earnings announcement in late August, on Sept. 14 the company said it had repurchased \$24 million of convertible notes ahead of its maturity date.

Inventory Progress. While sales continue to be weak, Titan continued to make progress during the quarter by continuing to reduce its inventory of both new and used equipment. The second quarter marked the sixth consecutive quarter the dealership group has reduced its used inventory.

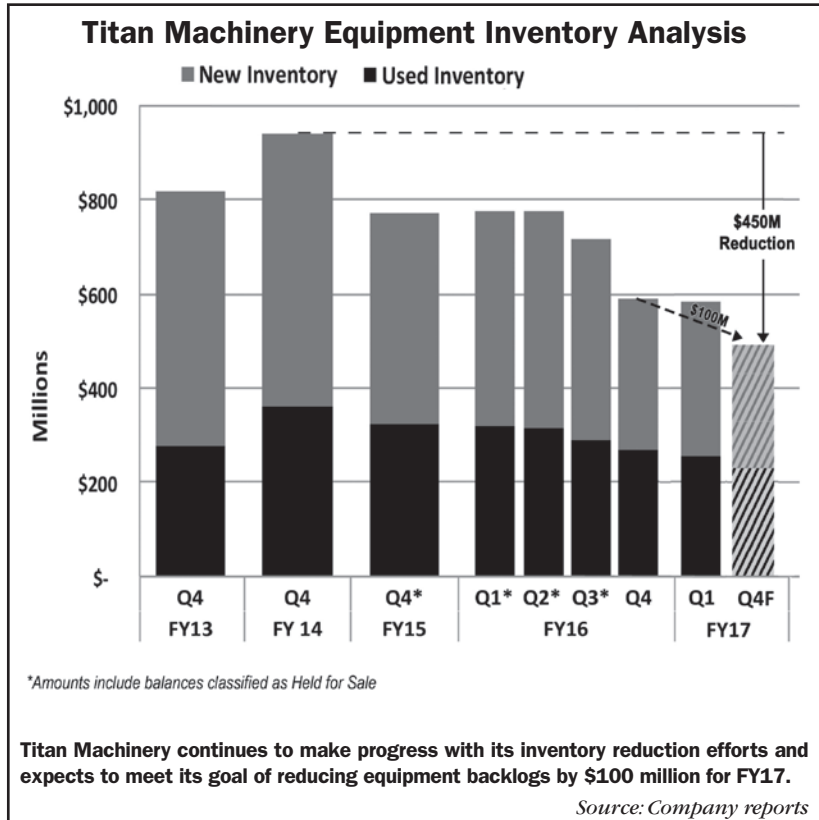
Reviewing results for the second quarter, David Meyer, Titan Machinery's chairman and CEO, said, "We continue to concentrate on our inventory reduction and its positive impact on our balance sheet, and expect to achieve the \$100 million inventory reduction goal for fiscal 2017. We reduced used inventory in the first half of fiscal 2017 by \$39 million or 15%, and through the first 6 months of this year we exceeded our target by \$13 million or 40% of our marketing plan for aged inventory through alternative channels."

Looking at Titan's inventory reduction during the quarter, Mircea (Mig) Dobre, senior research analyst with Baird, noted that the dealership sold \$45 million of the \$74 million targeted aged equipment inventory during the first half of fiscal 2017, which was above management's \$32 million target.

The improvements in used equipment inventory were seen both sequentially (down 14% vs. the end of fiscal 2016) and year over year, Igor Maryasis, senior research analyst with Avondale Partners, said in a note to investors. "Titan's total inventory level also declined sequentially despite a normal seasonal new equipment buildup," he said. "Separately, the company continued to exceed their aged equipment reduction plan, which through the first 6 months of fiscal year 2017 was 40% ahead of target."

According to Maryasis, the dealership's total inventory levels have improved significantly over the past 2 years, and by the end of FY17 they should be down nearly 50% from the highs seen in fiscal 2014 and 2015. However, he added that "both new and used equipment inventory levels remain elevated relative to depressed 12 month trailing sales, suggesting that more work likely needs to be done to get to more optimal levels."

By the end of fiscal 2017, Titan anticipates it will have



reduced its total inventory by \$450 million since the end of fiscal 2014, as shown in the table above.

Commenting on the glut of used equipment the industry is experiencing as a whole, Meyer said, "There is an overhang now, but I believe as an industry everybody's focused on moving those levels down to get to a more stable market, which we're going to see somewhere in the near future. I think a lot of the heavy lifting has been done and we're getting close to where we are going to get to that stabilization point."

Notes Buy Back. Titan made a big move to shore up its balance sheet with the repurchase of the convertible notes. It said it had repurchased the additional \$24 million principal amount of its 3.75% senior convertible notes due in 2019 for \$20.9 million in cash. Titan expects to recognize a pretax gain of approximately \$1 million in the third quarter of fiscal 2017.

Commenting on the decision to repurchase the notes, Meyer said, "Our continued reduction in inventory and the accompanying positive operating cashflow has enabled us to retire our convertible notes by an additional \$24 million ahead of the maturity date and at a meaningful discount. We have now repurchased over \$50 million of our senior convertible notes during fiscal 2017. We continue to take the necessary steps to manage through this challenging operating environment by reducing our equipment inventory, generating positive cashflow, deleveraging our balance sheet and reducing our interest expense." **AEI**

AGCO Looking to Expand Market for Fendt by Going ‘Full-Line’

AGCO’s Fendt unit — the “Jewel in the Crown,” as Chairman and CEO Martin Richenhagen once described it — is going full-line and exploring new markets to deliver further growth.

Fendt is also, for the first time in its 85 year history, supplying a product with another of AGCO’s brands on its flanks. At the Farm Progress Show earlier this month, the 380-500 horsepower Fendt 1000 Vario series row-crop tractor was unveiled in Challenger colors as well as the German brand’s new “nature green” livery as the high-tech tractor will be available through both dealer networks.

The new tractor is a technology *tour de force*, introducing automatic torque distribution to the front and rear wheels to help maintain traction, in addition to on-board tractor and implement tire inflation pressure management and a host of precision farming functions through the VarioTerminal touchscreen.

These features, plus a relatively low base weight with flexible ballasting options, sets it apart from other 500

horsepower tractors, say Fendt managers. Production starts this month, with 170 units scheduled for the year in total.

In addition to making a play for sales among large Midwest farming operations, the new design is also taking Fendt into South America where Peter-Josef Paffen, chairman of the AGCO/Fendt management board, sees a potential market in Brazil for state-of-the-art machinery.

He also is dipping a toe in the water in Africa, Iran and China, markets traditionally associated with relatively simple, low-tech tractors. “There are now regions in China that have large-scale, modern farming operations,” he points out. “We are preparing for the Fendt market launch there step by step.”

In established European markets, Fendt managers are pursuing their “Route 66” full-line strategy to secure exclusive dealer outlets by selling a wider range of products.

The Fendt machinery range now includes hay mowers, tedders and rakes, round and square balers and

two models of the Katana self-propelled forage harvester. They will be joined in 2017 by the new Vario-Liner self-loading forage wagons.

In the tillage crops sector, the growing strength of the brand is such that Fendt now accounts for more combines than Massey Ferguson at AGCO’s Breganze plant in Italy, says Paffen.

Tractors remain Fendt’s core product, though. Last year, the Marktoberdorf factory in southern Germany sold 13,678 high ticket tractors and the target for 2016 is similar at 13,500 units. The R&D budget for 2016, at the equivalent of \$67 million, remains at the same level as last year.

“Over 90% of Fendt tractors and harvesters go to Western and Central Europe,” says Paffen. “Our mid-term objective is to increase Fendt’s market share in Europe, from the current 8.3-10%, and to capitalize on the expandable marketing structures we have in North America and the regions of Australia/New Zealand and Japan/South Korea for growth outside Europe.” **AEI**

Ag Equipment Sales Downturn Claims First Victim

The first significant casualty of the agricultural machinery sales downturn has emerged with the insolvency of one of Austria’s leading field equipment manufacturers.

Vogel & Noot Landmaschinen is a major manufacturer of moldboard plows and cultivation equipment; it also produces seed drills and crop sprayers. The business is owned by Machinery & Industrial Group Europe, a division of Concern Tractor Plants in Russia.

In North America, Vogel & Noot’s limited presence is principally through Samson Canada Inc., Bécancour, Que.

The company’s difficulties first became apparent last year through slow deliveries of products to dealers and end customers. Group CEO Dieter Angerer acknowledged the problem: “Vogel & Noot has experienced very challenging times during the last 2 years; strong growth expectations in the beginning of 2014 had to be substantially revised after steep

market declines in key European markets,” he said.

“While Vogel & Noot has managed to achieve, despite the market downturn, a growth in revenue and an improved financial result, it sub-

“We did not do our homework for a couple of years and have disappointed many of our customers...”

sequently was confronted with the sheer facts of liquidity scarcity and organizational shortcomings.

“Evidently, we did not do our homework for a couple of years,” adds Angerer. “We have disappointed many of our customers — and we regret this truly, but a company with 140 years of experience never gives up — quite the contrary.”

Despite efforts to re-organize the business to become more modern,

reliable, lean, simple, attentive and responsive, as Angerer put it, difficulties in restructuring group finances, partly as a result of EU sanctions against Russia, has left it with liabilities thought to be equivalent to around \$20 million.

Administrators hope to sell the business as a going concern to protect the jobs of 110 staff, but there are already plans to sell the company’s production facilities in Hungary and potentially shrink the business back to concentrate of spares and wear parts production.

Vogel & Noot’s history dates back to 1872 with the production of hand shovels and spades before plow manufacturing was started and other agricultural implements added through acquisitions and its own R&D developments.

Sales revenues peaked at €82 million (\$92 million) in 2008 before the financial crisis hit. In 2014, a loss of €4 million (\$4.5 million) was recorded on sales of €58 million (\$65.2 million). **AEI**

60% of Dealers Report Lower New Equipment Revenues in 2016

For most U.S. and Canadian farm equipment dealers, 2016 was worse than what they were projecting 12 months ago.

Overall, the percentage of dealers responding to *Ag Equipment Intelligence's* 2016 Dealer Business Outlook & Trends survey who expected new equipment revenue to increase vs. 2015 was pretty much dead on to the percentage who are now estimating revenue growth for the current year. At this point, 9 months into the year, a little over 17% of dealers say their new equipment sales revenues will increase in 2016.

	Current Estimate 2016 Revenues vs. 2015	Last Year's Projection 2016 Revenues vs. 2015
+8% or more	6.8%	3.0%
+2-7%	10.7%	14.2%
Flat	17.5%	39.7%
-2-7%	17.5%	20.6%
-8% or more	43.7%	22.5%

Source: Ag Equipment Intelligence

A far larger percentage of dealers saw their new equipment revenues decline in 2016 vs. 2015 than projected decreases a year ago. Last September, 43% of dealers were forecasting lower sales revenues during 2016. Currently, 61% of dealers are

estimating they'll see lower sales this year compared to a year earlier.

A year ago, nearly 40% forecasted a "flat" year. With three-quarters of the year past, only 17.5% say they're anticipating flat revenues for all of 2016. **AEI**

Deere's Big Ag Equipment Sales Lag Industry in August

John Deere released its monthly ag equipment retail sales comment for August on Sept. 12. Comparing its sales to the rest of the industry, the company indicated that its retail sales lagged those of its competitors in the large equipment categories of 4WD and row-crop tractors, as well as combines. At the same time, the company said its sales of utility tractors were down double digits for the month.

When it comes to inventories, according to Deere, its dealer inventories were below those of the rest of the industry in each of the major equipment categories except 4WD tractors in July. In that category it said its inventories were "in line with the rest of the industry."

3Q FY16 & Outlook. On Aug. 19, Deere & Co. reported that net sales of the worldwide equipment operations declined 14% for the third quarter of fiscal year 2016, and 11% for the first 9 months compared with the same periods a year ago.

Ag and turf sales fell 11% for the quarter and 7% for 9 months due largely to lower shipment volumes and the unfavorable effects of currency translation. These factors were partially offset by price realization.

Operating profit was \$571 million for the quarter and \$1.3 billion year to date, compared with \$472 million and \$1.4 billion, respectively, last year. Deere posted an operating margin for

August 2016 Retail Sales		
U.S. & Canada Ag	Industry*	Deere**
2WD Tractors (<40 PTO hp)	+ 18%	+ less than the industry
2WD Tractors (40-100 PTO hp)	flat	- double digits
2WD Tractors (100+ PTO hp)	- 26%	- more than the industry
4WD Tractors	- 39%	- more than the industry
Combines	- 17%	- more than the industry
July 2016 Inventories***		
U.S. & Canada Ag	Industry*	Deere**
2WD Tractors (<40 PTO hp)	59%	lower than the industry
2WD Tractors (40-100 PTO hp)	66%	lower than the industry
2WD Tractors (100+ PTO hp)	53%	lower than the industry
4WD Tractors	27%	in line with the industry
Combines	24%	lower than the industry
* As reported by the Assn. of Equipment Manufacturers		
** As reported to the Assn. of Equipment Manufacturers		
*** In units as a percent of trailing 12 months retail sales, as reported to the Assn. of Equipment Manufacturers		

Source: Deere & Co.

ag and turf equipment of 12.1% vs. 8.9% a year earlier. The margin for CE was 4.7%, down from 8.1% last year.

Fiscal 2016 net income guidance was increased to \$1.35 billion from \$1.2 billion. For the full year, equipment sales are expected to be down 10% year-over-year vs. down 9% previously. Sales for ag equipment in the U.S. and Canada are forecast to be down 15-20% for 2016, while turf and utility equipment sales are expected to be flat to up 5% for the year. **AEI**

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Weakness Continues in Ag Equipment Sales

North American large ag equipment sales continued to be weak during August, with 4WD tractor sales decreasing 38.9% and combine sales dropping 17.1%. Both declines were somewhat better than July's (4WD: -43.3%, combines: -23.2%), according to Mircea (Mig) Dobre, senior research analyst with Baird. Row-crop tractor sales declined 25.6% year-over-year and mid-range tractor sales decreased 0.4% following July's -22.6% while inventories increased 20% year-over-year.

Dobre notes compact and mid-range tractor inventories continue to build on all-time highs. "August 2016 marked the 31st month of large ag year-over-year declines, though the decline moderated sequentially," he said.

- U.S. and Canada large tractor and combine retail sales decreased 24% year-over-year in August, up from the 27% decrease in July. U.S. sales decreased 28% year-over-year, while Canadian sales dropped by 6%.

- 4WD tractor sales dropped 38.9% year-over-year in August vs. a 43.3% decrease in July (U.S. -48.1%, Canada +171.4%). U.S. dealer inventories of 4WD tractors fell by 32.1% year-over-year during July. August is typically a below-average month for 4WD tractor sales, accounting for 5.7% of annual sales the last 5 years.

- Combine sales declined, posting a 17.1% year-over-year decrease in August following July's -23.2%. U.S. combine inventories were 27.4% lower year-over-year in July (vs. down 25.3% last month). Typically, August is an above-average month for combine sales, accounting for 9.9% of annual sales the last 5 years.

- Row-crop tractor sales were down 25.6% year-over-year, similar to the 25.8% decrease in July. U.S. row-crop tractor inventories increased 2.1% year-over-year in July vs. a 0.2% decrease in June. August is usually a below-average month for row-crop tractor sales, accounting for 6.5% of annual sales over the last 5 years.

- Mid-range tractor sales were essentially flat in August, down 0.4% year-over-year after a 22.6% drop last month. **AEI**

AUGUST U.S. UNIT RETAIL SALES



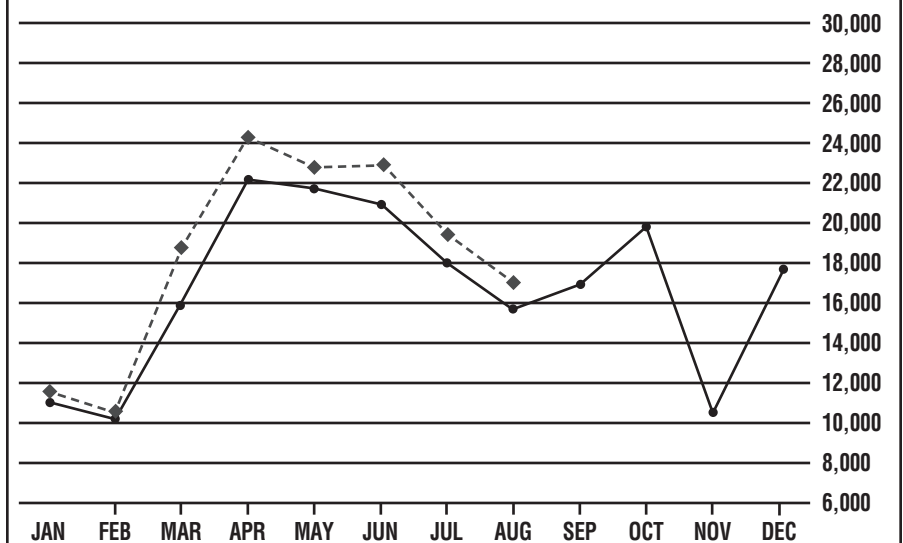
Equipment	August 2016	August 2015	Percent Change	YTD 2016	YTD 2015	Percent Change	July 2016 Field Inventory
Farm Wheel Tractors-2WD							
Under 40 HP	10,805	8,918	21.2	93,484	84,182	11.0	71,738
40-100 HP	4,768	4,800	-0.7	37,736	39,867	-5.3	37,110
100 HP Plus	1,141	1,564	-27.0	12,520	16,510	-24.2	10,371
Total-2WD	16,714	15,282	9.4	143,740	140,559	2.3	119,219
Total-4WD	83	160	-48.1	1,298	1,957	-33.7	695
Total Tractors	16,797	15,442	8.8	145,038	142,516	1.8	119,914
Combines	388	500	-22.4	2,600	3,337	-22.1	1,075

AUGUST CANADIAN UNIT RETAIL SALES



Equipment	August 2016	August 2015	Percent Change	YTD 2016	YTD 2015	Percent Change	July 2016 Field Inventory
Farm Wheel Tractors-2WD							
Under 40 HP	795	882	-9.9	7,388	8,789	-15.9	9,308
40-100 HP	300	287	4.5	3,048	3,394	-10.2	4,511
100 HP Plus	174	204	-14.7	2,222	2,874	-22.7	2,394
Total-2WD	1,269	1,373	-7.6	12,658	15,057	-15.9	16,213
Total-4WD	19	7	171.4	495	533	-7.1	225
Total Tractors	1,288	1,380	-6.7	13,153	15,590	-15.6	16,438
Combines	175	179	-2.2	994	1,117	-11.0	505

U.S. UNIT RETAIL SALES OF 2-4 WHEEL DRIVE TRACTORS & COMBINES



— Assn. of Equipment Manufacturers

Tillage, Seeder Sales Counters Pottinger's Hay Tool Drop Off

A significant increase in tillage equipment and seeder sales helped offset a sizeable drop in demand for hay tools — at least in part — as Austrian manufacturer Pottinger faced up to market headwinds.

At €301 million, equivalent to \$338.5 million at current exchange rates, the group recorded a 6% decline in revenues in its 2015-16 financial year compared with the prior 12 months.

That compares with a healthy €320 million (\$359.8 million) in 2014-15 and a record, at the time, €314 million (\$353 million) in 2013-14.

“The financial year 2015-16 was overcast by a difficult market situation, with negative development of producer prices leading to a consider-

able downturn in earnings for farmers and a marked reduction in investment, especially in the grassland sector,” notes Heinz Pottinger, managing director. “Thanks to an innovative and balanced product range, we were able to counter this with increased sales of tillage and seed drill technology.”

While hay tool sales declined around 12% to account for 57% of group revenues, seed drill and cultivator sales recorded a 20% gain in sales for the year, representing around 28% of revenues.

In market terms, Europe's two biggest ag machinery markets — Germany and France — remain Pottinger's main export destinations, accounting for 19% and 13.5% of group turnover, respectively. Overall, Pottinger generated

86.5% of its revenues — €260.5 million (\$293 million) — outside Austria.

Managers identify Canada — overseen since earlier year this by Andrew Brown, the new general manager for North America — among the top five markets for growth in machine sales during the financial year, after Ukraine and ahead of France, Japan and China.

Pottinger itself has a new senior management team: Heinz Pottinger's elder brother Klaus has retired from the 145-year old family owned business after more than 30 years. He occupied the joint managing director's role for the past 25 years. Three new directors have been appointed to the board from within the company to redistribute senior management responsibilities. **AEI**

German Ag Exports Up in First Half; U.S. Exports Slip

While German farm equipment manufacturers saw a slight uptick in exports during the first 6 months of 2016, U.S. ag machinery makers weren't as fortunate.

German Exports Rise. According to an Aug. 25 report from VDMA Agricultural Machinery Assn. based in Frankfurt, Germany, farm machinery and tractors worth €4.19 billion were manufactured in Germany in the first half of 2016. This was up 1.5% compared to the same period of 2015. “Consistently high exports worth about €3 billion helped compensate for the still weak domestic economy,” says VDMA Managing Director Dr. Bernd Scherer.

The association emphasized that this small increase in exports is in no way considered a “real recovery.”

According to VDMA, the German market continues to experience “hard times.” Sales fell by 14% to €1.08 billion in the first quarter. The association reports the drop in milk prices was felt in Germany more acutely than in other EU countries.

Results of a customer survey conducted by VDMA indicated that only 9% of German farmers are planning to invest in new machinery in the second half of the year. On a positive note, the association reported the export business accounted for about 72% of sales in the first 6 months of 2016.

“After two years of recession, we

are finally seeing noticeable growth in France again,” says Scherer.

This is the most important foreign market for the German agricultural technology industry, with an annual export rate of more than €1 billion. For the first 6 months of the year, exports to France were up 25%.

German manufactures are also seeing a pick up in business with Russia, “albeit from a very low level,” Scherer says. He adds that the British market is especially troubling to the industry, because investments are still very low due to the Brexit vote.

VDMA is forecasting a sales volume of €7 billion for 2016, which corresponds to a further fall off of 5%.

U.S. Exports Fall. On Aug. 31, the Assn. of Equipment Manufacturers reported that exports of U.S.-made agricultural equipment at midyear 2016 dropped 12% overall compared to the first half of 2015, for a total \$3.54 billion shipped to global markets.

“Midyear 2016, U.S. agricultural equipment exports to the world continue to decline, though lower than in previous quarters,” said AEM's Benjamin Duyck, director of market intelligence.

“Looking at the second quarter results of our North American Agricultural Equipment Industry Conditions Trends Survey, which tracks

the perceptions of member manufacturers, of those that exported goods, 33% of respondents indicated falling exports and 40% indicated stability.”

January-June U.S. agricultural equipment exports by major world regions compared to January-June 2015 were:

- Canada dropped 17%, for a total \$1.05 billion
- Europe gained 12%, for a total \$933 million
- Central America gained 12%, for a total \$620 million
- Asia fell 38%, for a total \$314 million
- Australia/Oceania fell 26% for a total \$261 million
- South America dropped 32%, for a total \$249 million
- Africa decreased 17%, for a total \$109 million

The top countries buying the most U.S.-made agricultural machinery during the first half of 2016 (by dollar volume) included the following:

1. Canada: \$1.05 billion, down 17%
2. **Mexico: \$557 million, up 14%**
3. Australia: \$234 million, down 26%
4. **Germany: \$145 million, up 10%**
5. China: \$128 million, down 55%
6. France: \$105 million, down 1%
7. **Ukraine: \$85 million, up 212%**
8. Brazil: \$79 million, down 37%
9. U.K.: \$69 million, down 28%
10. Belgium: \$67 million, down 29% **AEI**