

This is agriculture

Precision technology solutions designed to reduce inputs, increase production and improve sustainability







The Solutions You Need For Work That Matters

Driven by economic, environmental, social and political factors, farmers need solutions which reduce costs and resources, increase production and promote sustainability. Optimizes at the core, precision farming improves profitability and efficiency through accurate measurement solutions.

Topcon has been in the surveying business for 90 years and active in agriculture for more than 40 years, with decisive solutions developed for the production of crops and livestock. We are committed to globally meaningful bringing solutions to agriculture through applications of core technologies in guidance, correction services and digital management of the farm. We do this by machine control and monitoring to be used during cultivation preparation, sowing, crop care, harvesting, weighing and feeding.



With a full range of Topcon precision technology solutions, efficiency and productivity come into every phase of farming.



Table of contents

Technologies

Guidance	06
Correction Services	06
Topcon Horizon OS	07
ISOBUS Universal OS	07
Digital Farm Management	08
Digital Farm Management	09

Applications

Soil Preparation	10
Seeding	12
Crop Care	14
Harvest	16
Weighing	18
Feed Management	19



Guidance

Steering you right from the start.

Accurate positioning is the cornerstone of site-specific management. Tracking location, it's not only required for precise control, but expansive data collection, enabling farm professionals to compare different types of information (e.g. yield, soil type, fertility, etc.) for better decisions. Most utilized for real-time operation through manual guidance and autosteering, the benefits of improved efficiency, reliable performance, and reduced fatigue have made it the most widely adopted technology in agriculture. Topcon pioneered multi-constellation GNSS pinpoint positioning and has supported the global industry standards – ISO protocol, from the start. Guidance is the key to accuracy and the heart of precision farming. We offer modular solutions to suit virtually any machine and operation.



Correction Services

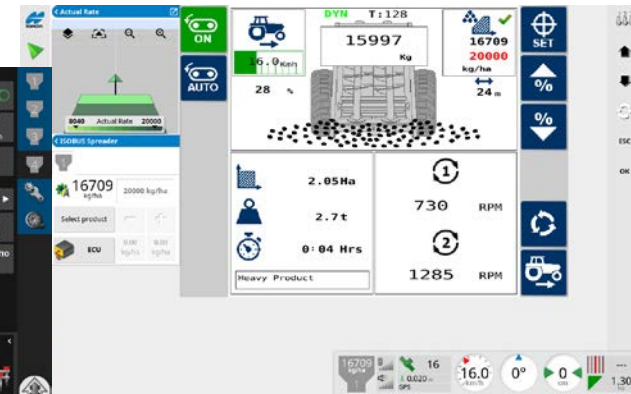
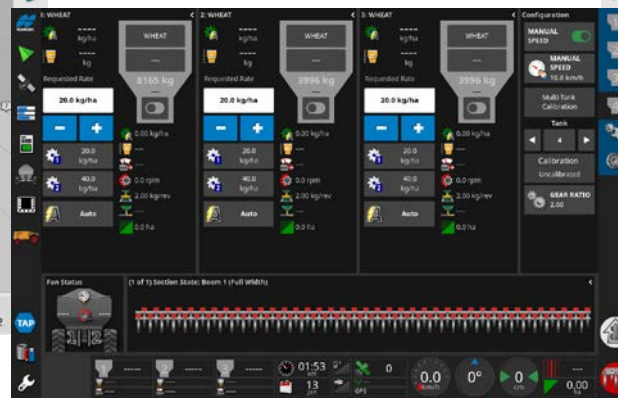
Get the most out of every square centimeter you farm.

Correction services are essential to GNSS accuracy based guidance and automatic steering throughout the whole crop cycle, including cultivation preparation, sowing, crop care and harvest. To take into account the changing circumstances and local farming requirements, we have a full range of solutions developed, including localized and network-based solutions for high quality accuracy and repeatability supply for every kind of agricultural operation, application and every machine. Topcon correction services are globally tested, reliable, proven and now more flexible than ever. In addition, there are subscriptions available in the form of network RTK or satellite based corrections. Tractors, sprayers, spreaders and harvesters that are connected to the network, benefit from fast initialization twenty-four hours a day and reliable positioning.



Horizon OS Spraying Control ex.

Horizon OS, Spraying Control ex.



Horizon OS / ISOBUS Guidance / Spraying Control ex.

Topcon Horizon OS

Unlock what you need, when you need it.

Horizon software is all about efficiency, modularity and connectivity. Revamped with a fresh look to complement the smoother experience, it drastically simplifies setup for key operations. Icon-based and user-definable, Horizon presents a choice of views for each function. The same complete software runs on all Topcon Agriculture consoles with the option of bundled (X25 or X35) or unlockable (XD and XD+) capabilities based on console selection.

Choose your display size from the latest XD (7") and XD+ (12.1"), and begin to unlock the capabilities in Horizon. It's compatible with the full-range of Topcon sensors and application control technology to suit the most basic to most progressive operations. Coupled with other Topcon and 3rd party technologies, Horizon provides flexible solutions, priced right.

Set autosteering patterns, control application rates, monitor each operation, and map every pass — all from a single dynamic environment you can manage on the fly with simple multi-touch gestures.

ISOBUS Universal OS

We pursue universal compatibility.

The Agricultural Industry Electronics Foundation (AEF) is an independent organization that implements international electronic standards. This oversight improves cross-manufacturer compatibility and transparency of electronic and electric components in agricultural equipment.

Topcon builds many key hardware and software solutions under ISOBUS protocol to offer seamless, universal integration.

ISOBUS Compliant Software

- Seed Drilling
- Row Crop Planting
- Transplanting
- Spreading
- Spraying
- Boom Height Control
- Yield Monitoring

ISOBUS Compliant Hardware

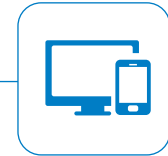
- X Family Consoles
- Guidance Receivers
- ECUs



Technologies



CL-55
Dispositivo de conectividad en la nube



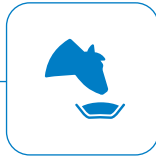
Digital Farm Management Topcon Agriculture Platform (TAP)

Designed for farmers, dealers, agronomists, and input suppliers who need to gather and consolidate key operational information, the Topcon Agriculture Platform (TAP) brings connectivity to every phase of the farming cycle, automating the data workflow, so users can focus on action.

TAP is an easy-to-use tool to organize, visualize and make better farm management decisions based on data from across the entire farming operation.

Constant connectivity, any data format, clear visualization, and secure sharing. With TAP, Topcon now offers a comprehensive and clear path into digital farm management.



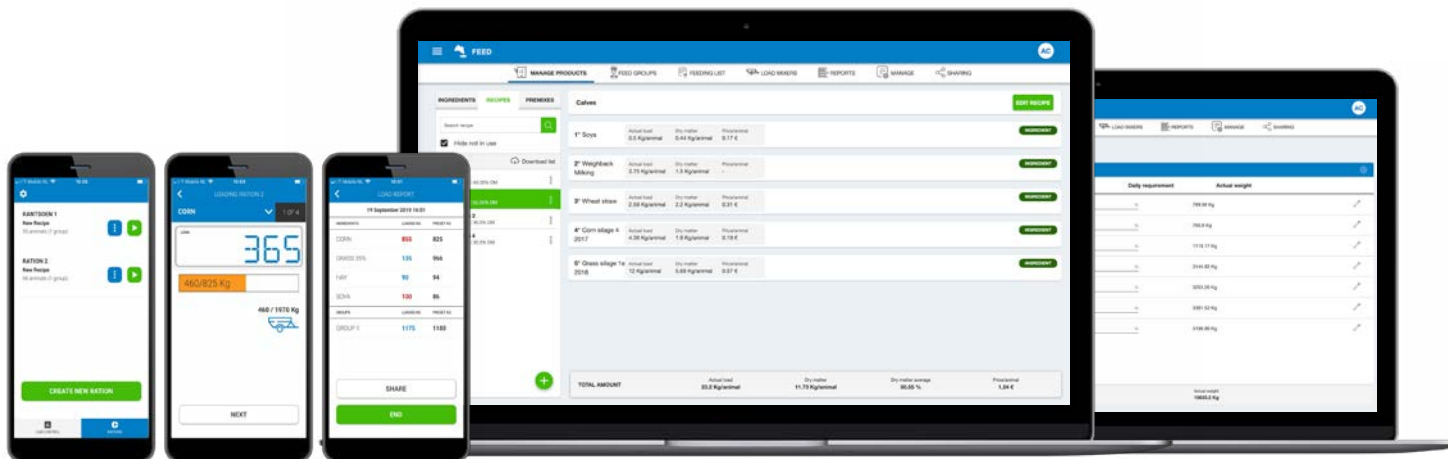


Digital Farm Management

TAP FEED

Modern, intuitive, and connected feed management software tied directly to the feed mixer via mobile app, TAP FEED fuses management software with load mixer integration. It's designed in collaboration with industry partners to provide easy-to-use features to improve efficiency, reduce waste and improve production.

Free with the latest lineup of Bluetooth Digi-Star/Topcon displays and weigh converters, start with the TAP FEED app for an organic transition into digital feed management.



Applications



Soil Preparation

Give your soil the solution it deserves

Through careful grading and landforming design, you can increase efficiency and yields while conserving both topsoil and water. Whether you're designing the surfaces of your fields, managing residue or preparing the soil for optimum fertility, we'll help you better manage the natural resources you rely on season after season.

Industry leading landforming

Proven survey, field design and landforming with GNSS accuracy. Topcon offers dual-constellation satellite reception for maximum accuracy with single or dual scraper control, plus the ability to grade more than 12,000 acres in a single setup. The GNSS system offers continuous 24/7 operation and can work in wind, dust, fog and other environmental conditions where lasers have challenges. The Topcon GNSS solution allows the operator to survey, create cut/fill maps and start grading without ever leaving the cab.



Tillage Depth Control

Tillage is a foundational practice in agriculture to prepare soil through mechanical agitation. Due to varying conditions, implements can be inconsistent. That's where precision tillage comes into play, providing an improved seedbed to enable better germination, more precise application of pre-emergence weed control, and easier management of desired surface residue. Tillage depth control ensures consistent and repeatable execution, preparing soil according to plan.

The Norac Tillage Depth Control (TDC) solution utilizes field-proven non-contact ultrasonic sensor technology to deliver the most durable and precise control on the market. Equipped with tailored algorithms, the sensors identify and differentiate obstructions to maintain desired depth. Unlike any other solution, it's specifically designed to compensate for varying field conditions – wet, dry or terraced. With TDC, depth is no longer a speculative setting, but rather accurately measured and controlled. Soil conditions, operator preferences and mechanical stops that determine appropriate depth are simple settings through an ISO-UT interface.



Weight-Based Spreader Control

Every field has varying conditions. Soil fertility and yields across a single field are always different. If you use a constant fertilizer rate there could be excess nutrients in some areas and a deficit in others. The Topcon Spreading Control solution provides accurate application control for virtually any trailed or granular spreader. Including key features such as variable rate and data logging as well as upgradeability with weight verification and digital farm management integration, the solution's modularity meets the requirements of most operations. ISOBUS compatible, it easily integrates with current display offerings. In addition, the data, such as task cards or as-applied cards, can be easily accessed to the cloud for the digital management of the agricultural company.



Applications



Seeding

Maintain singulation and plant spacing

Proper seed placement can directly impact your yield. We offer a variety of variable rate seeding solutions regardless of the type of machinery you run. Our complete line-up works on seeders, drills and row-unit planters.

Variable Rate and Section Control

Apollo is an entirely new concept in machine control ECU's that brings industry-leading features in an integrated solution. Apollo ECU's are easy-to-install, easy-to-use, stackable, weatherproof, ISO compatible, and most importantly, offer virtually unlimited capabilities. Apollo application control ECU's are configurable to support a wide range of air seeders – virtually every brand currently on the market.



From simple single product seeding to multi-product seed, chemical and fertilizer applications – Apollo ECU's running with Topcon GNSS autosteering bring it all together in a synergistic system offering unmatched efficiency and productivity.

Row Crop Planting Control

The Topcon Row Crop Planting solution provides electric-drive auto-section and variable rate control for planting implements with up to 24 motors, including up to three granular control channels. Additionally, the solution can interface with optical sensors fitted in drop tubes to provide information on mechanical metering performance (skips and doubles). Specifically designed to reduce unnecessary costs, the system offers a range of compatibility options t



o cleanly integrate onto nearly any planter on the market, including ISO-UT compatibility for display flexibility. Equipped with individual row motor drives, seed population is easily adjusted either manually or automatically when referencing prescription maps, which can be created and sent directly to the cab through TAP and Topcon hardware.

Drill Control System

With increasing adoption of variable rate technology, the requirement for control of multiple products and now ISOBUS, the Artemis system has now been developed to work with compliant UT's and Topcon consoles. Artemis provides proportional to forward speed control by driving the metering unit with an electric motor. Software is configurable to control up to 4 products/motors. In conjunction with the Topcon consoles, all 4 channels could function according to a predefined treatment map. Likewise, the headland on/off control would stop/start the motors according to the coverage map. The system continues to provide the basic monitoring and control functions including tramlining, low hopper level alarms, fan speed alarms and information totals (area, weight used, job duration)



Applications



Crop Care

Grow as it suits you

Protecting and fertilizing your crops with the right product at the right rate, time and place may well be the single most expensive and critical activities. Detect crop health and apply as-you-go with our crop canopy sensors. We offer rate and section control solutions for sprayers and spreaders of all makes and models, so you can count on us to have a solution for you. Add extra security of ensuring product goes exactly where it should by adding a boom height control system.



Crop Canopy Health Sensing

CropSpec is a real-time integrated crop monitoring and application system for agriculture. Operating with the variable rate control (VRC) program, CropSpec allows users to monitor in-field variability, treat on the go, or keep data for future analysis and/or prescription application. Compatible with Topcon consoles, CropSpec can be used in single- and dual-sensor configurations. The sensors mount on the cabin roof, out of harm's way with less potential to damage crops or equipment.



Leading Spraying Control

The Topcon Spraying Implement Control solution, with the Apollo CM-40 controller, provides auto-section and variable rate control for 100+ sections and up to eight products for nearly any self-propelled and pull-type sprayer. Not only does the solution provide flexible levels of capability for any size operation, it also offers a proprietary interface through Topcon Horizon and universal ISOBUS interface through the ISO-UT for display flexibility.

Equipped with impactful features including fence jet nozzle support and a recipe calculator, Topcon offers progressive and future-proof spray control. Specifically, through direct software support of Pentair Hypro ProStop-E Valves, farmers can control 200+ sections, down to the individual nozzle. It allows for incredibly precise nutrient management, driving farmers that much closer to individual crop management decisions. Plus, prescription maps can be created and sent directly to the cab through TAP and Topcon hardware.



Automatic Boom Height Control

Using time- and field-proven ultrasonic sensor technology, the Norac UC7 Boom Height Control solution makes responsive height adjustments allowing booms to automatically follow the contours of the land. The solution also reduces the need for the operator to move their head back and forth to monitor changes in field terrain. This allows the operator to focus on machine operation and safety. Providing various levels of control based on needs, the solution is designed for any operation and is compatible with a wide range of machines.



Applications



Harvest

Measure performance. Harvest more profit

Our field-proven optical yield and moisture monitoring solution provides real-time yield data so you'll know exactly where you stand as you harvest. Send yield maps directly from the field for future analysis and decision making. Our harvest system gives you unmatched insight and record keeping to deliver a more profitable yield. We also supply solutions for mapping of yield data for root crops.

Yield Monitoring and mapping

Topcon YieldTrakk™ brings an industry and field-proven optical-based yield monitoring solution to its market-leading steering, positioning, and machine control product offering. YieldTrakk provides leading yield/moisture monitoring, mapping and logging to provide growers with high-quality yield data for powerful agronomic insights.



Coupled with the Topcon Smart Cart solution, harvest data has never been more accurate. Integrated with the Topcon Horizon operating system on the consoles, YieldTrakk displays yield and moisture levels in separate sets of data – providing the operator with a more complete understanding of field and crop conditions to enable better agronomic decisions.

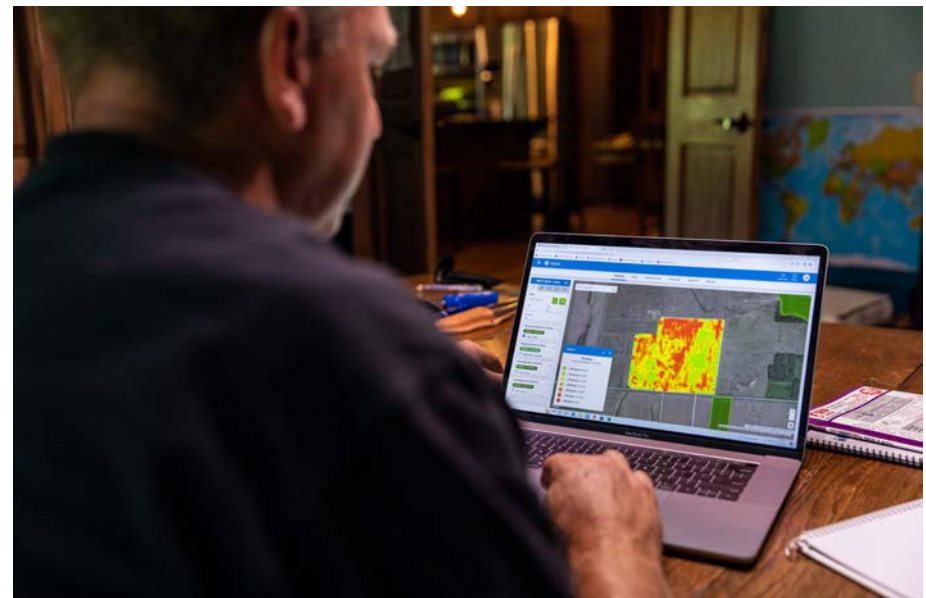
Specialty Crop Yield Monitoring

The Topcon YieldTrakk solution for “webbed” or “belt” conveyor-type harvesters utilizes high-precision Digi-Star load cells to measure and map live yield, moisture, and crop contamination – providing high-quality yield data for powerful agronomic insights. Compatible with Topcon consoles as well as any ISO-UT display, the solution brings accurate yield data to specialty crops such as potatoes, sugar beets, onions, tomatoes and more.



Smart grain cart weighing

The Topcon Smart Cart solution, comprised of the Digi-Star indicator and cloud connectivity device, provides weight-verified, geo-referenced data that automatically uploads and post-calibrates with yield monitor data in TAP. The system offers a loading approach for accurate harvest reports.



Applications



Weighing

Measuring is knowledge

Whether you are weighing grain, feed, bulk material or bales, our hydraulic weighing systems capture and record that data with ease and accuracy. You owe it to yourself to manage the most critical inputs on your operation.





Feed Management

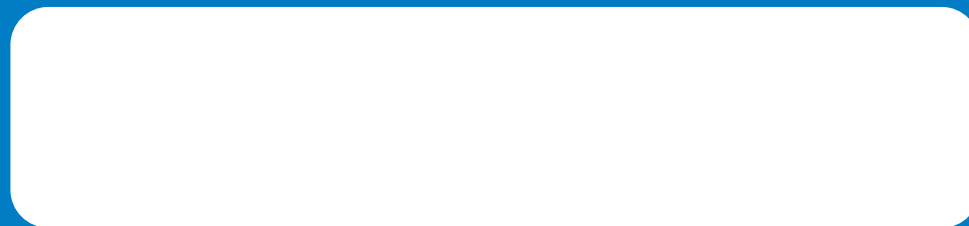
Cattle crave consistency

We know cattle crave consistency. So we provide precision feed management solutions that ensure your cattle get the proper total mix ratio for optimum performance. Now you can maximize productivity while reducing your most expensive input: Feed.

In addition, the solutions come as standard with TAP FEED, a mobile app for better management of ration overviews, control from the cabin and remote support.

There is also an option to connect via the Topcon Agriculture Platform (TAP) to the most advanced feed management software.





topconpositioning.com

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