

Yield Mapping Part 4: Pre Season Preparation

This is a good list to look at before you start each crop. Getting ready for harvest means checking and servicing 4 important components: 1. Completing a vehicle inspection 2. Calibrating your sensors 3. Setting up your monitor in the cab 4. Get your software ready in the office. In fact, I recommend you start with software FIRST! Here is how:

From the AgLeader Knowledgebase:

When preparing your yield monitor system for harvest there are several items that need to be checked over before going to the field. Schedule time out well in advance so that replacement parts can be ordered and shipped before you have to go to the field. You may need to schedule services from your dealer or some equipment may need to be shipped to a central facility for repairs or upgrades.

- 1. Ag electronics get power from the combines batteries so pay special attention to the power system on the machine with a well maintained alternator/generator, inspect for clean electrical ground connections all around.*
- 2. There are several yield monitor components that are interconnected by a cable harness. The wires in the harness need to be inspected for wear damage that may cause a short circuit. Start with the main power cable at the battery up to the monitor in the cab, and then back to each of the sensors.*
- 3. The flow sensor is mounted in the top of the clean grain elevator. Verify proper installation and paddle clearance. Check for worn out or broken deflectors that channel the grain towards the sensor. Make sure that the impact plate is not worn thin or broken. You may want to look at a picture of a new one in the installation instructions to verify that everything is like it should be. Also be on the lookout for rodent damage to flow sensor wires on the load cell.*
- 4. Next is the grain moisture/temperature sensor. Check for excessive wear and make sure the sensor is clean and free of mud or crop residue, also verify that you have good clean electrical ground. The Ag Leader system uses a motorized auger to keep grain moving past the moisture sensor, check the fuse, switch and relay then verify that the auger turns free.*
- 5. A header position sensor is mounted on the feeder-house of the combine. Check to make sure that the arm is attached properly so that it moves as the header is raised and lowered and that no wires are being pinched.*
- 6. The elevator speed sensor is located on the end of the shaft that drives the clean grain elevator. Make sure that the tee cable is properly connected so that speed output is available to both the combine gauges and the yield monitor.*
- 7. The ground speed sensor is located at the top of the transmission and also uses a tee cable to share speed output between the combine gauges and the yield monitor.*
- 8. Check the Monitor/Display that it has the latest firmware (program) upgrades installed. Check for the proper date (this may indicate a problem with the internal battery) that it has the latest upgrades installed.*
- 9. Make sure you have a working data card and that last year's data is removed. Hook up the GPS receiver and get out in the open to verify that you are getting position and speed data to the yield monitor.*

At this point if all of the hardware components have checked out okay, it is time to go through the configuration menu on the display and verify settings for your particular combine.

In the office, using SMS or your alternative software:

- 1. Update to the latest version of your software. Be sure to go to the help menu and select check for updates. This will connect you to automated updating for those of you who are current on their support and maintenance. Contact AgTech GIS to check your status and to arrange to pay your annual fees if necessary.*

Blog Archive: SMS Mapping Techniques

2. Make sure you have read in any planting data or application data made to date with your monitor console. Verify that all of your data is showing up in the "Management Tree" or list on the left side panel.
3. Create a backup of your data (SMS>SERVICES>BACKUP) or (FARM WORKS>FILE>BACKUP PROJECT)
4. Clear all data from your memory card or USB device.
5. Create all necessary Grower, Farm, Field and product names. This is a perfect time to make sure all of your field boundaries (the ones that have been "SET AS FIELD BOUNDARY" and display in the preview map when you select the field name) have been defined, imported or drawn.
6. Send this list to the monitor using Tools>Device Setup Utility in SMS and select the current year's fields for export to the memory card or USB stick. For Farm Works use the FILE> Write Job Data function selecting your brand of equipment. Can't find your device brand on the list? You are missing the driver to talk to that brand. Go back to Help>Check for updates and click the show all available selection, scroll to find your brand and, with only that brand checked, download and install it.
7. Take the card/USB stick to the display and import into the monitor. On the Edge and Integra monitors, choose the HELP button for onscreen assistance, or refer to the manual for this easy but important function. One of the biggest conveniences of having in-office software is the ability to manage these lists. It is simpler for the equipment operator to select from a choice list rather than type a field name (not that this is a tough thing with on-screen touch typing). Note that the procedure is the same for all brands of equipment using your in-office software to communicate and update your in-field monitor. Exports to all of the main brands of device are possible from SMS. For more information on calibration always refer to your manual. See the "Do I really have to calibrate?" blog entry.

Karon from 2014