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Variety Tracking

Introduction

With growing farm sizes, different soil types and enhancements to crop varieties, it has become a challenging task for growers to keep an accurate record on their crops’ performance. Case IH strives to make the growers’ job as easy as possible so they are able to complete their duties from planting to harvesting and everything in between. Technology has enabled Case IH to make tracking the performance of crops available to all growers.

Back in 2011, Case IH first introduced a function called “Variety Tracking” that allows growers to monitor the yield and moisture information of a specific hybrid or variety while harvesting. Variety Tracking uses automatic recognition from the information recorded during the planting process. The crop that was planted will be automatically recognized when it is being harvested using Variety Tracking.

Variety Tracking takes the information from the planting of a crop and records it so it can later be used to determine crop performance when harvesting. Once the planting data is made available to the display in the combine using Case IH desktop software or the newly released AFS Office software for 2012, the operator simply must insert the data card in the display and then start harvesting. The variety tracking operation on the combine is automatic. It is very simple and easy for everyone to use. This allows for greater data analysis that can be done from the comfort of a home or office on any computer that has Case IH Desktop Software or Case IH AFS Office software.

This product information document will guide you on how to use Case IH Variety Tracking. Note this product information document is designed to be used with either AFS Desktop or AFS Office computer software.

AFS Desktop Software – Use pages 3-15 as a guide to convert your planting data into data your combine display can use to track the varieties you planted.

AFS Office Software – Use pages 16-27 as a guide to convert your planting data into data your combine display can use to track the varieties you planted.
Variety Tracking – AFS Desktop

Requirements – If using Case IH AFS Desktop Software Version 11.0 or Higher

The Case IH Variety Tracking function, like any other technological function, is made to enhance the abilities of the grower to better suit their operation. There are a few basic requirements that come along with the new technology.

What you need:

- AFS Desktop Software Version 11.0 or higher
- As-Applied planting data
- Generic Combine, 88/130 Series, or Axial-Flow Combine with AFS Pro 600 or AFS Pro 700 software v26 or higher
  - Precision Farming Application
  - Yield Monitoring Application
  - Variety Zone Application
- GPS Receiver on combine
- Formatted or clean memory device (PCMCIA for AFS Pro 600, USB for AFS Pro 700)

NOTE! Split planter (two varieties) applications on contours with a planter smaller than 44” can cause jagged variety maps for harvest and provide inaccurate variety tracking results. Avoid split planter mapping on contours.”

Variety Tracking Quick Reference Card (AFS Desktop Software)

The Variety Tracking Quick Reference Card for AFS Desktop Software is now available at the Document Management Center (DMC). The DMC can be accessed through the Dealer Portal. This card provides quick and easy access on using Variety Tracking. Also available at www.caseihafs.com.

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Variety Tracking – AFS Desktop

Using Variety Tracking With AFS Desktop Software

Variety Tracking is a very user friendly tool. It is easy to use and it will help the grower better analyze the crop production and assist in making decisions in the future. Setting up variety tracking, and transferring the data to a computer requires nine easy steps.

Initially setting up Variety Tracking is very easy to do. Once it is set up, the only adjustment that has to be made is to change the type of seed that is being planted or harvested, which is done using the “Product Name.” Run screens allow the operator to toggle back and forth from different seed types with only a touch of the screen. Variety Tracking all starts with the Planter.

Step One:

✓ Planting data must be recorded to allow Variety Tracking to function properly during harvest.

✓ Varieties need to be recorded as Products in the layer assignments. (Case IH displays only; follow OEM instructions for competitive displays)
Variety Tracking – AFS Desktop

Using Variety Tracking With AFS Desktop Software (cont.)

Step Two takes place after the seed has been planted. All data recorded during planting is saved onto a memory device which can be used to load the data onto a computer.

This simple transfer from the AFS unit to the computer allows for it to properly function during harvest.

Step Two:

✓ The planting data must be loaded into the Case IH Desktop Software.
  o Allows Variety Tracking to function properly during harvest

✓ Once planting data is loaded, the grower is able to see the following items:
  o Coverage map
  o Color Coded Variety Map
  o Aerial Map
  o Layered views and combinations

Planting Data Shown
Variety Tracking – AFS Desktop

Using Variety Tracking With AFS Desktop Software (cont.)

Step Three is a crucial step in transferring the data from the AFS monitor to the computer. This step allows the grower to make the Variety Zone Map. This map shows the grower which varieties were planted in certain areas. Data is later transferred back to the memory device to record information during the harvest.

**Step Three:**

- Create a Variety Zone Map.
- Use the Device Setup Utility.
  - Select **Tools>Device Setup Utility**.
- In the Name field on the Setup Info screen, create a name for the Set-up Configuration.
- Click the **Next** button.

![Tools>Device Setup Utility](image1)

![Setup Utility Configuration](image2)
Step Four allows the grower to select the data to be input from the monitor. Some data may not need to be recorded using Variety Tracking. In situations where only one variety of seed is used per field may not require the Variety Tracking function. A field in which more than one variety of seed has been planted is a perfect situation in which a grower might use the Variety Tracking function. Step four allows for that choice.

**Step Four:**

- Under **Available Items**, select the Growers, Farms, and Fields in which you intend to use Variety Tracking.
- Highlight those items and click the **Add** button.
- Click the **Next** button.
Step Five is a fairly quick step which checks to see if any chemicals or fertilizers were used while planting. This will allow the farmer to keep track of other variables besides just the variety of seed, when they use the Variety Tracking function. If no other pesticides (Pests) or other Products were used, simply skip those sections by clicking “Next”.

**Step Five:**

- Under **Select Management Type**, select or create new operators [People].
- Under **Available Items**, select the operator or other item.
- Click the **Add** button to add the item to the **Selected Items** list on the right.
- Click the **Next** button.
- Click the **Next** button again to skip the “Pests” Selection, if preferred.
- Click the **Next** button again to skip the “Products” Selection, if preferred.
Variety Tracking – AFS Desktop

Using Variety Tracking With AFS Desktop Software (cont.)

Step Six of the Variety Tracking function records the year and operation information. This part of the function will allow the grower to keep tabs on the varieties planted from year to year. When going back and looking at what varieties were planted and how they performed, the grower can make decisions on what variety of seed to plant for the following year. By laying it out by year, and operation, it provides a user-friendly, easy to read format.

**Step 6:**

1. Choose the correct year, by selecting the down-arrow button to display the list of years, and then highlight the year.

2. Under **Available Operations**, scroll down through the list to find “Planting” and select it.

3. Click the **Add >>** button. The year and planting will appear in the Right Hand Column under **Selected Dataset Filters**.

4. Select needed guidance lines, etc. from the list of **Available Operations**, clicking the **Add** button after each selection.

5. Click the **Finish** button.
As mentioned earlier, the data must be put into the computer to format it for harvest use. Step Seven does just that. Simply select the year of the harvest, and export it to the display memory device which can then be put into the display itself.

**Step 7:**

- Under **Select Setup Configuration**, choose the Setup Configuration (“2011 Harvest” in this case). If needed, click the **Add New** button to add a new setup configuration. Use the **Edit** button to edit an existing configuration.

- Click the **Export to Display** button.
Using Variety Tracking With AFS Desktop Software (cont.)

Step eight goes along with the previous step in that the grower chooses the type of display to which the data is being exported. In most cases, the data will be transferred to the Case IH AFS Pro 600 or AFS Pro 700, for which the “Case IH” tab must be selected. In the event that the data needs to be transferred to another manufacturer’s display, that particular manufacturer must be highlighted so that the data will be formatted properly.

Step 8:

✓ Select the Display Company manufacturer. (i.e., Case IH for AFS Pro 600 or AFS Pro 700)

✓ Select the Display Model type in the right-hand window.

✓ Insert data card into the desktop computer (PCMCIA for AFS Pro 600, USB for AFS Pro 700.)

✓ Click the Export to Selected Display button.

✓ Select the export location and choose any Marks or Tags that are needed.
Variety Tracking – AFS Desktop

Using Variety Tracking With AFS Desktop Software (cont.)

The final step in the process is to take the memory device from the computer and put it back into the display unit. Then the grower chooses what run screen the data is placed on for harvest. That is done through the Toolbox Layout screen.

**Step 9:**

- Insert the memory device into the display.
- Turn the key on.
- Choose the Run Screen you prefer to have the Variety Tracking information on.
- Find the following User Defined windows in **Toolbox > Layout**.

- **Variety Tracking**
  - Turn on/off
  - Auto/Manual modes

- **Variety**
  - Auto-select Variety
  - Manual select from pre-populated list (cannot add varieties on display)

- **Variety Legend**

- **Variety Color Legend**
  - Blue Palette
  - Pink Palette

- **Map** (choice of 1x4, 2x3, 2x4, 2x5)
Once all of the data is formatted and back into the display monitor, the grower is ready to harvest the crop. To harvest, choose the desired grower, farm, and field. Then, to use variety tracking, turn “On” the variety tracking by using the run screen selected. The combine will automatically recognize the different varieties of crop and it will appear on the display monitor.

**Harvesting:**

- Choose the desired Grower, Farm, and Field.
- Check that Variety Tracking is on “On” and in “Auto” mode (from the Run Screen).
- Begin Harvesting.
- If Variety Tracking data is available, the variety will appear in the “Variety Window” and record to a new Task.
- As a new Variety is reached, the Variety will change in the window and a new task will be created, or a previous task containing the same variety will become active.
Obtaining an Overall Summary Using AFS Desktop Software

When harvesting is completed, or at anytime during the harvest, the grower can obtain a summary that states how each variety is performing directly on the display. The summary will show up in either the Summary 1 or Summary 2 section of the display monitor. This summary is beneficial in that the different crop varieties can be compared at anytime during or after the harvest.

**After Harvesting:**

- If desired, a summary of Variety data is available in the Performance Tab in the Monitor Home screen.
- This data can then be put back into the computer for further analysis and archiving information.
Variety Tracking – AFS Desktop

Desktop Software – Analysis After Data is Collected Using AFS Desktop Software

When harvesting is completed, or at anytime during the harvest, the grower can obtain a summary that states how each variety is performing from the desktop software. The information from the data card needs to be uploaded to the desktop software for analysis.

**Note:** End users are encouraged to back-up their data from their display on the desktop computer often. This will prevent any chance of data loss should a problem occur.

When the data is backed up or whenever a customer chooses, summary information for a given grower, farm and field can be quickly chosen and analyzed. Most importantly, the grower can quickly look and compare between the varieties in that given farm and/or field.

Summary data can also be printed out. The figure shows an example of what would be shown if a customer wanted a printed summary of the yield information of a given product for the 2010 season.
Variety Tracking – AFS Office

Requirements – Using AFS Office Software

The Case IH Variety Tracking function, like any other technological function, is made to enhance the abilities of the grower to better suit their operation. There are a few basic requirements that come along with the new technology.

What you need:

✓ AFS Mapping & Records – v2012.03.517 or higher
✓ As-Applied planting data
✓ Generic Combine, 88/130 Series, or Axial-Flow Combine
  with AFS Pro 600 or AFS Pro 700 software v26.* or higher
✓ Precision Farming Application
✓ Yield Monitoring Application
✓ Variety Zone Application
✓ GPS receiver on combine
✓ Formatted or clean memory device (PCMCIA for AFS Pro 600, USB for AFS Pro 700)

NOTE! Split planter (two varieties) applications on contours with a planter smaller than 44’ can cause jagged variety maps for harvest and provide inaccurate variety tracking results. Avoid split planter mapping on contours.”

Variety Tracking Quick Reference Card
(AFС Office Software)

The Variety Tracking Quick Reference Card for AFS Office Software is now available at the Document Management Center (DMC). The DMC can be accessed through the Dealer Portal. This card provides quick and easy access on using Variety Tracking. Also available at www.caseihafs.com.

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Variety Tracking – AFS Office

Using Variety Tracking With AFS Office Software

Variety Tracking is a very user friendly tool. It is easy to use and it will help the grower better analyze the crop production and assist in making decisions in the future. Setting up variety tracking, and transferring the data to a computer requires nine easy steps.

Initially setting up Variety Tracking is very easy to do. Once it is set up, the only adjustment that has to be made is to change the type of seed that is being planted or harvested, which is done using the “Product Name.” Run screens allow the operator to toggle back and forth from different seed types with only a touch of the screen. Variety Tracking all starts with the Planter.

**Step One:**

- Planting data must be recorded to allow Variety Tracking to function properly during harvest.

- Varieties need to be recorded as Products in the Layer Assignment screen on Case IH displays only. (Follow OEM instructions for competitive displays).

Note: Screenshots above are representative examples, and do not necessarily show exactly what will be shown on the display.
Variety Tracking – AFS Office

Using Variety Tracking With AFS Office Software

Step Two: Load Planting Data into Desktop Software

This simple transfer from the planter display to the AFS software allows for Case IH or other branded data to be properly formatted for the export to the AFS yield monitor display.

The planting data must be loaded into the Case IH AFS Software.
- Allows Variety Tracking to function properly during harvest

Once planting data is loaded, the grower is able to see the following items:
- Coverage map
- Color Coded Variety Map
- Aerial Map
- Layered views and combinations

Note: Screenshots above are representative examples, and do not necessarily show exactly what will be shown on the display.
**Step Three: Create Variety Layer**

Step Three is a crucial step in transferring the data from the AFS display to the computer. This step allows the grower to make the Variety Layer. This map shows the grower which varieties were planted in certain areas. Data is later transferred back to the memory device to record information during the harvest.

1. Right click on **Crop Year Enterprise**.
2. Click **Add Layer**.
3. Click **Add Variety Layer**.

Variety Map layer is now added under the Crop Year Enterprise.

Note: Screenshots above are representative examples, and do not necessarily show exactly what will be shown on the display.
Variety Tracking – AFS Office

Using Variety Tracking With AFS Office Software

Step Four: Write Job Data to Data Card

In this step, the data needs to be copied to the appropriate data card (PCMCIA for AFS Pro 600, USB for AFS Pro 700).

1. Click **File**.
2. Select **Write Job Data**.

Note: Screenshots above are representative examples, and do not necessarily show exactly what will be shown on the display.
Using Variety Tracking With AFS Office Software

Step Five: Select Display

Step Five goes along with the previous step in that the grower chooses the type of display to which the data is being exported. In most cases, the data will be transferred to the Case IH AFS Pro 600 or AFS Pro 700, for which the AFS – Case IH must be selected. In the event that the data needs to be transferred to another manufacturer’s display, that particular manufacturer must be selected so that the data will be formatted properly.

1. Find AFS – Case IH. Click the + sign to expand the directory tree (if needed).
2. Click on AFS 200, AFS Pro 300, AFS Pro 600, AFS Pro 700.

Note: Screenshots above are representative examples, and do not necessarily show exactly what will be shown on the display.
Using Variety Tracking With AFS Office Software

Step Six: Select Resource

1. Select Resource List.
2. On the Farm/Fields tab, Select appropriate Client/Farm/Field.
3. Select the Inputs tab to select appropriate inputs.
4. Click the OK button once all three have been selected.

Note: Screenshots above are representative examples, and do not necessarily show exactly what will be shown on the display.
Variety Tracking – AFS Office

Using Variety Tracking With AFS Office Software

Step Seven: Advanced Setup

1. Select **Advanced Setup**.
2. Change **Export Variety Map** from *False* to *True* to enable variety map export.

Note: Screenshots above are representative examples, and do not necessarily show exactly what will be shown on the display.
Using Variety Tracking With AFS Office Software

Step Eight: Select Drive Location

1. Click the **Browse** button.

2. On the Browse for Folder screen, select the removable drive. Reminder! The memory device must be formatted and clean.

3. Click the **OK** button.

Note: Screenshots above are representative examples, and do not necessarily show exactly what will be shown on the display.
**Variety Tracking – AFS Office**

**Using Variety Tracking With AFS Office Software**

**Step Nine: Set up the Display**

The final step in the process is to take the memory device from the computer and put it back into the display unit. Then the grower chooses what Run screen the data is placed on for harvest. That is done through the **Toolbox > Layout** screen.

1. Insert the memory device into the AFS Pro 600 or AFS Pro 700 display.
2. Turn the key on.
3. Ensure that the display Interface Level is set to “Advanced” (Select Toolbox > Disp).
4. Choose the Run Screen where you want to see the Variety Tracking information (Select Toolbox > Layout).
5. Assign the following User Defined Windows to the Run Screen (must create a custom Layout first).

- **Variety Tracking**
  - Turn on/off
  - Auto/Manual modes

- **Variety**
  - Auto-select Variety
  - Manual select from pre-populated list (cannot add varieties on display)

- **Variety Legend**
  - Shows number of varieties in the field
  - Allows the user to view the color assigned to each variety

- **Variety Color Legend**
  - Blue Palette
  - Pink Palette

- **Map** (choice of 1x4, 2x3, 2x4, 2x5).
Variety Tracking – AFS Office

Using Variety Tracking With AFS Office Software

HARVESTING USING VARIETY TRACKING

- Choose the desired Grower, Farm, and Field for data recording.
- Check that Variety Tracking is “On” and in “Auto” mode (from Run Screen).
- Begin Harvesting.
- If Variety Tracking data is available, the variety will appear in the “Variety Window” and record to a new Task.
- As a new Variety is reached, the Variety will change in the window and a new Task will be created or a previous Task containing the same variety will become active.

![Variety Tracking Diagram](image-url)
Using Variety Tracking With AFS Office Software

**OBTAINING AN OVERALL SUMMARY**

When harvesting is completed or at any time during the harvest, the grower can view a summary showing how each variety is performing directly on the display. The summary will show up in either the Summary 1 or Summary 2 section of the display monitor (Performance > Sum1/Sum2). This summary is beneficial in that the different crop varieties can be compared at any time during or after the harvest.

After Harvesting:
- If desired, a summary of Variety data is available in the Performance section of the display.
- Logged yield data (with variety information) can be processed into the AFS Office software for further analysis.
Variety Tracking

Frequently Asked Questions

What is Variety Tracking?
Variety Tracking is a function on the AFS Pro 600 or AFS Pro 700 that allows farmers to monitor the yield and moisture information of a specific hybrid or variety while harvesting.

When is Variety Tracking available?
Variety Tracking is available to customers starting in the Fall Harvest season of 2011.

What is required to run Variety Tracking?
Variety Tracking requires either an AFS Pro 600 Monitor or an AFS Pro 700. These monitors need to be equipped with either Generic Combine, 88 Series Combine, or Axial-Flow Combine. In addition the Precision Farming, Yield Monitoring, and Variety Zone Applications are all required to successfully operate Variety Tracking.

Do I need any special software to run Variety Tracking?
Yes. Variety Tracking requires Case IH Desktop Software Version 11.0 or higher, or AFS Office software. In addition to the Desktop software, Variety Tracking requires AFS Pro 600 or AFS Pro 700 software version 26.* or higher.

How many different varieties can I track?
Case IH Variety Tracking allows the user to track 30 different varieties per field.
Variety Tracking

Frequently Asked Questions (cont.)

Do I have to toggle between my different varieties manually?

No. Case IH Variety Tracking is equipped with automatic variety recognition. This keeps the user from manually having to switch between the different varieties for ease of use. If the user desires, there is a manual mode that allows switching between varieties.

Where do I find my Variety Tracking data?

Variety Tracking data can be found on the Performance Tab that is located on the monitor home page. Specific Variety information and data can be found on one of the two summary pages.

Will Variety Tracking data transfer if I used another manufacturer's planting data?

Yes. Case IH Desktop Software is designed to format data from 15 different companies into Case IH data.
Variety Tracking

Summary

Variety Tracking has several benefits to the grower today. These benefits include increased knowledge on crop performance, increased crop management abilities, the ability to better forecast seeding and crop decisions for the future, and automatic recognition in the cab for easier operation. All of these benefits will not only maximize the grower’s time but will also increase the grower’s profits in the end.

Case IH Variety Tracking is a very user-friendly function that everyone can use. With only a few basic requirements and a display monitor that many growers already have, it is easy to introduce Variety Tracking to growers. Variety Tracking can be useful for any application, from the smallest farmer who is trying different seed and crop types to the largest farmer who has several different fields and varieties of seeds and crops. Help growers maximize their profits so you, the dealer, can maximize yours.
Variety Tracking

NOTES
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