John Deere Devices
Setup & Quick Start Guide

GateKeeper Devices
GateKeeper Version 3.5 – June 2016
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Introduction

The John Deere Devices Module is an optional extra to the GateKeeper system which provides John Deere compatibility with GateKeeper. If applied on its own, it will support basic documentation, with the GS2 2600 and GS3 2630 displays. When applied to GateKeeper with the mapping module enabled, it will support mapping on the displays as well as documentation.

The GS2 1800 display is also compatible with GateKeeper but this compatibility is limited to integrating with your Field, Product & Machine lists as well as Boundaries and Guidance through the mapping module.
Setup

Linking GateKeeper crops with John Deere

The crops that are listed on your GateKeeper Business list must be linked in with the John Deere equivalent. Un-linked crops will not be exported to the displays.

On the main GateKeeper screen, click on **Setup>Crops and Varieties** to bring up the Setup Crops and Varieties window. The example below assumes that crops have already been setup.

1. Expand the Crop Group node and highlight the Crop name underneath.
2. Once the crop is highlighted, there is the option to select a **John Deere Linked Crop**. Tick the box to activate and scroll down the list to find the equivalent crop.
3. GateKeeper’s “Wheat Winter” would equate to John Deere’s “Wheat (Euro Wtr)” for example. Once linked, **Save** and **OK** out of the screen.

Annexe B at the rear of this guide contains a list of GateKeeper crop names listed against the John Deere equivalents for comparison.

Tractor Units

When exporting work plans to the 2600/2630 displays, it is possible to export **Machinery Settings** from GateKeeper which consist of the **Tractor Unit settings**. The Machine and Implement details on the displays require completion and so storing and exporting the settings from GateKeeper will save time and maintain continuity.

Not only is this important for traceability purposes but also for the GPS receiver offsets. This will be of particular importance if you are mapping field boundaries with the tractor unit.

- Click on **Setup>Tractor Units** from the GateKeeper main screen.
- Highlight the appropriate tractor heading from the Tree view and click **Add**.
- The name of the tractor unit, category and reference will be shown on the setup screen. Work through the Definition tab in conjunction with Annexe A (GPS receiver offset diagram) at the rear of this guide.

- *NB. If these settings have already been setup on the tractor unit, they can be imported into GateKeeper and stored against the tractor units settings.*
Implements and Settings

As with the Tractor settings, the Implement details and settings can also be exported to the displays preventing double data entry. The Implement settings will hold the details for the Implement that is to be used in the job (e.g. Combine Header) and is setup through Setup>Implements and Settings on the GateKeeper main screen.

The Implement details ensure the correct work recording and guidance for the job. Please refer to your GS2/GS3 Operators Manual.

1. Highlight the Implement type in the tree view or add a new one by clicking on the Add Implement button.
2. Tick box to allocate a machinery cost to the implement. Browse the list to find the relevant cost. E.g. Fixed Costs> Machinery Costs> Harvest> Wheat.
   NB. costs created in Setup>Products>Fixed Costs.
3. Work through the tabs to enter the relevant implement details.
4. Once the Implement has been setup, settings can be added to it. When an implement is setup, the setting will be Standard as default. Highlight the setting underneath the Implement name and rename if required (e.g. Extension).
Exporting a Work Plan to the 2600/2630 displays

Data is exported to the John Deere Displays and imported back to GateKeeper via a data storage device. In the case of the GS2 displays, the data storage device is an SD data card. GS3 displays store the data on a USB stick. This guide will refer to both of these as data storage devices.

Work plans created and exported to the displays for completion provide the most efficient and simple way of recording field job data back to GateKeeper. The work plan structure is maintained on the displays allowing the operator to work through the plan that was exported. This allows the recorded data to be imported back into GateKeeper in a recognised format that populates the Field records, adjusts Stock and remains easily editable including calibrating Yield data.

Work plans can be created on GateKeeper and exported to the 2600/2630 displays for completion for a range of operations, including Drilling, Spreading, Spraying and Harvest.

Field Groups, Product and Machinery Pick lists (including Tractor units, Implements and settings) can also be exported to the displays. If a work plan has not been exported, the GateKeeper pick lists can be used to populate a ‘Task’ that can be imported into GateKeeper as a new Recording on the Device Synchronisation screen.

The work plans are exported onto an SD data card which is inserted into the display unit.

The worked example that follows will look at the creation and export of a combining work plan to the 2600/2630 displays and the completed work plan’s subsequent import back to GateKeeper.

Creating a combining work plan

- Within the Planning module, create a work plan relevant for the task, entering the Name of the plan and then adding a Field Operations Job. You can have many jobs within a single plan. We would recommend that there should be one crop type and one farm per job.

- Once you have added the Field Operations Job, select the fields on the Field Selector screen.

- On the Product Selector screen, add the product from the Primary Output heading for the crop you wish to harvest. If the product has not been created, go to Setup> Products> Output> Primary Output.
• Select the Implement to be used on the Implement Setting Selector screen. When the Implement setting has been highlighted in the Tree view, the details will be displayed on the right hand side of the screen. This will also detail if a machinery cost has been associated with it (if not a red caution warning will appear at the bottom of the page. Associate a machinery cost by clicking on the Setup Implement Setting button, ticking the Use Machinery Cost box for the appropriate setting and browsing and selecting the appropriate Fixed Cost> Machinery cost from the drop down list. These costs are setup under the Products option).

Once created, Issue the plan, it can then be exported to the 2600/2630 displays via the data storage device. This is achieved via the Devices module.
Creating your John Deere Device

All precision farming data is exported and imported via the Devices module on the GateKeeper main screen. With the John Deere Devices module applied, you will have the ability to export work plans, boundaries and target maps to the displays and import completed work plans, boundaries and as applied maps back into GateKeeper. A device can be created to distinguish between different operators or machines. This heading allows you to manage the data that is imported. This can be of benefit if you are importing lots of data.

If this is the first time that you are exporting information from GateKeeper to the display, you will need create a Device in the Devices module.

- Click on the Devices module.
- In the main Tree view, browse to and highlight the correct controller type (i.e. John Deere GS2 2600). Click on the Add Device button at the top of the page.

1. Click on the Devices module
2. Within Devices select the correct display type from the tree view
3. Next, click on the Add Device button
• The *Device Synchronisation* screen will appear with a **New** device name listed under the selected device type. Change the name of the device by overtyping the name in the **Name** box. Click **Save** to display the device name in the Treeview.

*NB. You can have several device names listed under the same type e.g. Combine & Sprayer. Each device name will list any imported operation details (where applicable) when highlighted in the Treeview on the Device module main screen.*

• Click on the **Export** tab.

• On the Export page, work through the options, completing as required (see screen shot below).

1. **Export Location** – this will be the path to the data storage device
2. Highlight the **Field Group(s)** to be exported
3. Tick box to **Export Field Boundaries**
4. **Crops to Export** allows you to export only fields of certain crops if required.
5. **Product Lists**. Export the appropriate Gatekeeper product lists to your display.
6. Select the required work plan(s) to be exported by expanding the **Issued** node and highlighting
7. Tick the **Machinery** and Implement export options as required
8. With all of the relevant options selected, click on **Export**

• Once you click on the **Export** button, a *Device Synchronisation* warning notice will appear on the screen (see below). Click **Yes** to continue.
The **Device Export Log** screen will be displayed detailing the saved location of the exported work plan. Close the Export Logs window to return to the Device Synchronisation Page and view the card data.

On the main **Device Synchronisation** screen, click on the **View Card Data** button to confirm the exported data. This will list the data that has been written to the data storage device (SD card or USB stick) including Jobs, Fields, Machinery and Implement settings etc. It is recommended that this is checked before commencing work.

1. Click on the **View Card Data** button to confirm the exported data.

2. On the **View Card Setup Data** screen, expand the relevant nodes to view the exported data that has been written to the data storage device.

If the data storage device has been populated with the correct data, the export process is complete and you are ready to load the data via the data storage device onto the displays.
Importing Data from the 2600/2630 displays into GateKeeper

Following on from the previous section where a work plan was created and exported to the 2600/2630 displays for completion, this section focuses on importing the completed plan back into GateKeeper. This is the simplest and most effective way of recording completed data back into the field records.

Importing Data from the data storage device.

First of all, ensure that the data storage device has been removed from the display and has been inserted into a card/USB reader connected to the pc.

- Click on the Devices module.
- In the main tree view, browse to and highlight the correct controller type (e.g. John Deere GS2 2600). NB This should be the device that the work plan was exported to.
- Click on the Device Sync button. The number of Import Option tick boxes displayed will depend on the type of device the data is being imported from. NB. Once set, these are remembered. Select the options as required;
  - Preview Imported Data - allows you to preview the imported data in a recorded plan format. Each separate plan will be viewed once imported
  - Job maps NOT to be saved - job data such as field names, products, rates etc. will be imported from your Device but any associated map data will not. This option is Off by default.
  - Move source to archive after import - the data imported from the device is always copied to an archive folder on your hard-drive. With this option ticked the imported data is also removed from the source data device thus clearing the card for future use. Data can be re-imported from the archive folder if required.
  - Clip job plots to field boundary - any plots that fall outside the GateKeeper field boundary for the selected year will be disregarded and therefore not included in the processed map. This option is Off by default.
- **Keep all out of work plots** - any plots that were recorded when the machine was out of work e.g. travelling between fields will be included within the data for the selected field.

- **Auto find job field by boundary** - the data being imported is checked to see if its plots fall within any field boundaries that exist within GateKeeper for the selected business and year. If a match is found then that field will automatically be allocated to the relevant job data in the Data to Import grid within the Import tab. This option is Off by default.

- **Historic yield maps import mode** - allows you to import a yield map to a previously recorded job record without quantities being affected.

- **Work done uses outstanding field area** - uses the field’s original working area. If the recording is only for part of the field, the applied rates will decrease as the field area is based upon original field area. Conversely, recordings that have an applied area greater than the original field area (e.g. Yield map including overlap) will have the rates increased as the applied area decreases to use the original field area.

  - **Import Product Matching Mode** – allows you to ensure the correct products are recorded by;
    
    - Using the device (recorded) file product matched to the GateKeeper product by their name i.e. uses the product as recorded on the file.
    
    - Destination (GateKeeper) job products matched by their order override the device file product names i.e. if importing the data into a GateKeeper Work Plan/Recording, the product in the job will be used.
    
    - Use this single selected product i.e. switch the import product to one from the drop down list that appears when this option is activated.

- **John Deere AB lines** – updates any previously stored guidance lines ensuring all are stored at the highest accuracy possible

- **Next, click on the Import tab.**

- **Select the path to the data using the selector button at the end of the Path box (the Path is the location of the data on the data storage device).**
- At the top of the Device Synchronisation page, the *Do not show in the import grid* options will prevent either *Field Boundaries*, *Machinery Settings* and/or *Field Guidance* data from being displayed in the grid. Select as appropriate.

- The *Data To Import* grid will list the data to be imported along with a summary of their contents. This will assist in ensuring the correct data is imported. There may be one than data file for an individual field due to interrupted recordings. Each data file will be coloured and displayed in the *Source Device* columns. The Gatekeeper standard colours are as follows;
  - Red - Operation Jobs
  - Green - Field Boundaries
  - Orange (beige) - Field Features
  - Yellow - Machinery Settings
  - Blue – Sampling
  - Purple/Pink – Field Guidance

- Work across the *GateKeeper Destination* columns as required;
  - **Map Preview** - With this tick box selected, click on the *Map Preview* button at the bottom of the page to view the route of the machine for the selected data. This tool will allow you to view part recordings in order to import them into the same field destination or view multiple field recordings in the same file so that the plots can be allocated to more than one field. Selecting multiple data files to be previewed will display the route contained within each data file on one screen in relation to one another.
  - **Import** - To confirm that you wish to import data, you must tick the Import box for the required data file (row). You may wish to import data in small batches, for example to decrease import and processing time, to deal with data intended for a specific Plan or simply to import and process the data for one Crop at a time. Any data files (rows) that do not have the Import box ticked will not be imported when the Import button is clicked. If you tick the Import box for a data file (row) which does not have a field name specified in the Field column, the *Select GateKeeper Destination Job and Field* window will appear, prompting you to select the appropriate field.
The columns beneath the **GateKeeper Destination** heading specify where the imported data is to be saved to.

- **Module** - The Module within GateKeeper that the data will be imported to (Recording or Planning). This will link with the original exported GateKeeper work plan.

  NB. If not, double click in the appropriate row under the Module column to bring up the *Select GateKeeper Destination Job and Field* screen to select the Plan/Record the file is to be imported to. If the field has not been found/needs to be changed, browse to and select the correct field using the picker button on the same screen.

  *Hint: if the data has NOT been recorded into an exported GateKeeper work plan on the control box, create a work plan on GateKeeper and record each product i.e. Wheat or OSR into a single job. This will make viewing maps and calibrating data easier. A task that has been created on the display can still be imported back into GateKeeper as a work plan recording.*

- **Plan** - The name of the Plan that the data will be imported to.

- **Job** - The name of the Job that the data will be imported to.

- **Field** - The name of the field that the data will be imported to. To change the field assigned to the currently selected file (row), double click on the field name shown within the Field column. The **Field Selector** will appear. Pick the field as required and click **OK**.

  *NB If the boundary exists in GateKeeper, the import option Auto find job field by boundary if ticked will match the Source Device Field automatically to a GateKeeper Destination Field.*

- The columns beneath the **Source Device** heading are for information only (cannot be edited) and show information about the file created on the Controller Device.

- Click **Import** to import and process the selected data. If you have ticked Preview imported data then a Plan will be created and displayed enabling you to view and make any changes before saving. Once the selected data has been imported it will be removed from grid and/or moved to the archive folder if the tick option was selected.
With the selected data imported, OK out of the **Device Synchronisation** screen back to the **Device** module home page. With the device name highlighted in the tree view, the data that has been imported from that device will be displayed in the **Operations grid**. Double clicking in the grid will bring up the **Planning Record Work Done/Recording Setup** screen (depending on the module the data was imported to) where the data can be viewed and edited if required.

With the import process complete, a Green Primary Output entry will have been placed within the **Fields module>Operations** grid and also the **Planning/Recording** module as applicable.
Viewing Imported Variable Maps

Once imported, mapping data can be viewed through either Field Records (under the operations tab) or within the Planning/Recording module (depending on how it was imported). The easiest way is through Field records.

- Within the Fields module, browse to and select the appropriate field to be viewed from the tree view.
- Click on the Operations tab and then double click on the Globe symbol that will appear in the first column in the grid adjacent to the appropriate job entry that you wish to view map data for.

An imported Yield map displayed against the Primary Output recording in Field records.
The Field Map screen will appear (see below)

1. Click on the Job Data icon to view the job field list. All fields in the same job will be viewable (one advantage of importing fields into the same plan)

2. Select the Displayed Job Data type to be viewed on the map including Yield (as plots or contours), Relief, Moisture and Dry Matter.
With the **Field** and **Displayed Job Data** chosen, click on the **Tools** icon.

Once the **Tools** icon is displayed, the Key for the job will be displayed. The key can be changed by selecting from the drop down list.

A Dynamic key will fit to the lower and higher values that have been recorded for the selected field i.e. 2.72 – 13.90 T/Ha. The number of bands indicates the numbers of colours that will be used for the key within the dynamic value range. Alternatively, you are able to create your own key through **setup>mapping>keys**.

By ticking the Display Data tick box, you can move your cursor to a point on the field and the captured information (plot rate, implement width, moisture, dry matter etc) will be displayed.

The other icon option on the left hand side of the mapping screen is the Visible Layers icon.

Within the **Visible Layers** option, you can select which layers are visible on the screen and in which order. The layers include field boundaries, job data (yield) and also zone grids (soil types etc). The **Google Earth backdrop browser** can also be selected on as a visible layer.
Editing Imported Job Data

After importing a yield job, it may be necessary to edit the plot data. This could be due to spurious plot values (e.g. high values due to stones hitting the mass flow sensor), header overlap (missing a small strip of the crop between normal passes) or even where the combine speed is slow or fast (headland or short work). When editing or filtering recorded plot data, the field totals will remain the same.

Plot filter templates can be created in order for certain filtering criteria to be applied to one or more yield maps.

If the yield job is to be the base for a variable rate application, filtering any unwanted plots will prevent a variable application plan being based on ‘inaccurate’ data. The grid generator will look to the yield data in the form of grid cells as opposed to plots.

Filtering Plot Data

The field selected for this example has two telegraph poles in the middle. Due to the combine going around the infield obstacles, it has resulted in header overlap and consequently the yield intake for those plots is lower. If this data was used for a variable application as it is, these low plot readings could have an adverse bearing on the application rate of the product when the grid generator is applied.

Enlarged section of the example field with the yield displayed in Actual Plots.

The low yield plots can be seen, showing where the combine has navigated around the telegraph poles. This has affected the contour map, indicating areas or poor yield.

The same area of the example field with the yield displayed as Filled
To filter the data:

- Once the Yield map has been imported into GateKeeper, double click on the job entry within the Fields module operation grid (the job entry will have a globe symbol indicating the presence of a map) to bring up either the Recording/Planning Setup screen (depending on if the map was imported via the recording or Planning module).

- Once on the Record Work Done screen, click on the Fields tab and Map sub-tab. The yield map will be displayed for the first field within the job.

- Click on the Filter Plots button to bring up the Filter Plots screen.

- Create a new filter by clicking Add Filter and providing it with a relevant name. The example filter has been named “Min-max and overlap discard”.

- Work through the page ticking the boxes to initialise the permissible criteria and entering any values where applicable (see screen shot overleaf).

- The fields to be filtered will be displayed on the left of the screen. Ensure they are highlighted blue to have the filters applied.
• Click on the **Filter Plots** button at the bottom of the page. This will then apply the filter to all of the plots for the selected fields. If the resulting filter is not correct, click **Use All Plots** to restore the plots to their original recorded state.

- **Select to filter plots recorded outside of the field boundary and therefore not attributed to this field.**
- **The Minimum/Maximum rate** allow you to filter out abnormally low/high plots.
- **The maximum plot overlap has been set at 1m. This will remove where the header has overlapped around the telegraph pole greater than 1m.**

- **Highlight the fields to receive the filter.**
- **Filter Plots button. When clicked, a message display informing how many plots have been filtered out.**
- **The plots can also be filtered where the speed of the combine is either at a minimum or maximum speed, as can the change in speed.**
- **The Start of pass delay will remove plots where the combine is not fully in work e.g. where the flow of crop through the machine at the start of the pass is not at capacity.**

• **A Filter Plots notice will appear informing you of how many plots have been filtered out. Click OK and you will be returned to the Recording Work Done page.**

• **Click on the Field Map button to display the filtered yield map. Any plots that have been filtered out will be displayed on the map as a hollow grey circle.**
Now the data has been filtered, a variable application map based on this yield data will not be influenced by the filtered plots.

The same enlarged section of the example field with the yield displayed in Actual Plots. The low yield plots around the telegraph poles have now been filtered out.

With the plots around the telegraph poles filtered out, the contour map displays the yield off-take in a more ‘realistic’ map.

The same area of the example field with the yield displayed as Filled Contours with the plots.
Calibrating Yield Data

Within the recorded job information, imported yield data can be calibrated. This may be necessary due to a more accurate figure coming from the weigh bridge for the weight recorded from an individual recording, field or fields within the harvest job.

The yield quantities can be adjusted for individual fields or total job quantities (if more than one field was recorded into a job) either by altering the plot quantity (t/kg) or by adjusting the calibration factor (John Deere 2600/2630 displays yield imports only).

To Calibrate the Yield Data:

- Bring up the completed job details within the Planning or Recording module (depending on how the job was imported).
- Browse to the Fields tab and Map sub-tab. The yield map will be displayed for the first field within the job.
- Click on the Calibrate Job button.
On the *Calibrate Job Map Plots* screen, the product that has been recorded will be displayed along with the individual recordings.

To change the ‘Job total quantity used’, click on the **New subtotal quantity** method option and ensure the **Update job total quantity used** tick box is selected. Then enter the ‘New subtotal quantity’ figure in the box provided. Click **Calibrate Plots**. The total quantity will now be adjusted and will also affect the stock records for the primary output.

NB. This will automatically provide an Adjustment Factor.

To provide a new subtotal quantity for individual fields or part field recordings, select the **New subtotal quantity** method and then select the field recordings from the grid that the new quantity is to be applied to.

Enter the new subtotal quantity and then select the **Update job total quantity used** tick box for the new subtotal to affect the total quantity used if applicable. Click the **Calibrate Plots** button.
To reset the quantities, ensure the Reset to original method option is selected, tick the Update job total quantity used tick box and click Calibrate Plots.

Ensure the New subtotal quantity method is selected.

The selected fields total plot quantity is displayed at the top of the page and reflects the selected fields.

Tick the Update job total quantity used if applicable.

Enter the new subtotal.

Click on Calibrate.
MyJohnDeere

GateKeeper now integrates with the MyJohnDeere web portal facilitating wireless data exchange between GateKeeper and GreenStar displays. Functionality remains the same as the current integration with GS3 displays. The changes mean that data is exported locally to the pc before being uploaded to the MyJohnDeere web portal. Conversely when completed records are imported back to GateKeeper, they are downloaded locally to the pc before being imported in the conventional way.

When setting up your device for the first time, turn on the Cloud Credentials and click on the Green icon to link to MyJohnDeere in order to gain external authorisation.
Enter your MyJohnDeere credentials to connect and GateKeeper will retain the established link.
Once authorised your Cloud Credentials will populate this screen and your Organisation and Devices will show.
Once you cloud credentials have been entered, data can be exchanged with MyJohnDeere.

Before data can be uploaded, it must be exported as per normal to a local location using the Path locator and Profile selector. It is exported from your PC to MyJohnDeere by clicking on the Upload button. If the Cloud is unavailable, data can be exchanged from GateKeeper (fields, boundaries, guidance, work plans) in the normal way via USB.

Please note, integration with John Deere devices is possible through the Farm Mapping and John Deere Devices modules in GateKeeper. Existing modules users will have access to the new functionality.
Annexe A

GateKeeper Tractor Unit Settings and the John Deere Displays

You have the ability to setup your Tractor Unit Definition Settings on GateKeeper. When you export to your data storage device, these Tractor Unit Definition Settings will be used within Machine Offsets on your John Deere Displays.

Any data already on the data storage device, will be overwritten by exported data saved in the GateKeeper Tractor Unit Definition Settings. If you do not have anything entered within the Tractor Unit Definition Settings then the Machine Offsets will be overwritten with zero values and they will have to be re-entered on the displays.

Setting up your Tractor Unit Definition Settings

To setup your Tractor Unit Definition Settings so that they are exported to your data storage device please follow these instructions;

- Within GateKeeper go to the Setup menu (above all the module icons).
- Within the Setup menu choose Tractor Units.
- In the tree view on the left, select the Tractor Unit (i.e. your Combine or Tractor) that you wish to add Settings to. Use the Add button to add new Tractor Units as required.
- The name of the Tractor Unit and its Category, together with any reference will be shown on the right. Beneath this a Precision Farming Definition frame will be displayed. Enter the appropriate values into the relevant boxes, using the diagram overleaf for guidance, as follows;

Non Steering axle

The Non Steering axle defines the Machine Reference point referred to next

Select Front (for example, for a Combine) or Rear (for example, for a Tractor) from the drop down list.

Machine reference point above ground level (m)

See Fig (i) in the diagram overleaf. This must always be a positive value.
Receiver distance in front of machine centre (m)

See Fig (ii) in the diagram overleaf. In the John Deere Display, Machine Offsets window this is setting B. Use a negative value if the receiver is behind the reference point, i.e. -0.50.

Receiver distance right of machine centre (m)

See Fig (iii) in the diagram overleaf. In the John Deere Display, Machine Offsets window this is setting A. Use a negative value if the receiver is left of the reference point, i.e. -0.50.

Receiver distance above machine centre (m)

See Fig (iv) in the diagram overleaf. Use a negative value if the receiver is below the reference point, i.e. -0.50.

Receiver height above ground level (m)

See Fig (v) in the diagram overleaf. This is calculated by summing the Machine reference point above ground level (m) and the Receiver distance above machine centre (m) and is not editable. In the John Deere Display, Machine Offsets window this is setting D.

Turn Radius (m)

The machine turn radius.

Turn sensitivity (JD specific)

The turning sensitivity required for the machine. This is currently only used for John Deere and has a default value set of 70. This can be edited.

Default hitch type

From the drop down list select the default hitch type for the machine, i.e. ‘Front Three Point’ for a Combine or ‘Rear Three Point’ for a Self Propelled Sprayer.
A: Machine Reference point.
B: Receiver.

ii) Receiver distance in front of reference point. Negative if behind.

iii) Receiver distance right of reference point. Negative if on left side.

A: Machine Reference point.
B: Receiver.

i) Machine reference point above ground level.

iv) Receiver distance above reference point.

v) Receiver height above ground level.
# Annexe B

## Linking GateKeeper and John Deere Crop Types

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<thead>
<tr>
<th>GateKeeper Crop</th>
<th>JD Crop</th>
<th>Storage Moisture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat Winter</td>
<td>Wheat (Euro Wtr)</td>
<td>14.50%</td>
</tr>
<tr>
<td></td>
<td>Wheat (Euro Feed)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wheat (Durum)</td>
<td></td>
</tr>
<tr>
<td>Wheat Spring</td>
<td>Wheat (Hrd Rd Spr)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wheat (Hrd Rd Wtr)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wheat (Sft Rd Wtr)</td>
<td></td>
</tr>
<tr>
<td>Rape Winter / Rape Spring</td>
<td>Rape Seed (E Oil)</td>
<td>8.00%</td>
</tr>
<tr>
<td></td>
<td>Rape Seed (E Ind)</td>
<td></td>
</tr>
<tr>
<td>Peas Dried / Pease Vining</td>
<td>Peas (Euro)</td>
<td>10 - 12%</td>
</tr>
<tr>
<td>Barley Winter</td>
<td>Barley (Euro Wtr)</td>
<td>14.50%</td>
</tr>
<tr>
<td>Barley Spring</td>
<td>Barley (Euro Spr)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Barley (Euro 6)</td>
<td></td>
</tr>
<tr>
<td>Oats Winter/Oats Spring</td>
<td>Oats (Euro)</td>
<td>12%</td>
</tr>
<tr>
<td>Maize Grain</td>
<td>Corn (Euro)</td>
<td>15%</td>
</tr>
<tr>
<td>Rye Winter / Rye Spring</td>
<td>Rye (Euro)</td>
<td>14.50%</td>
</tr>
<tr>
<td>Linseed Winter / Linseed Spring</td>
<td>Flax</td>
<td>&gt;11%</td>
</tr>
<tr>
<td>Beans Dried Winter / Beans Dried Winter</td>
<td>Castor Beans</td>
<td>Depends on customer</td>
</tr>
<tr>
<td></td>
<td>Edible Beans</td>
<td></td>
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<tr>
<td></td>
<td>French Beans</td>
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<tr>
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<td>Green Beans</td>
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<tr>
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<td>Haricot Beans</td>
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<tr>
<td></td>
<td>Lima Beans</td>
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<tr>
<td></td>
<td>Navy Beans</td>
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</tr>
<tr>
<td></td>
<td>Red Kidney Beans</td>
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<tr>
<td></td>
<td>Soybeans</td>
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<tr>
<td></td>
<td>Tick Beans</td>
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</tr>
<tr>
<td></td>
<td>White Beans</td>
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<td></td>
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<tr>
<td>----------------</td>
<td>---------------</td>
<td>----------</td>
</tr>
<tr>
<td>Lucerne (Alfalfa)</td>
<td>Alfalfa</td>
<td>N/A</td>
</tr>
<tr>
<td>Grass</td>
<td>Grass Forage</td>
<td>N/A</td>
</tr>
<tr>
<td>Maize Forage</td>
<td>Corn Silage</td>
<td>N/A</td>
</tr>
</tbody>
</table>