

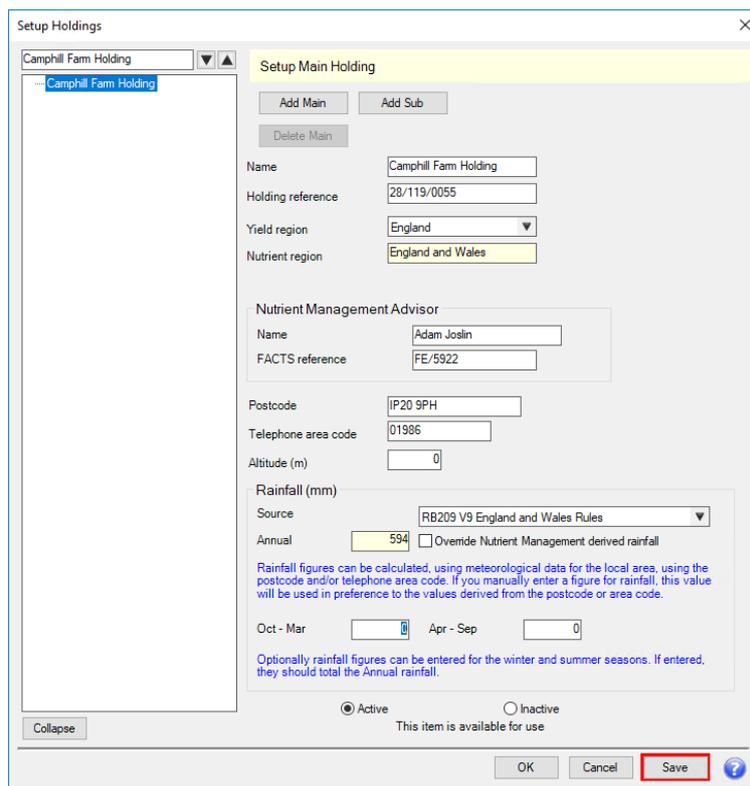
Release Notes 4.10.0

AHDB RB209 Version 9 API changes

This update sees the integration of the AHDB's RB209 V9 ruleset into Gatekeeper. In order to connect to the AHDB's API we have had to make a large number of changes to our Nutrient Management module whilst ensuring that the previous ruleset, Version 8, can continue to be used. This is because the Version 9 ruleset applies to England and Wales only, whilst Version 8 is still the current ruleset for Scotland. Users can choose to use the Version 8 or Version 9 rules.

Setup Holdings

Within the Setup Holdings window, a user can now select whether to **Source** the annual rainfall figure from the default amount in the RB209 V8 rules or the RB209 V9 rules for England and Wales.



Users can also record the **Altitude** in metres of their holding as well as differentiate the breakdown of rainfall between the **Oct-Mar** period and the **Apr-Sep** period. The sum of the rainfall periods must not exceed the Annual rainfall.

Setup Products

When setting up Organic Manure products in Gatekeeper you can now source the analysis information from either RB209 V8 (England and Wales or Scotland) or RB209 V9 (England and Wales).



Please note: Not all RB209 Version 8 Manure Types are supported by the RB209 Version 9 rules and therefore no analysis is provided. A message will be displayed for unsupported manure types.

Available analysis values

Available nutrient analysis is not provided for any of the RB209 V9 supported manure types.

If you wish to enter your own nutrient analysis, tick the **Override analysis** box and then manually edit the analysis within the Available tab. You may also edit the analysis within the Total tab if required.



Please note: The **NVZ Field Record Sheet** report requires Organic Manures to include an available nutrient analysis value. If you wish to use this report then you must manually enter an Available analysis value for each Organic Manure



Please note: The following manures require an Available Analysis value to be entered for **NMAX**. If you are using RB209 V8 these will be provided from the linked Manure type. If you are using RB209 V9 then you will have to enter an Available Analysis value manually.

- Biosolids (composted)
- Biosolids (digested cake)
- Biosolids (lime stabilised)
- Biosolids (thermally dried)
- Digestate (whole) food based
- Green compost
- Green/Food compost
- Mushroom compost
- Waste food (brewing)
- Waste food (dairy)
- Waste food (general)
- Waste food (soft drinks)
- Water treatment cake

Add New Product
Delete In All Periods
Merge In Current Period

Heading category: Variable Costs

Heading: Organic Manure

Name: Layer Manure V9 

Family prefix:

Details
Nutrition
Extra Checks
Pack Order Prices

Nutrition

Analysis entered as kg/t or kg/m3 of fresh material

Manure type: Layer manure

Type: Solid

Weight expression: Nutrient % by weight (wt/wt)

Specific gravity or density (g/cc): 1.00

Nutrition products of all types should be set up under the appropriate heading group from the list of Fertiliser, Organic Manure, Trace Elements and Lime

Exclude from NMax calculations for applications pre 1st Jan 2014 (after this date this is ignored)

Total
Available

Source: RB209 V9 England and Wales Rules

Override analysis Clear Analysis

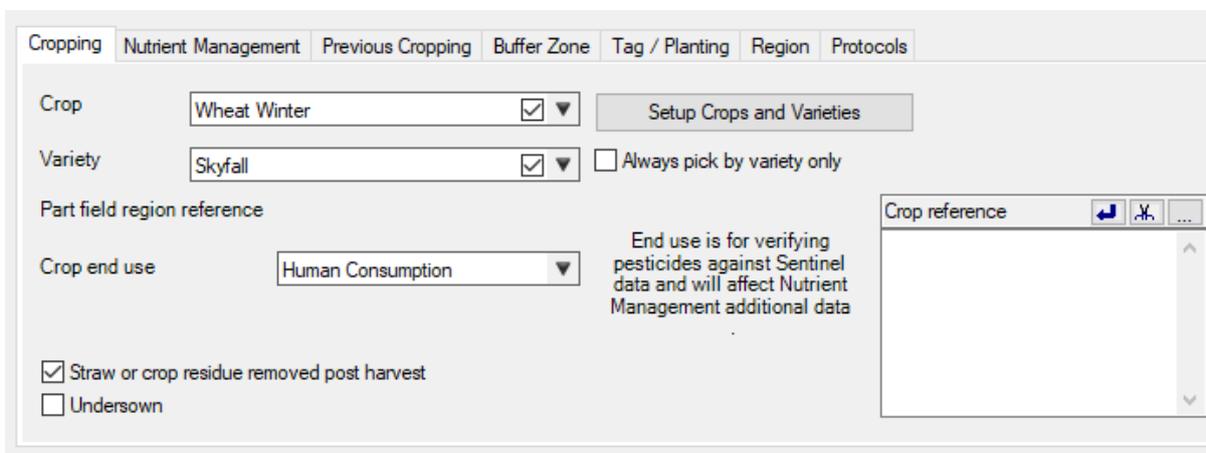
| | |
|-----------------------|--------|
| Manure Total N | 19.000 |
| Manure Total P205 | 12.000 |
| Manure Total K20 | 15.000 |
| Manure Total SO3 | 5.600 |
| Manure Total MgO | 4.300 |
| Manure Total CaO | |
| Manure Uric Acid N | |
| Manure NH4-N | |
| Manure NO3-N | |
| Percentage Dry Matter | 40.000 |

Editing Field information for Nutrient Management

Field information required for Nutrient Management can now be edited from Crop Records (from the Fields module click on Setup Fields. From within Cropping Summary, double click on the field required in the relevant year and its Crop Record will appear). This change allows users to quickly edit the data for many fields.

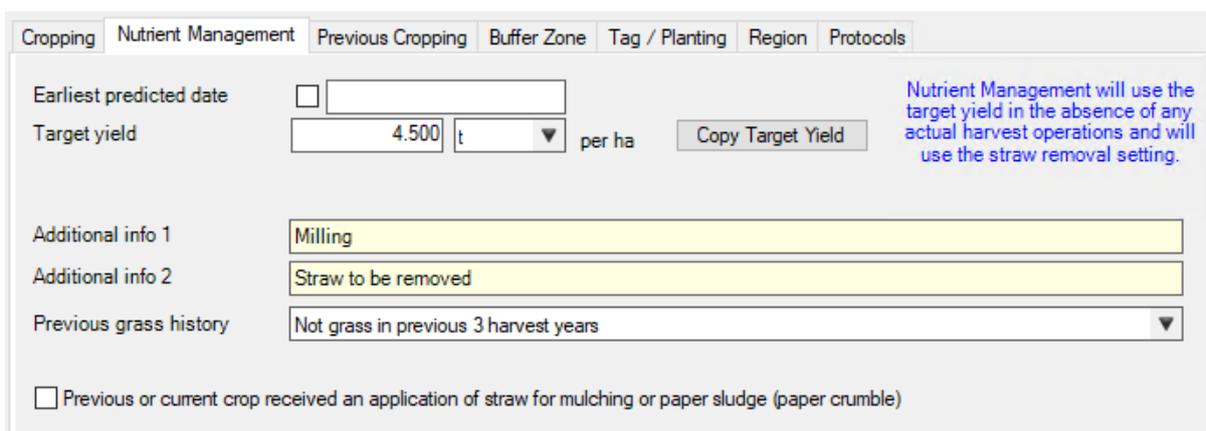
Crop End Use & Straw crop Residue options

Within a Cropping Record a user can now specify the **Crop End Use** and the **Straw or crop residue removed post harvest** options, which will drive the selection in the Nutrient Management tab **Additional Info 1** and **Additional Info 2** as shown below.



The screenshot shows the 'Cropping' tab with 'Nutrient Management' selected. The 'Crop' dropdown is set to 'Wheat Winter' and 'Variety' is 'Skyfall'. 'Crop end use' is set to 'Human Consumption'. A checkbox for 'Straw or crop residue removed post harvest' is checked. A 'Crop reference' window is open on the right.

Once the Crop end use is selected in the Cropping tab, Additional info 1 will be pre-selected in the Nutrient Management tab.



The screenshot shows the 'Nutrient Management' tab. 'Additional info 1' is set to 'Milling' and 'Additional info 2' is 'Straw to be removed'. A note states: 'Nutrient Management will use the target yield in the absence of any actual harvest operations and will use the straw removal setting.'

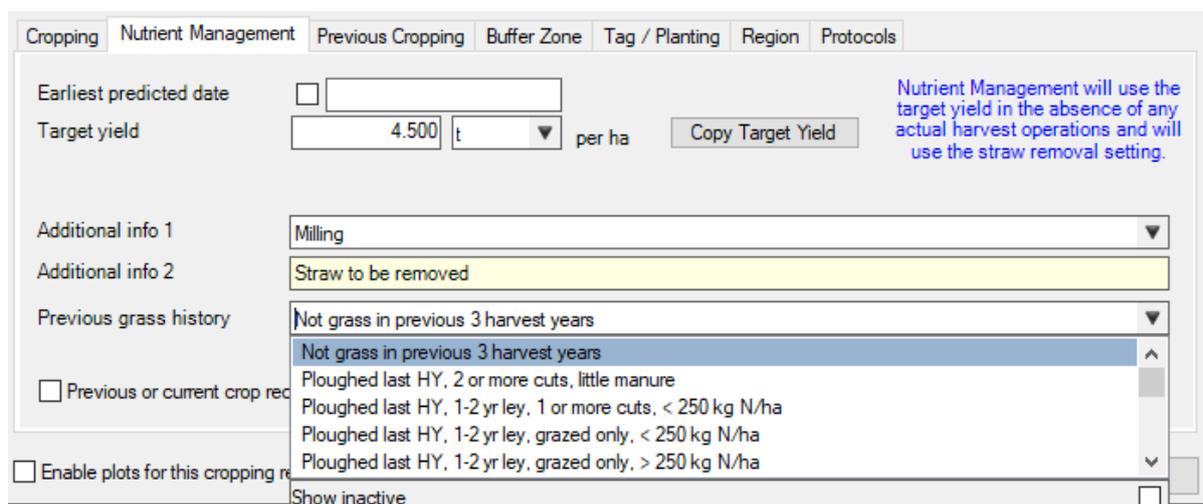
If the **Crop end use** is left as 'Any Use' then the Additional info 1 becomes selectable again in the Nutrient Management tab.

Target Yield

The **Target Yield** figure is used in the RB209 Version 9 England and Wales calculation for some crop types and affects the nitrogen requirement figures generated. For a full list of these crop types see the relevant section of the RB209 documentation. This Target Yield figure is also used in the NMAX calculation.

SNS (soil Nitrogen Supply) figure

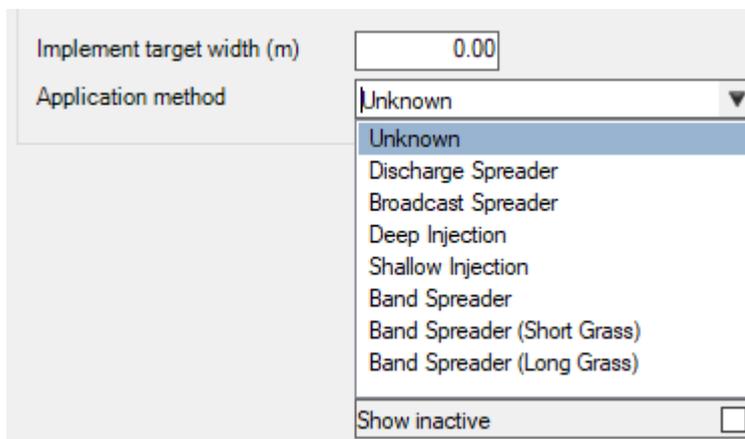
In RB209 Version 9 England and Wales, the SNS value is generated from the field's previous cropping. However, if you only have the current year's cropping setup in Gatekeeper, RB209 Version 9 will use the **Previous Grass History** to calculate the SNS figure.



Organic Manure additional options

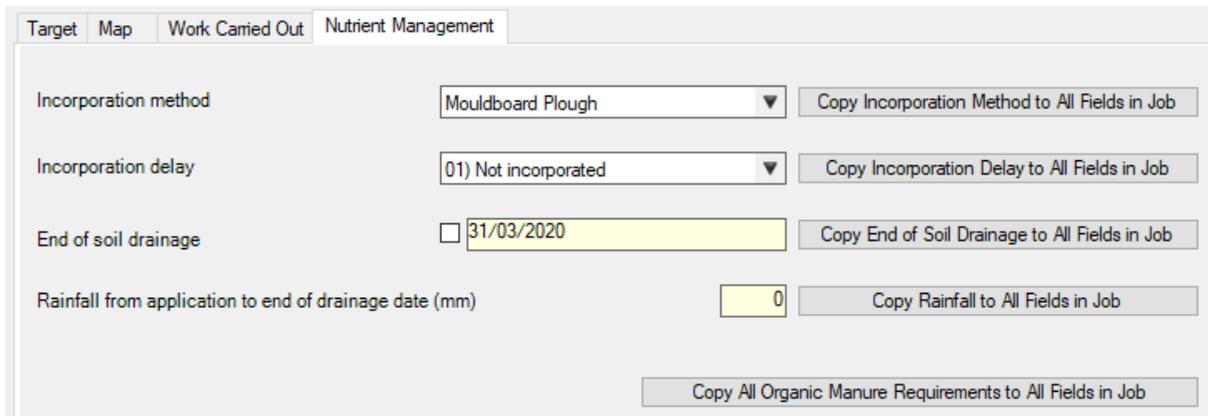
When organic manures are applied there are a number of pieces of information required to calculate the available nutrient, for example incorporation delay.

Within the organic manure Job you will need to select the **Application method** which is located in the Implement tab.



The **Incorporation Method**, **Incorporation Delay** and **End of**

Soil Drainage date and rainfall amount are located in the Field tab within the Nutrient Management sub-tab. We have also added a **Copy All Organic Manure Requirements to All Fields in Job** button that allows a user to quickly copy these settings to all the fields within the job to speed up the entry of data.



Target | Map | Work Carried Out | **Nutrient Management**

Incorporation method: Mouldboard Plough [v] Copy Incorporation Method to All Fields in Job

Incorporation delay: 01) Not incorporated [v] Copy Incorporation Delay to All Fields in Job

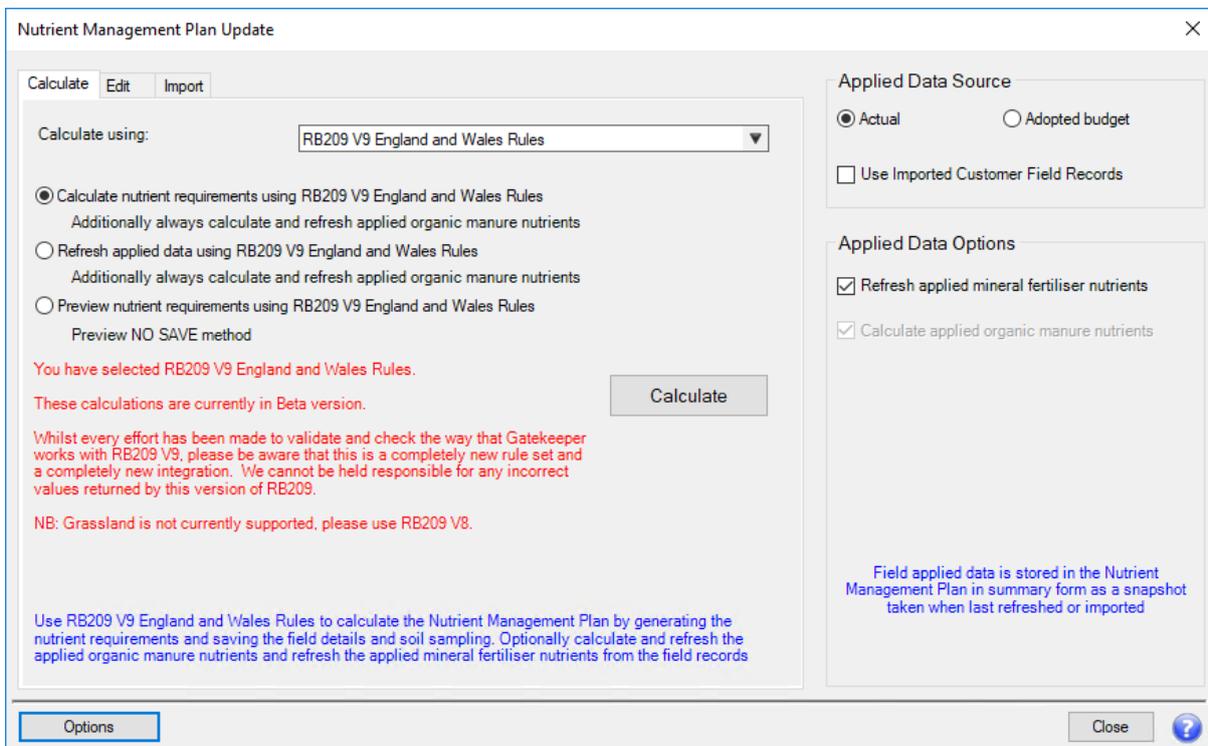
End of soil drainage: 31/03/2020 [v] Copy End of Soil Drainage to All Fields in Job

Rainfall from application to end of drainage date (mm): 0 [v] Copy Rainfall to All Fields in Job

Copy All Organic Manure Requirements to All Fields in Job

Nutrient Management Calculation

Within the Nutrient Management Module, when a user clicks **Edit Nutrient Management Plan**, they are presented a redesigned window that allows them to choose whether they wish to calculate their nutrient requirement using RB209 Version 8 England and Wales Rules, RB209 Version 8 Scotland Rules or the new RB209 Version 9 England and Wales Rules.



Nutrient Management Plan Update [X]

Calculate | Edit | Import

Calculate using: RB209 V9 England and Wales Rules [v]

Calculate nutrient requirements using RB209 V9 England and Wales Rules
 Additionally always calculate and refresh applied organic manure nutrients
 Refresh applied data using RB209 V9 England and Wales Rules
 Additionally always calculate and refresh applied organic manure nutrients
 Preview nutrient requirements using RB209 V9 England and Wales Rules
 Preview NO SAVE method

You have selected RB209 V9 England and Wales Rules.
 These calculations are currently in Beta version. [Calculate]

Whilst every effort has been made to validate and check the way that Gatekeeper works with RB209 V9, please be aware that this is a completely new rule set and a completely new integration. We cannot be held responsible for any incorrect values returned by this version of RB209.
 NB: Grassland is not currently supported, please use RB209 V8.

Use RB209 V9 England and Wales Rules to calculate the Nutrient Management Plan by generating the nutrient requirements and saving the field details and soil sampling. Optionally calculate and refresh the applied organic manure nutrients and refresh the applied mineral fertiliser nutrients from the field records

Applied Data Source
 Actual Adopted budget
 Use Imported Customer Field Records

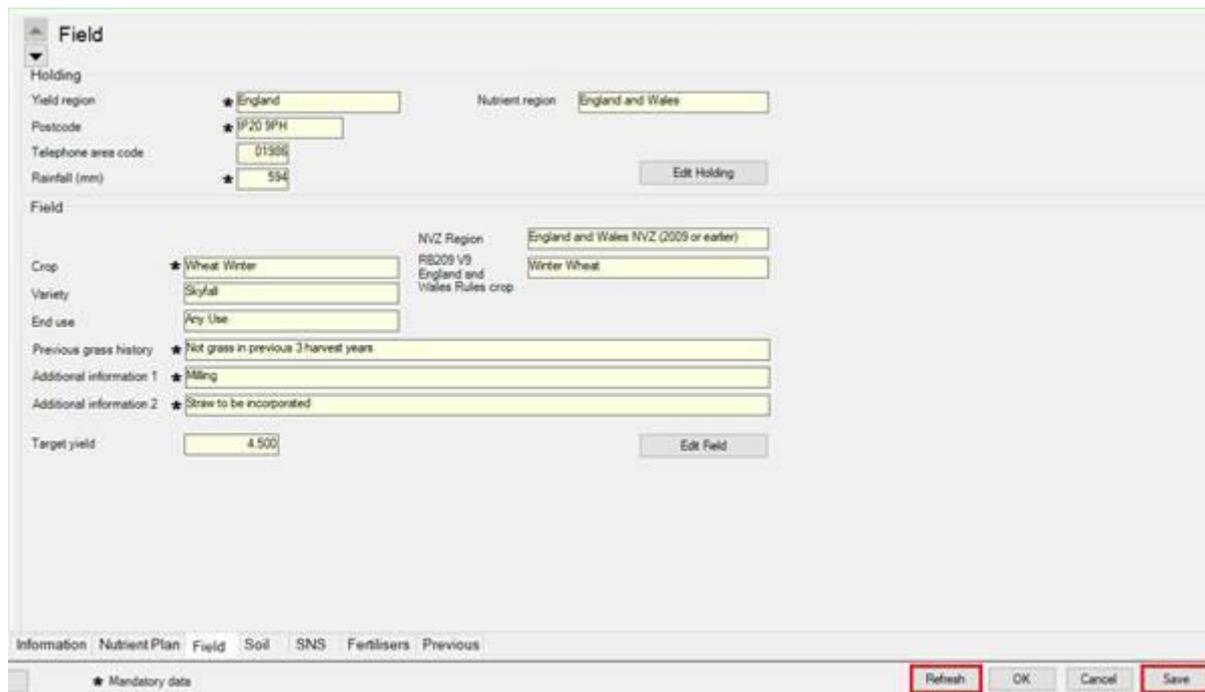
Applied Data Options
 Refresh applied mineral fertiliser nutrients
 Calculate applied organic manure nutrients

Field applied data is stored in the Nutrient Management Plan in summary form as a snapshot taken when last refreshed or imported

[Options] [Close] [?]

Refreshing Nutrient Management calculations

Once Nutrient Management calculations have been made and a result has been returned any further edits made to the data will require you to Refresh the data to re-calculate and display any changed results. To do this simply click the Refresh button highlighted in red. This means that you can make multiple edits to the data without having to wait for changes to be calculated after each edit.



The screenshot shows the 'Field' management interface. It includes sections for 'Holding' and 'Field' details. The 'Holding' section contains fields for Yield region (England), Postcode (PF20 9PH), Telephone area code (01988), and Rainfall (mm) (594). The 'Field' section contains fields for Crop (Wheat Winter), Variety (Skylar), End use (Any Use), Previous grass history (Not grass in previous 3 harvest years), Additional information 1 (Milling), Additional information 2 (Straw to be incorporated), and Target yield (4.500). A 'Refresh' button is highlighted in red at the bottom right of the interface.

Internet connection

If the RB209 Version 9 England and Wales Rules are used an internet connection is required.

AgLeader Update

To maintain compatibility with the AgLeader InCommand Displays we have updated the AgLeader Versatile Component from version 3.29 to version 3.30 allow users to import applied data coming from the InCommand displays running the October firmware update.

CNH Update

To maintain compatibility with the New Holland Intelliview and Case IH ASF Pro 600 & 700 displays we have updated the CNH Voyager II SDK from version 2.18.9.24 to version 2.19.6.3, to allow users to import applied data and yield from Displays running the September firmware update.

AGCO Update

Changes have been made to the naming of the Fendt > Fendt VarioDoc device node. It is now called AGCO > VarioDoc / TaskDoc and supports the wireless data transfer for all AGCO brands.

Origin's new RHIZA service

Origin's new RHIZA service has been added replacing both the SoilQuest and IPF service device nodes.



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