

Getting Prepared For Harvest



Creating Utility Cards

Utility cards can be created on office software to make field selection in the header at harvest time a lot easier for the operator. Using office software (AFS, APEX ect) users can create a card with a list of cropped paddocks, varieties, guidance lines and machine settings. This means all of these information is now a simple selection from the drop down menu on the operating terminal instead of entering this data in field, saving time and miss entry of information.

Adding GPS to headers

Adding GPS to headers can be split into 2 sections... Adding GPS for yield mapping and adding GPS for mapping and steering.

GPS For Yield Mapping

Adding GPS for just straight yield mapping is a very easy and cost effective move to gain more information about your paddocks and enterprise. Simple Sub Meter GPS receivers are very cheap and readily available. The right cabling then has to be matched to connect to your Headers yield mapping system. Then it is a case of applying the right settings and configuration in the receiver and the yield monitor and away you go!!



Garmin Receiver



Garmin Handheld GPS

GPS For Mapping and Steering

This becomes a little more complicated and expensive as you are adding extra components but at the same time improves the efficiency of the combine not to mention making operation for long hours a lot easier. I have also found that steering makes GPS issues for yield mapping easier to identify, for example if it will not steer generally you will not be mapping either.

Adding steering to your header will be very dependent on what hardware the header has in it (steer ready or not) and the farmers needs for accuracy. Sub meter accuracy (*free to air) is adequate for straight lines in the paddock but a level of operator awareness is needed to do such things a line shifts to keep compensating for 'drift' as the day goes on. Omnistar (10cm) is great for someone who does not have the

access to an RTK Signal. This signal does incur an annual fee but eliminates the need for the operator to compensate for 'drift'. RTK (2cm) signal is the highest in cost but the highest in efficiency and operator ease. This repeatable signal is accurate enough to keep the front full all day and can use the exact same path year after year. Although it does depend on availability of signal either by Network towers, Owned base station or CORS.

Once all steering components are installed and the machine is steering fine it is relatively easy to output GPS from your screen to the yield monitoring system in your header. Again it is as simple as sourcing the right cables applying the appropriate settings and go mapping!!!



Trimble Ez steer



John Deere GS2 screen

Data Cards For Yield Monitors

The Data card that is put into the appropriate slot in your yield monitoring system is one of the most important components of the data collecting side of yield monitoring. If the card is not installed and running properly you will not get any information into your office software. If you have the card that came with the header just use that card.

There are a few things to know when sourcing and setting up data cards for mapping applications. Most manufacturers still use *Compact Flash* cards either on their own or in a *Compact Flash to PC Adapter*.

Find out from your manufacturer what is the largest size card that can be used in your screen (case colour screen = 4gb)

Find out what format the card has to be in. Most manufactures screens use *FAT* format. To format a card it is a simple operation on any windows computer. Formatting should be done before harvest each year so you start with a fresh blank card each year. NOTE be sure to save data from card onto computer before formatiing because formatting removes all previous files on the card



Compact Flash



Adaptor

Reading Yield Data From Machine

It is a good idea at the start of each season to remove the data card after the first day and check to make sure you are getting the required information on the card. Most manufacturers automatically write the yield

data and maps to the card whilst you are working in the paddock. This means when removing a card from a screen it is always a good practice to shut the screen down completely before removing the Data Card.

To read the card into your Computer a simple card reader is needed and a card viewing program (usually free) to see if maps are being produced. If this is too difficult simply copy all info on card and email these file to someone who can check it for you.



Card Reader

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For Technical information including more brand specific instructions, cables and setup information please feel free to contact me. I will also be continuing to publish Practical Technical publications like this throughout the season on request or as needed. As a part of my business plans i will also be processing the data collected this harvest for people at a per Ha cost once harvest is over and will be available for technical assistance on the phone at a small cost.

If you would like to receive further technical publications such as this one please email or ring me as i am compiling an email list. Get in early to organise any parts as both manufacturers and myself may take a while to source them.

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