

Machine Guidance and Precision Farming

OmniSTAR has been providing a service for use in the agricultural industry since 1994. OmniSTAR offers 24hr real-time Global Satellite Positioning services with submetre (VBS), sub-half metre (XP) and 10 centimetre (HP) accuracy. This reliable, accurate service benefits machine guidance and precision farming. It provides a means to control agronomically and

financially some of the variability associated with crop production.

In today's challenging market, optimising yield, while minimising input costs, is critical to the success of farming enterprises. Precision farming techniques can benefit all aspects of the crop production cycle from seedbed preparation through to harvest.



Drilling

Varying seed rate application based on soil characteristics or environmental factors allows the farmer to optimise plant populations through regulating drilling rate and depth, helping maximise cropping potential on a site-specific basis.



Soil Tissue Sampling

OmniSTAR enables the exact location of soil samples that are taken and recorded. The results of the tests are used to produce profile maps which provide a clear analysis of varying soil types and nutrient status over the recorded area, aiding management and optimising yield potential.



Machine Guidance

OmniSTAR's high accuracy facilitate the use of manual and automatic steering aids. Using satellite technology for machine guidance helps reduce skips and overlaps and maximises operator efficiency.



Harvesting

Sensors on the combine can record yield while harvesting. Integrating yield information with OmniSTAR allows the precision farmer to map yields on a designated area-by-area basis. Yield monitoring allows the farmer to identify variations in his field. This information can be used to investigate reasons for yield fluctuations and to implement an appropriate management plan.



Variable Rate Applications

Variable rate fertiliser and lime application and the use of nutrient status maps of a field reduce input costs and environmental impact. Through automatic control of sprayers and fertiliser applicators the precision farmer can vary the amount of pesticide or nutrient applied on the move. Regulating the dose according to weed populations, disease levels or pest infestation reduces environmental damage and cuts input costs.



Tillage

Combining OmniSTAR and sensor technology allows tillage depth to be varied according to soil profile or compaction status. Using OmniSTAR assisted guidance for cultivation work helps minimise skips and overlaps and increases working widths. Manual and autonomous steering systems allow more machine operating hours per day while reducing operator fatigue.





OmniSTAR Services and Features

- Submetre, sub-half metre and 10 centimetre level service on land or in the air
- Real-time positioning on the move
- Services designed for the industry
- Cost effective
- Reliability: network solution by multiple reference stations
- Worldwide coverage 24-hours a day
- Around the clock monitoring
- Free 24hr technical support

- Unaffected by weather
- Available on numerous guidance platforms

Accurate positioning information enables machine guidance and the creation of field boundary, soil sampling, chemical/fertiliser application and crop yield maps. For precision farming, all are integral in optimising efficiency, maximising yield potential and profit margins and implementing environmental protection for agricultural enterprises.

OmniSTAR compatible systems are available from:



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