From the editors of *Farm Equipment...*

Ag Equipment Intelligence

News, Information & Analysis for the Ag Equipment Marketer

June 15, 2018
Vol. 24, Issue 6

- Deere Optimistic
- TITN Makes Strides
- Ag Sales Rebound

Dealers Rank Claas Best Among Full Line Manufacturers

The Equipment Dealers Assn. (EDA) in May released the results of its 2018 Dealer-Manufacturer Relations Survey. EDA conducts the survey annually, in which dealers rate the manufacturers whose products they carry in-store.

Claas, a brand new addition to the list of full line manufacturers was ranked highest in the most categories with the highest score as well as the highest total score. Claas took 5 categories, narrowly beating out John Deere's top ratings in 4 categories. Kubota claimed the second highest total score.

Equipment dealers rate up to 7 of the manufacturer lines they carry in 11 categories, such as product quality and parts availability, as well as separate rating for overall satisfaction. This year, more than 2,200 dealers participated in the survey, providing 8,800 individual ratings.

Dealers were asked to select and rate the manufacturers in each of the

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How Dealers Rate Their Full Line Farm Equipment Manufacturers

	Full Line Manufacturers	AGCO	Case IH	Claas	John Deere	Kubota	New Holland
Product Quality	**5.21**	5.27	4.36	**6.20**	5.31	5.77	4.36
Parts Availability	**4.99**	4.98	4.05	5.60	**5.66**	5.29	4.35
Parts Quality	**5.56**	5.60	4.76	**6.09**	5.97	6.00	4.93
Product Technical Support	**4.71**	4.67	3.94	**5.66**	5.38	5.04	3.55
Manufacturer Response to Dealer Needs/ Concerns	**4.21**	4.29	3.41	4.83	4.60	**4.88**	3.27
Product Availability	**4.71**	4.87	4.42	**5.29**	4.24	5.12	4.31
Warranty Payments	**4.79**	5.01	3.84	5.34	**5.49**	4.91	4.16
Warranty Procedures	**4.76**	4.92	3.79	5.26	**5.50**	5.04	4.06
Communication with Management	**4.65**	4.75	4.00	**5.17**	5.14	5.14	3.72
Marketing & Advertising Support	**4.68**	4.33	3.92	4.88	5.43	**5.47**	4.04
Return Privileges	**5.03**	5.13	4.28	5.34	**5.52**	5.31	4.61

Categories (from l-r) appear in the order of importance as determined by the dealers. Bold type, shaded boxes indicates highest score in corresponding category.
Claas received Full Line "Dealers Choice" recognition, as determined by a composite of the average mean score of all categories above.

Precision Dealers See Continued Revenue Growth in 2018

Farm equipment dealers found success in their precision farming segment last year, building onto strong performances observed in 2016.

The results of this year's *Precision Farming Dealer* benchmark study show that in 2017 dealers had even more financial success than the year prior, which first marked a reversal in recent revenue trends. However, their revenue projections for 2018 are more conservative for high end growth relative to last year's results.

2017 Performance. Based on responses from roughly 100 farm equipment dealers compiled during the first quarter of 2018, 31.5% of dealers reported 2017 precision revenue growth of 8% or more and 25% indicated revenue increased by 2-7%. This is an improvement from the previous year (2016), when 23.1% of respondents saw a revenue growth of 8% or more and 22.1% said revenue was up by 2-7%.

As might be expected, while more dealers saw growth in their precision farming segments, fewer dealers saw revenue declines in 2017. Just 5.3% of dealers say their revenue declined by 8% or more in 2017 vs. 2016, while 7.9% reported revenue declines between 2-7%. For 2016, 8.7% reported revenue declines of 8% or greater and 14.4% reported declines of 2-7% compared with 2015.

"Results of this study continue the positive outlook and results dealers had in 2017," says Jack Zemlicka, managing editor of *Precision Farming Dealer*, a sister publication of *Ag*

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12 categories on a 1-7 rating scale, where a 1 represents "extremely dissatisfied," and a 7 represents "extremely satisfied." Survey respondents represented all 50 U.S. states and 10 Canadian provinces.

EDA takes the survey data and organizes it by the classifications of manufacturers of full line equipment, tractors, shortlines and outdoor power equipment.

Claas also took home the 2018 "Dealer's Choice" recognition from EDA, outscoring John Deere, who received the award last year.

Overall, Claas ranked highest in product availability, product quality, product technical support, parts quality and communications with management. John Deere rated highest in the parts availability, return privileges, warranty procedures and warranty payments.

EDA officials say Claas, which had been classified as a shortline manufacturer in previous surveys, was bumped up in 2018 because it matches the group's full line classification of a manufacturer that produces a full complement of equipment, including combines, harvesting machines, tractors and implements.

"Since they manufacture all that equipment, based upon that definition we put them in our full line category," says Joe Dykes, vice president of industry relations for EDA.

This follows the addition of Kubota as a full line manufacturer in the 2017 edition of the survey. The company was added because of its addition of hay tools, tillage and planting equipment to its product lineup in recent years through a number of acquisitions.

5 Year Trends. *Ag Equipment Intelligence* has compiled EDA survey data from the past 5 years. Excluding outdoor power equipment manufacturers, the most improved manufacturer in that 5 year period was Rhino, whose total score increased 12.81 points, or 24.4%, to 63.25 points in 2018.

This improvement stands in contrast with a slight dip from its performance last year. The shortline manufacturer dropped 1.52 points, or 2.28%, in its overall score between 2017 and 2018. However, this slight year-over-year dip is the exception to Rhino's general upward trend over the last 5 years.

The company that fell the most during this time period is McCormick, whose total score fell 7.56 points, or 13.%. Save for 2016, the tractor manufacturer's overall performance has been declining in the last 5 years.

In the June 2017 issue of *Ag Equipment Intelligence*, it was noted that AGCO was making significant gains across all 12 categories over a 3 year period.

Looking at the last 5 years, and with the addition of the 2018 survey, the full line manufacturer still appears to be on an upward trajectory. AGCO's average rating among the 12 criteria has increased reaching back to 2014. The company's scores have trended upward in all categories individually each year, save for a slight backstep in 4 categories in 2018 vs. 2017 and a negligible decrease (of one-hundredth of a point) in 1 category between 2016 and 2017.

In all, 13 full line, shortline and tractor manufacturers saw their scores go up over this 5 year period, while 11 saw their scores decrease.

Other Notable Findings. Competition is getting stiff among full line manufacturers, with only about one-tenth of a point separating the top three in average scoring. As such, EDA recognized both John Deere and Kubota as "Gold Level" recipients for the current year.

Kubota and Claas were both recent additions to the full line classification. However, reaching back to 2014, the 2 rated significantly higher than John Deere on average. The average scoring levelled out the following year. Since then, all 3 companies' average scores have varied by no more than one-fifth of a point from each other.

Since 2016, when AGCO surpassed Case IH in average scoring, it has separated itself by a greater margin each year from both the Case IH and New Holland brands.

LS Tractor was the top performing tractor manufacturer in 2018, earning the "Dealer's Choice" recognition for the fourth year in a row.

TYM, which received the "Most Improved" manufacturer, saw the biggest year-over-year gain in its total score, with an increase of 6.33 points, or 12.5%, from 2017. In fact, TYM had the highest increase of all other manufacturers in 4 of the 12 categories: manufacturer response to customer needs/concerns, parts quality, warranty payments and warranty procedures.

Bourgault was named the "Dealer's Choice" recipient among shortline manufacturers. This marks the second consecutive year that Bourgault has received the title.

Additional coverage of the Equipment Dealer Assn. survey results, including the performance of the shortline and tractor manufacturers, will appear in Farm Equipment magazine's July/August edition. Comprehensive survey data and reports are also available from EDA; contact Joe Dykes, vice president of industry relations at jdykes@equipmentdealer.org. AEI

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AGI More Than Doubles Equipment Sales Since 2013

Farm and commercial grain storage equipment manufacturer Ag Growth International lived up to its name in 2017 by recording increased sales and profitability as the farm sector in North America improved and the Canadian group continued to gain ground in export markets further afield.

AGI also increased revenues by acquiring more companies and products to add to a collection of brands that in the farm sector include Westeel and Twister bins, Wheatheart and Westeel portable augers and Batco belt conveyors.

The acquisition of Global Group for C$100 million in 2017 brought Hutchinson Mayrath, MFS, Neco and Sentinel Farm Buildings into the group, together with new products including AGI's first grain dryer in North America. It also increased U.S. and international distribution reach and adds potential net sales that in 2016 amounted to C$112 million.

Another acquisition, CMC Industrial Electronics, was bought to strengthen the controls and monitoring equipment portfolio, while Junge Control completed AGI's fertilizer platform with liquid fertilizer metering, measuring and blending products. Together, these two acquisitions also brought around C$19 million worth of net sales potential.

AGI's CEO Tim Close emphasizes how the acquisitions continue the group's growth strategy, which has taken it from a single product, single region company to a global enterprise with a comprehensive product catalog delivering to customers on 6 continents.

It also builds Close's "platform" strategy, which has the group operating at farm and commercial level across fertilizer, seed, grain, feed and food storage.

For the group as a whole, trade sales (a non-IFRS measure net of gain or loss on foreign exchange) grew 38% to C$755.6 million in 2017, which is more than double the figure recorded in 2013. Profitability expressed as EBITDA is also heading in the right direction having climbed from C$64.3 million in 2013 to C$123.3 million last year.

"These results reflect AGI's broadening geographic reach; our international sales backlog is currently at record levels," says Close.

Trade sales from AGI's farm equipment products increased 47% as a robust domestic market was complemented by improving conditions in the U.S., where revenues increased 21%.

This appears to signal the beginning of a recovery for AGI in the U.S., says Close, as strong in-season sales of portable grain handling equipment in 2017 and high levels of participation in post-harvest sales programs resulted in a significantly higher order backlog entering 2018 than in the prior year.

He adds that exports beyond North America also gained traction, climbing 19% last year, with significant sales secured in Europe, Middle East and Africa, South America and the Oceana/Southeast Asia region. **AEI**

FARM MACHINERY TICKER (AS OF 6/12/18)

MANUFACTURERS	Symbol	6/12/18 Price	5/10/18 Price	1-Year High	1-Year Low	P/E Ratio	Avg. Volume	Market Cap.
Ag Growth Int'l.	AFN	$58.05	$58.40	$60.63	$47.08	27.27	33,410	956.33M
AGCO	AGCO	$64.05	$64.51	$75.95	$58.12	23.37	721,980	5.09B
AgJunction Inc.	AJX	$0.86	$0.90	$0.91	$0.44	—	50,250	100.77M
Alamo	ALG	$94.55	$93.64	$120.59	$86.41	24.95	65,320	1.10B
Art's Way Mfg.	ARTW	$2.85	$2.55	$5.45	$2.00	—	29,150	11.97M
Buhler Industries	BUI	$3.88	$3.90	$4.89	$3.60	—	701	97.00M
Caterpillar	CAT	$157.49	$153.97	$173.24	$102.30	124.99	4,820,000	94.12B
CNH Industrial	CNHI	$11.88	$12.35	$15.65	$10.87	55.00	1,800,000	16.20B
Deere & Co.	DE	$157.59	$146.61	$175.26	$112.87	35.82	2,780,000	51.10B
Kubota	KUBTY	$86.58	$84.41	$107.13	$81.29	16.80	16,960	20.91B
Lindsay	LNN	$100.86	$93.80	$103.03	$83.57	48.61	79,90	1.08B
Raven Industries	RAVN	$39.10	$40.40	$42.40	$26.70	34.60	149,810	1.40B
Titan Int'l.	TWI	$12.01	$11.58	$14.53	$7.97	—	266,620	718.47M
Trimble Navigation	TRMB	$34.58	$34.35	$45.70	$32.01	67.94	1,220,000	8.62B
Valmont Industries	VMI	$152.35	$142.95	$176.35	$137.90	29.81	108,440	3.46B
RETAILERS								
Cervus Equipment	CERV	$13.75	$14.33	$15.85	$10.98	10.76	7,620	215.70M
Rocky Mountain Equipment	RME	$11.30	$11.40	$14.34	$9.60	9.58	46,330	224.68M
Titan Machinery	TITN	$17.44	$18.99	$25.09	$11.68	—	234,600	378.00M
Tractor Supply	TSCO	$75.78	$67.80	$82.68	$49.87	22.12	1,920,000	9.25B

Late Spring Impacts Titan Machinery Sales, But Operational Execution Solidifies Its Bottom Line

Like other equipment dealers in the North Central U.S. and Western Canada, the late spring impacted Titan Machinery's fiscal year 2019 first quarter sales. *(See Rocky Mountain 1Q Sales, Margins Impacted by Long Winter and Weather Creates Slow Start for Cervus' Ag Segment, Ag Equipment Intelligence, May 2018.)* But the dealership group continues to make significant strides in improving overall operations.

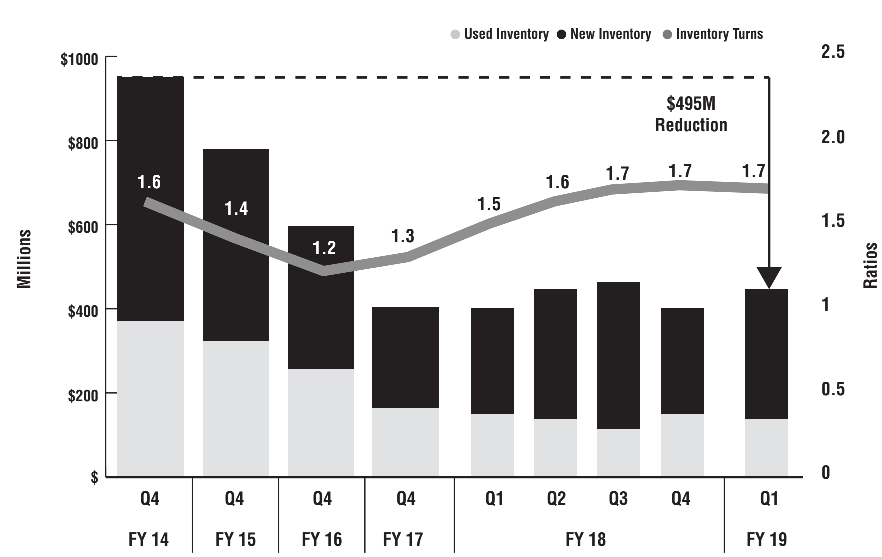
For the period ended April 30, 2018, Titan Machinery reported total revenue of $245.7 million, down 7% from the first quarter of the previous year. Gross profit of $47.6 million slipped by 2.8% vs. the same period last year, but gross profit margin improved by 90 basis points to 19.4%. Ag equipment sales fell by nearly 13% to $142.9 million, the construction segment was down by 2.1% to $62.1 million, but international sales were up by nearly 10% to $40.7 million.

In a note to investors, Mircea (Mig) Dobre, analyst for RW Baird, said, "Weather played a role in the slower than anticipated start, but management did acknowledge some farmer hesitancy as ever-shifting stances on 'trade wars' created a sense of uncertainty. The low end of the ag growth guidance range is most likely at this point given first quarter 2019 decline; replacement demand remains an important demand driver going forward."

Stephens Inc. analyst Rick Nelson noted Titan's improved operational execution. "The ag segment was once again profitable, generating $1.323 million in pre-tax profit. Equipment margins improved due to better inventory positioning. Expenses were well controlled, down (10.2%) year-over-year. Recently completed restructuring initiatives continue to keep expenses in check."

He added that the dealership group's outlook incorporates sales growth in each business segment and

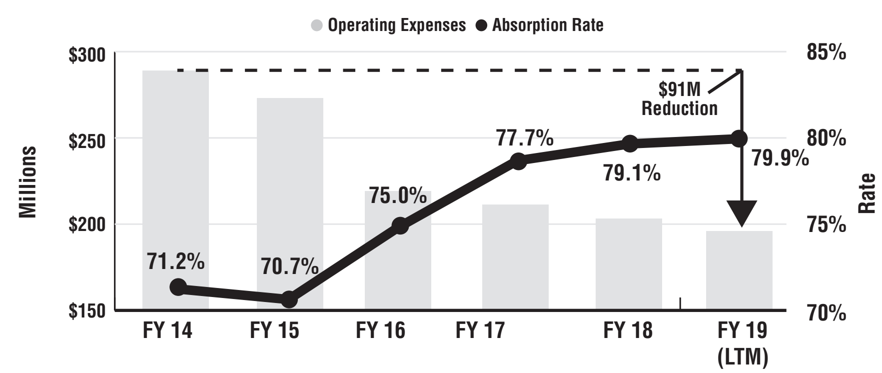
Titan Machinery Equipment Inventory



This chart illustrates Titan Machinery's ending equipment inventory position for the prior 5 years and includes the ending equipment inventory for the first quarter of fiscal 2019 of $444 million. According to CFO Mark Kalvoda, as of the end of the first quarter of 2019, Titan's equipment inventory increased $44 million from Jan. 31, 2018, and consisted of a $49 million increase in new inventory and a decrease in used inventory of $4 million. "We did accelerate some of our new equipment purchases into the first quarter of fiscal '19 due to the increased lead times and potential steel surcharges," said Kalvoda. "This trend will continue somewhat into our second quarter as we expect to experience higher inventory levels before beginning to come down in our third quarter and further reduction expected in the fourth quarter. Since fiscal 2014, we've reduced our total inventory by over 50% which significantly improved our balance sheet."

Source: Titan Machinery

Titan Machinery Operating Expenses & Absorption



During a conference call with analysts on May 31, Titan Machinery's CFO Mark Kalvoda discussed the progress the dealer group has made in its expense structure and corresponding improvement in our absorption rate over the same period. "Absorption is a metric that reflects the ability of our parts, service and rental gross profit to absorb fixed operating costs. We've reduced our annual operating expenses from fiscal 2014 to the trailing 12 months ended April 30, 2018, by $91 million or 31%. And over the same time period increased our absorption rate from 71% to 80%," said Kalvoda.

According to Titan's CFO, the dealership's absorption for the first quarter of fiscal 2019 was 74.3% compared to 73.1% in the same period last year, as a reduction in fixed operating costs and floorplan interest expense more than offset the decrease in gross profit from parts and service. "It's important to remember that our first quarter is historically a seasonally low quarter for absorption," Kalvoda said. "We expect continued improvement in our expense and in our absorption rate throughout fiscal 2019."

Source: Titan Machinery

Titan Machinery 1QFY19 Segment Overview ($ millions)			
	1QFY19	1QFY18	Change
Revenue	$245.7	$264.1	–7.0%
Agriculture	$142.9	$163.6	12.7%
Construction	$62.1	$63.4	–2.1%
International	$40.7	$37.1	+9.8%
Pre-Tax Income (Loss)	($2.2)	($6.5)	+66.6%
Agriculture	$1.3	($2.4)	+154.7%
Construction	($2.9)	($2.5)	–13.7%
International	($0.2)	$0.6	–114.6%

Source: Titan Machinery

an uptick in equipment margins vs. its previous forecast.

Precision Solutions. On May 18 Titan announced it had inked a deal with AgriSync that will provide "precision solutions" for the dealership's customers. According to Titan, "Using the AgriSync app, customers now have access to Titan precision farming specialists with live video support, automatic issue tracking and alerts, and 'how to' videos." The app gives customers a direct connection to their local precision advisor AEI

Titan Machinery Expands into Germany

Hot on the heels of an $11 million deal to supply Case IH tractors and equipment to a large scale agricultural business in Ukraine, Titan Machinery is making its first move into Western Europe with the acquisition of four Case IH dealership locations in Germany. Titan has agreed to purchase two AGRAM companies with branches along the eastern side of the country, one located 24 miles northeast of Dresden and another three some 200 miles farther north.

In their most recent fiscal year, the AGRAM farm equipment sales companies generated revenues close to $30 million. They will join more than a dozen European branch offices in Romania, Bulgaria, Serbia and Ukraine once the deal closes as anticipated in July.

David Meyer, Titan Machinery's chairman and CEO, said, "We are excited to expand our international presence into the large, stable and well-established markets of Germany with a successful Case IH and Steyr dealership complex.

"The AGRAM market is populated with large-acre farm units, similar to the progressive farms in our markets in the Balkans and Ukraine, and covers a territory stretching over 300 miles of quality farmland bordering Poland and the Czech Republic."

The deal comes just weeks after Titan Machinery's Ukraine operation supplied Case IH equipment to a large-scale farming company managing almost 272,000 acres.

Epicenter K, founded in 2015, has significantly increased its land assets in recent years, growing winter wheat, sunflowers, corn and winter oilseed rapeseed, and plans to expand further.

The supply agreement valued at $11 million involved 50 separate items of equipment, comprising two Quadtrac 600 tracked tractors, 19 Magnum 340 tractors, 17 Patriot 4430 sprayers and 12 True-Tandem 335VT vertical tillage tools.

In a separate development, the Case IH tractor assembly operation in China is to supply the country's biggest cotton grower with 70 units of up to 382 horsepower Magnum 3154 tractors. Xinjiang Lihua Cotton Industry Co. plans to improve production efficiencies and increase plantings to almost 330,000 acres.

SDF Satisfied with 2017 Sales Results Despite Expansion, China Challenges

Despite challenging market situations in China and Turkey, and production facility upgrades that impacted capacity in the first quarter, the SDF Group recorded sales revenues and profitability in 2017 only a little down on the year prior.

"For us, 2017 was perhaps the most important year in the recent past in terms of change and consolidation," says Lodovico Bussolati, CEO. "Considering the initial difficulties, we reacted with determination with changes that allowed us to achieve higher results in the second half compared to the same period of the previous year, and to close with figures near those of 2016."

Among the challenges he highlights were start-up of brand new assembly lines in the Deutz-Fahr Land factory complex opened in southern Germany, and installation of auto-guided vehicles for assembly logistics, plus a new paint shop at the group's Treviglio plant in northern Italy. Both are said to have "strongly affected" production capacity up to April that year.

Even so, at the equivalent of $1.58 billion, sales were down only 3% on the prior year and group EBITDA was 7.9%, amounting to $125 million, compared with 8.7% and $142 million in 2016.

Those figures would have been healthier still had sales held up in China and Turkey, where SDF Group has manufacturing and distribution joint ventures. The negative impact on group consolidated results amounted to a 6% hit in terms of turnover and a 13% reduction in EBITDA.

"In China, the reduction in government subsidies generated a market drop of more than 30%," explains Bussolati. "While in Turkey, protectionist measures introduced at the start of the year severely penalized both the margins and volumes of our sales."

While hoping for better results in those markets this year, Bussolati is looking for growth in the U.S. following this year's launch of the new PFG America operation (*see Ag Equipment Intelligence*, *March 2018*), and further recovery in Europe.

There he claims a 2.3% increase in SDF tractor sales, with an 11-12% improvement in sales turnover for Deutz-Fahr grain harvesters and Gregoire grape pickers also bolstering overall results.

The group subsidiary in India, which assembles tractors mainly for the domestic market, but also engines for the group's Italian factory, did even better, closing the year having sold 75% more units than in 2016.

As far as investment is concerned, Bussolati says the group spent the equivalent of $27.5 million on new product development. The company also spent $18 million on completing the $100 million-plus Deutz-Fahr Land project, along with $8.3 million at Treviglio on the assembly line upgrades, all of which are intended to lay foundations to remain competitive and grow sales in the years to come. AEI

South American Ag Equipment Intelligence

Truckers' Strike Dampens Brazil's Recovery

Sectors of Brazil's machinery manufacturing base, including ag equipment makers, are anticipating collective vacations due to a truckers' strike that lasted more than 2 weeks at the end of May. More than 1 million truckers participated in the strike, which resulted in a scarcity of food and fuel, and also affected the supply chain of most machinery factories.

In a prepared statement, José Velloso, president of the Brazilian Assn. of Machinery Manufacturers, said, "93% of our associates reported some sort of impact due to the truckers' strike. Some companies that [attempted] to negotiate with labor unions are now anticipating collective vacations. Other companies are talking about the possibility of layoffs."

According to industry sources, it will take some factories up to 2 months to recover completely from the strike. The truckers' work stoppage not only resulted in a lack of inputs, but also the inability to move grains and other goods for export.

The strike came at a time when Brazil's machinery industry had shown signs of a robust recovery after 51 months of declining sales. Overall, equipment sales had grown by 3.6% from January to April compared to the same period last year. Revenue generated by the sector in April was R$6.04 billion (nearly $1.5 billion) and R$22.1 billion (nearly $5.8 billion) from January to April.

Several Brazilian farm associations had initially supported the strike but changed their position as it impacted the supply chain. Brazilian independent truckers and truck companies demanded lower fuel taxes, lower diesel fuel prices and a price cap for fuel at the pump.

Drought Effects to Curtail Argentina's Ag Machinery Sales

In a new report, Argentina's National Institute of Agricultural Technology (INTA) is projecting that ag equipment sales will decline by 22.3% in 2017 vs. the previous year. According to Mario Bragachini of INTA, domestic sales of farm machinery would reach $1.7 billion compared to $2.2 billion in 2017. The report blames this summer's drought, which is impacting the soybean crop, and higher interest rates for the drop off in equipment sales. Following the devaluation of Argentina's currency of more than 20% in April and May, the country's Central Bank set a reference interest rate of 40% to curb inflation and slow capital flight.

Bragachini says that good weather for Argentina's winter crop could boost sales by the end of the year. "Better climate conditions would allow a higher output of wheat, oats, alfalfa, barley and other crops. Combined with a higher dollar, improved sales [are anticipated] in the last quarter of the year.

On a positive note that would be good news for the ag machinery sector in Argentina, exports are estimated to grow by 42.8%. "The currency devaluation improved a lot the country's competitiveness," says Bragachini.

Brazil Tractor Sales Drop 21% in May, But Optimism is Evident ...

Current levels of tractor sales continue to challenge dealers in Brazil, but the tide appears to be turning, according to some manufacturers.

The latest report from Brazil's National Assn. of Automotive Vehicle Manufacturers (Anfavea) indicates that tractor sales in May were down by 21% year-over-year, down 20% vs. the previous month and down 12% year-to-date.

During the month, tractor unit sales were 2,852 compared to 3,557 in April and 3,592 in May 2017. Year-to-date, May unit sales were 12,369 vs. 14,086 a year earlier.

Sales of combines used to harvest grain, on the other hand, were up 31% in May with 249 units sold vs. 190 in May 2017. This compares to 354 in April 2018 (down 30%) and just about broke even on a year-to-date basis. Through the first 5 months of 2018, 1,621 combines were sold vs. 1,626 during the same period in 2017.

... As Manufacturers See Brazil's Farmers' Confidence Growing

Ag Sales to Improve. In a May 7 report from Reuters with coverage of the Agrishow expo, Brazil's biggest farm equipment show held in late April, manufacturers said the second straight bumper soybean crop along with lower interest rates could result in a rebound of equipment sales.

"Some machinery producers are forecasting sales growth as high as 8% in 2018 as farmers' confidence rises and record low interest rates encourage them to borrow and invest," said the Reuters reporter. "'In the end, it all comes down to (the price of) soybeans. If that is good, the farmer will decide to buy,' said Rodrigo Bonato, Latin America sales director for machinery maker Deere & Co.," during an interview at Agrishow.

According to the report, IC Agro, a farmer confidence index tracked by industry group Fiesp, hit a more than 4 year high in the first quarter.

"Even though the agricultural sector didn't suffer much during the recession, farmers held back investments," said Fernando Gonçalves, chief executive at Jacto, a Brazilian producer of crop sprayers and other equipment. "But look at their confidence now. It is back," he said, forecasting sales growth at Jacto of between 5-8% in 2018. Earlier Anfavea forecast 3.7% growth for farm machinery sales in 2018.

The report went on to say that borrowing is also getting easier as low inflation has allowed the central bank to cut its benchmark interest rate to an all-time low, with other cuts expected in the near term. AEI

Ag Equipment Sales Rebound in May

North American large ag equipment sales in May were positive across the board, according to the Assn. of Equipment Manufacturers' latest report. "Large ag retail sales rose 17% year-over-year in May, breaking out of the choppy low-single-digit growth/decline experienced since October," said RW Baird analyst Mircea (Mig) Dobre in a note. U.S. tractor and combine sales were up 21% year-over-year and Canadian sales increased 6%.

In terms of demand seasonality, Dobre said May is an average month and notes that the acceleration is consistent with Deere & Co.'s prior commentary calling for growth pick-up on already booked orders. However, some headwinds still remain, he said, including grain prices that are off their late-May highs (corn –10% and soybeans –8%) and trade uncertainty.

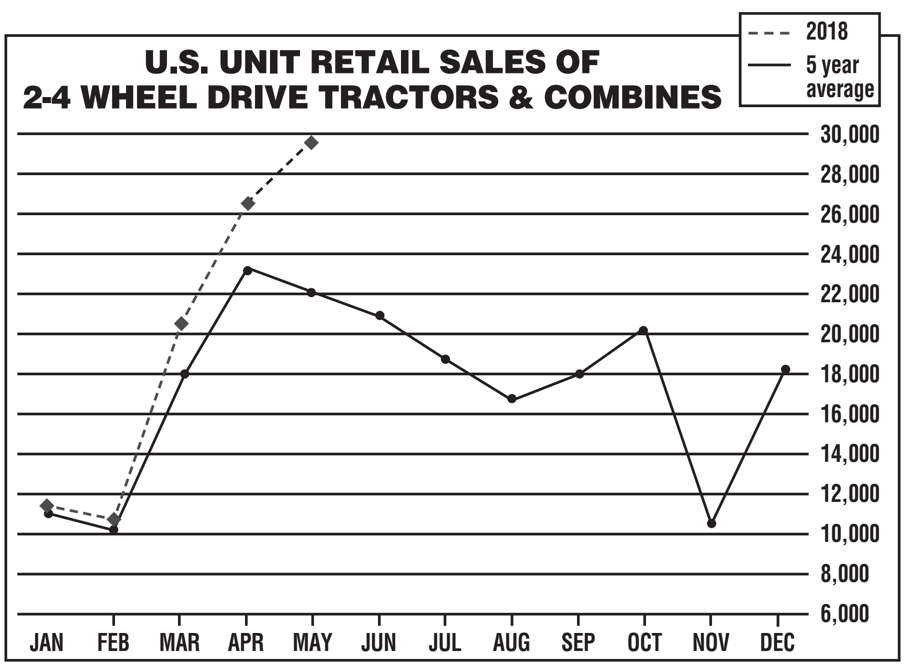
- 4WD tractor sales increased 8.3% year-over-year in May following the 12.5% decrease in April. U.S. dealer inventories of 4WD tractors were down 13% year-over-year in April. May is typically a slightly above average month for 4WD tractor sales, accounting for 8.5% of annual sales the last 5 years.
- Row-crop tractor sales were up 18% year-over-year after a 3% decline in April. U.S. row-crop tractor inventories were down slightly (less than –1%) year-over-year in April. May is typically a slightly below average month for row-crop tractor sales, accounting for 7.9% of annual sales over the last 5 years.
- Combine sales increased 21.5% in May following a 40.7% increase in April. U.S. combine inventories improved 1% year-over-year in April. Typically, May is a below-average month for combine sales, accounting for 6.6% of annual sales the last 5 years.
- Mid-range tractor sales increased 5.7% in May after increasing 6.4% in April. Compact tractor sales were up 18% year-over-year after a flattish April. **AEI**

MAY U.S. UNIT RETAIL SALES

Equipment	May 2018	May 2017	Percent Change	YTD 2018	YTD 2017	Percent Change	Beginning Inventory May 2018
Farm Wheel Tractors-2WD							
Under 40 HP	21,078	17,547	20.1	65,764	61,879	6.3	91,869
40-100 HP	5,797	5,425	6.9	23,116	22,363	3.4	34,666
100 HP Plus	1,525	1,268	20.3	6,971	7,043	–1.0	8,366
Total-2WD	28,400	24,240	17.2	95,851	91,285	5.0	134,901
Total-4WD	174	185	–5.9	885	869	1.8	646
Total Tractors	28,574	24,425	17.0	96,736	92,154	5.0	135,547
SP Combines	323	213	51.6	1,550	1,225	26.5	858

MAY CANADIAN UNIT RETAIL SALES

Equipment	May 2018	May 2017	Percent Change	YTD 2018	YTD 2017	Percent Change	Beginning Inventory May 2018
Farm Wheel Tractors-2WD							
Under 40 HP	1,854	1,881	–1.4	5,274	5,172	2.0	10,180
40-100 HP	530	562	–5.7	2,224	2,244	–0.9	4,142
100 HP Plus	357	327	9.2	1,688	1,485	13.7	2,460
Total-2WD	2,741	2,770	–1.0	9,186	8,901	3.2	16,782
Total-4WD	101	69	46.4	511	509	0.4	287
Total Tractors	2,842	2,839	0.1	9,697	9,410	3.0	17,069
SP Combines	129	159	–18.9	595	651	–8.6	669



— Assn. of Equipment Manufacturers

Deere Remains Optimistic Despite Flat Crop Receipts

There's no doubt Deere & Co. had a surprisingly good second quarter of its 2018 fiscal year, and it's expecting a more than solid third quarter.

On May 18, the company reported that its net sales in the second quarter were up by 34% ($9.8 billion) and net income was up by 50% ($1.2 billion) compared to the same period a year earlier. Deere's worldwide ag and turf sales were up 22% ($7.05 billion) for the quarter and operating profit improved by 5% ($1.06 billion).

Raj Kalathur, Deere's CFO, attributes the strong performance to farmers' need to replace aging equipment and their desire for cutting edge technology. During a conference call with analysts, he said, "Replacement demand continues to drive equipment sales in large ag as customers express their need for increased precision and productivity enabled by our latest technologies."

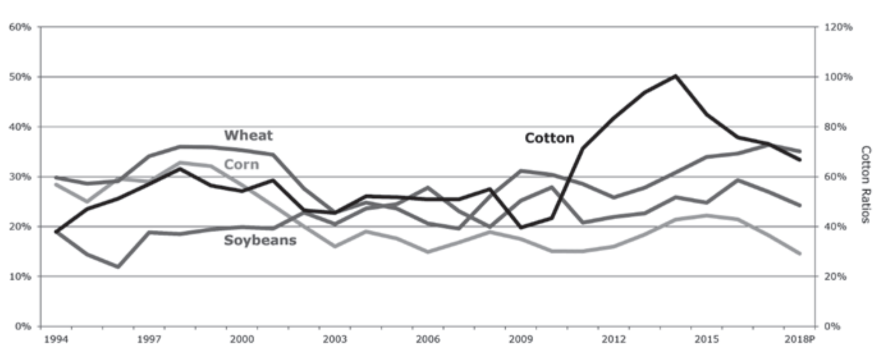
For the remainder of its fiscal year, the company's outlook calls for a 14% pick-up in worldwide ag and turf sales. For the U.S. and Canada, Deere expects ag and turf retail sales to increase by about 10%.

Declining Stocks, Flat Receipts. While its sales projections signal optimism about the short term equipment sales, for the most part, Deere's management doesn't see a significant shift in ag fundamentals for 2018. Global stocks-to-use ratio is expected to decline somewhat, but no significant improvement in overall cash receipts is anticipated.

Brent Norwood, manager of Investor Communications, told analysts that "corn and soybean stocks-to-use ratios are expected to decline in response to increasing global demand and drought conditions in Argentina, which have lowered the country's corn and soybean production by roughly 25% and 33%, respectively. While the wheat stocks-to-use ratio remains close to its highest level in almost two decades, stocks are projected to decline modestly in 2018."

He adds that 2018 farm cash receipts are estimated to be $375 billion, roughly flat with 2017. "Crop cash receipts are projected to be on-par with last year as increased com-

Global Stocks-to-Use Ratios



Deere & Co. management expects corn and soybean stocks-to-use ratios to decline in response to increasing global demand and drought conditions in Argentina, which have lowered the country's corn and soybean production by roughly 25% and 33%, respectively. While wheat stocks-to-use ratio remains close to its highest level in almost 2 decades, stocks are projected to decline modestly in 2018. *Source: USDA, 10 May 2018*

USDA Expects Whole Soybean Exports to Grow This Year If …

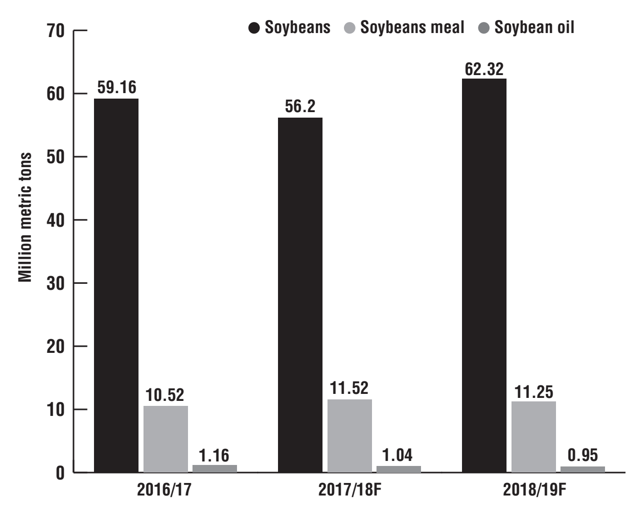
According to the Economic Research Service of USDA May 2018 Oil Crops Outlook report, in the 2018-19 marketing year (Sept.–Aug.), total U.S. exports of soybeans (whole, meal and oil) are expected to increase by over 8% provided normal trade relations with other countries.

If realized this would mark a return to growth after a modest contraction expected for 2017-18. Exports had increased in the previous 5 marketing years. Whole soybean exports, which are expected to increase 11% in 2018-19 vs. 2017-18, are responsible for the increased forecast in total soybean exports in this marketing year.

Relatively small declines are expected year-over-year in 2018-19 in exports of soybean meal and oil — the principal components of crushed soybeans.

Although soybean exports from the U.S. have grown over the past 25 years, the share of U.S. exports in global oilseeds trade has declined. Significant expansion in soybean output by countries like Brazil and Argentina have reduced the U.S. shares of global exports and production. Brazil surpassed the U.S. as the world's leading exporter of soybeans in 2011-12 and is expected to exceed U.S. production for the first time in 2018-19.

U.S. Exports of Whole Soybeans Forecast to Grow in 2018-19



Following a drop off in U.S. soybean exports in the current marketing year, an 8% increase is expected in 2018-19.

Source: USDA Economic Research Service modity prices are partially offset by lower forecast production. Receipts from livestock are also flat due to strong domestic and export demand offset to an extent by growing supply and lower prices.

"While global trade concerns weigh on farmers, overall sentiment is holding as commodity prices move upward and equipment demand shows broad-based improvement," said Norwood.

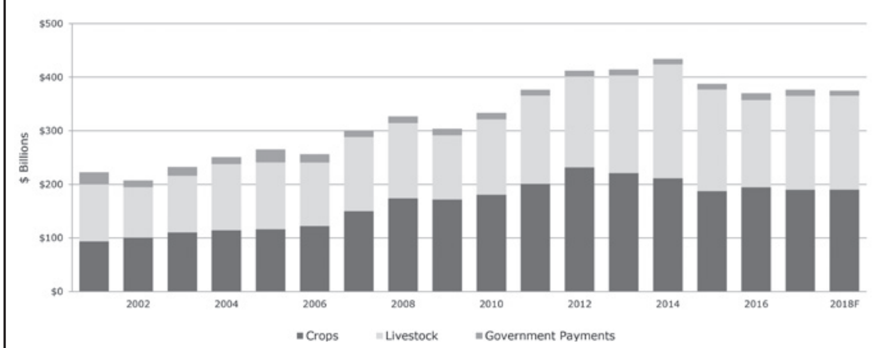
Deere's forecast for cash receipts for this year is $374.9 billion. This is down slightly ($1.6 billion) from its 2017 projection, but up about $4.7 billion from 2016.

It sees crop receipts rising modestly from the $189.7 billion outlook last year to about $189.9 billion forecast for 2018. Livestock receipts will be basically flat ($175.4 billion projected for 2017 vs. $175.7 billion for the current year).

The bottom line is not quite as encouraging. Deere is forecasting net cash income for 2018 at about $88.7 billion. This is down from the $96.9 billion the company forecast for 2017. It's also down from the $94 billion in net farm cash income that farmers saw 2 years earlier in 2016.

In addition, Deer is projecting corn per bushel pricing of about $3.90 for the 2018-19 marketing year, which is up from its previous forecast of $3.30 per bushel. Soybeans are expected to come in at about $9.55 per bushel vs. $9.10 in the company's earlier outlook. Wheat pricing is forecast at $5 per bushel compared to $4.65 earlier. Cotton prices are anticipated to come in at $0.60 per pound, down from $0.69 per pound forecast in February. AEI

U.S. Farm Cash Receipts



Deere estimates 2018 U.S. farm cash receipts to be $375 billion, roughly flat with 2017. Crop cash receipts are projected to be on-par with last year as increased commodity prices are partially offset by lower forecast production. Receipts from livestock are also flat due to strong domestic and export demand offset to an extent by growing supply and lower prices.

Source: 2001–2016: USDA, Feb. 7, 2018, 2017F–2018F: Deere & Co. May 18, 2018 forecast

U.S. Farm Cash Receipts & Net Farm Cash Income Outlook
(billions $)

	2016	2017 Forecast	2018 Forecast	Previous 2018
Crops	$194.4	$189.7	$189.9	$188.2
Livestock	$162.9	$175.4	$175.7	$174.9
Gov't Payments	$13.0	$11.4	$9.3	$9.3
Total Cash Receipts	**$370.2**	**$376.5**	**$374.9**	**$372.4**
Other Farm-Related Income	$27.9	$29.7	$31.7	$31.8
Gross Cash Income	$398.1	$406.2	$406.6	$404.2
Cash Expenses	($304.1)	($309.3)	($317.9)	($312.2)
Net Cash Income	**$94.0**	**$96.9**	**$88.7**	**$92.0**

Source: 2016: USDA, Feb. 7, 2018; 2017F–2018F: Deere & Co. forecast as of May 18, 2018 (previous forecast as of Feb. 16, 2018)

MirTech Expands Claas Dealer Support in U.S. Delta Region

New U.S. machinery dealer MirTech has expanded its Claas sales and support operations with a third branch opening. The first two MirTech Harvest Center branches were set up in Jonesboro, Ark., and Sikeston, Mo., following an agreement with Claas to bring established practices and expertise from one of its leading distributors in Russia to the Western Delta region. (See *Ag Equipment Intelligence*, August 2016.)

These operations replaced the Holt Agribusiness branches withdrawn by Holt CAT. A third MirTech Harvest Center is now up and running and open for business in Stuttgart, Ark.

"The Delta region is an essential part of the distribution strategy for Claas and MirTech," said Eric Raby, Claas of America president and general manager.

"It is also an important rice growing area and as our Lexion combines are particularly well suited for challenging rice crops, ensuring we have superior sales and service support is imperative."

MirTech, founded by Colorado native Robert Krattli, is a large dealer group with an existing multi-location operation in Eastern Europe. It has been associated with Claas for 20 years and is using its resources and experience to quickly step into the Delta region to support the needs of current and future Claas customers.

MirTech general manager Tom Livingston said, "We and Claas are committed to the Delta region and have long term plans for our growth and success."

In addition to Lexion Terra Trac combines assembled in Omaha, Neb., MirTech sells and offers service for Claas Jaguar forage harvesters and other green harvest equipment including balers, as well as high performance Xerion rigid chassis 4WD tractors.

MirTech is also one of a few dealers participating in the "soft" launch of the 200-280 horsepower Axion 800 series tractors in the U.S., prior to making them available to all Claas dealers in 2019. AEI

Kubota Canada Takes on Great Plains; Moving Its Headquarters

Distribution of Great Plains seeders and tillage equipment has been taken on by Kubota Canada for Quebec and Atlantic Canada from La Coop fédérée 2 years after Kubota Corp. of Japan acquired Great Plains to bolster its position in grain and grassland agriculture worldwide.

The deal included several facilities in Kansas, but the business has continued to operate as an independent entity within the Kubota group and has retained its Great Plains and Land Pride brands and identity.

Kubota Canada took over distribution of the Land Pride line last year and Bob Hickey, president of the Markham, Ont.-based operation, said handling distribution of Great Plains machinery in Quebec and Atlantic Canada fits a policy of giving dealers and end users access to an expanded range of products.

"Through our range of user-friendly and reliable models, as well as a strong dealership network operating in many communities across the country, Kubota Canada continues to strengthen its position in a highly competitive market," he said.

Hickey also announced the company is to build a new facility housing its head office, warehouse and training resources starting this year. The C$67 million project is expected to get underway in the fall, with staff beginning to move into the new-build in Pickering, Ont., by the end of 2019, starting with head office and wholegoods departments. The company's parts operations will also move to the new facility once the others have settled in.

In part, the move "future-proofs" Kubota Canada's anticipated growth; it expects to see staff numbers rise from 190 currently to 250 employees by 2027 and the site's initial 565,500 square feet can be increased to 1,000,000 square feet in the future if required.

"Pickering was selected because it provides a great sense of community and lends itself perfectly to our growing technological advancements," said Hickey. "Our new location has easy access to highways, affordable housing for our employees, and areas for equipment testing and training." AEI

Tobroco-Giant to Expand Production as Compact Equipment Lines Continue Growth Spurt

A fast-growing manufacturer of compact loaders for agriculture, light construction and landscaping that is new to North America is making plans for increased production capacity at its headquarters factory in The Netherlands.

The foundation for the current business — Tobroco-Giant — were laid in 1996 when Toine Brock built his first small, hydrostatic drive wheeled loader in his parents' stable.

The business has upgraded its facilities twice since becoming a fully fledged manufacturer, expanding the product range and pushing into export markets, including the U.S. and Canada.

The Dutch business makes compact handling and loading machinery covering an 1,800-8,500 pound performance range with rigid arm or telescopic boom articulated wheeled loaders, stand-up skid steer loaders and compact four wheel steer telescopic handlers.

For its foray into North America 18 months ago, the company formed Tobroco-Giant USA, took on Rick Morical as country and national sales manager, and set up shop in Des Moines, Iowa. The venture was launched at the Conexpo-Con/Ag event and other trade shows last year.

"With loaders being the fastest growing machine in North America, we see enormous opportunities for growth," says Brock, CEO, who currently lists 26 mainly agricultural equipment dealers in the U.S. and Canada.

For the parent company's latest production upgrade, the R&D team will relocate to a new technical facility being constructed this year, vacating space at the main complex in Oisterwijk, northwest of Eindhoven to the south of the country, that will be turned over to production.

In total, the factory will gain 86,000 square feet over two stories to house new production lines running on "lean" principles with increased digitization of processes. Production is also to be reorganized with more pre-assembly of components to deliver components to the assembly lines more quickly and reduce order-to-delivery lead times. AEI

Cervus' Largest Shareholder to Reduce Holdings in Dealership

Cervus Equipment, one of John Deere's largest dealership groups, reports that its largest shareholder will need to reduce his ownership to meet new Canadian rules for registered retirement savings plans (RRSPs).

Cervus founder and current Board Chair, Peter Lacey, along with his wife Kathy, say they intend to "sell a portion of their shares from time to time over the next 3 years such that they will own under 10% of Cervus' shares by Dec. 31, 2021" to comply with recent amendments to the rules governing RRSPs.

Lacey founded Cervus Equipment in 1982 and today owns 3,228,242 common shares, which represents approximately 20.58% of its outstanding shares. Almost 20 years ago, they each placed a significant portion of their Cervus shareholdings into their respective RRSPs.

According to the company, a few years ago the Canadian government changed the RRSP rules to prohibit investments by a person within an RRSP where the person owns 10% or more out the company's outstanding shares. .

Lacey said, "Following these sales, Kathy and I will continue to be among the largest shareholders of Cervus with just under 10% of the shares. Further, I intend to remain Chair of the Board and look forward to working with management and my fellow board members in helping Cervus achieve its growth objectives." AEI

Grimme Begins Production in China; Looking to Expand U.S. Manufacturing

Europe's leading potato equipment manufacturer has completed a project to build its products in China in the same year its North American operation celebrated 60 years in business.

Grimme announced its intention to expand into manufacturing in China on the back of government plans to "massively increase" potato production. (See *Ag Equipment Intelligence*, March 2016.)

The company has now completed that project by opening a 134,548 square foot factory with 15,000 square feet of office space on an 8.5 acre site in the coastal town of Tianjin in northern China.

Project manager Christoph Grimme says the new facility's production focus will be on machines specially developed for the Chinese market for potato planting, cultivation, harvesting and storage. "The new plant is designed for state-of-the-art manufacturing and production, so we are able to guarantee the same high quality level as at the main plant in Damme, Germany," he says.

Grimme has spent €13 million ($15 million) on the new facility, one of its largest single overseas investments in the company's 150 year history.

The German manufacturer has been active in China for 20 years but was spurred into this investment by government plans to expand potato production after the crop was identified as one of the country's four most important foods.

Grimme's Idaho-based subsidiary Spudnik, which counts China among its export destinations, is celebrating the 60th year since the business was formed by Carl and Leo Hobbs. It has been part of the Grimme group since 2003 and now employs more than 300 people, mostly at the Blackfoot facilities opened in the late 1990s.

With sales now putting significant pressure on production capacity, the company is understood to be looking to expand its U.S. facility. **AEI**

Increased Shipments to OEMs Boosts Carraro Tractor Business by 18%

Off-highway drivelines specialist Carraro Group is "reaping the fruits of a long and complex repositioning and restructuring process," according to its board chairman as he reported a significant improvement in margins and profitability for the 2017 financial year.

Enrico Carraro said the return to growth of agriculture and construction equipment markets, restored finances, including a capital injection from new investors, and continued R&D investment brings renewed optimism for the business.

Group results are above expectations, in terms of both sales and all profitability indicators, with revenues up 2% on the year prior at the equivalent of $723 million, EBITDA of 9.1% or $65.7 million, and net profit of $163 million contrasting with a net loss of $10.8 million in 2016.

Carraro Drive Tech, the business unit supplying axles, transmissions and other off-highway driveline components, recorded a 6.7% increase in turnover at the equivalent of $588 million.

The Agritalia specialist tractors division scored record sales worth $169 million, up 18%. This resulted from units delivered to OEM customers Claas, Deere and Massey Ferguson peaked at 4,673 orchard and vineyard tractors of 60-100 horsepower compared to 4,052 in 2016.

Shipments of a new John Deere tractor range to the North American market and a switch from Tier 4 Interim to costlier Tier 4 Final emissions-compliant models also contributed to the turnover growth, says Carraro.

The tractor sector generally strengthened for Carraro during the year, with steady demand in Europe and a gradual increase in sales volumes in North America. This contrasts to the Chinese market where, a significant decline in ag machinery sales volumes, especially above 100 horsepower, is blamed on reduced state subsidies and the higher price of tractors that meet new emission standards. **AEI**

No-Till Acres to Reach 48% of Total U.S. Cropland by 2030

Since the early 1970s the practice of no-till cropping has steadily grown and is expected to maintain its steady expansion through at least the next decade, according to Frank Lessiter. "The popularity of this conservation tillage system will continue to grow, as it has too many crop production, economic and environmental benefits for that not to happen," he says.

Lessiter has served as the editor of *No-Till Farmer* since 1972 when knowledge of this way of seeding directly into the crop residue from the prior year's harvest was in its infancy. The secret is not disturbing the soil, thus its name "no-tillage."

He's nearly finished writing his 412 page recollection of how no-till has developed and expanded in use. The new book entitled, *From Maverick to Mainstream: A History of No-Till Farming,* is scheduled for publication in late summer.

"I've had a ringside seat in watching the U.S. no-till acreage grow from 3.2 million acres in 1972 to 50.8 million acres in 2000 and to an anticipated 107 million acres by 2019," he says. "Our 'best crystal ball guess' for 2030 is that no-till will be used on 145 million acres in the U.S., or about 48% of all cropland acres.

"We expect the worldwide no-till acreage to reach 466 million acres in 2030, an increase from 388 million worldwide no-till acres in 2013," says Lessiter.

He also expects acreage devoted to strip-tillage to also increase during the next decade. Strip-till is the practice of clearing a narrow path through the crop residue, while keeping soil disturbance to a minimum. This helps warm the soil and promotes quicker seed germination.

Lessiter says, "It's difficult to predict the anticipated increase in strip-tilled acres since neither the government or anyone else collects data indicating how many acres are farmed with this system today.

"In 2007, we estimated there were 3.6 million acres of strip-tilled ground, but it's grown dramatically since that time. For 2017, there was an estimated 8 million acres of strip-till. Our best guess is that 11.7 million acres will be strip-tilled by 2030." **AEI**

Precision Dealers See Continued Revenue Growth ... Continued from page 1

Equipment Intelligence.

Zemlicka adds that 2017 marked the second consecutive year dealers more than doubled their higher-end revenue expectations. In the 2017 survey, 15.4% of dealers forecasted revenue growths of 8% or more for the year, and 10% said they expected similar revenue growths in 2016.

Of the survey respondents, 74% identified themselves as traditional farm equipment dealers. This is the lowest figure since the study began tracking business structure in 2015, beating out the previous low of 75.6% set just last year. Within this group of dealers, 30.4% reported precision growth of 8% or more, doubling 2017 projections (12.5%). Meanwhile, 23% reported growth of 2-7%, well below the forecast of 45%.

Independent precision dealers accounted for 16.9% of respondents, with 57.2% reporting revenue increases of at least 2%. Although they fell short of their 2017 expectations (80% forecasted a 2% or more increase), no independent dealers indicated a decline in revenue, consistent with the 2017 forecast.

2018 Outlook. Looking at their current selling year, 67.1% of dealers forecast revenue growth of at least 2% over 2017, with 26.3% projecting growth of 8% or more and 40.8% expecting growth between 2-7%. This represents the highest total since the study began tracking revenue outlooks 4 years ago.

If recent history is any indication, the results for 2018 may very well show more dealers ending up with higher revenue growth than expected, and vice versa for those landing in the more modest 2-7% growth category.

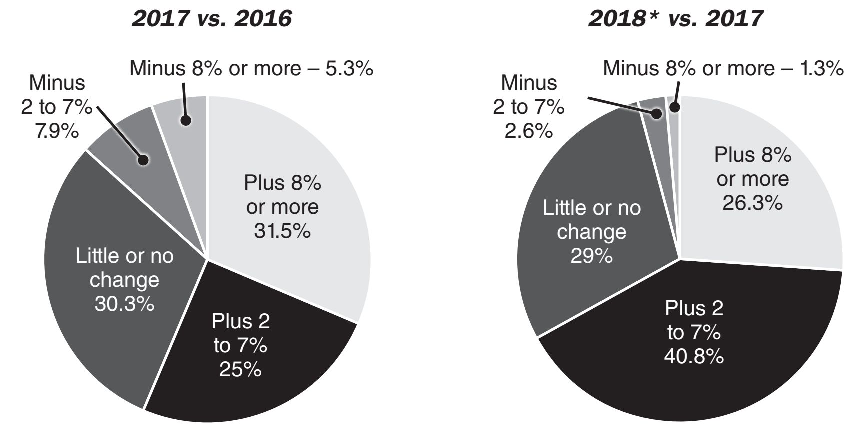
Only 3.9% of respondents expect revenue declines of 2% or more this year, a record low. Only 2.6% are forecasting a drop in revenue of 2-7%, while 1.3% expect revenue declines of 8% or more.

One farm equipment dealer in Nebraska tells Zemlicka, "Validating the ROI from previous year's field trials and demo plots show customers that precision is the last place they should be cutting their budgets. Most farmers have the equipment to use the data they collect, but they just don't do it. We need to show them how and why."

Growing Revenue Sources. The areas for precision revenue growth has been shifting in recent years. In the 2018 survey, 58.9% of dealers say variable-rate planting/fertilizing will be the most important source of precision revenue growth in the next 5 years. Coming in a close second is planter control systems, with 58% of dealers indicating it as growing in importance as a source of revenue.

Meanwhile, application technology hardware saw a roughly 10% drop year-over-year. Currently, 43.2% say they view this category as "most important," whereas in 2017 that number was 52.2%. **AEI**

Precision Farming Revenue Comparison



2017 revenue growth of 8% or more exceeded dealers' expectations by more than double, while more than two-thirds of dealers forecast measurable precision revenue increases in 2018. This is a 12% increase compared to the number of dealers who expected revenue growth in 2017. Also, a year ago 13.2% of the dealers polled expected revenues to decline. For 2018, less than 4% are anticipating a fall off in dealership revenues. (**2018 percentages are based on first quarter projections.)*

Projected 5 Year Precision Farming Revenue Sources

	Most Important	Somewhat Important	Least Important	2017 Ranking
1. Variable-Rate Planting/ Fertilizing	58.9%	37.2%	3.9%	2
2. Planter Control Systems	58.0%	32.0%	10.0%	3
3. Data Management Service/Analysis	51.0%	37.3%	11.7%	5
4. Application Technology Hardware	43.2%	49.0%	7.8%	1
5. Agronomic Service/Field Prescriptions	43.1%	35.3%	21.6%	9
6. GPS & Guidance Systems	32.0%	52.0%	16.0%	6
7. Software Service	29.4%	54.9%	15.7%	4
8. Signal Subscriptions	29.4%	47.1%	23.5%	7
9. Water Management/ Irrigation	23.6%	33.3%	43.1%	8
10. Unmanned Aerial Vehicles	15.7%	45.1%	39.2%	10

Variable-rate systems and planter control topped the list in 2018, while agronomic services increased nearly 10 points over 2017 as "most important."