QEGS Precision Farming

Farming and Technology

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High precision positioning systems (like GPS) are used in order to accurately track the position of crops in the field and help agricultural workers. They help achieve accuracy when driving in the field, providing navigation anywhere on earth, anytime under any conditions. The system is very accurate, and records the precise latitude and longitude of the required location

Automated steering systems or A-S-S: These systems allow the technology used, to perform specific driving tasks such auto-steering, overhead turning, following field edges and overlapping of rows. These technologies reduce human error and are highly effective in farming.

• Assisted steering systems provide the driver with the directions he requires with the assistance of satellite navigation systems such as GPS. This allows more accurate driving but the farmer still needs to steer the wheel.

• Automated steering systems, take full control of the steering wheel allowing the driver to undertake other takes such as the ability to keep an eye on the planter, sprayer or other equipment.

• Intelligent guidance systems provide different steering patterns (guidance patterns) depending on the shape of the field and can be used in combination with above systems.

• Geomapping: used to produce maps which can show useful information such as the type of soil, nutrients levels in the soil and assign that information to the required field.

• Sensors and remote sensing: collect data from a distance to evaluating soil and crop health (moisture, nutrients, compaction, crop diseases). Data sensors can be mounted on moving machines.

• Integrated electronic communications between components in a system for example, between tractor and farm office, tractor and dealer or spray can and sprayer.

• Variable rate technology (VRT): ability to adapt parameters on a machine to apply, for instance, seed or fertiliser according to the exact variations in plant growth, or soil nutrients and type.