

CAUTION POWERFUL
PRECISION
TOOLS INSIDE

Ag Leader[®]
Technology



YEARS

Worried about choosing a complete precision farming display that will work with any color of equipment? The INTEGRA display is the most full-featured display in the field, allowing you to monitor, map, record and control all of your field activities from one display – from planting through harvest. Did we mention that it works with any color of equipment?

Planter Control

Control all of your planting operations, from Advanced Seed Monitoring to variable rate planting and clutch control with SeedCommand (see pages 10–13).

Application Control

Apply liquid or dry product with variable rate, AutoSwath™ automatic shut-off – even crop sensing technology with DirectCommand (see pages 14–19).



Yield Monitoring

Measure, monitor and map yield and moisture results in real time with the most advanced yield monitoring technology in the world (see pages 20–21).

Completely Integrated Guidance

Stretch working hours and view your field even in darkness with INTEGRA's integrated lightbar. Supports multiple guidance patterns and signals – including RTK (see pages 8–9).

Intuitive Touchscreen

A high-definition, 12.1-inch touchscreen features intuitive tools and real-time mapping, including variety map integration so you can view yield results for crop varieties in real time.

Automated Steering

INTEGRA's plug-and-play compatibility with ParaDyme automated steering and OnTrac2+ assisted steering frees you to monitor more implement performance and reduces fatigue (see pages 6–7).



Video Camera Input

The INTEGRA display features the most complete visual perspective, providing up to four different camera views right from the display.

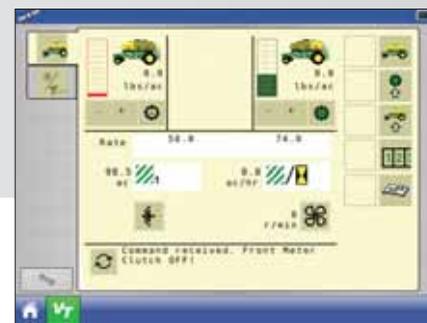
- Improve visibility and safety
- Monitor equipment performance
- Unload on-the-go by mounting on the auger



Variety Map Integration

Load crop variety maps into the INTEGRA display (regardless of the planter monitor used to record the planting information), then view variety performance in real time during harvest. This gives you insights on:

- Variety performance
- Field/soil variability
- Potential field issues like drainage or infestation



Virtual Terminal

Virtual Terminal capability helps eliminate cab clutter from other in-cab implement controllers and gives the INTEGRA display the ability to control ISOBUS-compliant implements, including:

- Planters
- Sprayers
- Spreaders
- Seeders

“The INTEGRA screen is so large that I can watch my corn planter monitor work, along with watching my autosteer and mapping. It’s all convenient and real close, where before it was scattered all over and complicated. Now it’s all right there.”

Dan Gehling ■ Grand Meadow, MN



Data from your field is an invaluable resource to help you make better management decisions.

- The INTEGRA display data integrates seamlessly with SMS software.
- Import crop variety maps from planter monitors and then exports them to the INTEGRA display to use for variety tracking during harvest.
- Export setup information, including Grower/Farm/Field names, boundaries, guidance lines and prescriptions, to load into the INTEGRA display.
- Use data collected with the INTEGRA display to create reports for insurance agencies, landlords and marketing advisors, as well as for making profitable decisions for your operation.

Location: Grain Harvest			
Product: Corn - CORN			
Field	Load / Region(s)	Area	ac
East McMains	7	113.40	
Boender East	3	81.97	
Boender West	3	72.21	



Year-Round Precision, Now Available in a New

All of the most popular year-round precision tools – including guidance, auto-steering control, SeedCommand planting control, DirectCommand application control, yield monitoring and mapping – in one small package. The all-new VERSA display, with its 8.4-inch touchscreen, is built on INTEGRA's industry-leading technology architecture – making it an ideal second display – or the economical hub of your precision farming operations.

Year-Round Precision

Control and record field data year-round, including planting with SeedCommand, application with DirectCommand and yield monitoring.

Data Logging/Mapping

View real-time field data in a chart or map form.

Automated Steering

Simple setup and seamless integration with ParaDyme or OnTrac2+ steering systems makes controlling automated steering from the cab easy.



Variable Rate Control

Eliminate wasted seed, fertilizer and chemicals using variable rates from planting or application prescription maps.

AutoSwath

Automatically turns planter or applicator sections on/off based on field maps (see pages 10 and 13).

Boom Height Control

Seamless integration with NORAC boom height control, reducing spray drift and product waste.



Data from your field is an invaluable resource to help you make better management decisions.

- The VERSA display data can be organized and stored within SMS software.
- Variable rate prescriptions created in SMS can be exported to the VERSA display.
- Review and analyze data collected with the VERSA display using the SMS Query tools.





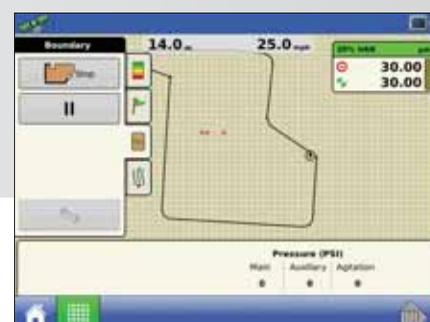
Multiple Product Control

Control the application of three different products – liquid or granular – at the same time, eliminating unnecessary field time, soil compaction, fuel consumption and equipment wear.



Guidance

With its integrated on-screen guidance lightbar, the VERSA display supports multiple guidance patterns and displays the field ahead with multiple views. Combined with ParaDyme automated steering or OnTrac2+ assisted steering, you have a high-end guidance/steering system.



Field Markers

Mark field borders, sub-boundaries, in-field obstacles, waterways or tile lines in real time from the cab. The VERSA display will record your marks so you can review your information along with the field data gathered from all your field operations.

Features	INTEGRA	VERSA
AutoSwath	■	■
Hybrid/Variety Logging	■	■
Multiple Product Control	■	■
Variable Rate Planting	■	■
PWM, Hydraulic Servo Control Valves (Case IH, John Deere, KINZE and White planters)	■	■
Rawson ACCU-RATE Direct Drive	■	■
Split-Planter Logging	■	■
Planter Population Monitoring	■	
Advanced Seed Monitoring	■	
Guidance	■	■
Autosteer	■	■
Air Seeder Support	■	■
Coverage Mapping	■	■
Data Logging	■	■
Liquid and Dry Product Application Control	■	■

Features	INTEGRA	VERSA
Multiple Product Application (Liquid or Granular)	Up to 5	Up to 3
Variable Rate Control	■	■
Closed Loop Spinner Speed Control	■	■
Smart Report	■	
Strip-Till	■	■
Chemical Injection	■	■
Boom Height Control	■	■
External Switchbox	■	■
OEM Switch Input Support	■	■
OptRx Crop Sensors	■	
Grain Harvest	■	■
Hybrid Background Map	■	
Harvest Variety Tracking	■	
Load Variety Maps	■	



Automated Steering Designed to Let You Sit

Not all automated steering systems are created equal. In fact, if you want sub-inch accuracy, simple setup and technical support troubleshooting from a remote location, you won't find a system that is ParaDyme's equal.

Remote Service

When you request help through the INTEGRA or VERSA display, your dealer receives both an email and a text message alerting them to a service request. They can access ParaDyme remotely to diagnose the problem in real time while you're still in the cab, still in the field.

Logic 7D Technology

ParaDyme's dual antenna featuring Logic 7D technology accurately measures vehicle pitch, roll and yaw, guaranteeing accuracy and repeatability even in uneven field conditions.

Simple Setup

The INTEGRA and VERSA displays' built-in support and auto-calibration make setup quick and easy – even when moving the ParaDyme to another vehicle.

Advanced Guidance Patterns

Supports the most common and advanced guidance patterns, including SmartPath (see page 8 for guidance patterns supported).

Multiple GPS Correction Signals

Supports WAAS/EGNOS, OmniStar XP/HP and RTK for rover. The ParaDyme also supports the GLONASS Satellites.

Built-in Cell Modem

Access CORS and other RTK networks easily. Data plans for RTK network access are available directly from Ag Leader.

Tool-Free Transfer

Easily transfer the ParaDyme antenna to other vehicles. No tools required.



“Setup and calibration with the ParaDyme automated steering system was by far one of the easier and straightforward installs that we have done. The accuracy of the ParaDyme far exceeds the accuracy of other systems and brands that we have worked with. Using the ParaDyme for planting and tillage, we have been able to reduce operator fatigue, lower fuel consumption and work longer hours in the day.”

Seth Wenzel ■ Kent, IL



OnTrac2+™ Assisted Steering

Reduce fatigue and improve pass-to-pass accuracy when you add OnTrac2+ assisted steering to any modern tractor, combine, application rig or other vehicle – without hooking into hydraulics.

- Quick, easy “Lock-n’-Roll” installation.
- Easily transfer between vehicles.
- Superior to friction-design steering systems – eliminates slippage.
- Easy to engage/disengage from the display or optional foot switch.
- Controlled by either the INTEGRA or VERSA display.
- Quiet operation.
- Terrain Compensation components compensate for rolling ground and going through waterways, ditches and over terraces.
- Custom install kits available.

Lock-n’-Roll Installation



Mount gear ring



Mount anti-rotation pin



Attach steering component



By mounting the L160 Lightbar on the windshield or dash, operators can monitor guidance by looking straight ahead while keeping their display easy to reach.

L160 Lightbar

The L160 CAN bus Lightbar features an easy-to-read display and configurable LED spacing. A companion guidance system to either the VERSA or INTEGRA display, the compact design makes it the ideal guidance tool for dash or windshield mounting.

- Choose between “chase” or “pull” LED modes.
- Adjustable brightness is ideal for daylight or night use.
- Displays cross-track error, pass number and degree heading.



Data from your field is an invaluable resource to help you make better management decisions.

- Generate A-B guidance lines.
- Archive guidance lines from the field for future use.
- Import/export guidance lines to and from multiple brands of guidance systems.



Guidance

Integrated Guidance – Just Part of the Complete

Both the INTEGRA and VERSA displays feature an advanced, integrated guidance system with on-screen lightbar, capable of multiple guidance patterns. So, even if you only want guidance, the INTEGRA and VERSA both give you that – plus plenty of room to grow.

SmartPath™ Pattern

Drive one pass through the field, then establish a custom guidance pattern based on your initial pass.

Integrated Lightbar

On-screen lightbar also includes cross-track error and pass number.

Import/Export Patterns

Easily load saved patterns to the display or to your precision farming software so you can easily match your path for later field operations.



INTEGRA™

VERSA™

Guidance Patterns

Center Pivot

A-B Pattern

SmartPath Pattern

Adaptive Curve

Identical Curve

A + Pattern

Perspective View

Perspective view gives you a view of your field to the horizon – even if it's too dark to see the actual field.

Pattern Control

Save, load, reset, pause, resume, nudge and shift patterns from the in-cab display.

GPS 1500 and GPS 2500

The GPS 1500 and GPS 2500 are both all-in-one antenna/receiver systems. These compact, low-profile units feature fixed or magnetic mounting options and offer an affordable solution for sub-meter accuracy with fast startup and reacquisition times. The GPS 2500 features a dual frequency receiver making it ideal for operations that require a high level of accuracy in the field.



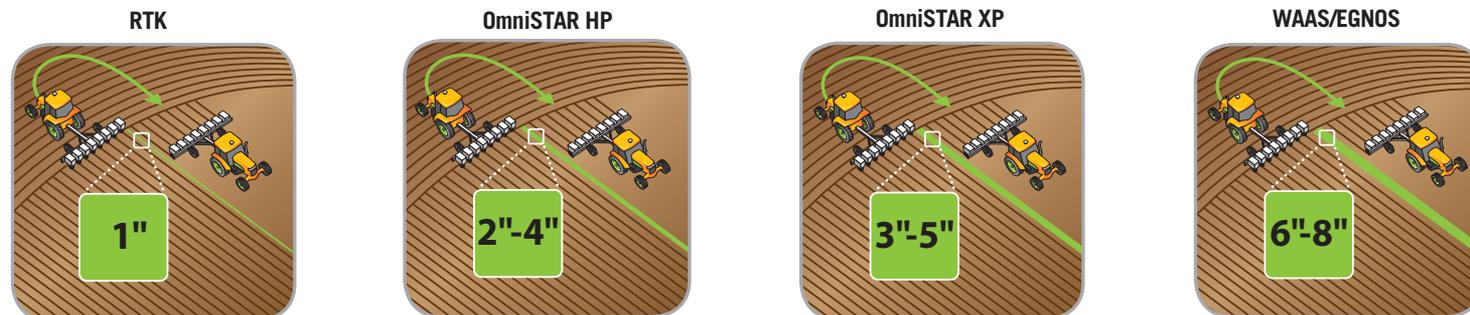
- Outputs simulated radar speed.
- Up to 10 Hz output.
- Output of NMEA position data to other equipment.
- Ideal for AutoSwath in SeedCommand and DirectCommand applications.
- e-Dif® technology provides accuracy without the need for a subscription to a differential signal.
- Differential correction options include WAAS/EGNOS, OmniSTAR HP/XP/VBS. See chart at right.
- GLONASS capable (GPS 2500).

GPS Differential Correction	ParaDyme	GPS 1500	GPS 2500
WAAS/EGNOS	■	■	■
OmniSTAR XP/HP/VBS	■		■
RTK	■		

Applications	ParaDyme	GPS 1500	GPS 2500
Guidance	■	■	■
Tillage, Disking	■	■	■
Harvesting	■	■	■
Field Preparation	■	■	■
Mapping (Point, Line, Area)	■	■	■
Variable Rate Controllers	■	■	■
Spreading	■	■	■
Spraying	■	■	■

Applications	ParaDyme	GPS 1500	GPS 2500
Seeding	■	■	■
Log Hybrid/Variety	■	■	■
Listing	■		
Cultivating	■		
Bedding, Ridging	■		
Strip-Tilling	■		■
Topographic Mapping	■		

GPS Differential Correction



SeedCommand™

Take Complete Control of Your

Today's high-tech seed isn't cheap. If you're not controlling where and how much of each type of seed you plant, you're probably sacrificing yield potential and bottom line performance. SeedCommand helps you manage all of your planting operations, including seed population, planter performance, hybrid/variety mapping, split planting and variable rates.

INTEGRA™



AutoSwath

AutoSwath controls planter clutches to automatically turn planter sections on/off based on field maps and already planted areas – reducing overplanting and increasing yield potential at the same time. Depending on field size and shape, customers' seed cost savings range from 3-12 percent. AutoSwath supports/controls SureVac™ automatic shutoffs and most leading planter clutches, including SureStop™, Tru Count™ and John Deere RowCommand™ clutches.



VERSA™

"I particularly like being able to monitor my skips and doubles with the Advanced Seed Monitoring. When you change hybrids, you usually have a different seed size. When I see that I'm having skips or doubles because of that, I can adjust my seed meters and see that the problem's fixed on the screen."

Merrill Swanson ■ Gilbert, IA



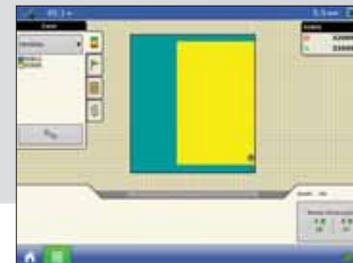
Variable Rate Planting

Control seed costs and improve yield potential across the entire field with variable rate planting. SeedCommand varies the seeding rate based on prescription maps to match seeding rates to soil potential. SeedCommand supports direct control of PWM and motorized servo hydraulic valves found on Case IH®, John Deere®, KINZE® and White planters, Rawson ACCU-RATE® and DICKY-john® HD 4180 hydraulic drives.



Advanced Seed Monitoring

SeedCommand offers complete planter monitoring functions, eliminating the need for an additional planter monitor. View data and graphs on population, singulation, skips/doubles in real time on a row-by-row basis. A virtual seed trench view shows the placement of each seed in a row, helping you determine if a problem exists in the seed meter or the seed tube.



Hybrid/Variety Mapping

SeedCommand records planting operations in real time, mapping the location of each hybrid/variety planted. Compare observed planting maps/data with yield maps to make accurate, reliable decisions to increase future profitability.

Learn more about SeedCommand ■ visit www.agleader.com

SureStop® and SureVac™ Automatic Shutoff

Allow SeedCommand's AutoSwath to turn planter sections on/off row-by-row using low maintenance, easy-to-install automatic row shutoffs. SureStop electric row clutches are designed for chain-driven seed meters. SureVac electric row shutoffs are compatible with John Deere vacuum planters.



Bottomline Benefits →

- Lowers seed costs by eliminating double planting at end rows, point rows and around terraces.
- Makes following the row at harvest easier on end rows.
- Improve planter performance by reducing or eliminating skips and doubles.
- Prevents yield loss due to lodging and nutrient competition in double-planted areas.
- Improves planting productivity by eliminating the need to slow down to accurately raise/lower the planter at end rows.
- Makes night planting easier by eliminating the need to watch for end rows.
- Saves insecticide on planters with granular boxes driven by the planter transmission.
- Documents refuge acres for GMO crops.
- Records valuable population information including total seeds planted and average seeds planted per acre.
- Effortless population control without leaving the tractor seat.
- Reduces cab clutter by replacing other monitors.

Eliminate extra field time and wasted seed due to overplanting. SeedCommand planter control for air seeder carts records, maps and controls your planting operations.

Multiple Product Control

Control up to three granular products, including one seed and two fertilizer products. Paired with a liquid control module, the system supports simultaneous application of NH₃ and nitrogen stabilizer.

Enhanced Calibration

Automated calibration routines and stored calibrations make setup easy and seamless – even when using multiple products.

Advanced Fan Speed Monitoring

Meter automatically shuts off product flow if fan speed falls below minimum setting.



Data Logging

Record variable seeding rates, variable fertilizer application and generate field maps that can be used to provide better planting insights.

Compatibility

Supports bin-level and fan speed sensors, as well as main and individual meter circuit clutches on ground-drive air seeder carts with linear actuator control.



Variable Rate Control

Enables variable rate application by product for more efficient use of inputs. Variable rate allows the operator to utilize prescription maps for seeding and application rates, matching their seed and fertilizer inputs to attributes such as soil type.

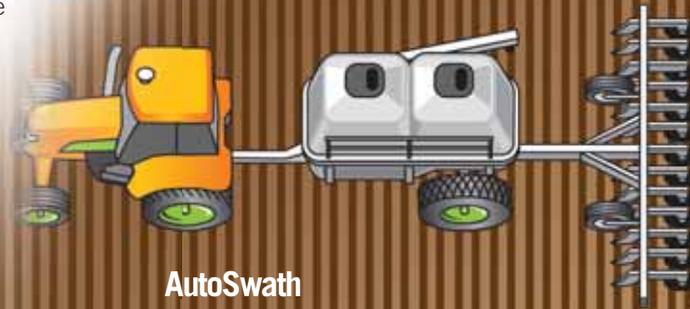


Drive Types Supported

The three-channel control module supports the following air cart meter drive types:

- Ground Drive
 - Clutches
 - Linear Actuator
- Hydraulic Drive
 - PWM Valve
 - Servo Valve

SeedCommand Features	INTEGRA	VERSA
AutoSwath	■	■
Data Logging of Seed and Nutrient Inputs	■	■
Multiple Product Control	Up to 5	Up to 3
Variable Rate Seeding and Fertilizing	■	■
Automated Calibration Routines	■	■
Meter Prime Feature	■	■
Advanced Fan Monitoring	■	■
Hydraulic PWM and Servo Drive Support	■	■
Ground Drive Linear Actuator and Meter Clutch Support	■	■



AutoSwath

AutoSwath for air cart seeders allows the operator to automatically or manually engage and disengage the metering wheel. Controlling shut-offs for both seed and fertilizer products with AutoSwath benefits the broad-acre seeding operation by reducing overplanting and overapplication.



Data from your field is an invaluable resource to help you make better management decisions.

- Choose higher-yielding seed based on historical yield performance.
- Generate variable rate seed prescriptions.
- Layer planting and harvest maps to easily compare seed performance.
- Map seed varieties, planting rates, planting dates and other items recorded during planting or seeding.



DirectCommand™

Take Complete Control of Your

DirectCommand has simply revolutionized application. The unique AutoSwath feature decreases overapplication – saving input costs and improving environmental stewardship. DirectCommand offers complete control over liquid or granular applications, while at the same time logging data and providing real-time application mapping capabilities.



INTEGRA™

AutoSwath™

DirectCommand's AutoSwath feature reduces overapplication and product waste by automatically turning the applicator (liquid or granular) on/off based on field boundaries and already applied areas as it passes over the field. The system reduces input costs and increases application accuracy by minimizing skips and overlaps at end rows, fence rows and along waterways.

Illustration shows individual boom sections shutting off as the sprayer crosses the headland.



VERSA™

"We have one particular field where I could always plan on using one-third more chemical than I'm supposed to, but with DirectCommand we don't do that. It has a lot of point rows, and now when I come up to the end it starts shutting off sections of my boom. With input costs going up, it's just great to have this technology."

Wade Wilson ■ Olney, IL



Rate Control

DirectCommand continuously controls, adjusts and records field application based on manually entered target rates or by using rates from a variable rate prescription file. The system uses a flow meter signal and speed input from a radar or GPS receiver. DirectCommand can read up to three optional pressure sensors, eliminating the need to monitor pressure gauges outside the cab.



Data Logging

DirectCommand automatically records application activities, including applied areas, product volume and more. This information can be easily downloaded into SMS software for analysis. Using this information can help accurately calculate input needs for the following year.



Variable Rate Application

DirectCommand allows the variable rate application of single or multiple products. The system controls application rates of liquid and granular products automatically based on geo-referenced prescription maps. Variable rate application is available for all supported equipment types including spinner spreaders, self-propelled and pull-type sprayers, anhydrous applicators and strip-till toolbars.

Spinner Spreaders

DirectCommand simplifies spreader control by controlling the conveyor and spinner speed in addition to monitoring the bin level. The system reads ground speed and automatically adjusts product flow to match target application rate. DirectCommand control modules support PWM, motorized servo, Mark IV.2, Mark IV.4 and Mark V hydraulic control valves. DirectCommand supports application control of multiple bin spinner spreaders.



Bottomline Benefits

- Lower application costs by eliminating product waste caused by overlap.
- Reduce skips caused by manual controls.
- Lessen crop damage potential from overapplication.
- Reduce operator fatigue.
- Monitor multiple functions at the same time.
- Increase overall application accuracy.
- Improve environmental stewardship.
- Better decision making on products and rates.
- Complete application recordkeeping for easier government reporting.



Data from your field is an invaluable resource to help you make better management decisions.

- Track variable rate liquid and/or granular application.
- Create variable rate application maps and prescriptions.
- Record application operations for regulatory recordkeeping.
- Track and display crop health data and on-the-go variable rate nitrogen with OptRx sensors.



DirectCommand™ Additional DirectCommand Features Available

Control applicator boom height automatically to improve coverage. Generate government-required application reports without additional software. Manage chemical injection and granular strip-till applications. These are just a few of the additional features DirectCommand application control can provide to your operation.

Strip-Till Fertilizer Control

Control up to three channels of granular product using your strip-till applicator while also controlling anhydrous and nitrogen stabilizer with the addition of liquid and chemical injection control modules.

Chemical Injection

Reduce potential crop damage and your exposure to chemicals and simplify system flushes. DirectCommand interfaces with Raven SCS Sidekick™ for complete control over chemical injection applications.



Enhanced Calibration

Simplify setup time by creating and storing calibration routines, eliminating the need to recalibrate equipment each time it's used.

Crop Sensing

Using OptRx™ crop sensors automatically apply variable rate nitrogen based on real-time crop health (see page 17-18 for more details).

New Leader® Fan Frame and Feed Gate

Automatically adjust Fan Frame position and Feed Gate opening from cab. Automatically position spinner Fan Frame and Feed Gate based upon previously calibrated and stored values.

INTEGRA™

Smart Report™

DirectCommand's Smart Report simplifies application reporting (both liquid and granular), providing an easy way to generate detailed application reports for government recordkeeping. Reports provide location, product information, applied totals, field areas, as-applied maps and field boundaries.

- Enter basic information about weather, soil conditions, products used, etc.
- Automatic creation of PDF reports that can be saved, emailed or printed.
- Requires no additional software.



NORAC UC5™ Boom Height Control

Both the VERSA and INTEGRA displays feature complete support of the NORAC UC5™ boom height control system – ensuring ideal crop coverage without drift or wasted product. All setup, calibration and run-time operation of the UC5 is controlled using an Ag Leader compatible display.



- Reduces operator fatigue by eliminating terrain monitoring “lookbacks.”
- Boom height is controlled by sensing either soil surface or crop height.
- Ultrasonic sensors eliminate potential crop damage from gauge wheels or “feelers.”
- Severe Terrain option can provide better accuracy in rougher field terrain.



DirectCommand Features	INTEGRA	VERSA
AutoSwath	■	■
Coverage Mapping	■	■
Data Logging	■	■
Liquid and Dry Product Application Control	■	■
Multiple Product Application (Liquid or Granular)	Up to 5	Up to 3
Variable Rate Control	■	■
Closed Loop Spinner Speed Control	■	■
Smart Report	■	

DirectCommand Features	INTEGRA	VERSA
Strip-Till/Air Seeder	■	■
Chemical Injection	■	■
Boom Height Control	■	■
External Switchbox	■	■
OEM Switch Input Support	■	■
Guidance	■	■
Autosteer	■	■
OptRx Crop Sensors	■	
New Leader Fan and Feed Gate Support	■	■

OptRx Crop Sensor

The use of crop sensing technology in corn and wheat production is one technique to increase plant health and yield potential. OptRx crop sensors measure the nitrogen needs of your crop and provide application rate recommendations in real-time to maximize your profit.



How OptRx Works



OptRx crop sensors are installed across the application boom. The sensors integrate seamlessly with DirectCommand on your INTEGRA display.



Emitting its own light source, the sensors measure crop health based on plant mass and light reflectivity readings.



A reference value, called the Vegetative Index (VI), is calculated based on field data and initial sensor calibration. DirectCommand uses the VI to determine the crop's nitrogen needs in real-time.



DirectCommand then adjusts the nitrogen application rate on-the-fly based on readings from the OptRx sensors to apply the optimum amount of nitrogen to maximize the bottom line.

“Side-dressing nitrogen with OptRx crop sensors has huge advantages – it gives the plants the right amount of nitrogen at the time they need it. You have a more uniform plant height and greatly elevated yields in the spots where you would have shorted the nitrogen.”

Kurt Kroeger ■ Dannebrog, NE

The Causes of Nitrogen Variability

Organic Material

Organic material is one of the most significant sources of nitrogen in the soil. The more organic matter present, the more nitrogen the soil produces. Because organic matter can vary with different soil types, nitrogen availability in the soil can vary greatly across the field.

Denitrification

Denitrification occurs as a result of poor drainage and uneven moisture distribution across the field. In standing water, nitrogen in the soil is absorbed into the air, leaving soil in some areas of the field nitrogen deficient. Denitrification can cause a loss of 5 percent of nitrogen per day, causing significant variation across the field.

Bottomline Benefits →

- In a 100-acre corn field, blanket application and application rates based on OptRx crop sensor recommendations were alternated in each pass.
- On average, OptRx crop sensors recommend a higher rate of nitrogen per acre than a typical blanket rate. Growers may second-guess this recommendation, but may not know about nitrogen losses that have occurred in the field. The OptRx crop sensors can compensate for these problem areas by applying nitrogen where it's needed most.
- Yield results showed the OptRx passes yielded an average of 11 more bushels per acre than the blanket rate application passes.

The math:

Increase in yield

11 bushels x \$5 corn
x 100 acres

\$5,500

Subtract increase in Nitrogen applied

Minus 31 pounds x 100 acres
x \$.60 per pound

\$1,860

**Total profit increase:
\$3,640 extra over 100 acres.**

To learn more about OptRx and see other real life examples of OptRx used in both corn and wheat, visit www.agleader.com/products/directcommand/optrx/



When to Use OptRx

Corn

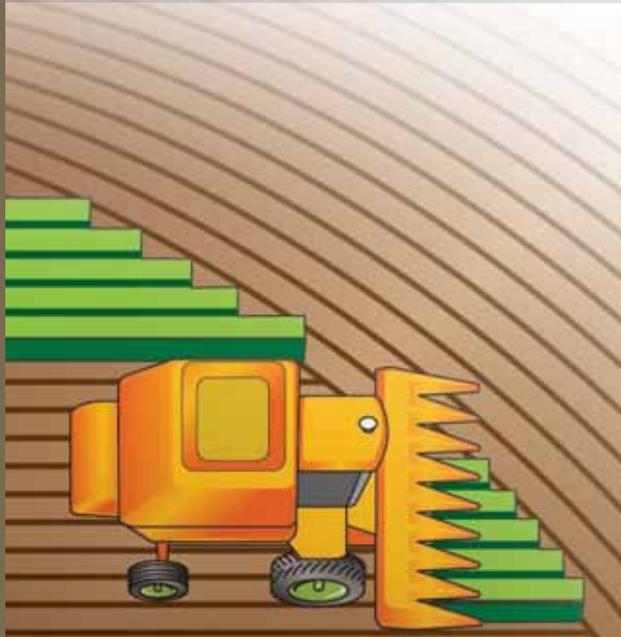
Corn requires the most nitrogen between the V5 and V12 growth stages. For optimum results, nitrogen may be side dressed using a high-clearance nitrogen toolbar or high-clearance sprayer equipped with drop hoses.

Wheat

The ideal application window for topdressing wheat is when the crop is between tillering and stem elongation growth stages. Any equipment capable of top-dressing the crop will work.

Yield Monitoring Setting the Industry Standard in Yield Monitoring

Ag Leader provides the most widely-used grain yield monitoring technology in the world. Create and view yield and moisture maps while harvesting and instantly observe how field conditions affect yield. Only Ag Leader provides yield monitoring for nearly all combines made in the last 25 years.



AutoSwath™ for Harvest

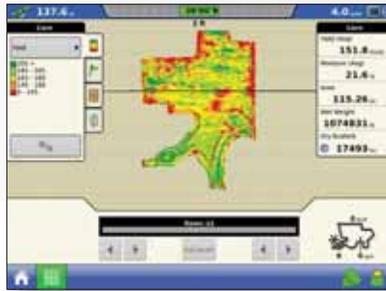
Harvest data is recorded based on the number of rows being harvested, providing accurate data when harvesting point rows or partial swaths.

INTEGRA™

VERSA™

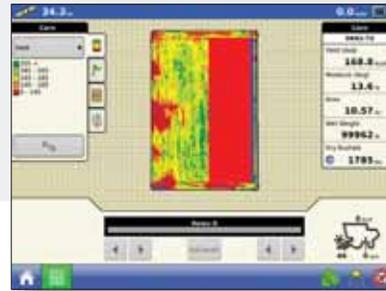
“Yield Monitoring has helped us in a few different ways. We can compare fungicide soybean trials, see where we have drainage issues in our fields, and we can overlay our application and harvest maps to compare nitrogen trials. The ability to see what the crop actually produced in each area can help us make decisions or fix any problem areas.”

Lee Elliott ■ Montrose, IL



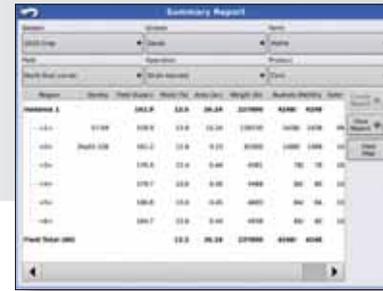
Yield and Moisture Mapping

View yield and moisture maps in real time for instant feedback on yield performance across the field.



Hybrid/Variety Yield Mapping

Overlay planting maps with real-time harvest maps to view instant yield and moisture variations by hybrid/variety in the field. This provides better seed selection data for next planting season.



Summary Screen

Harvest summary screen provides at-a-glance information about number of acres harvested, total and average bushels harvested and more.



Variety Map Integration

Yield monitoring with the INTEGRA display now allows an operator to load crop variety maps recorded by another INTEGRA, VERSA or other brand of planter monitor. Data can be read into the software to create a reference file that can then be loaded onto the INTEGRA display. This allows the operator to view variety performance in real time during harvest.



Grain is fed into the harvester's elevator where sensors read the moisture content of the grain.



As the grain is delivered to the holding tank, the mass flow sensor monitors yield.



Information on both yield and moisture from the sensors is recorded by the VERSA or INTEGRA display mounted in the cab.

Harvest Features	INTEGRA	VERSA
AutoSwath	■	■
Grain Harvest	■	■
Hybrid Background Map	■	
Harvest Variety Tracking	■	
Guidance	■	■
Autosteer	■	■
Load Variety Maps	■	

Bottomline Benefits →

- More accurate yield data.
- On-the-go yield comparisons.
- Better hybrid/variety selections.
- In-depth performance analysis.
- Make storage decisions based on moisture readings in the field.



Data from your field is an invaluable resource to help you make better management decisions.

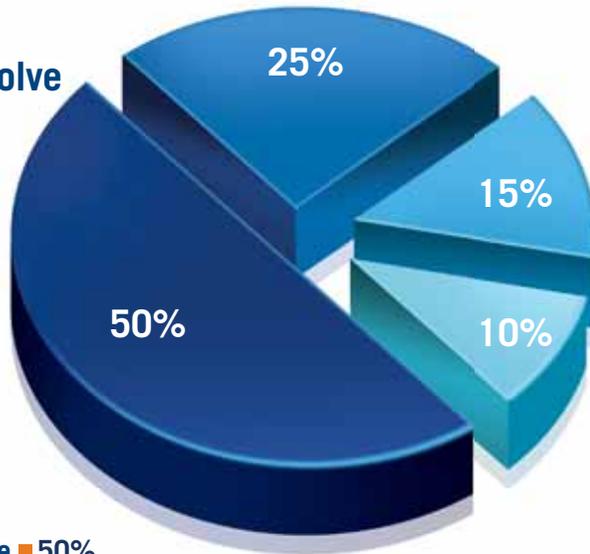
- Overlay hybrid/variety maps with harvest maps to determine yield performance.
- Since SMS stores every year of information, you can see the history of yield trends.
- SMS turns your data into a "Report Card" for evaluating your performance in the past year. Use the reports to provide totals and averages for each field, while using the query tools to analyze specific areas.





Data from precision ag has immense value for making management decisions. These management decisions must be based on “real-life” questions you have about improving your operation, driven by your collected data. The data you collect has tremendous value beyond the benefits you see in the cab. So how do you begin the process of getting more answers from your precision ag data?

Management Decisions Involve Many Pieces



Grower Knowledge ■ 50%

You are the expert when it comes to management practices, field history, yield goals, profit goals and best crop options. However you try to get more value from your precision ag data, make sure your knowledge is a key part of the process.

Trusted Advisors ■ 25%

Resources like consultants, precision ag specialists, bankers, market advisors and CPAs can add an important layer of information to help your operation see management improvements.

Field Level Data ■ 15%

This portion is often overlooked and decisions are made on assumptions. Data from your precision farming tools can provide you with a “report card” on your operation and make it easier to separate facts from assumptions.

Supporting Resources ■ 10%

Magazines, university studies, even talking with your neighbors can provide you with information to make changes to your operation you may not have considered.

A Road Map for Creating Value from Your Data

Explore

- **Collect** and process quality data with SMS Software.
- **Investigate** after the planting and harvest seasons, taking time to look at the information with other trusted advisors that are part of the operation. Explore the data letting “real-life” questions drive the maps you review.
- **Review** hybrid performance with seed dealers, explore field performance reports with landlords and review fertility with agronomists.
- **List** your questions that are generated from conversations with your trusted advisors while exploring the data.

Act

- **Organize** questions into controllable (management) or non-controllable (weather).
- **Divide** questions based on equipment, fertility, hybrid, population, rotations, tillage or disease control.
- **Prioritize** which can be tested, tracked and solved. What additional information is needed and how can you get it?
- **Execute** management changes on your operation that have been based on your data and conversations with trusted advisors to begin to see improvements on your operation.

SMS Software Supports

Ag Leader	HARDI	New Holland
AGCO	Hemisphere GPS (Outback)	Precision Planting
AutoFarm	ISO 11783	Raven
Case IH	John Deere	RDS
CLAAS	KINZE	Trimble
Flexi-Coil	Mid-Tech	Shape, Image, Text Files

Visit www.agleader.com or call our support line for questions about other formats or specific files from each of these companies.



Collect in-field information such as Crop Scouting, Soil Sampling, Boundaries and more with SMS Mobile. It offers flexibility to work with most desktop software solutions, as well as syncing seamlessly with SMS Basic and Advanced. Information gathered from SMS Mobile can provide the extra detail needed to make critical management decisions.

Field Operations

SMS Mobile supports the following field operations:

- Soil Sampling
- Crop Scouting
- Coverage Logging
- General Logging
- Boundary Logging

Mesa and Other Supported Devices

The Mesa Rugged Notepad™ is built for field use. It features a water-proof, impact-resistant shell. It also features Wi-Fi, Bluetooth and built-in GPS and camera. The large 5.7-inch screen makes it easier to read, yet doesn't compromise portability.

SMS Mobile is designed to be installed on any devices running Windows Mobile 5.x - 6.5, as well as Windows XP, Vista or Win7 machines.

Supported External Sensors

Supported sensors include:

- Ag Leader OptRx Crop Sensor
- VERIS EC Sensors
- Geonics EM Model Sensors
- Minolta 502 SPAD Meters
- Dualem EC Sensor
- Greenseeker
- Holland Scientific 430
- Custom Sensor – Log data from user-defined sensor



Image Download

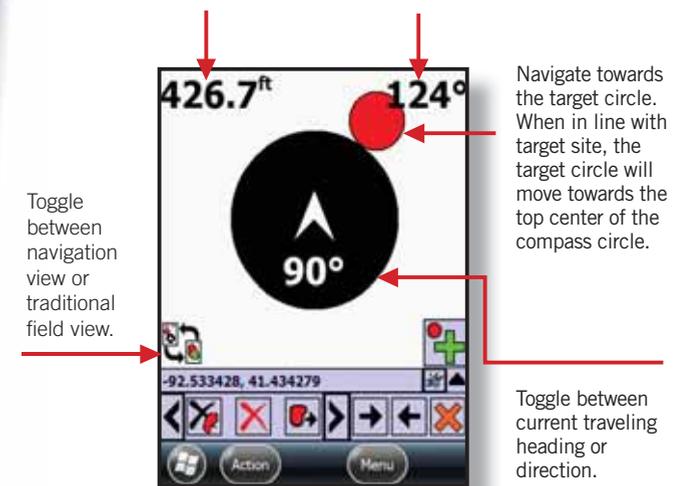
Easily download satellite images for each field to display background layers when you are in the field.

Navigation View

SMS Mobile features a Navigation View that allows the operator to quickly and easily navigate to locations in the field.

Toggle stat between feet or estimated time to reach site.

Toggle stat between degree of heading needed to navigate or latitude and longitude of target site.



Toggle between navigation view or traditional field view.

Navigate towards the target circle. When in line with target site, the target circle will move towards the top center of the compass circle.

Toggle between current traveling heading or direction.



SMS Basic is a powerful system that helps you take data from your field and turn it into smart management decisions, using information gathered from planting through harvest. Additionally, SMS Basic is designed to work in conjunction with SMS Advanced software in a grower/consultant relationship, providing even more sophisticated and powerful analysis tools. Features of SMS Basic include:

SMS Features	Basic	Advanced
File Processing from Most Precision Ag Displays	■	■
Sort Data by Geography	■	■
Generate Crop Plans	■	■
Create, Manage and Export Guidance Lines	■	■
Print Summary Maps, Charts and Reports	■	■
Write Simple Prescriptions	■	■
Download/Import Images	■	■
Query Tools to Analyze Specific Areas	■	■
Check for Updates	■	■
Soil Survey Import (U.S. ONLY)	■	■
Project Management	■ (limited)	■
Booklet Printing		■
Equation Writing		■
Calendar View		■
3D Plotting and Terrain Viewing		■
Comparison Analysis		■
Multi-Year Averaging		■
Multiple Data Storage Locations		■
Dataset Playback		■

Guidance Planning/Support

Generate A-B guidance lines. Archive guidance lines from the field for future use. Import/export guidance lines to and from multiple brands of guidance systems.

Print Maps, Charts and Reports

Print your harvest, planting, spraying and other maps to share with landlords, consultants, insurance specialists and others. Build charts and reports to show acres planted, planting/harvest dates, bags planted and total harvest production.

Create Prescriptions

Generate simple variable rate prescriptions for seed or liquid or granular applications based on yield history, soil test results or any other map.

Query Tools

Overlay yield maps with other field operations to determine how field activities affected yield across the field.

Soil Sampling Tools

Create and manage soil sampling points, grids and regions. Easily sync lab soil test results with sample locations in the field.

Download Soil Survey Maps

Automatically download soil survey maps (United States only) for your fields already saved in your management tree. Display attribute information such as Soil Type, CSR, Erodibility class, Slope Range, percent sand/silt/clay, and more.

Government Reporting

Create reports and maps that can be generated to satisfy government reporting needs. This can include crop insurance reporting with AIPs or regulatory compliance for application documentation.

Aerial/Road Backgrounds

Aerial imagery and road maps are instantly displayed when maps are created. These backgrounds provide great visual reference when viewing maps and also will display in print layouts.

Simple Expense/Income Entries

Easily track operation expenses and incomes which can be included in financial reports and print layouts.



“The biggest thing I use SMS Basic for is setting up my variable rate maps. But it also allows me to tie into my crop insurance and have records of that, and it gives us a history of the farm. All of that information lets me see where I’m at – I can take it and figure out where my nets are, where I’m going and what I can do.”

Jerry Ryerson ■ Ames, IA



SMS Advanced allows a user to manage information across many acres, fields and operations. It's ideal for farmers looking for more sophisticated analysis tools and consultants who are working with multiple clients. It includes all of the features of SMS Basic, plus additional tools and features designed to make analysis across multiple fields and operations easy. Features of SMS Advanced include:

Project Management

Manage up to five projects with the SMS Basic or setup an unlimited number of projects with SMS Advanced. Setting up projects will allow you to analyze data by individual field or across the entire client base while keeping data completely separate.

Multiple Data Storage Locations

Store data in numerous locations, such as different servers. Projects can then be easily moved between data locations.

Booklet Printing

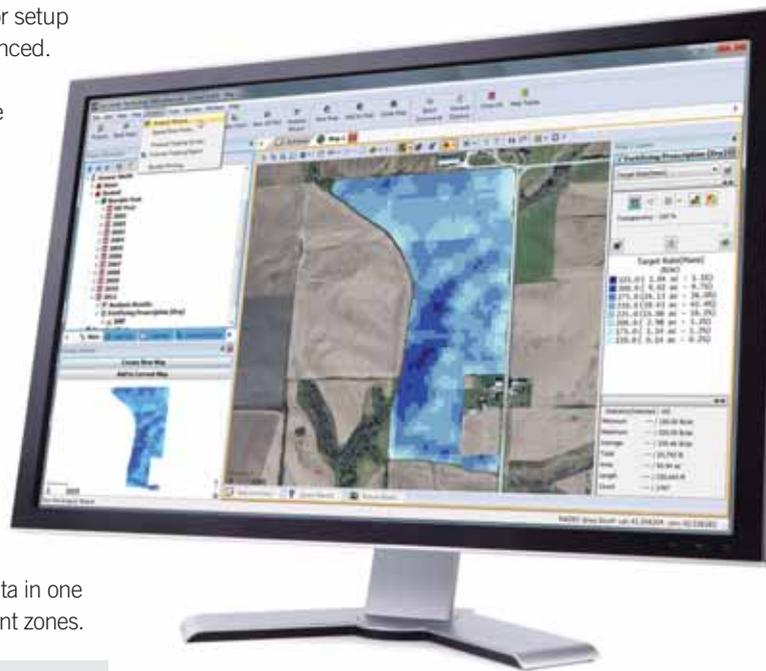
An optional feature that allows you to create personalized booklets for each client including charts, graphs, maps and analysis results. Booklets can be saved electronically for upload, email or web.

Multi-Year Averaging

See field trends based on layers of annual field data in one map, giving you strategies on creating management zones.

Free Introduction to SMS

Ag Leader offers free monthly online sessions to help you understand how to use the key tools provided in the SMS Basic, Advanced and Mobile software. Visit sms.agleader.com to register to attend.



Batch Analysis

Reduce time and develop consistent reports by analyzing data across multiple clients at one time.

Customized Reporting

Easily generate customized reports, maps, charts and more based on individual client needs.

Equation Writing

Build an equation to generate a variable rate prescription based on mapped layers, such as soil sampling and/or grain harvest results. Run these equations for a specific field or across an entire project.

Comparison Analysis

Easily compare how different field or operation variables (moisture, soil type, fertilizer rates, etc) affect results.

3D View

View your field using 3D maps to help analyze drainage, tiling and terracing needs.

Calendar View

View all field activities in a chronological calendar format.



To download a free trial, visit www.agleader.com or call 515-232-5363 to request a CD.

Connect with Ag Leader

Communication Tools

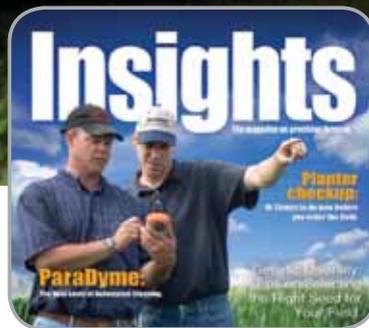
Precision farming is continually changing. It's important to stay tuned into the newest updates and technologies. We make it our goal to help you keep up so you can squeeze the most value out of your investment in precision equipment. Here are just a few ways that Ag Leader can help. Of course, you're always welcome to call and talk to someone in our Ames, Iowa, headquarters.



Precision Point Blog

Precision Point, part of the recently updated Ag Leader website, offers timely insights and unique viewpoints on all things precision ag.

Visit agleader.com/blog



INSIGHTS Magazine

Read about the latest product developments and how precision farming technology can improve your operation. Sign up to receive our all-new INSIGHTS magazine.

Visit agleader.com/mediacenter



The Ag Leader YouTube channel has a growing collection of educational videos demonstrating how to get the most out of your Ag Leader equipment.

Visit youtube.com/AgLeaderTechnology



If you use Facebook or Twitter, you can keep in the loop of the latest news, events and promotions from Ag Leader.

Visit twitter.com/AgLeaderTech or facebook.com/AgLeader

Leasing Program

Leasing is an ideal option for those who want to spread out their investment over several seasons. Simplify an equipment purchase from Ag Leader by taking

advantage of the leasing program – no upfront investment required. Contact an Ag Leader Dealer for more information.

Visit agleader.com/leasing

- Available on all Ag Leader products.
- Terms from 12-60 months.
- Lease-to-buy program available.
- No documentation fees.

- Customized plans available.
- Leasing available in the U.S. and Canada.

Training and Support

As a pioneer in the precision farming industry, Ag Leader prides itself on training, support and education. Whether you're calling us directly, working with your local Ag Leader dealer or using any of our many other tools, you won't find a group that is more knowledgeable and interested in your success.



Technical Support

All members of our support team are equipped with Ag Leader hardware at their workstations in Ames, Iowa, so you can work directly with people who understand agriculture and precision technology. **Contact 515-232-5363 or e-mail support@agleader.com**



Blue Delta Dealers

Ag Leader's elite Blue Delta Dealers have achieved the highest level of product and service knowledge and precision farming expertise. You won't find a group of more highly-trained precision farming specialists in the field.

Visit agleader.com/blue-delta



Ag Leader Academy

Our state-of-the-art, 25,000 square foot education center, located on the Ag Leader campus in Ames, is ideal for hands-on precision agriculture technology training - with both a classroom-type setting and equipment showroom that allow you to drive Ag Leader-equipped tractors, sprayers and harvesters.



SMS Introduction

Free "Introduction to SMS" online sessions; **sms.agleader.com**

SMS Training

Attend one of our classroom trainings held throughout the country or learn about your SMS software through a virtual training from the leisure of your home, office or other Internet location.

Visit sms.agleader.com



Y E A R S

In 1992, Ag Leader introduced the Yield Monitor 2000, the world's first widely successful on-the-go yield monitor. It helped farmers understand the performance of their crops and fields, giving them the information they needed to make better management decisions.

Twenty years later, Ag Leader continues to be a pioneer and leading innovator in the precision farming industry, offering the most complete package of precision farming tools designed to work together seamlessly with any color of equipment.

But just as important, over these past two decades, we've made it our mission to become your go-to specialists in precision farming – with a team of product and technical support specialists and a network of dealers that is unrivaled in the industry. You won't find a more dedicated team of professionals focused on helping you improve your bottom line with precision farming.

We think you'll find the products in our catalog today – while much more advanced than when we sold our very first yield monitor – demonstrate the same vision of innovation that helped us launch the precision farming industry twenty years ago.

Al Myers

Al Myers
President

THE COMPLETE PRECISION FARMING SOLUTION

Who you partner with for your precision farming technologies is an important decision. Ag Leader has been a pioneer in precision farming since the very beginning. In fact, Ag Leader has the most complete lineup of precision farming technology available – both hardware and software. Ag Leader's network of precision farming dealers and its team of dedicated support and training specialists are behind you, granting you access to the best precision farming support in the industry.



2202 South Riverside Drive, Ames, Iowa 50010

515-232-5363

www.agleader.com

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