

CANADIAN FARMING

CASE IH
AGRICULTURE

**MEETING THE
GLOBAL FOOD
CHALLENGE**
WILL YOU BE READY?



SIMPLY MORE EFFICIENT

NEBRASKA TEST DATA CONFIRMS IMPROVED FUEL EFFICIENCY WITH SCR



BE READY

WITH CASE IH EQUIPMENT, TECHNOLOGY & PEOPLE

Meeting the challenges farmers face every day takes more than innovative technology and equipment. It takes committed people. Case IH has more committed professionals in the field, helping producers solve problems and maximize production. Our commitment is to keep you going around the clock, season after season. Because we know farming is more than an occupation – we understand your critical role in the global economic and food systems. Case IH can help you be ready. To learn more, visit caseih.com/beready.





ON THE COVER:

Case IH selected Selective Catalytic Reduction as the Tier 4A emission solution on 100-hp and higher tractors for its greater fuel efficiency in high-load applications. Recent Nebraska Test data has confirmed the improved performance.

- 4 ADVANCES IN PRODUCTIVITY**
Simply more efficient
- 6 NEW CASE IH INITIATIVES**
Meeting the global food challenge
- 8 CASE IH OWNER PROFILE**
- 10 PRECISION FARMING & GUIDANCE**
Power in numbers
- 14 CASE IH OWNER PROFILE**
- 16 FIRST OWNER REPORT**
- 18 EQUIPMENT SHOWCASE**
- 20 PARTS COUNTER**
Strong, yet flexible
- 22 CASE IH UPDATE**

OUR MISSION:

To provide you with information about Case IH equipment, trends in agriculture and growers' experiences to help you successfully manage your farm business.

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SURVEY SAYS ... YOU'RE GOING TO GROW

Case IH conducted a survey of farmers attending the recent AG CONNECT Expo, and of farmers visiting the website, CaseIH.com. We asked farmers to rank the issues that would impact their business next year, and five years out, from a list of several macro issues.

On both counts, the leading response was, "New government mandates and regulations." The second most impactful issue, for both time periods, was, "Availability and price of land for expansion."



Having this type of input helps us define the challenges facing farmers today, and also identify future opportunities.

Government mandates cover a wide range of topics, but one that is very specific to Case IH products is meeting the Tier 4A emissions regulations. On this point, Case IH offers what we see as the industry's best approach to providing a reliable and cost-effective solution. Our high-horsepower tractors using SCR are proving to be more fuel-efficient in independent tests and can deliver overall lower cost of ownership, compared to the models they replace.

Other relevant mandates include soil and nutrient management and crop protection application restrictions. Growers facing these regulations can use class-leading Case IH soil management tools to meet specific needs, and can count on the accuracy of Case IH application equipment with as-applied mapping software to confirm their actions.

Hand in hand with finding and affording land for expansion is farming it efficiently. On this point, Case IH continues to introduce equipment with the capacity to cover more acres, faster. This reduces your cost-per-acre and provides the ability to take on more acres with the same equipment. This is significant; 89 percent of the respondents anticipate their farming operation to grow in the next five years.

Based on current projections, North American agricultural producers should be looking at another year of strong market prices for most commodities and livestock in 2011.

Like every year, there will be challenges posed by weather and unforeseen economic factors. And, like every year, Case IH and the Case IH dealer organization will have the equipment and resources to help you manage or overcome the new challenges and opportunities facing you every day.

Jim Walker

Jim Walker
Vice President
North American Case IH
Agricultural Business



Visit Case IH on the World Wide Web at www.caseih.com.

SIMPLY MORE EFFICIENT

NEBRASKA TEST DATA CONFIRMS IMPROVED FUEL EFFICIENCY AND POWER OF NEW CASE IH TRACTORS WITH SCR TECHNOLOGY

Last fall, Case IH announced Selective Catalytic Reduction (SCR) as the technology it will use to meet the 2011 Tier 4A emissions regulations on tractors over 100 hp. A key reason, the company stated, was the expectation of operating cost reductions of up to 10 percent, compared to previous models.

Earlier this year, preliminary Nebraska Tractor Test Lab data confirmed the increased operating efficiencies of the Case IH Magnum and Steiger tractors using SCR. The Nebraska Test data for several of the new tractors confirms fuel efficiency gains exceeding 10 percent at most power ratings and higher PTO and drawbar horsepower

ratings compared to prior models that used Exhaust Gas Recirculation to meet Tier 3 emissions requirements.

During the testing, the new Steiger 600 achieved the Nebraska Test's highest maximum drawbar horsepower at 556.

SCR involves injecting a mixture of 32.5 percent high-purity synthetic urea and 67.5 percent deionized water, commonly called Diesel Exhaust Fluid (DEF) into the engine's exhaust. This transforms the undesirable nitrous oxides into harmless nitrogen and water vapor.

The other approach to meeting Tier 4A regulations is Exhaust Gas Recirculation (EGR) which recirculates part of the exhaust back through the combustion

cycle to eliminate nitrous oxides, and employs a Diesel Particulate Filter (DPF) into the exhaust to capture particulates.

While both systems meet Tier 4A requirements, Case IH has selected SCR for its engines above 100 hp for these reasons:

- **SCR reduces operating costs.** As the preliminary Nebraska Test results confirm, SCR engines are more fuel efficient. All emissions requirements are handled post-combustion. The SCR engines are tuned for maximum performance. Efficient combustion produces acceptable particulates, and the nitrous oxides are handled by SCR.

The combustion in Tier 4A EGR engines is less efficient because of the recirculation of



SCR Q&A

Case IH representatives have personally introduced the new generation of Magnum and Steiger tractors to thousands of people at various shows and meetings. These are among the questions they've frequently been asked:

How much DEF do these engines need? DEF is consumed at approximately 3 to 6 percent of diesel fuel consumed. DEF tanks on Case IH equipment are designed to hold enough DEF to last two to three fill-ups of the diesel fuel tank.

How much does DEF cost? Where can I get it? Industry predictions are that DEF costs will be similar to the cost of diesel fuel. Case IH dealers sell DEF in several container sizes including 275- and 330-gallon tote containers. DEF is also available from bulk diesel fuel suppliers including agricultural co-ops and at many service stations that refuel heavy-duty vehicles.

How reliable are these systems? While this is a new application for North American farm equipment, SCR has been used on heavy-duty trucks in Europe for several years. Engines and SCR systems similar to those used in Case IH equipment have logged more than 20 million miles. The overall SCR system, including metering and injection, has proven to be very reliable and effective.

Is DEF sprayed into the cylinder? No. The DEF treats the exhaust after it has left the engine. It is not injected into any aspect of the intake or combustion process.

Does DEF freeze? Yes. It begins to freeze at 12°F. When needed, a heater in the DEF tank automatically comes on to thaw the DEF. No operator intervention is needed. The system senses the frozen DEF and allows the engine to start and operate normally while the DEF is being thawed. The DEF tanks are designed to accommodate the expansion caused by freezing.

Is DEF flammable? No.

Is DEF toxic? DEF has been identified as "minimum risk" by the EPA. No special storage or handling regulations apply.

This is just more emissions complexity added to the engine, right? No, the SCR system actually reduces complexity within the engine, because it eliminates the need for exhaust gas recirculation and the necessary pipes, electronics and cooling systems.

How do I know how much DEF is in the tank? There's a DEF gauge, just like the fuel gauge.

What happens if the DEF runs out? The engine will go into a derated power mode, with enough power to move the vehicle to a convenient location to refill. In normal circumstances, the DEF tank can be topped off during refueling.

Does the SCR system require any maintenance? Yes, there is a DEF filter that has a service interval of 1,200 hours, which coincides with every second engine oil and filter service interval.

Is this a short-term solution until the next round of regulations? Case IH plans are based on continuing with SCR on 100-hp and over equipment, and will meet Tier 4B regulations in 2014 using SCR.

Will SCR be used on other 100-hp and above Case IH equipment such as combines, sprayers and pickers? Yes. The U.S. Environmental Protection Agency has various formulas for when different types of equipment must comply with the new Tier 4A regulations. SCR will be introduced on other models of Case IH equipment over 100 hp later this year and into 2012.

If DEF is 32.5% urea and water, can I make my own? No. Both the urea and the water are highly purified to be compatible with the system's precise metering and injection equipment.

Engine oil change intervals on SCR-equipped engines have been extended. Why? SCR replaces exhaust gas recirculation. EGR puts some exhaust back through the engine, and the heat and excess particulates degrades oil quality. SCR-equipped engines have a much cleaner combustion process, so oil stays cleaner, longer.

Why is Case IH using EGR on equipment under 100 hp? SCR shows its greatest customer benefit in higher-load, higher-fuel use situations common to larger equipment. The fuel economy advantage is less of a benefit on smaller equipment, and there's less room for the SCR equipment on smaller tractors. Heat management issues posed by EGR and the Diesel Particulate Filter are also more significant on higher-horsepower equipment.



Learn more about the Case IH SCR system, including the option to post Tier 4 questions to the Case IH engineers, at the website www.caseih.com/Tier4.

exhaust with its reduced oxygen content. This incomplete combustion results in high levels of particulates which must be captured by the DPF and periodically burned off in a process called regeneration. This consumes additional fuel to burn the trapped particulates at temperatures of 1,200 F

or greater. Regeneration may occur at intervals as frequent as 10 hours, depending on conditions.

Engines met prior Tier 3 requirements by recirculating approximately 10 percent of the exhaust. Meeting Tier 4A emissions using EGR requires recirculating up to 30 percent of the exhaust.

• **SCR is simpler.** EGR requires complex systems and controls to recirculate and cool the exhaust and manage DPF regeneration. SCR allows traditional and uncompromised intake, combustion and exhaust systems.

SCR does require the addition of DEF, which can be managed as

part of the normal refueling process. Three to six gallons of DEF will be consumed with every 100 gallons of diesel fuel, depending upon operating conditions. ■



Steiger 450

NEBRASKA TEST DATA COMPARISONS

Preliminary Nebraska Test data shows the new Case IH models using SCR technology deliver more power and improved fuel efficiency compared to the models they replace. "Horsepower hours per gallon" is a measure of power generated per gallon of fuel; higher numbers indicate greater fuel efficiency.



Magnum 340

TRACTOR	PTO hp @ standard PTO speed	Hp hr/gal @ standard PTO speed	Maximum drawbar hp @ rated RPM	Hp hr/gal @ maximum drawbar hp	Hp hr/gal @ 75% pull max power
Steiger 450 (new model w/SCR)	430.08	18.29	366.76	16.61	15.85
Steiger 435 (prior model)	384.59	17.06	351.28	15.86	14.37
Magnum 340 (new model w/SCR)	335.05	19.74	269.36	17.13	15.99
Magnum 335 (prior model)	305.50	17.09	243.25	14.50	12.10

MEETING THE GLOBAL FOOD CHALLENGE

CASE IH OFFERS AN EXPANDING RANGE OF WAYS TO HELP YOU 'BE READY'

Last fall, Case IH introduced a new initiative called "Be Ready" that strengthens Case IH product planning and customer communications activities. It's based on the fact that North American farmers and ranchers will be challenged to provide much of the food that will be demanded by a global population that's increasing by more than one person per second.

Even in this brief period since the announcement of Be Ready, articles about the global demand for food have appeared more frequently in the general media, as demand creeps closer to consuming available grain stocks.

This demand is driven by multiple sources. There's the sheer increase in numbers – more mouths to feed. Some growth segments of the world's population, notably China, are experiencing a stronger economy that's encouraging demand for more food supplies including higher-protein food. In the United States, a commitment to corn-based ethanol to help offset foreign imports of oil and to meet clean-air regulations adds another layer of demand to corn.

And, the past few years have seen grain production constrained by unfavorable weather in key growing regions.

These realities have com-

bined to shift global food issues from dealing with ample – even excess – production to sourcing and allocating enough food to meet demand.

As a North American producer, the world is counting on you to meet the challenge. Will you be ready?

The Be Ready initiative at Case IH includes developing, producing and supporting equipment that will help you gain more production from each acre, and meeting material handling needs more efficiently.

Another key element of Be Ready is providing information that will help producers gain in-

sight into the many facets shaping the outlook for North American food production.

The recent AG CONNECT Expo in Atlanta provided the platform for Case IH to display



ARE YOU A CASE IH FACEBOOK FAN?

Case IH has an official Facebook page with more than 20,000 friends from all over the world. Sign up as a fan to share interesting stories about Case IH and see news about Case IH products and informative events.



ONLINE conversations

While attendees at events such as AG CONNECT Expo can interact with industry experts in person, part of the Case IH Be Ready initiative is to make these types of conversations readily available on the Internet.

Print and video reports from these events are presented on the Case IH Be Ready website, <http://beready.caseih.com>, along with a wide range of other timely information about the changing world of farming.

Topic categories at the Be Ready site include Alternative Energy, Available Land, Government Mandates and World Population. Each is updated with new reports and links to external resources, and provides moderated discussion opportunities for producers to share

opinions on these topics.

A new enhancement to the Be Ready site is the Case IH Be Ready blog, edited by Rynne Greve, Case IH marketing communications manager.

"At Case IH, we are constantly asking ourselves, 'How can we help farmers and make their jobs easier?' " she says. "As editor of the Be Ready blog, my vision is to do just that."

The Be Ready blog provides fresh information on timely topics and events. Recent coverage included highlights of the AG CONNECT Expo and Tier 4 engine information, complete with the ability to submit Tier 4 questions to Case IH engineers. In fact, part of the overall blog platform is to provide a forum to stay in contact with



Through live events and online discussions at the new Be Ready website, Case IH is providing information to help producers gain insight into factors affecting their business and the global demand for food. Here, retired General Wesley Clark, now co-chairman of Growth Energy, makes a pro-ethanol presentation at the Case IH exhibit during the 2011 AG CONNECT Expo in Atlanta.

role in agricultural policy and production, and legislators need to hear from you on issues that affect your business. "You have to be engaged and involved," he said.

Nussle agreed. "If you're not communicating with them, someone else will be," he said.

At the Case IH AG CONNECT exhibit, multiple industry experts shared their insights during presentations and panel discussions. Retired General Wesley Clark, now co-chairman of Growth Energy, emphatically promoted ethanol and other agricultural-based energy sources from a national security perspective. "We're sending billions of dollars for oil abroad to people who do not like us. Ethanol helps keep those dollars here," he said.

In a panel discussion on Tier 4 engine emissions technology, Case IH training manager Leo Bose described the SCR advantage: "We get more power because we can tune the engine to use all the Btu content the fuel can deliver."

Tier 4 panelist Dawn Geske, editor-in-chief of *Diesel Progress* magazine, noted that SCR will become more widely used. "At this time, all signs point to most manufacturers using SCR to meet Tier 4B final emissions in 2014," she said.

Additional panel discussions included marketing insight with analysts including *Pro Farmer's* Chip Flory; a Tillage, Planting and Seeding presentation hosted by Charlene Finck, *Farm Journal* vice president of editorial; and new product overviews by Case IH product marketing specialists. ■

this information-sharing aspect of Be Ready.

At a special seminar immediately preceding the Expo, a Case IH-sponsored panel addressed a group of influential

growers from throughout the United States and Canada. Speakers included former U.S. Representative Jim Nussle whose 16 years in Congress included Chairman of the House Budget

Committee; Tom Buis, CEO of the ethanol lobbying group Growth Energy; Tom Dorr, president and CEO of U.S. Grains Council; and Dan Basse, president of AgResource, a grain marketing advisory firm.

Two themes underpinned their discussions: the positive price outlook for agricultural commodities, based on increased global demand; and the need to make your views known to your government representatives.

Basse explained that the number of households with disposable income over \$10,000 will begin to increase dramatically in Brazil, Russia, India and China, which translates into increased demand for higher quality diets. "China needs our food," he emphasized.

Dorr supported Basse's comments. "The demand for what you produce will grow exponentially," he said.

In this environment of increased demand, Buis noted that the government will play a bigger



Case IH through interactive online discussions.

"Farmers are facing new challenges every day, from feeding an expanding global population while meeting strict new emissions requirements, to production of more food on fewer acres while minimizing their environmental footprint," Greve says. "Case IH is committed to helping you meet those challenges."



SIGN UP FOR BLOG UPDATES

The Case IH Be Ready site includes the option to subscribe to the new Be Ready blog. It's free, and you'll receive e-mail updates about new blog posts.

MANAGED

**A MULTIGENERATION ONTARIO FAMILY
THRIVES WITH INCORPORATION AND
A FOCUS ON THE FUTURE**



Peter and Josh Vansickle.

What does it take for a family farm to sustain itself through the generations? For the Vansickles, of Brant County, Ontario, the formula includes the forward-looking step of incorporation taken 45 years ago and the recognition by each family member that their job is to ensure the overall success of the farm.

Today, cousins Peter and Josh Vansickle are gradually taking over the reins from Peter's father, Don, and Josh's father, Shawn, who are brothers. It was Don's father, George, who took the progressive step of incorporating back in 1966.

"The corporation has worked exactly as it should," says Josh. "It's made the transition between the generations very easy. It's a lot better than having the figurehead of the family own everything."

As the newest member of the corporation, Josh has experienced the clarity of transition firsthand. He's joined the farm as Don retired. "Everyone comes in with the understanding of how the business works, how you're going to come in, and how you're going out," Josh says.

As the last two members to join the business, Peter and Josh have brought new levels of insight and skill. Peter spent a year working for a large commercial grain merchandiser, and Josh graduated with an agricultural business degree from Olds College in Alberta.

PROGRESSION

Peter and Josh take a long-term view of their business. They're very mindful of the heritage behind them and fully intend to have a viable business for the next generation. To do so means continually growing the business.

For example, when Josh made his intentions clear to join the farm, the family evaluated business options to support him, including starting a poultry operation and adding more land. Ultimately, they purchased a local commercial elevator after learning its owner was interested in retiring.

"The elevator has been a good fit for us to bring Josh on as a partner," Peter says. "We had no on-farm storage, so handling our own crop helped justify the purchase."

They kept the former owner on for a year to help them learn the business. "We needed him," Peter says. "There was a learning curve."

The time requirements of the elevator pushed the Vansickles to become more efficient in their field operations. They farm about 2,500 acres of corn, wheat and soybeans. Josh and Peter handle most of the work at the elevator and the farm as their fathers' roles wind down. Josh's mother, Cindy, handles much of the bookwork, and the elevator has one full-time employee.

Higher capacity harvesting

Around the time they purchased the elevator, the Vansickles were running two Case IH Axial-Flow combines, a 1688 and a 2188. They saw the then-new Case IH Axial-Flow 8010 combine having the capacity to replace the two machines, with the advantage of needing just one operator and one grain cart. They bought the 8010 with a 12-row corn head for their 20-inch rows and a 35-foot flex draper head.

It was a good move. Peter says the 8010 has been a great fit for their operation, and the draper head has been

superior. Its ability to feed soybeans into the combine without bunching, even in tougher conditions, increases capacity and extends their workday.

"With that draper head, we can do another 20 acres or more a day by starting a little earlier and running a little later. Over a week's time, that's nearly 200 more acres this header adds to the machine's capacity," Peter says. In 200-bushel corn with their 12-row head, Peter

"This Case IH equipment has treated us well."

says the 8010 handles it with ease. "We're at about 75 percent capacity, running at 5.5 mph, which is fast enough," he says.

The Vansickles are conservative when it comes to their equipment. The Axial-Flow 8010 is a good example. It's a good match for their needs, and they plan to keep it for as long as it does the job. "We'll get our money out of it," Peter says. "There are very few belts and chains that require maintenance, it's really a nice machine."

Their primary tractors are a 9330 Steiger, an MX305 tractor which replaced a 7140 Magnum tractor they had for 11 years, and an MXM175.

Longtime no-tillers of soybeans and wheat, the Vansickles are trying new practices as they face the heavy residues from higher-yielding corn. Recently, they've used a 25-foot Case IH True-Tandem 330 Turbo vertical tillage tool to size and mix the residues that form a mat on top of the soil and keep it cool and damp in the spring.

They've used it in fall and spring conditions, and say it mixes residues well and leaves the field level enough to plant in. "It's doing the job we thought it would," Peter says. "We run it when conditions are fairly dry. It really chews up the residues."

They wanted to try the True-Tandem 330 Turbo rather than a

more aggressive tillage tool for residue management because they put a premium on low-cost practices that let them get the most production from their own labor. "If we started ripping stalks, we'd need higher horsepower tractors and a lot more time," Peter says. "The vertical tillage option is faster, lower cost, and effective."

Along the same lines, they use a 30-foot Case IH SDX no-till drill to plant all their beans and wheat. With

its 330-bushel two-compartment cart, Josh can plant soybeans on his own for more than a day. For wheat, they run seed wheat in one compartment and starter fertilizer in the other. "I can put in a lot of 'seat time' with that drill," Josh adds.

For corn, they use a Case IH 1200 Series 12-row planter, and strive to get the crop in the ground as early as possible.

"It's all about time," Peter says. "We see local research showing that corn planting delayed from late April to late May can lose 30 bushels. If we get even 10 bushels more by planting early, we're getting those bushels at no additional cost."

"This Case IH equipment has treated us well," he adds.

The cousins say the family's relationship with Case IH started when their grandparents gravitated toward IH and later, Case IH. "The equipment has never let us down, and the dealers keep us going, so why change?" Peter asks.

With a commitment to growth, the Vansickles say their plans include purchasing land whenever it's feasible. Competition for land in their area just outside of the city of Hamilton includes city people seeking the rural lifestyle as well as neighboring farmers with goals similar to theirs. "The

other farmers are looking to do the same thing we are, so there's respect for each other," Josh notes.

Land improvement is part of the Vansickles' plan, too, with field drainage tiling being an ongoing activity both on their owned land and on rented land having long-term agreements. They say one year of yield mapping convinced them tiling was a necessary first step before starting any more intensive levels of fertility management.

Peter and Josh credit their farming corporation's founder, George, with setting a standard of innovation which they're hoping to continue.

"He was one of the first to grow soybeans around here, and was a big advocate of hybrid seed corn," Peter says.

For their part, Peter and Josh see new marketing options for their crops. Their elevator gives them cleaning, conditioning and storage abilities, and they're within 100 miles of major exporters and end-users of grains, including a cooperative ethanol plant in which they are share owners.

"Now we have control of the crop from the time the seed comes out of the bag until it drops into the pit at the processor," Josh notes.

No matter whether the discussion involves marketing, land, equipment, or crops, the Vansickles say they manage by consensus on the big issues. "Everyone has input. We find that works best, and it's a model that the family has followed for four generations," Josh says.

"We all work well together, and we spend time together doing other things," Peter adds, who notes that there's about a 12-year age difference between him, Josh, Shawn and Don, which he thinks helps provide different perspectives.

"We explain our points and try to be open-minded," he says, "and it's worked well. Josh is the sixth generation to be farming here." ■

PERFORMANCE DISPLAYS ON TODAY'S TRACTORS DELIVER VALUABLE MANAGEMENT INFORMATION

POWER IN NUMBERS

Like that cell phone with dozens of features that you only use for calls, it can be easy to use just a few functions on the performance displays of current model tractors.

But if you're using displays such as the Case IH AFS Pro 600 or its new upgraded version, the AFS Pro 700, to simply observe basic information such as fuel used and acres covered, you're barely scratching the surface of what these tools can do for you.

The wealth of machine control and performance data available with these displays can help you run equipment more efficiently and make more accurate crop management decisions.

Let's look at making the tractor operate more efficiently. Even before you turn a wheel, the Case IH displays let you fine-tune the hydraulic systems to match the task.

As a general rule, you should set hydraulic flow and valve timers to the lowest settings that will handle the load and complete the function. Otherwise, the hydraulic system will be requiring more power than you need, and unnecessarily consuming fuel in the process. Other settings let you adjust hydraulic flow to meet special demands such as powering orbital motors.

By commanding the display to record data only when the implement is in the ground, based on the position of the hitch or remote hydraulics, you can gather precise field performance information.

While underway, the displays for engine power and wheel slip are good indicators of how well your tractor is performing. Refer to the engine load indicator to see how hard you're working the tractor. If it's showing 90 to 100 percent of power used during the

heaviest pulling conditions, you have an adequate tractor/implement match.

The displays for gallons of fuel consumed per hour and per acre are additional measures of fuel efficiency.

Current model Magnum and Steiger tractors have several performance features you can engage and monitor. For example the Diesel Saver Auto Productivity Management system automatically selects the best engine speed and gear selection to maintain ground speed. The AFS Pro 600 or AFS Pro 700 displays will show the improved fuel economy.

Seeing wheel slip in the 5 to 12 percent range is another indicator of good tractor/implement match and proper tractor weighting and tire inflation.

With the tractor set for optimum implement match and efficient operation, you can shift your focus to gathering data during field operations.

Let's look at the screen shot of an AFS Pro 600 display from a Magnum 305 tractor working with a five-shank MRX690 disk ripper, 12.5 feet wide. After several hours of running, we see it's averaging 1.7 gallons of fuel used per acre and covering about 8.71 acres per hour, for an average fuel consumption of 9.8 gallons per hour. Wheel slip has been averaging 5.8 percent and the engine load averaging 69 percent, including time spent turning around. So far, the tractor has covered 47.53 acres with this implement.

That's interesting data, but the value lies in what you can do with it. For example, are the acres covered being maximized for the amount of fuel used? If the tractor has a little more capacity, can you run one gear faster and still do a good job? Or will that

or specific crop? It's all there, easily accessible and available for download for further analysis.

If your AFS Pro 600 or Pro 700 display is GPS-linked, your information options increase. For example, is the tillage operation you're performing necessary? Skip part of the field as a test plot and do a yield comparison when you harvest using site-specific yield data.

You can map fuel usage across a field. Areas showing higher fuel use may have tighter soils that could benefit from deep-ripping or tile installations.

Do you have multiple operators running the same equipment? Use the data to compare their performance. Aides such as Diesel Saver and automated

end-of-row functions can help less skilled operators run things properly and consistently.

All the operating data generated by these displays can help you develop more accurate operating budgets. You can predict how much fuel to buy, and how many hours of labor will be required. You'll know the cost of each field operation. You'll know how much time, fuel and equipment cost you have in each acre or in each bushel, bale or pound of crop production.

The bottom line is that performance displays such as the AFS Pro 600 and AFS Pro 700 are capable of providing extensive, detailed and accurate performance information that can be leveraged into valuable management information. Use it to your advantage. ■



Case IH AFS Pro 600 and Pro 700 displays can provide a wealth of information that will help you make better equipment management decisions.

result in higher wheel slip which increases per-acre fuel use to an unacceptable level? The display will tell you, instantaneously, or over a period of time.

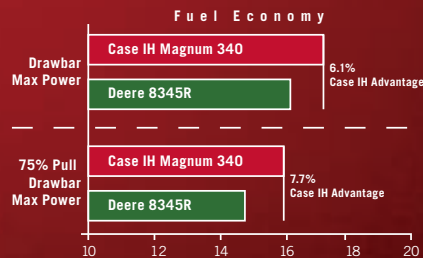
Knowing the rate you're covering ground and using fuel will let you accurately budget time requirements and fuel needs for completing specific operations on all your acreage.

The AFS Pro 600 and Pro 700 displays can retain this field performance in a variety of ways. For example, you can track operations by crop, by field or by implement.

Would it be helpful to know exactly how much it costs per acre to perform a specific tillage operation? Or how much equipment expense (time and fuel) you have invested in a specific field

OUR MAGNUM™ STORY: THE POWER YOU WANT. THE EMISSIONS YOU DON'T. THE END.

In recent independent tests*, the new Magnum 340 with SCR (Selective Catalytic Reduction) technology outperformed the Deere 8345R in fuel efficiency across the entire power band. Plus, the Magnum recorded up to 8% more drawbar horsepower than the competition. SCR technology also provides the Magnum with clean, cool air, resulting in cleaner oil and less maintenance. To learn more, visit your Case IH dealer or caseih.com/beready to see how Case IH tractors with SCR technology can help prepare you for the future.



BE READY.



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*Magnum 340 (preliminary Nebraska test November 2010), drawbar maximum power at 17.13 hp-hr/gal., and 75% of pull maximum power at 15.99 hp-hr/gal., compared to Deere 8345R (Nebraska test 1972, June 2010) drawbar maximum power at 16.14 hp-hr/gal., and 75% of pull maximum power at 14.84 hp-hr/gal.

WORK. WORK. WORK.

**JOBS ARE MORE DEMANDING. WORK DAYS
ARE GETTING TOUGHER, AND LONGER.**

Getting the job done means working the whole day, every day. And it means having equipment that works as hard as you do. The new Farmall® C tractors from Case IH are more than ready to do their part – built to deliver the power and performance you need, reliably and cost-effectively. And they deliver a level of operator comfort that makes those long hard days a lot more productive. Here's a new generation of Case IH utility tractors that's ready as you are for a hard day's work.



NEW FARMALL C TRACTOR

- 8F/8R or 12F/12R transmission with hydraulic shuttle and creeper options for superb maneuverability and control
- Fuel efficient, 3.2-liter Case IH FPT engines provide peak performance and reliability
- Flat deck cab floor with controls and instrument panels positioned to enhance operator comfort
- Heavy-duty loader option, plus a high visibility roof panel for maximum view of your load and increased productivity
- New headlights for night visibility and roof-mounted rear indicator lights for better visibility on road



CASE IH HAS ALL THE TOOLS YOU NEED FOR YOUR LIVESTOCK OPERATION.

The Case IH Farmall series tractors are ready to handle any task your livestock operation can bring their way. From chores big and small to hauling, mowing, loading and pulling your hay equipment, they're ready. And speaking of hay tools, Case IH also has all the cutting, conditioning, raking and baling equipment you need – from mowers and rakes to windrowers, balers and forage equipment. Case IH understands that getting your job done means working hard all day – every day. We're ready to help you do just that.

FARMALL® TRACTORS

For over 85 years, Farmall tractors have represented rock-solid value, versatility and performance. With horsepower ranging from 31 to 105 and an army of attachments, Farmalls do it 'all', reliably, comfortably and economically.

RB455A ROUND BALER

Ranch and small farm owners can count on the new RB455A round baler from Case IH for big-time productivity without the operating costs associated with a larger baler. All it takes is a tractor with 40 PTO horsepower and a single hydraulic remote and you're up and running with a machine capable of picking up to 62-inch windrows and turning out thousand-pound bales.

CASE IH SCOUT™

You've got to-do lists and can't-wait-to-do lists. Case IH can help you be ready for both with a Case IH Scout UTV. Haul feed, scout crops, track deer, discover new trails and take your crew along for the ride with a Case IH Scout 4WD utility vehicle. 'Cause at the end of a hard day, there should be a reward.

NEW RD3 DISC HEADS

Increase the productivity of your WD3 series windrower with the all new RD3 series Rotary Disc Header. Cover more acres each hour with the industry-leading cutting width of 19' 4". The new cutterbar has a profiled design to reduce horsepower requirements, which maximizes performance and reduces fuel consumption.



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POSITIVELY POTATOES

A FOURTH-GENERATION POTATO GROWER STRIVES FOR QUALITY AND EFFICIENCY

Larry Sackett counts on a Case IH fleet to produce more than 1.7 million cwt. of potatoes annually. His goals include using the tractors for multiple tasks, including switching from flotation tires to narrow-row tires on the Magnum tractors, maximizing the hours they can be used.

Idaho claims the number one spot for overall U.S. potato production, but for potatoes that end up as potato chips, Michigan has been the nation's leading producer for years.

Every year, fourth-generation potato grower Larry Sackett supplies more than 1.7 million cwt. of those Michigan potatoes in an operation that demands intensive management and dozens of pieces of equipment.

Sackett thrives on the pace. "The easiest thing I do every day is come to work," he says.

It's a business that his great-grandparents, who began growing potatoes on the rolling sandy soils here near Stanton in the 1890s, couldn't envision.

Each year, the farm, which op-

erates as Sackett Ranch, has about half of its approximately 10,000 acres devoted to potatoes.

The crop begins with sourcing the seed stock potatoes, which arrive in mid-February. These whole potatoes are grown in isolated areas of Wisconsin and Michigan which minimizes the risk of potential viruses and diseases.

Sackett's crews cut and size the potatoes into the chunks that are planted into a seedbed that's been well-worked and mixed to produce a loose fluffy soil, with prior crop residues fully incorporated.

As the potato plants emerge and grow, they're tended with multiple cultivations and weekly analyses by crop consultants who recommend

timely treatments of crop protectants applied by ground and air. Every acre of Sackett's potatoes is watered by one of more than 200 center pivots; four of Sackett's 30 year-round employees are assigned to irrigation duties during the growing season.

A drive for perfection underpins all these steps. Nearly all the potato acreage is grown on contract. Sackett's buyers provide financial incentives for potatoes surpassing their standards that include consistent size and appearance, specific gravity and absence of foreign material.

"Weather conditions throughout the growing season greatly affect potato quality, but there are plenty of variables we can control, including variety selection, fertility and



timeliness of planting and harvesting," he says. Storage management is another factor.

Although some potatoes are shipped from the field, Sackett stores the majority of the potatoes in his warehouses where temperature and humidity is computer-controlled. Semi-loads of potatoes are shipped nearly daily throughout the year.

Sackett says the equipment needed to make all this happen is "beyond belief." At peak potato planting and harvest times, he says, they're also working with the wheat, peas, corn and oats that are additional cash crops and rotations.

For example, potato harvest employs four harvesters plus 10 windrowers, 21 trucks and two

unloading systems. While that's going on, tillage is underway and the grain crops are being harvested. During peak seasons, some 70 people are employed.

Case IH tractors provide the power. The fleet currently includes four Steiger models, a 500, a 450 and two 435s; 11 Magnum tractors including three 335s with MFD, four 305s, a 225 CVT, two 210s and a 190; and two Maxxum 125s with loaders. A pair of Axial-Flow combines, a 2577 and a 5088, handle the grain, and some 40 Case IH power units ranging from P70s to PX240s power center pivots.

Each tractor earns its keep with annual hours averaging over 1,000. "We have to use these tractors to the utmost to justify them," Sackett explains.

For Sackett, that means using these bigger tractors for multiple tasks. When the Magnum tractors are finished with tillage, he removes the wide 710/70R42 rears and 600/65R28 fronts, both duals, he uses for maximum tillage traction on

the sandy soils, and switches to tall narrow 380/90R54 duals on the rear and corresponding single narrow tire on the front. This lets these tractors handle cultivation, hilling, windrowing and harvesting in the 34-inch potato rows.

"These electronic engines have really helped us on fuel economy for these lower-horsepower tasks," Sackett explains. He says that even though they're high-horsepower tractors, features such as the Diesel Saver Auto Productivity Management system enable the tractors to consume only the fuel that's required for the task.

He keeps the tall narrow tires and rims when he trades tractors, which isn't that often; he likes to see 6,000 to 7,000 hours on them before trading.

Autoguidance is a recent addition to Sackett's operation. He's using Case IH AFS Autoguidance on his planting tractors, and has been integrating the system to control the steerable rear wheels on his guidance-capable potato planters.

"These planters are heavy when they're loaded with potatoes and they tend to drift sideways on the hillsides. There's quite a distance between the tractor's front wheels and the rear wheels on the planter. Being able to steer both makes sense," he says.

Sackett runs the operation with a management team that includes his wife, Mary, and his daughter and son-in-law, Michelle and Luke Parr. As a manufacturing engineer, Luke brings a unique advantage to Sackett Ranch by designing and building specialized equipment, using his computer aided design (CAD) capabilities.

Sackett also counts on support from his primary suppliers. For Case IH, he says that not only means unwavering service from his dealer, but also information and support from the Case IH organization. For example, he says the Case IH tractor specialist for his area held an on-site training session to help the Sackett Ranch employees understand the productivity features of their newest



The Sackett Ranch potatoes are stored in multiple on-farm climate controlled warehouses. Temperatures and humidity levels are managed to sustain quality, and vary based on potato variety and shipping date.

Magnum tractors. "That he's willing to do that is very important to us," Sackett says.

Sackett says he saw more of the commitment Case IH brings at the recent AG CONNECT Expo in Atlanta. There, he said Case IH was "very aggressive" in having experienced people at their display to answer questions.

"They had experts with each piece of equipment. That's important," he says. "And they're all very proud of their line, which influences me, as an owner."

This beneficial business relationship extends to CNH Capital, as well. CNH Capital's promptness and ease of transactions is a special advantage, he explains. "All the way from buying Case IH parts, to leasing, to purchases, working with CNH Capital makes good financial sense," Sackett says. "And with them, we can close deals fairly quickly."

Each year, Sackett says the major food companies he supplies introduce new grower requirements, often dealing with quality and traceability. He says he welcomes the challenge to always work to higher standards.

"After all," he says, "it's all about proving that we're producing safe food." ■



Sackett shows bags of potato chips they fry daily to confirm the quality of the potatoes they're shipping. He says they pull 40 potatoes, and take three slices from each one. Desirable high-starch potatoes fry to a golden color; those with higher sugar take on a darker appearance.

PRECISION MATTERS

THESE ALBERTA BROTHERS SEE A CASE IH PRECISION HOE 800 DRILL DELIVERING FASTER, MORE EVEN EMERGENCE IN A SIDE-BY-SIDE COMPARISON

"As we looked at upgrading our drill – which is not something we do very often – we had a decision to make," explains Spencer Hilton.

"Do we get one drill to cover all our acres, knowing we'd make some sacrifices in terms of depth control and placement, or do we get a precision drill that will do a better job of seeding, but will require us to run slower, and therefore need two drills?"

That was the question brothers Spencer and Sterling Hilton were asking in 2009, as they evaluated new seeding systems.

The Hiltons farm about 10,000 acres of canola, hard red spring wheat and malting barley near Strathmore, Alberta.

They have been longtime users of air hoe drills, most recently relying on one 70-foot Case IH Flex Hoe 700 air hoe drill for nearly their entire acreage. They ran it at speeds up to 7 mph, and it did a good job for them, seeding directly into the previous crop's residues.

But as good as the Flex Hoe 700 was, the brothers saw advantages with new precision drills that can deliver accurate, consistent seeding depths. Prompt and even crop emergence, they figured, could result in a yield advantage.

The Hiltons had the unique opportunity to compare both options for their 2010 crop. They seeded approximately half the acreage with their Flex Hoe 700 drill. The other half was seeded using a new Case IH Precision Hoe 800 air hoe drill.

The results proved to them that in today's world of higher-priced inputs

and the need to maximize yields, precision matters.

Accurate depth control for each row

The Case IH Precision Hoe 800 differs from traditional air hoe drills in its ability to deliver consistent seeding depth for each row across the entire width of the implement. Each opener is part of an independent patented parallel link row unit. Each unit follows the ground independently, using a gauge wheel to maintain accurate seeding depth in a range of motion 9 inches up and 7 inches down.

"The Precision Hoe 800 has individual depth control on every shank, whereas the 700 hoe drill has one depth setting," Spencer says. "On the 800, each shank, rather than each section, follows the ground contours."

The Hiltons looked at several makes of precision drills that use a



Sterling and Spencer Hilton chose the Case IH Precision 800 air hoe drill for its independent depth control for every shank, resulting in more even emergence. They use two of the 70-foot drills to seed approximately 10,000 acres, matched to Case IH Quadtrac 535 and 530 tractors with RTK autoguidance. With seed and starter fertilizer in the 430-bushel Case IH Precision Air tow-between carts, and a pair of 1,750-gallon anhydrous ammonia tanks, it's a true one-pass seeding system.

two-opener system – one leading and one following – but they preferred the one-opener design used on the Precision Hoe 800 because it's worked well for them on their previous Case IH drills.

"We see the one-opener design being an advantage in residue clearance," Sterling says.

Hiltons use the hoe-style opener as a single shoot from the air cart, with seed and starter fertilizer being applied together. Because they apply anhydrous ammonia at the same time, they use an ultra-low disturbance side-

band opener which creates a small "shelf" for the seed and dry fertilizer, and places the NH₃ lower and to the side, without disrupting the next row.

Because each row unit maintains its depth individually, each one has its own easy-to-set manual depth control. Seeding depths go to 2 inches, in 1/8-inch increments.

Another new feature of the Precision Hoe 800 is the ability to adjust down pressure hydraulically, on the openers or the frame, by using the AFS Pro 600 display in the cab.

"We didn't see this as a big advantage when we heard about it, but we've found it to be quite helpful, especially in wet conditions," Spencer says. "Suppose we suddenly run into a wet area. We can reduce the pressure on the frame so that the packing system isn't sinking into the ground. We can keep going without burying the seed."

"And, when we come to hard spots such as areas where there has been a lot of traffic, we can increase the pressure on the openers to keep them in the ground. We're only talking about certain areas in the field, but this ability to adjust down pressure is a good feature, and it's something this drill can do that others can't."

Recognizing that slower speeds



Each opener of the Precision Hoe 800 is part of an independent parallel link row unit, with a gauge wheel to maintain accurate seeding depth. Down pressure can be adjusted hydraulically, on the openers or the frame on-the-go, using the AFS Pro 600 display in the cab.



Owner Profile

Spencer and Sterling Hilton
Strathmore, Alberta

Acreage:

Approximately 10,000

Crops:

Canola, hard red spring
wheat, malting barley

Comments:

- "On the 800, each shank, rather than each section, follows the ground contours."
- "Better depth control is the key with this drill. All the seedlings come up from the same depth, so they emerge at the same time. The crop matures evenly, so we can harvest it earlier."
- "The Flex Hoe 700 did a fine job. We made the switch because we wanted to go to this more precision style of seeding, with inter-row seeding being a key component."

would help deliver the consistent seeding depth the Precision Hoe 800 is capable of, the Hiltons held their speed to about 4.7 mph. An added benefit was better soil packing, as the soil was not disturbed as aggressively. The packing wheel that's part of each row unit firms the seeded row.

Their crops' performance in 2010 confirmed what they hoped to see from the new seeder. "We definitely saw an improvement in emergence. It was a very even crop," Spencer says. "The precision depth control works."

That experience convinced them to add a second Precision Hoe 800 and use the two 70-foot drills beginning with the 2011 crop in place of one new traditional air hoe drill.

Inter-row seeding

Prior to seeding the 2010 crop, the Hiltons upgraded their Case IH AFS AccuGuide autoguidance signal to RTK for its sub-inch accuracy.

As they seeded the 2010 crop using RTK guidance, they made grid maps of how each field was seeded. For 2011's crop, they'll set their guidance systems to split last year's 10-inch rows and seed the new crop directly down the center of last year's row.

"This concept of inter-row seeding was one of the drivers for us to go to precision seeding," explains Sterling. "In order to do a good job with it, we decided we needed a precision drill with individual opener depth control."

The Hiltons say recent research they've seen in western Canada indicates inter-row seeding can promote faster emergence. The center of the row is less likely to be covered with straw, so it captures more radiant energy for faster soil warming.

"It creates a biosphere that reduces stress on the seedling and promotes earlier, more vigorous emergence," Spencer says.

"We have a short growing season here, so getting the crop out of the ground earlier helps us at harvest," Spencer adds.

Another benefit they cite to inter-row seeding is being able to seed each field in the most efficient direction. "Quite often, with our single-depth control drills, we'd go 90 degrees to last year's stubble to create a smoother seedbed. Now we'll seed the same way every year," Sterling says.

While the precision depth control of the Precision Hoe 800 was the new feature that attracted the Hiltons,

the fact that it uses several desirable features from the Flex Hoe 700 added to its appeal.

Specifically, they like the way the Precision Hoe 800 folds and transports, which is exactly the same as the Flex-Hoe 700. They travel up to 100 km with the drill on roads ranging from washboard gravel to heavily trafficked suburban highways.

"Having that drill folded back rather than winged up, and supported with six sets of tandem transport wheels on the ground is an important feature to us," Spencer says. "We have this massive amount of steel going over rough roads, which can be a problem. We can't miss every bump. On these drills, the weight is evenly distributed."

"We also deal with a lot of traffic at times, and we like the fact that these drills fold narrower than drills of similar size," Sterling adds.

The Hiltons have their two Precision Hoe 800 drills matched

with Case IH Precision Air 3430 tow-between carts with three compartments. Depending on the crop, they'll have one or two compartments devoted to starter fertilizer, and they tow a pair of 1,750-gallon anhydrous ammonia tanks. It's a true one-pass seeding system.

They pull the rigs with Case IH Quadtrac tractors, a 535 and a 530. "It's a pretty long train," Spencer notes.

The Hiltons' investment in precision seeding and inter-row seeding continues a focus on efficient conservation-minded farming started by their father, Gordon Hilton. He was a pioneer in no-till seeding in the region, beginning in the late 1970s, and served as the first president of the Alberta Soil Conservation Association. "He's been a great inspiration to us," Sterling says.

The Hiltons say their decision-making process includes gaining input from all family members, which include Sterling's wife Lianna, Spencer's wife Lynne, and Spencer and Lynne's oldest son, Dane, who has joined the farm full-time.

"We all have our specific roles and responsibilities. We recognize the talents of individuals, and we put people in areas where they can really succeed and do well," Spencer explains.

The family holds structured meetings at set times. "We all contribute based on our roles such as marketing and agronomy. We have a good process for communicating and discussing, and for making decisions," Spencer says.

They say their decision to buy the Precision Hoe 800 drills, with their new technology, was made easier by their confidence in their Case IH dealer and the Case IH organization.

"We think 'For those who demand more' is a great motto for a company to have. And, we find that in dealing with Case IH and more specifically, our local dealer, that they actually live up to that expectation," Spencer explains.

"Overall," he says, "we continually try to maximize the potential of our resources. Accurately placing seed in soil that's able to capture radiant energy for faster emergence is just one example." ■

CASE IH NEW PRODUCTS

Case IH continually introduces new and updated equipment. Here's a look at several new products that can bring new efficiencies to your farming operation.

NEW C SERIES FARMALL TRACTORS



New C Series Farmall tractors are available in cab or ROPS versions with two-wheel drive or MFD. They are well-suited for a broad range of field and farmstead chores including hay and livestock applications, and material handling with Case IH L600 Series loaders.

The newest models of Case IH C Series Farmall tractors continue the Farmall tradition of versatile performance and value.

The new C Series includes three models: The Farmall 75C at 65 PTO hp; the Farmall 85C at 75 PTO hp; and the Farmall 95C at 85 PTO hp. All are powered by FPT Case IH four-cylinder 3.2-liter turbocharged engines. The Farmall 85C

and 95C are also intercooled.

These flat-platform tractors are well-suited for a broad range of field work and farmstead chores. Transmission choices include an easy-to-use 8-speed forward/8-speed reverse transmission or a 12-speed forward/12-speed reverse transmission, both with a choice of mechanical or hydraulic shuttle. Choose two-wheel

drive or mechanical front-wheel drive.

The new C Series feature separate hydraulic systems for steering and for the implements so that both systems are uncompromised during loader work and other demanding hydraulic tasks. The high-capacity open center hydraulic system includes one standard remote valve with one or two additional valves optional, and a standard three-point hitch.

Both ROPS and cab models include a new instrument cluster that tilts with the steering column, a larger operator's seat, and ergonomically positioned hydraulic valve controls and loader joystick position. An operator training seat is optional as is an operator's seat that swivels 15 degrees.

Cab models have new options including a high-visibility roof panel and a factory installed radio with iPod connection.

Match the C Series tractors with Case IH L600 Series loaders with their new durable Quick-Latch system for easy mounting and removal, and a choice of more than 70 attachments including buckets, forks, grapple and spikes.

ENGINE BRAKE AND TRAILER BRAKE OPTIONS FOR MAGNUM AND STEIGER TRACTORS

Operators who tow heavy grain carts and slurry tanks can gain improved vehicle control with engine brakes or trailer brakes available as factory-installed options on Case IH Magnum and Steiger tractors.

The engine brake is a compression brake system very similar to those used in heavy duty trucks. When activated, the engine brake turns every other cylinder stroke into a compression stroke for added engine braking when the engine is throttled back or to help hold speed when going downhill in gear.

The optional trailer brake system includes either the hydraulic or air supply, the in-cab control, and the couplers to activate brakes on trailing vehicles.



Optional engine brakes and trailer brakes for Steiger and Magnum tractors provide added control for transporting heavy loads.





NEW PUMA MODELS PROVIDE CVT

Equipped with the CVT transmission the three new Puma models from 105 to 135 PTO hp are efficient and maneuverable. Here, a Puma 130 CVT works with an optional Case IH L760 loader.

Three new Case IH Puma models bring the ease and efficiency of the Continuously Variable Transmission (CVT) to tractors in the 105- to 135-hp range. The Puma 130 CVT at 105 PTO hp, the Puma 145 CVT at 120 PTO hp and the Puma 160 CVT at 135 PTO hp are Tier 4A compliant with Selective Catalytic Reduction for improved fuel economy and overall performance. These new models are powered by a 6.7-liter FTP engine.

The Case IH CVT transmission efficiently delivers power to the ground in an infinitely variable range of speeds from creep speeds to road transport. The standard Diesel Saver Auto Productivity Management System manages the engine and CVT to automatically select the most

fuel-efficient engine speed and transmission ratio to maintain the operator's requested ground speed even under varying loads.

These three new Puma models ride on a 107.6-inch wheelbase with the standard front axle, making them well-suited for livestock chores including loader work with the Case IH L760 loader. An optional suspended front axle makes lift-and-carry operations faster and more comfortable.

These tractors are available guidance-ready for Case IH AFS AccuGuide autoguidance and can be ordered with the complete autoguidance system factory-installed.

The CVT transmission is also available in five 113.6-inch wheelbase Puma models with PTO hp ratings from 140 to 195.



AFS PRO 700 DISPLAY

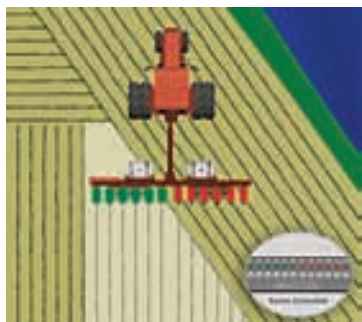
This successor to the popular AFS Pro 600 Display features a slimmer, lighter design with a larger touch-screen display. It's integrated into the new MultiControl armrest on the new Tier 4A models of Case IH Steiger, Quadtrac, Magnum and Puma models, and will be introduced on other Case IH equipment including combines, sprayers and cotton pickers throughout 2011 and 2012.

The new AFS Pro 700 display provides the next level of information and control of the tractor and implements. It has 1 GB of internal flash memory, two USB connection ports for data transfer, and has inputs for up to three video cameras.

This new display manages the Case IH AccuGuide autoguidance systems and performs Tractor Field Performance monitoring that can help you maximize performance, productivity and efficiency. It provides full control of Case IH Early Riser Planters and Precision Air carts including variable rate prescription planting and as-applied mapping. And, it manages the functions of LB Series square balers and Case IH Precision Spray pull-type sprayers.

The AFS Pro 700 display is also compatible with select non-Case IH equipment including the Raven Variable Control System, the Rawson Accu-Rate Control System and the Flexi-Coil Flexcontrol II control system.

AUTOMATED PLANTER ROW SHUT-OFFS



Add Case IH Accu-Row Clutches to your Case IH 1200 Series Early Riser planter to eliminate overlaps into previously planted areas. The Accu-Row Clutches work with the Case IH AFS AccuGuide autoguidance system and the AFS Pro 600 and the AFS Pro 700 displays or the AgGPS-EZ Boom 2010 automated application system.

When the guidance system detects that the planter is entering a previously planted area, it commands the Accu-Row Clutch system to automatically disengage planter row units, using air-activated clutches.

Avoiding double-planting saves costly seed and helps sustain yields, as crowded plants don't reach their full potential. Double-planted areas generally yield 30 to 35 percent less compared to areas with the optimal population.

Accu-Row Clutches are a factory-installed option on new Case IH planters, and are also available as an aftersales parts item at Case IH dealerships for installation on existing planters.



AFS Accu-Row Clutches.



At least one generation of farmers has grown up hearing the words "Earth Metal" used for the disk blades on Case IH tillage and planting and seedling products.

Earth Metal was introduced in 1979 as the trademarked name for a patented process of formulating metal so that it can survive the special challenges placed on disk blades, tillage sweeps and chisel points.

It was developed by International Harvester metallurgy engineers at the company's engineering center in Burr Ridge, Illinois, that now serves as CNH Global's Engineering Center. This is the same facility where the Farmall tractor – the world's first successful row-crop tractor – was designed and tested in 1923.

STRONG, YET FLEXIBLE

A GENERATION OF FARMERS HAS GROWN UP HEARING ABOUT EARTH METAL. BUT WHAT IS IT, REALLY?

This achievement helped earn the center's recognition as a National Agricultural Engineering Historic Landmark in 1980.

Earth Metal was truly a unique development. Conventional disk blades are formed from high-carbon steel. When that steel is hot-rolled as part of the blade manufacturing process, sulfur impurities known as "sulfide stringers" are created. Under a microscope, these stringers look like grains in wood. When disks made with this high-carbon steel hit a rock, they often break along the lines of those grains.

In contrast, Earth Metal incorporates 12 tightly controlled earth alloys including boron into its metallurgy. Boron is significant; it's a key element for hardness and ductility, which is the metal's ability to flex without breaking.

Some of these alloys encapsulate the sulfur impurities so instead of the wood-grain struc-

ture, the magnified view shows a honeycomb appearance. The result is an immense improvement in strength, structural rigidity and elasticity.

Other disk blade manufacturers also claim to have boron steel. But boron is just one piece of the puzzle; it's the perfect combination of all 12 alloys that makes Earth Metal truly unique.

The result is disk blades that have been proven in tests and in general field observations to be in the range of 30 percent stronger and lasting 20 percent longer compared with conventional disk blades in the same conditions.

The flexibility of Earth Metal is truly remarkable. Similar to a truck spring in its ability to be both extremely strong yet pliable, Earth Metal will stand up to repeated bending without breaking or warping under stress loads that would immediately crack plain commercial grade

hot-rolled carbon steel.

The original Earth Metal formula has been upgraded over the years to keep pace with advances in metallurgical science, and to maintain its performance advantages over competitive disk blades.

The most recent change took place in 2007, when Earth Metal blades with the Super Sharp edge were introduced to meet the demands of hard-to-cut Bt corn stalks and other tough-stemmed crop residues. These new blades, now standard on all Case IH tandem disks, have an edge treatment that's as much as five times sharper than conventional disk blades. They're formed in a process that includes stamping with a 2,000-ton press prior to edging, notching, shaping and heat treating; and a water-quench of the heat-treated blades while they're firmly locked in their dies which contributes to overall blade toughness and durability. This process also assures a true, warp-free shape.

Today, Earth Metal blades and sweeps continue the innovation and leadership set forth by the IH engineers more than three decades ago. They last longer, stay sharper, and perform better. They help reduce overall operating costs while doing a better job of residue sizing and soil management. ■

EARTH METAL BLADES STAND UP TO INTENSIVE ARIZONA TILLAGE



While min-till and no-till practices have become the norm for many growers of the commodity crops including corn, wheat and soybeans, producers of irrigated specialty crops in California and Arizona count on multiple rounds of tillage for each crop production cycle to manage residues, maintain a clean, level surface for irrigation, and manage weeds in field-to-plate crops where chemical use is restricted.

Tony Leeper has been the service operations manager for Pasquinelli Produce in Yuma, Arizona, for 18 years. He oversees an equipment fleet that works 9,600 acres of leaf and head lettuce, cauliflower, broccoli, spinach, wheat and watermelons.

Case IH disks, using Earth Metal blades, have been his choice to handle the intensive tillage on soils that range from dense clay to sandy loams.

"Most of this land is disked at least five times a year with our five Case IH 770 offset disk harrows," he says. "We've used Case IH disks for years, and I don't recall a blade failure from cracking, bending or uneven wear."

"Every expense is analyzed in this operation, and we count on Earth Metal blades to keep disk repair costs to a minimum."



In tough Arizona conditions, Earth Metal blades (left) keep their diameter and shape while competitive blades (right) are ready for replacement after running on the same implement.



CASE IH POWER IN THE PALM OF YOUR HAND.

There are a lot of things our heavy equipment does well. For everything else, there's Case IH Hand Tools. They're built to the very tough standards you've come to expect from us. From Needle Nose Pliers to Air Impact Wrenches, we've got every tool for every job. Stop by your Case IH dealer and check them out today or visit bestcaseihparts.com.



FIRST TIER 4A TRACTOR DELIVERED



Case IH delivered the first tractor meeting the U.S. Environmental Protection Agency's Tier 4A emissions requirements for agricultural equipment in early December. Paul Fortkamp, a farmer from Fort Recovery, Ohio, visited the Case IH Racine Manufacturing Operations in Racine, Wisconsin, to take delivery of his new 2011 model Case IH Magnum 180 tractor.

At 150 PTO hp, the Magnum 180 tractor is joined by Magnum models to 280 PTO hp and Steiger and Quadtrac models to 600 engine hp that will all be equipped with Selective Catalytic Reduction (SCR) to meet new Tier 4A emissions requirements. SCR uses Diesel Exhaust Fluid to treat emis-

sions in the exhaust. This allows the engines to be tuned for higher performance and fuel efficiency, compared to the alternative emissions system of Exhaust Gas Recirculation.

As he evaluated new tractor choices for his cash-grain and poultry operation, Fortkamp said getting the newest technology, with its fuel-savings potential, was appealing. "The SCR technology makes the Magnum 180 more fuel-efficient, which is important to me as I try to reduce input costs," he says.

Testing has shown that the operating costs of the new Case IH tractors using SCR are up to 10 percent lower compared with previous Case IH models.

Local news media covered the event as Ohio farmer Paul Fortkamp, center, received the keys to his new Magnum 180 tractor from Jim Walker, vice president, North American Case IH Agricultural Business at the company's Racine tractor manufacturing plant. Fortkamp's new tractor was the first delivery of a tractor meeting the new EPA Tier 4A emissions requirements. Racine plant manager, Steve Tyler, looked on.

SHOW AND TELL

ACTIVE CUTAWAY DISPLAYS GIVE INSIDE LOOK AT CASE IH TECHNOLOGIES

Ever wonder what takes place inside an Axial-Flow combine? Or inside the new Continuously Variable Transmissions (CVT)? Visitors to the Case IH display at recent farm shows have had the opportunity to see these unique technologies in action with two new cutaway displays.

The CVT transmission now available on eight Puma models from 105 to 195 PTO hp and four Magnum models from 150 to 195 PTO has the unique ability to provide a smooth, stepless delivery of power from creeper speeds to transport speeds, simply by moving the MultiControl handle fore or aft.

The cutaway display shows how the system manages a hydrostatic drive pump, a compound planetary gear set and a heavy-duty double clutch system to provide a fully mechanical linkage, a fully hydraulic mode, or a combination of the two. The cutaway also demonstrates how the Case IH CVT system, with four mechanical gears and two reverse gears, can operate in full mechanical mode a higher percentage of time for maximum fuel efficiency.

The gentle grain-on-grain threshing performance of the Case IH Axial-Flow harvesting is legendary. Now a new cutaway of a 20 Series combine shows that familiar single AFX rotor along with all the crop feed-

This new display shows the threshing systems of a Case IH 20 Series combine, including the simple and efficient CVT Power Plus drive system.



A cutaway of the CVT transmission available on Puma and Magnum models shows how it delivers an infinite range of speeds while frequently maintaining full mechanical linkage for maximum fuel efficiency.

ing and cleaning systems that give these models exceptional capacity. An accompanying video shows the crop moving through the combine.

The display also shows the entire CVT Power Plus drive system, which eliminates most drive belts and chains for easier maintenance and greater uptime.

These two displays are among the ways Case IH strives to present information that will help farm show visitors see first-hand how Case IH equipment can help them be more productive. In addition, the shows are staffed with Case IH product specialists who have extensive knowledge about the equipment and its applications.



RAM TRUCKS IN CASE IH RED

If Case IH Red is the favored color on your farm, RAM Trucks has the perfect new paint option for you. The official "Case IH Red" can now be ordered as a paint option on 2011 model RAM 2500/3500 Heavy Duty pickups and 3500/4500/5500 Chassis Cab trucks.

The new Case IH Red option provides a way for Case IH farm equipment owners to create a visually coordinated vehicle collection, according to RAM Trucks. We say, the more Red, the better!



3020 FLEX HEAD WINS AE50 AWARD

Case IH products are frequent winners in the annual AE50 awards sponsored by the American Society of Agricultural and Biological Engineers to recognize innovative agricultural products from around the world.

For 2011, the AE50 judges included the Case IH 3020 Flex Head among the award winners.

The 3020 Flex Head uses a unique TerraFlex flotation system which requires only minimal cutterbar down pressure to accurately follow ground contours. The benefit is its ability to stay on top of the soil in soft ground, across the entire width of the header. In these conditions, headers frequently dig in, or must be raised, leaving some low-growing crops such as soybeans in the field. New poly skid shoes aid flotation over sticky soils and crop residues.

The 3020 Flex Head is available in 20-, 25-, 30- and 35-foot widths.

WHAT'S NEW AT WWW.CASEIH.COM

The Case IH website, www.caseih.com, is continually updated with Case IH news and information about Case IH products and events. It's a site you should visit regularly to browse and see what's new.

There's a wealth of information that's only a few clicks away. Here are just a few examples:

- Build and price any Case IH product using the "Build and Price" feature. It's a good way to pre-shop a piece of equipment or get an idea of what range of options are available as you consider new equipment. A financing calculator lets you evaluate financing options, and you can request a price quote online.
- See how a Case IH model compares with other Case IH or competitive models in the "Compare Specs" feature.
- The "Parts & Service" link takes you to the "Online Parts Store" where you can find extensive parts resources including schematics and ordering options.
- Browse among hundreds of pieces of all makes of used farm and construction equipment available through Case IH dealers at the "Used Equipment" feature, www.caseihused.com.
- Learn about any timely offers on Case IH equipment, including the ability to request a personalized special offer coupon you can take to your Case IH dealer.

Of course there's the full range of descriptions, specifications and images of the complete line of Case IH equipment. It's all there, updated frequently and available 24/7.



CASE IH WINS AWARDS FOR VEHICLE-TO-VEHICLE CONTROL, CONTINUOUSLY VARIABLE PTO



Future Case IH AFS capabilities will let the combine control the tractor's speed and steering while unloading.

Two new Case IH innovations have earned Gold and Silver medals in the 2011 SIMA Innovation awards. SIMA awards are judged by an international panel of 15 experts from six countries, and announced in advance of the biannual SIMA agricultural trade show held in France.

The Gold Medal was awarded to Case IH's new vehicle-to-vehicle (V2V) control system. V2V is enabled through tractors and combines using Advanced Farming System equipment. Using a wireless connection such as a Wi-Fi or Bluetooth device, the V2V control system allows one driver to synchronize the data exchange, traveling speed and steering of two working vehicles.

For example, during harvest, the combine driver can engage V2V to control the movement of the tractor and grain cart to maintain precise vehicle alignment for consistent, on-the-go unloading.

New Case IH Continuously Variable Transmission (CVT) PTO technology earned the Silver Medal. This new technology allows infinitely variable power take-off speeds. The PTO speed can be continuously adjusted to match operating conditions to maximize productivity and fuel efficiency.

It works with the tractor's Auto Productivity Management system which lets the operator select a desired ground speed and then matches engine rpm and gear selection for the most fuel-efficient operation.

The CVT PTO function adds the ability to vary PTO speed independent of the engine speed. For example, you can run the PTO at 1,000 rpm in an economy mode, with the engine at 1,700 rpm. Under higher loads, you can increase engine rpm to 1,900 while still maintaining 1,000 rpm PTO speed.

These innovations are undergoing field evaluations, and introduction dates have not been finalized.



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