



# Plant Wizard<sup>TM</sup>

**Version 2020  
Users Manual**

# Users Manual

Plant Wizard Version 2020

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*Plant Wizard is designed to improve the process of seedling coordination and planting administration by sharing data between foresters, nurseries, and planting contractors.*

*This manual covers the primary points of what all the features in the desktop and iPad software are for and how to use them.*

# **Plant Wizard Version 2020 Users Manual**

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# Table of Contents

<b>1 Introduction</b>	<b>1</b>
<b>2 What's New and Notable</b>	<b>3</b>
<b>3 Getting Started</b>	<b>6</b>
3.1 Minimum System Requirements .....	8
3.2 Desktop Installation, Activation, and Upgrading .....	8
3.3 Mobile Device Installation and Upgrading .....	9
3.3.1 iPad (to Gen. 3) and iPad Mini (Gen. 1) .....	10
3.3.2 iPad (Gen. 4+), iPad Mini (Gen. 2+), iPhone (5+) .....	10
3.3.3 Android .....	11
3.4 Setup .....	12
3.5 Navigation .....	14
3.6 Data Exchange .....	16
3.6.1 Exchanging Data with SSMS and Other Users .....	16
3.6.2 Exchanging Data with Excel .....	16
3.6.3 Exchanging Data with Mobile Devices .....	17
3.6.4 Exchanging Data with LRM (formerly Resources) .....	17
3.6.5 Exchanging Data with LRM (formerly TFM) .....	17
3.6.6 Exchanging Data with Phoenix .....	17
<b>4 Managing Projects</b>	<b>18</b>
4.1 Projects .....	19
4.1.1 Summary .....	21
4.1.2 Seed .....	21
4.1.3 Seedlings .....	21
4.1.4 Permissions .....	24
4.1.5 Planter Work .....	25
4.1.6 Costs .....	25
4.1.7 Shipments .....	25
4.1.8 Details .....	25
4.1.9 Sync History .....	26
4.2 Sites .....	26
4.2.1 Details .....	29
4.2.2 Summary .....	33
4.2.3 Prescriptions .....	33
4.2.4 Plots .....	35
4.2.5 Wx/Soil .....	37
4.2.6 Notes .....	37
4.2.7 Deliveries .....	37
4.2.8 Planted .....	38
4.2.9 Tallies .....	38
4.2.10 Costs .....	38

4.3 Exchanging Project Data with Other Users .....	38
4.4 Exchanging Project Data with Excel .....	40
4.4.1 Importing Site Data from Excel .....	40
4.4.2 Exporting Data to Excel .....	44
4.5 Exchanging Project Data with LRM (formerly Resources) .....	44
4.6 Exchanging Project Data with LRM (formerly TFM) .....	52
4.7 Exchanging Project Data with Phoenix Pro .....	52
4.8 Exchanging Project Data with Phoenix Connect .....	53
<b>5 Managing Seedling Information</b> .....	<b>54</b>
5.1 Importing Seedlings from SSMS .....	55
5.2 Exporting Seedling Data to Excel .....	55
5.3 Seedling Properties .....	55
5.4 Seedling Balance .....	56
5.5 Seedling Shipments / Deliveries .....	56
<b>6 Suitability, Allocation, Planting, Rates</b> .....	<b>58</b>
6.1 Suitability .....	62
6.2 Allocation .....	65
6.3 Planting .....	66
6.4 Rates .....	66
<b>7 Scheduling and Shipments</b> .....	<b>67</b>
7.1 Scheduling Trees .....	68
7.2 Seedling Shipments .....	68
<b>8 Sowing</b> .....	<b>69</b>
8.1 Seeds .....	70
8.2 Managing Sow Plans .....	72
<b>9 Payroll</b> .....	<b>74</b>
9.1 Planters .....	75
9.2 Planter Rates .....	76
9.3 Planter Tallies .....	76
9.4 Work Types .....	77
9.5 Planter Work .....	78
9.6 Payroll Summary .....	78
9.7 Payroll Reports .....	78
<b>10 Plant Wizard on Mobile Devices</b> .....	<b>80</b>
10.1 Syncing .....	81
10.2 Navigation .....	82

10.3 Plots .....	85
10.4 Australia Plots .....	87
10.5 Prescriptions .....	87
10.6 Deliveries .....	87
10.7 Planting Numbers .....	88
10.8 Planter Tallies / Work .....	88
10.9 Seedling Balance .....	88
<b>11 Reports</b>	<b>90</b>
11.1 Customizing Reports .....	91
11.2 Silviculture and Inventory Labels .....	93
<b>12 Appendix A: "How To" Guide</b>	<b>95</b>
<b>13 Appendix B: Troubleshooting</b>	<b>98</b>
<b>14 Appendix C: Technical Support</b>	<b>100</b>

**Part**

**1**

# 1 Introduction

Plant Wizard is an application designed to help coordinate the many administration processes involved in the successful implementation of a tree planting project. These include the business processes of seedling foresters, nurseries and planting contractors. By having one system for all the main players involved in planning and implementing a tree planting project, there can be another level of benefit achieved from sharing data between all users.

Some of the features of Plant Wizard include:

- Importing seed to create sowing plans
- Forecasting seedling needs into the future
- Tracking seedling inventories
- Allocating seedling inventories to planned plantations
- Instantly identifying seedling surpluses and shortages
- Electronically sharing planting prescriptions and schedules with other users
- Syncing all seedling data and deliveries with JRP SSMS (Seed and Seedling Management System)
- Tracking individual planters production on each plantation
- Balancing crew production against deliveries
- Developing detailed payroll information
- Tracking miscellaneous payroll items and/or deductions for individual planters

**Part**

**2**

## 2 What's New and Notable

### Project

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- Seedlings Tab:
  - You can copy the "Allocated to Sites" values into the "Amount Assigned" column quickly by using the **Assign all from Allocated button**.
  - "Amount Assigned" is editable offline and will update the server when reconnected.

### Payroll

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- Payroll users now get Planting Schedule permissions by default on projects they are linked to. This can be edited.
- The Payroll Detail report now includes an option to email individual planters their payroll details (email addresses must be entered for each planter).

### Seeds

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- BEC Variants and Collection BEC have been added to the seed properties and the Display Options. The BEC Variants field contains all the possible BEC Variants that the seedlot is suitable to be planted in. This is used for determining seed and seedling suitability using the climate-based seed transfer (CBST) system. Collection BEC refers to the BEC Variant location where the seed was collected.
- Importing seed from Excel requires two SPAR .csv files: the SeedlotExtractReport and the SeedlotExtractForCbstAreaOfUseReport.
- When importing seed from a SPAR file or downloading from SSMS, the Collection BEC and BEC Variants fields are populated. The new Genetic Worth codes are imported as well.

### Sites

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- BEC Variant has been added as a site property. This is to be populated with the dominant BGC Zone, Subzone, and Variant and is used for determining seed and seedling suitability using the climate-based seed transfer (CBST) system.
- When importing sites from Excel, the site BEC Variant field is populated.
- The site BEC Variant is available as a Display Option.

- Planted Tab - Adding new planting records now shows shaded columns for Tallied amounts by seedling for reference for Payroll users only.

## Planting Tab

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- Payroll users can now reference the tallied amounts right in the Planting Tab grid view by selecting "Show Tallies" in the Display Options. Seedlings claimed by payroll users are now included in the auto allocation window when balancing against project assigned amounts.
- Added an option to "Show surplus seedling available on SSMS" if Plant Wizard is connected to the Internet. Any seedlings marked as surplus that match the year and season of the projects you have loaded (match on Year/Season, Alt Year/Alt Season, or Override Year/Override Season).
- Climate-based seed transfer (CBST) suitability has been added. Using the "BEC Variant" suitability criteria, all other suitability criteria are ignored. Plant Wizard uses the list of BEC Variants for the seedlots and marks the seedlings suitable on sites that have a matching BEC Variant.
- BEC Variants for sites and seedlings have been added to the Display Options.

## Sowing Tab

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- Climate-based seed transfer (CBST) suitability has been added. Using the "BEC Variant" suitability criteria, all other suitability criteria are ignored. Plant Wizard uses the list of BEC Variants for the seedlots and marks the seed suitable on sites that have a matching BEC Variant.
- BEC Variants for site and seed have been added to the Display Options.

## Balance Tab

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- Users can now balance against Shipped seedlings only, or Shipped & Planned.

**Part**



## 3 Getting Started

1. [Creating](#) your Plant Wizard projects.
2. [Sending](#) your Plant Wizard projects to the SSMS Server to share data with other users and/or your mobile device for data collection in the field.

To get started with Plant Wizard, review the minimum system requirements, and install or upgrade on the desktop and/or devices as needed.

Once installed, you are ready to create and share projects, or access existing projects. Sync the desktop and devices to send and receive projects to and from mobile devices and other users.

### Setup

- Minimum System Requirements
- Desktop Installation and Activation
- Device Installation
- Desktop Upgrade
- Device Upgrade

### Basics

- Login
- Syncing
- Code Lists
- Account Preferences
- User Preferences
- Project Details

## 3.1 Minimum System Requirements

### Desktop Requirements

- .NET Framework 4.6 or newer (found at [www.microsoft.com/downloads](http://www.microsoft.com/downloads))
- Intel® Pentium® processor 400 MHz minimum (1GHz recommended)
- Windows XP or newer, Windows Server 2003 or 2008
- 96MB RAM minimum (256MB RAM recommended)
- Up to 500MB hard drive space may be required
- Microsoft Excel (to run reports)
- Internet access required for syncing data with server

### Mobile Requirements

- iPad or iPad Mini with iOS 9.3.5 and greater to run PW 2018.1
- Android tablet, Android phone to run PW 2020
- iPad (Generation 4 and newer), iPad Mini (Generation 2 and newer), iPhone 5 and newer with iOS 10.3 and greater to run PW 2020
- 2GB RAM minimum
- 3G capabilities if you wish to sync in the field

## 3.2 Desktop Installation, Activation, and Upgrading

To install Plant Wizard, you need administrator privileges on the computer you are installing on.

The following instructions are intended for a local single user implementation of Plant Wizard.

### Desktop Installation and Activation

1. Ensure you have Microsoft .NET 4.6 (or newer) installed as per the [minimum system requirements](#) (you can confirm this by looking in the list of programs available to uninstall/repair in the Windows Control Panel).
2. Run the desktop installer from <http://jrpltd.com/Support/Updates.aspx?Product=PlantWizard> and follow the installer guide through the process.
3. Once the installation process is complete, you will need to register Plant Wizard with the licence server. You will be prompted to do this the first time you run the application. It will offer you two choices for activation:
  - a. direct activation with a licence code, or

- b. email activation where you email JRP Solutions a unique string of characters and we send you a licence file.

**\*\*Note:** Licence activation is by computer and licenses cannot be deactivated or transferred once they are activated.

### Upgrade Plant Wizard on Desktop

- Sync the desktop prior to upgrading to ensure all data has been sent to the server.
- Run the latest desktop installer from <http://jrpltd.com/Support/Updates.aspx?Product=PlantWizard> and follow the installer guide through the process.
- If you are using Plant Wizard on multiple PCs, ensure they are all upgraded (including users you share data with).
- If you upgrade the desktop version, upgrade to the latest mobile device version as well (if there is one).
- The desktop version can be identified in the top left corner, or by choosing Help... About Plant Wizard.

## 3.3 Mobile Device Installation and Upgrading

There are 2 Plant Wizard apps available on the App Store:

- The 2018.1 app is for earlier iOS versions (prior to 10.3) and older iPad, iPad Mini devices
- The 2020 app is for newer iOS versions (10.3 and up) and newer iPad, iPad Mini, iPhone devices

The 2020 Plant Wizard app is also available for Android devices.

### Devices

- iPad - Generation 1 to 3
- iPad - Generation 4 and newer
- iPad Mini - Generation 1

- iPad Mini - Generation 2 and newer
- iPhone 5 and newer
- Android Phone
- Android Tablet

### 3.3.1 iPad (to Gen. 3) and iPad Mini (Gen. 1)

For older iPads (generation 3 and earlier), and 1st generation iPad Minis, use the 2018.1 app.

This app works well on the older devices. Do not upgrade to the 2020 app.

#### Installation

1. From the device, use the App Store to find 'Plant Wizard' and install version 2018.1. You must use an iTunes account to download. The app is free to install.
2. Sync data onto the device by providing a login and password (the same one you use to login to SSMS and the desktop).

**\*\*Note:** If you delete Plant Wizard from an iPad or iPad Mini device, you also delete all the data. Please ensure you have synced your data successfully prior to deleting.

#### Upgrade

- To upgrade to version 2018.1, ensure all data is synced, then install Plant Wizard 2018.1 from the App Store.
- Each iPad must be upgraded individually.
- The iPad version can be identified in the top right corner.

### 3.3.2 iPad (Gen. 4+), iPad Mini (Gen. 2+), iPhone (5+)

For iPads (Generation 4 and newer), iPad Minis (Generation 2 and newer), and iPhone (5 and newer), use the 2020 app.


Newer iPads and iPad Minis can also use the 2018.1 app if preferred.

## Installation

1. From the device, use the App Store to find 'Plant Wizard' and install version 2020 or newer. You must use an iTunes account to download. The app is free to install.
2. Sync data onto the device by providing a login and password (the same one you use to login to SSMS and the desktop).

**\*\*Note:** If you delete Plant Wizard from an iPad device, you also delete all the data. Please ensure you have synced your data successfully prior to deleting.

## Upgrade

- Version 2020 (or newer) is not an upgrade for version 2018.1, it is a completely new stand-alone version.
- To upgrade from version 2020 to a newer version, ensure all data is synced, then install the newest version from the App Store.
- Each iPad must be upgraded individually.
- If you upgrade the iPad version, upgrade to the latest desktop version as well (if there is one).
- The iPad version can be identified by selecting the  menu in the top left corner.

### 3.3.3 Android

## Installation

1. From the device, use the Google Play Store to find 'Plant Wizard'. The app is free to install.
2. Sync data onto the device by providing a login and password (the same one you use to login to SSMS and the desktop).

## Upgrade

- Ensure all data is synced, then install newest version from the Google Play Store.
- Each device must be upgraded individually.
- If you upgrade the device version, upgrade to the latest desktop version as well (if there is one).

- The device version can be identified selecting the ☰ menu in the top left corner.

## 3.4 Setup

### Desktop Login

- When you run Plant Wizard you will be prompted for a user name and password. This is the same user name and password you would use for the JRP Seed and Seedling Management System (SSMS) online.
- Use the **Change Region button** to select "Australia" if you are a FCNSW (staff or contractor) user. This will allow syncing with an Australian server. The Australia plotting system for the Forest Corporation of New South Wales method will be used automatically when logged in to the Australian server.
- Once you login, you will be connected to SSMS if you have an Internet connection available. This allows syncing of data and live updating of certain fields. If you do not have an Internet connection, you can still use Plant Wizard offline, but will not be able to sync.
- The **Reset Display Settings check box** deletes your Plant Wizard settings file which locally stores your remembered login, selected Display options, filters, sorting, etc.

### Sync

- To receive any projects that you may have access to on the server, use the **Sync button** after logging in for the first time.

### Code Lists

There are several code lists managed in Plant Wizard, all stored by account:

- Plot Error Codes - used to track errors at the plot level.  
In Australia Plotting mode, the plot error codes are broken down as follows:
  - Above Ground Faults
  - Below Ground Faults
  - Fertilizer Faults
- Cost Codes - used to track costs at the project and site levels.
- Plant Type Codes - used to track plant type options in the **Edit Site Screen**.

- Fertilizer Codes - used to track fertilizer type prescribed by species at the planting unit level.
- Site Conditions Codes - used to track weather and soil conditions at the site level. Precip, Cloudy, Wet/Dry Soil, and Snow have default lists that can be modified, edited, and restored.

Anyone can add new codes, however, only those users with Account access can edit or delete these codes. Editing code lists happens live on the server.

All other pull down lists utilize data in the database to build a list. This way, users are guided by what is already being used in the database but can also add new codes simply by typing them in, making them available for future data entry.

### Account Preferences

Users with account permissions can specify:

- Whether they prefer to record naturals at the regen level by species (which is the default method), or at the plot level.
- To use metric or imperial weight units.
- The planting quality percent requirements, which will highlight in green any planting quality % in the **Sites Tab** grid that meets or exceeds this %.
- Custom plot type names if the default names are not adequate. Note that the first character of the plot type names will be used as an abbreviation on the mobile device **Plots Screen**, so a unique first character is recommended.

These settings are linked to your account, are updated on the SSMS server, and apply to all account and project users.

### User Preferences

Under User Preferences you can specify:

- Your initials will ensure that every record you enter is tracked with your initials where applicable.
- The seed label to be used in seed-related fields.
- The seedling label can be setup to include seedling-related fields. This is shown in prescriptions, tallies, planting, deliveries, balance, on the mobile device, as well as on reports.
- The site label is used in reports, tallies, and balance.

These settings are linked to your login.

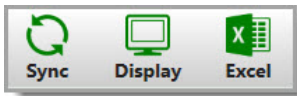
## Project Details

Each project has its own "Plot Multiplier". You can specify this value by editing the [Details](#) from the **Projects Tab**.


The Max Seedling Inventory is used for Scheduling and represents the total number of trees that can be stored at the project location at any given time.

## 3.5 Navigation

Plant Wizard has a standard tool bar along the top of the screen. There are three buttons that are visible from almost every tab. Other buttons will appear depending on which tab you are on - these will be covered under the appropriate section in the manual.

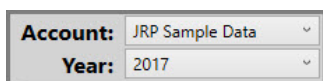


## Sync

The **Sync button** is available from every tab. When changes have been made on the desktop or serve to an active project, the **Sync button** will be updated to include an orange symbol  to remind you that a sync should be done. As well, you will see the same orange symbol after the project name. When you sync, all projects that you have access to will be listed, with the projects from the filter year selected. De-select any projects you do not wish to sync. Projects that exist on the SSMS server but have not been downloaded to the desktop appear with an arrow symbol. Projects that are in sync will have a green check box, whereas any that are out of sync will show with a sync symbol.

## Filter and Sort Data

The Account and Year filters allow you to specify which projects you wish to display:



All projects that belong to that Year and Account will be listed. Projects that are available to be downloaded to the desktop will show with a green arrow. Right-click to download or sync and select that project for downloading. Archived projects will be

shown with a green file cabinet icon beside them. You can right-click any project to archive or unarchive it (with Account permission), regardless of whether it is downloaded or not. You can also hide or show archived projects in the list by using the **Hide/Show Archived button** in the menu.

When navigating between the **Projects, Scheduling, and Shipments tabs**, the same project will be selected.

The **Filter button** (on the **Sites tab**) allows you to choose which project(s) you wish to see. This is the same as using the filter option on the Project Name column. When navigating between the **Sites, Planting, and Sowing tabs**, the same project filter will be applied. If the project filter is reset on any of these tabs, all other filters will be removed on the current and related tabs.

Many of the grid column and row headers have filters and sorting available.



When filtering or selecting items, use the box in the top left to select all or deselect all.

Filters used within tabs will be remembered for each account/year. If a user switches to another account and/or year, the filters previously used on that account/year combo will be shown.

There is a **Payroll Filter button** on the **Payroll Tab** and a **Balance Filter button** on the **Balance Tab**.

## Display Options

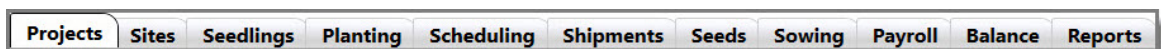
The **Display button** allows you to customize which fields you want to see on each tab.

## Export to Excel

The **Excel button** allows you to export most tabs to MS Excel.

## Data Entry

All data entry screens are accessible using the tabs below the buttons.



## 3.6 Data Exchange

Plant Wizard exchanges data with JRP SSMS (Seed and Seedling Management System) through syncing and, therefore, with other users who have appropriate access.

Plant Wizard desktop can import site data and planters from MS Excel, and export to MS Excel from various screens and reports.

Data can also be exchanged with LRM, and exported to TFM and Phoenix Pro.

To access old Plant Wizard 7 files, .pw7 files can be imported into SSMS (one time), which can then be synced with the desktop and mobile devices:

1. Login to an SSMS account and go to the **Projects Tab**.
2. Choose the **Import Project (PW7) button**.
3. Select a file and click the **Upload File button**.

### 3.6.1 Exchanging Data with SSMS and Other Users

All data is synced between the desktop and mobile devices using the JRP Seed and Seedling Management System (SSMS) website. This requires an Internet connection when syncing.

Payroll related data will also sync with SSMS for those users with payroll permission. All users that share the same Payroll Code share payroll information.

Newly created data will always be sent to SSMS.

For more information, please refer to:

- the "[Importing Seedlings from SSMS](#)" section under [Managing Seedling Information](#)
- the "[Exchanging Project Data with SSMS and Other Users](#)" section under [Managing Projects](#)
- the "[Syncing](#)" section under [Plant Wizard on Mobile Devices](#)

### 3.6.2 Exchanging Data with Excel

For information on importing data from Excel, please refer to the following:

- Importing Seeds - [Seeds](#)
- Importing Sites - [Importing Site Data from Excel](#)
- Importing Planters - [Creating Planters](#)

For information on exporting data to Excel, please refer to the following:

- [Seeds](#)
- Sowing - [Managing Sow Plans](#)
- Seedlings - [Exporting Seedling Data to Excel](#)
- Sites and Prescriptions - [Exporting Data to Excel](#)
- Seedling Deliveries - [Seedling Shipments / Deliveries](#) and [Sites](#)
- Seedling Allocations - [Allocation, Planting, Rates](#)
- Tallies, Planter Work, Planters, Work Types - [Payroll](#) sections
- Allocations and Planting - [Suitability, Allocation, Planting, Rate](#) sections and [Sites](#)
- Seedling Balances - [Seedling Balance](#)
- Plots - [Sites](#)
- Reports - [Reports](#)

### **3.6.3 Exchanging Data with Mobile Devices**

For information on exchanging data with mobile devices, please refer to:

- [Syncing](#) under [Plant Wizard on Mobile Devices](#)

### **3.6.4 Exchanging Data with LRM (formerly Resources)**

For information on exporting data to LRM, please refer to:

- [Exchanging Project Data with Resources](#)

### **3.6.5 Exchanging Data with LRM (formerly TFM)**

For information on exporting data to LRM, please refer to:

- [Exchanging Project Data with LRM](#)

### **3.6.6 Exchanging Data with Phoenix**

For information on exporting data to Phoenix Pro or Phoenix Connect, please refer to:

- [Exchanging Project Data with Phoenix Pro](#)
- [Exchanging Project Data with Phoenix Connect](#)

**Part**

**4**

## 4 Managing Projects

Projects belong to SSMS accounts and are the basis for determining seedling needs for future planting. A project is organized as follows:

- [Projects](#) (year, season, contractor, geographic region)
- [Sites](#) (planting treatment area, planting unit)
- [Species Prescription](#) (planned species mix ratios and desired seedling properties)

This data can be synced with SSMS, imported from a [MS Excel spreadsheet](#), and/or manually created in Plant Wizard. Sites and species prescriptions can also be created on the mobile device.

Refer to the [Navigation](#) section to learn how to download, sync, filter, and view projects.

To archive or unarchive projects, please refer to the [Projects](#) section.

To create a project manually, please refer to the [Projects](#) section.

To import project data from a MS Excel spreadsheet, refer to [Importing Project Data from Excel](#).

To sync with SSMS, refer to [Exchanging Data with JRP SSMS](#).

### 4.1 Projects

Everything project-related can be found under the **Projects Tab**.

#### Create Project

To create a project, select the **Create Project button** while on the **Projects Tab**:

1. Select the "Owner Account" you wish to create the project under.
2. Choose your "Planting Contractor" if they are using the payroll module. To indicate a planting contractor after the project is created, you will have to edit the project on SSMS.
3. Select the "Year" and "Season".
4. Enter a "Plot Multiplier". This number will be used in calculating densities from planting plots.
5. Record a "Project Name". Be descriptive as this helps your planting contractor differentiate between projects with the same year and season.

6. Select the **Create Project button**.
7. Other project data, such as Permissions and Seedling Assignments will be editable once the project is created.

### Download Project

To download an individual project without going through the entire sync process, right-click a project and choose "Download this project". You can download archived projects as well, without having to unarchive them first.

### Archive/Unarchive Project

To archive or unarchive projects with permissions, right-click a project and choose "Archive this project" or "Unarchive this project". Archiving projects updates the SSMS server and removes the project from everyone's view the next time they login or sync. For payroll users, tallies and work for archived projects will still be visible on the desktop, but not on the devices. This ensures that payroll contractors still have access to run their payroll reports in the event that their client archives the project.

### Delete Project

To delete a project locally, right-click on the project name and follow the prompts. Note: Any unsynced changes will be lost! You can choose to delete and download, or just delete.

### Messages

If there is no Internet connection available, you will see a "No Internet Connection" message along the top of the projects' tabs. Any of the live editing tabs or fields will not be able to update the SSMS server data live.

If there are no [seedlings](#) assigned to the project, you will see a "No Seedlings are Assigned to this Project" message along the top of the projects' tabs.

If the seedling assigned to the project differ from SSMS, you will see a "Seedlings Assignments differ from the server. Please sync." message along the top of the project's tabs. This usually happens if you or someone else have updated seedling assignments while your computer was not connected to the Internet.

### 4.1.1 Summary

The **Summary Tab** gives an overview of the project's progress.

The "Planting Done" section summarizes prescribed, allocated, planted, delivered, and tallied trees, densities, and species % mixes for sites where planting is completed. The "All Sites" section is similar, however, it summarizes total trees for all sites regardless of planting status.

The "Plots" section calculates by plot type, the # of plots, quality %, satisfactory %, excess %, density, and confidence interval 90. A species % mix shows the ratio of trees recorded in the plot regen section.

Using the Australia plotting system, the "Plots" section shows # of plots, quality %, fertilizer quality %, density, and a species % mix.

The "Production" section is only available to payroll contractors and summarizes tallies as total # trees, # trees per day, \$ per day, and # of days by initials. The top row shows an average planter production, while the second row shows an average daily production.

### 4.1.2 Seed

The Projects' **Seed Tab** lists all of seed available to the project selected:

- By default "Seed Label" is a frozen column.
- You can add new columns by selecting them at the base of the screen.
- You can move columns by selecting and dragging the column headers.
- "Allocated to Sites" is the number of potential trees allocated to sites within the project.
- "Allocated other Projects" refers to the number of potential trees allocate to all other projects within your database.

### 4.1.3 Seedlings

The Projects' **Seedlings Tab** lists all of seedlings available to the project selected:

- By default "Seedling Label", "Amount Assigned", and "Amount Assigned Server" are frozen columns.
- "Amount Assigned" refers to the # of trees that are designated as available to that project. This is required if your contractor needs access to seedlings. This number is used for balancing trees on **Planting** and **Balance Tabs** and for creating shipments.
- You can live edit the "Amount Assigned" on the desktop if you have permission. If you edit these values without an Internet connection, your values will be out of sync

when you are back online. The "Amount Assigned Server" column displays the values from the server. If you wish to update the server with your desktop values, use the green arrow or sync the project and seedlings.

- You can copy the "Allocated to Sites" values into the "Amount Assigned" column quickly by using the **Assign all from Allocated button**, or you can select the values manually and copy/paste into the other column.
- You can add new columns by selecting them at the base of the screen.
- You can move columns by selecting and dragging the column headers.
- "Owned" equals the number of seedlings owned by the SSMS Account the project belongs to.
- "Allocated to Sites" is the number of seedlings allocated to sites within the project.
- "Assigned to Other Projects (SSMS)" refers to the number of seedlings assigned to all other projects. This connects directly to the server and can take longer to calculate and draw.
- "Remaining" refers to the number of seedlings owned minus the number assigned to all projects. This connects directly to the server and can take longer to calculate and draw.

### Add a New Seedling to the Project

Payroll contractors can use their own account, create their own projects, and assign or create seedlings in cases where they need to access seedlings:

- owned by unmanaged accounts, or
- owned by managed accounts where the account owner DOES NOT use Plant Wizard desktop or SSMS

To create or assign seedlings, go the Projects' Seedling tab:

1. Click on the **Add a new Seedling to this Project button**.
2. Type in the request key or Crop Name:
  - If that crop name already exists on SSMS, you will be prompted to choose the owner.
    - If the owner is a **managed** account, you will be prompted to add a suffix in the adjacent box to create a new seedling. You can use the seedlot and species from the original (or enter different ones), then input the number of seedlings.

Your account will then own this new seedling. It will be assigned to the "SSMS Nursery" to avoid confusion for the actual nurseries using SSMS. You can ship from "SSMS Nursery" for your own record-keeping purposes but the actual nursery will not be notified.

- If the owner is an **unmanaged** account, you can use the existing crop name and will have the option to use the seedling's seedlot and species information and add the number of seedlings. This will assign those seedlings to your project, but the seedlings will still be owned by the unmanaged account.
- If that crop name does not exist on SSMS yet, you can create it as a new seedling.
  1. You can then choose to use the seedlot and the species information from the original crop name, or enter your own if you are inputting a new seedling.
  2. Enter the number of trees you need for your project.
  3. Your account will own all new seedlings, and they will be grown by "SSMS Nursery". You can ship these trees from SSMS Nursery to your project if you wish to track "Shipped" amounts. This is a fake nursery for tracking purposes only - it will not receive notifications.

Caution should be used before creating a new seedling using this tool. If you have a client who DOES use Plant Wizard, DOES manage their seedlings via SSMS, and has set up the project for you via their account, you should use their project and seedlings. If you need seedlings that your client has NOT assigned to the project, you should contact them to sort this out. Creating your own project and seedlings is not data that is shared with your client.

## Unlink Seedlings

If there are seedlings showing up within the project that should not be there, it could be because they are linked to the project in some way.

Users can unlink a seedling from a project using the **Unlink Seedlings button** in the lower right of the screen. If there is related data that prevents the seedlings from being unlinked, the user will be presented with a list of that data highlighted in orange.

Seedlings can be unlinked if they only have the following linking them:

- Project Assignments
- Contract Rates
- Planter Rates

- Fertilizer Rates
- Site Suitability
- Site Suitability Tests Ignored

#### 4.1.4 Permissions

Users can view what their permissions are on each project.

If you have account access and an Internet connection, you can edit these permissions:

- Set up access to a project by adding an individual contributor's email address. This must be the same email address they use to login to SSMS online. If the user is not setup online, they can go to [www.jrpltd.com/Login.aspx](http://www.jrpltd.com/Login.aspx) and choose "Create a Login".
- Check or uncheck the permissions you would like to assign or remove for each user.
- "Default Settings for Payroll Users" gives the same permissions to all users listed within the payroll users account.

Permission levels are as follows:

- Basic - everyone has this
  - Add sites, site notes, site costs, plots, deliveries, site secondary properties (where blank)
  - Edit "Planting Done", "Allocations Locked", "Start Date", "Finish Date", deliveries
  - After syncing, cannot edit existing records
- Project Details
  - Add/edit/delete project properties, project costs
- Project Seedlings
  - Edit "Amount Assigned" on the projects' **Seedlings Tab**
- Sites
  - Edit/delete sites, prescriptions, site notes, site costs
- Site Secondary Properties
  - Edit/delete all other site properties
- Plots
  - Edit/delete plots, plot regen, plot errors

- Planted
  - Add/edit/delete planting records
- Planting Contract Rates
  - Add/edit/delete contract rates
- Planting Schedule
  - Add/edit/delete planting schedules
- Seedling Allocations
  - Add/edit/delete site seedling allocations, including notes
- Seedling Suitability
  - Edit site seedling suitability
- Account
  - Add/delete/archive projects
  - Add/edit/delete permissions and contributors

#### 4.1.5 Planter Work

All planter work (other than tallies) and deductions for the selected project are shown and recorded under the **Planter Work Tab**.

Planter work can also be recorded under the **Payroll Tab**.

#### 4.1.6 Costs

Project costs can be viewed and recorded. These costs are summarized and distributed over the sites by prorating by area and by tree on the sites' **Costs Tab**. To setup cost codes, go to Setup > Code Lists.

#### 4.1.7 Shipments

Shipments can be viewed on the **Shipments Tab**. Double-click the Shipment # to go directly to that shipment on SSMS.

The main **Shipments Tab** has replaced this tab.

#### 4.1.8 Details

To edit an existing project, go to the projects' **Details Tab**. To edit the payroll contractor, please access the project on SSMS. Once a payroll contractor has been set, it cannot be changed.

**Required fields:**

Field	Description	Required
Name	Identifier for the project	<b>Yes</b>
Year	Planting year	<b>Yes</b>
Season	Planting season	<b>Yes</b>
Contact	The main contact name for the project	No
Email	Contact's email address	No
Phone	Contact's phone number	No
Fax	Contact's fax number	No
Plot Multiplier	Multiplier used to determine plot density	<b>Yes</b>
Max Seedling Inventory	Specify how many seedlings a project location can handle at any given time. Used in conjunction with the <b>Scheduling Tab</b> .	No
Payroll	Displays payroll contractor assigned to the project	<b>Yes</b> (if contractor wishes to track payroll)

**4.1.9 Sync History**

Tracks each project sync with a username, date, and time. Each sync shows how many changes were sent and received between the desktop and server. If any sites were moved, this is also indicated.

If any errors occurred during the sync process, these will be indicated as well.

**4.2 Sites**

The **Sites Tab** lists all the downloaded sites associated with the account and year selected. The user controls which fields (in which order) should be listed on the **Sites Tab** by using the **Display button**. The data in the grid can be sorted by clicking the column header, or filtered by clicking on the filter symbol beside the column header name.

## Edit Site

Most data in the grid can be edited directly, or you can double-click or choose the **Edit button** to use the **Edit Site Screen**. While editing a site, you can switch between sites by selecting a different one from the grid in the background.

## View All

The **View All button** allows you to quickly see all deliveries, plots, and planting for all sites within your view. Use the **Jump to Site button** to quickly go to the correlating **Site Editing Screen** if you need to edit values. Export to Excel to manipulate data quickly and do ad-hoc reporting. To move plots to another site, view all the plots, right-click the plot(s) you wish to move, then select the site you wish to move it to.

## Clone Site

To change which project a site belongs to, use the **Clone button** from the main **Sites Tab** and select a different project. Cloning to a different project will copy all site-related records including external IDs, prescriptions, allocations, plots, notes, deliveries, planting, costs, suitability, and rates. If there is any payroll data associated with a site, the payroll data will not be copied. This feature should only be used when everything is synced and generally before any contractor data is recorded. The original site will still exist after cloning until you manually delete it.

## New Site

To create a new site manually, use the **New Site button**. Choose the project that the site belongs to, then enter the appropriate details including Block Name, PU Name, Planting Density, Area. Alternatively, you can use the **Clone Site button** to create a copy of a site, including prescriptions, within the project you are working on. Cloning within a project will not copy external IDs, allocations, plots, notes, deliveries, planting, costs, suitability, or rates. Site and prescription information can be imported from a [MS Excel](#) spreadsheet or from the [SSMS website](#).

## Delete Site

To permanently delete a site, use the **Delete button**. Please note that this will delete the site from your local database and also remove it from the server the next time you sync

(which will remove it for everyone). You will be notified of any site-related data that will also be deleted. You must confirm before deleting. To delete multiple sites, drag-select or [Shift]-select the sites, then use the **Delete button**. If a site has payroll data associated with it, you will not be allowed to delete it (to protect contractor data).

### Sites Screen:

Project Name	Site Label	A%	P%	!	Planting Done	Locked	Area	Plant Type	Planting Density	Plot Quality [All]	Planting Start Date	Planting Finish Date
Ripple Creek	333, 16-8	○	✓	⚠	☑	☑	7.50	PL	1,600	100%	May 1, 2015	May 6, 2015
Ripple Creek	4, A	○	✓	⚠	☑	☑	34.23		900	92.6%	May 3, 2015	May 16, 2015
Ripple Creek	4, B	○	✓	⚠	☑	☑	5.22		1,200	91.7%	May 24, 2015	May 28, 2015
Ripple Creek	445, 1010	●	✓	⚠	☑	☑	5.25		1,000	100%	May 4, 2015	May 6, 2015
Ripple Creek	8, A	○	○		☐	☑	10.12		1,200		May 10, 2015	
Ripple Creek	8, B	○	○		☐	☐	2.27		1,600		May 10, 2015	
Ripple Creek	8911, A	◐	○	⚠	☐	☑	12.40		900	95.5%	May 5, 2015	

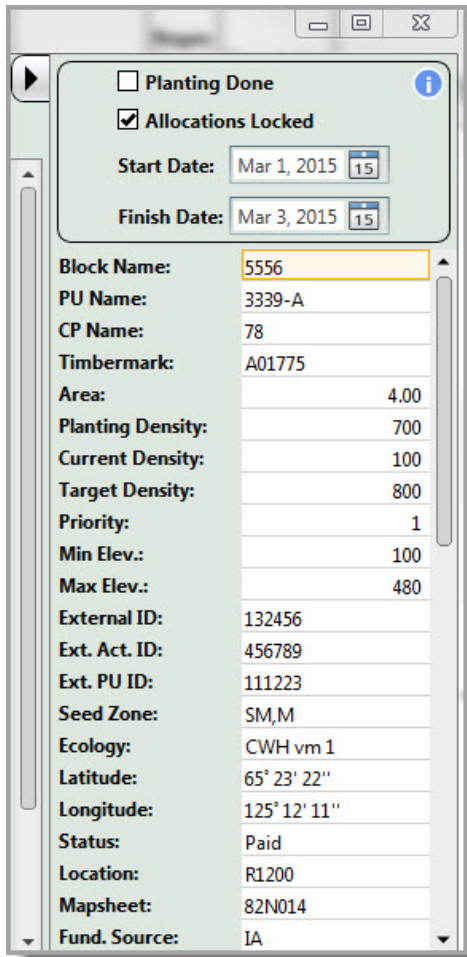
The A% column and P% column show symbols that indicates how much of the site has been allocated or planted. If you hover over each symbol, you will see more information.

### Symbols and Highlighting:

✓	"Planting Done" has been checked
○	No allocation and/or no planting
◐	Partially allocated (less than 95%) hover over the symbol to see the details
◑	Partially allocated or planted - hover over the symbol to see the details
●	100% allocated and/or planted
●	Site has been allocated and/or planted 105% or more - hover over the symbol to see the details
⚠	A warning symbol to indicate numerous possible conflicts or deficiencies - hover over the symbol to find out what the issues are
96%	Plot Quality values will be highlighted green if they meet the "Planting Quality Percent Requirements" entered under Setup > Account Preferences


## 4.2.1 Details

When you double-click a site, or select one and choose the **Edit button**, the **Edit Site Screen** will open. The site details or properties are listed down the right-hand side. These can be reordered by dragging the headings up or down. You can show or hide this section by using the arrow at the top to expand or collapse it.



The screenshot shows a software interface for editing site details. At the top, there are two checkboxes: "Planting Done" (unchecked) and "Allocations Locked" (checked). Below these are two date pickers: "Start Date" set to "Mar 1, 2015" and "Finish Date" set to "Mar 3, 2015". A blue information icon is in the top right corner. The main area is a list of site properties, each with a label and a value. The "Block Name" field is highlighted in yellow. A vertical scrollbar is on the right side of the list.

Planting Done	<input type="checkbox"/>
Allocations Locked	<input checked="" type="checkbox"/>
Start Date:	Mar 1, 2015
Finish Date:	Mar 3, 2015
Block Name:	5556
PU Name:	3339-A
CP Name:	78
Timbermark:	A01775
Area:	4.00
Planting Density:	700
Current Density:	100
Target Density:	800
Priority:	1
Min Elev.:	100
Max Elev.:	480
External ID:	132456
Ext. Act. ID:	456789
Ext. PU ID:	111223
Seed Zone:	SM,M
Ecology:	CWH vm 1
Latitude:	65° 23' 22"
Longitude:	125° 12' 11"
Status:	Paid
Location:	R1200
Mapsheet:	82N014
Fund. Source:	IA

Any fields that you do not have permission to edit will appear in grey. To see which permissions are required to edit these fields, select the  button in the top right of the screen:

**Permissions for Site Properties**

*On NEW Sites (not yet Synced to SSMS Server), all properties are editable by anyone.*

**Property Permissions required on Existing Sites:**

Basic Properties	Site Properties	Secondary Properties
No Permission restrictions	Requires Site Permission to Edit	No Permission restrictions if blank on Server.
		Requires Site Secondary Property permissions to Edit once the value is set on SSMS Server.
<ul style="list-style-type: none"> <li>Planting Done</li> <li>Allocations Locked</li> <li>Start Date</li> <li>Finish Date</li> </ul>	<ul style="list-style-type: none"> <li>Block Name</li> <li>PU Name</li> <li>CP Name</li> <li>Planting Density</li> <li>Current Density</li> <li>Target Density</li> <li>Area</li> <li>Min Elev.</li> <li>Max Elev.</li> <li>Priority</li> <li>Seed Zone</li> <li>Ecology</li> <li>Latitude</li> <li>Longitude</li> </ul>	<ul style="list-style-type: none"> <li>Status</li> <li>Location</li> <li>Mapsheet</li> <li>Fund. Source</li> <li>District</li> <li>Division</li> <li>GL Account</li> <li>Tenure</li> <li>Timbermark</li> <li>Township</li> <li>Range</li> <li>Section</li> <li>External ID</li> <li>Ext. Act. ID</li> </ul>

If you use auto allocate on the **Planting Tab** and want to ensure that certain sites are not affected when using this feature, use the "Allocations Locked" checkbox. This will also prevent allocations from being manually changes or deleted.

Check the "Planting Done" checkbox once planting is complete. If the start and finish dates do not match the first and last planting dates, you will be prompted to use the **Update Start / Finish Date button**.

Planting Done

Allocations Locked

Start Date: Mar 1, 2015

Finish Date: Mar 3, 2015

*Planting is Done, but Start/Finish Dates don't match min/max Planted dates.*

Update Start / Finish Date

The following table indicates how specific fields are used within Plant Wizard:

Field	Description	Required
-------	-------------	----------

Planting Done	Check to indicate that planting is finished, planted #s will show on <b><i>Planting Tab</i></b>	No
Allocations Locked	Check to prevent auto allocate from altering allocation #s	No
Start Date	First day of planting	<b>If updating other databases; For reporting</b>
Finish Date	Last day of planting	<b>If updating other databases; For reporting</b>
Block Name	Used to group planting units into one management area	No
PU Name	Name of site or planting area	<b>Yes</b>
CP Name	Cutting Permit name	No
Ecology	Biogeoclimatic zone of the site; used for GBST suitability	No
BEC Variant	Ecological classification of the site (zone, subzone, and variant); used for CBST suitability determination	No
Priority	The relative order in which the site should be planted	No
Seed Zone	Class B seed zone; used for GBST suitability	No
Min Elev	The minimum elevation of the site; used for GBST suitability	No
Max Elev	The maximum elevation of the site; used for GBST suitability	No
Latitude	Latitude of the site (degrees, mins, seconds, N or S); used for GBST suitability	No
Longitude	Longitude of the site (degrees, mins, seconds, E or W); used for GBST suitability	No
Area	Size of the site (hectares, acres, etc.)	<b>Yes</b>

Current Density	Number of stems per area pre-existing on the site	No
Target Density	The desired density on the site after planting. Used to calculate "M" value if Target Density is blank.	<b>Yes</b>
Planting Density	Number of stems per area to be planted	<b>Yes</b>
Status	A user-defined status of the site (to help with determining which reports need to be run)	<b>Displays when selecting which sites to include in reports</b>
Fund. Source	Funding source for the planting activity	<b>For Potlatch reports</b>
District	The district the site is located in	<b>For Potlatch reports</b>
External ID	Fields related to external system linkages	<b>If updating other databases</b>
Ext. Act. ID		
Ext. PU ID		
\$/Area	Contract planting rate per area	<b>Fill in if using area contract rate</b>
\$/Day	Contract planting rate per day	<b>Fill in for day rate contract</b>
Person Days	Number of person days taken to plant the area	<b>Fill in for day rate contract</b>
WS Target Density	Used to calculate "M" value if available, otherwise uses Target Density	<b>For Silv Label on reports</b>
Contractor	Contractor name	<b>For Paycert and for Potlatch reports</b>
Foreman	Foreman name (or contract supervisor)	<b>For Potlatch reports</b>
Forester	Forester name supervising plant	<b>For Potlatch reports</b>

Site Index	Site Index at 50 years	<b>For Silv/Inv Labels on reports</b>
Stand Height	Stand height	<b>For Silv/Inv Labels on reports</b>
Stand Age	Stand age	<b>For Silv/Inv Labels on reports</b>
Crown Closure	Crown closure %	<b>For Silv/Inv Labels on reports</b>

#### 4.2.2 Summary

The **Summary Tab** gives an overview of the site's progress.

The Date selection at the top allows you to filter to only show calculations from information recorded on a particular date. "Prescribed", "Allocated", and the "Production" are not date-specific so they always display everything.

The "Density" section summarizes prescribed, allocated, planted, delivered, and tallied trees, densities, and species % mixes.

The "Plots" section calculates by plot type, the # of plots, quality %, excess %, density, confidence interval 90, planted %, natural density, and total dropped trees. A species % mix shows the ratio of trees recorded in the plot regen section.

Using the Australian server, the "Plots" section shows # of plots, quality %, fertilizer quality %, density, and the species % mix.

The "Production" section is only available to payroll contractors and summarizes tallies as total # trees, # trees per day, \$ per day, and # of days by initials. The top row shows an average planter production, while the second row shows an average daily production.

#### 4.2.3 Prescriptions

Enter prescriptions by specifying the species to be planted, preferred stock size, and % mix. The Min % and Max % are optional and are used when auto allocating seedlings. If there is not enough of one species to fill the site's needs, auto allocation will try to adjust the % required up or down (within the specified range) to make up the difference.

All seedlings available to your project will be listed under the appropriate species to show you what is available for allocation. The seedling list shows each seedling's suitability (coloured circle). If you wish to use A class seed for any species on this site, indicate the seed zone under SZ-A. To assign a fertilizer code to a species, use the Fert. Code pull down list, then specify what percentage of the species you wish to fertilize. The Fert. Code list is populated by your entries under the Setup > Code Lists > Fertilizer Codes.

Edit Site											
Project: Ripple Creek Site Label: 8911, A											
Summary	Prescriptions		Plots	Wx/Soil	Notes	Deliveries	Planted	Tallies	Costs		
Spp	Stock Size	SZ-A	Min%	Pref%	Max%	Required	Allocated	Planted	To Be Planted	Fert. Code	Fert. %
<b>BA</b>	412	M	40	42	45	4,687	5,000	4,500	500		
<input type="radio"/> BA, DPM0049							5,000	4,500	500		
<input type="radio"/> BA, Sample03								0	0		
<input type="radio"/> BA, Sample04								0	0		
<input type="radio"/> BA, Sample100								0	0		
<input type="radio"/> BA, Sample20								0	0		
<b>CW</b>	415		20	28	30	3,124	6,000	0	6,000	TEABAGS	50.0
<input type="radio"/> CW, Sample01							6,000	0	6,000		
<input type="radio"/> CW, Sample02								0	0		
<input type="radio"/> CW, Sample21								0	0		
<input type="radio"/> CW, Sample23								0	0		
<input type="radio"/> CW, Sample31								0	0		
<input type="radio"/> CW, Sample40								0	0		
<b>HW</b>	412		25	30	35	3,348	160	0	160		
<input type="radio"/> HW, Sample07a							160	0	160		
<input type="radio"/> HW, Sample08								0	0		
<input type="radio"/> HW, Sample22								0	0		
<b>Site Totals:</b>				100		11,160	11,160	4,500	6,660		

The total at the bottom will show Pref % in red when it does not add up to 100%. You can also see your total required, allocated, planted, and to be planted.

#### Required Fields:

Field	Description	Required
Species	Tree species	Yes
Stock Size	Seedling size	No
SZ-A	Class A Seed Zone	No
Min%	Minimum acceptable ratio of species to be planted	No
Pref%	% ratio preferred of this species	Yes

Max%	Maximum acceptable ratio of species to be planted	No
Required	Number of estimated seedlings required calculated as Area x Planting Density x Pref%	<b>Yes</b>
Allocated	Indicates the number of trees by seedling label assigned to the site	No
Planted	Indicates the number of trees by seedling label planted	No
To Be Planted	Allocated minus Planted	No
Fert. Code	Indicates the fertilizer type to be applied to this species	No
Fert. %	Indicates the percentage of this species to be fertilized	No

**\*\*Note:** A site that has no prescriptions will not show up on the *Planting Tab*.

#### 4.2.4 Plots

The **Plots Tab** shows all the plot information which can be collected on a mobile device and downloaded to the desktop, or entered directly into the desktop.

The plot name will automatically increase as you add new plots (even if you use letters before the plot number). Each plot is tracked with the initials of the user who entered it if "Initials" are setup under Setup > Preferences.

##### **Default Plots:**

Indicate the Plot Type as "Check", "Audit", "Survival", or other custom plot type name. Planted, plantable spots, excess, satisfactory planted, unsatisfactory planted, non plantable spots, dropped trees, latitude, longitude, penalty, and comments can be tracked at each plot. Hovering your cursor over the abbreviated column headings will display the full title.

You can filter data based on initials, plot type, and/or date by selecting the filter symbol in the column heading. The quality %, excess %, plantable %, satisfactory %, densities, and CI-90 calculations at the top of the screen will change to reflect the filter(s) used.

Any plots where "Planted" does not equal "Satisfactory" + "Unsatisfactory" + "Excess" will be highlighted in red.

The screenshot displays the 'Edit Site' window for 'Project: Ripple Creek' and 'Site Label: 8989'. The interface includes several tabs: Summary, Prescriptions, Plots, Wx/Soil, Notes, Deliveries, Planted, Tallies, and Costs. The 'Plots' tab is active, showing a table of plot data with columns for Name, Init., Plot Type, Date, and various tree counts (P, PS, E, S, U, NP, Nat, Drop). Summary statistics at the top indicate Quality (S/PS) at 91.2%, Excess (E/P) at 1.79%, Plant (P/PS) at 98.2%, and Sat (S/P) at 92.9%. A 'Regen' section on the right shows species-specific data for BA and CW. An 'Errors' section at the bottom right shows a single error for species BA with code B1 and a count of 1.

Name	Init.	Plot Type	Date	P	PS	E	S	U	NP	Nat	Drop	Lat.	Long.	Pen.	Comments
1	JP	Check	Mar 15, 2016	6	5	0	5	1	0	0	0	49° 41' 1"	124° 59' 26"	0.00	
2	JP	Check	Mar 15, 2016	7	7	0	7	0	0	1	0	49° 41' 0"	124° 59' 26"	0.00	
3	JP	Check	Mar 15, 2016	7	7	0	7	0	0	0	0	49° 41' 0"	124° 59' 28"	0.00	
4	JP	Audit	Mar 16, 2016	6	6	0	6	0	0	0	0	49° 41' 0"	124° 59' 27"	0.00	
5	JP	Audit	Mar 16, 2016	6	6	0	5	1	0	0	0	49° 41' 0"	124° 59' 26"	0.00	
6	JP	Audit	Mar 16, 2016	7	7	0	6	1	0	0	0	49° 41' 1"	124° 59' 26"	0.00	
7	JP	Audit	Mar 17, 2016	7	6	1	5	1	0	0	0	49° 41' 1"	124° 59' 26"	0.00	
8	JP	Audit	Mar 17, 2016	6	6	0	6	0	0	0	0	49° 41' 0"	124° 59' 27"	50.00	
9	JP	Audit	Mar 17, 2016	4	7	0	5	0	0	0	0	49° 41' 1"	124° 59' 26"	0.00	

Totals: 56 57 1 52 4 0 1 0

If your Account Preferences specify that you record naturals at the regen level, the "Regen" section allows well spaced planted, total planted, well spaced naturals, and total naturals by species. The total naturals will be calculated and displayed at the plot level as "Nat".

If your Account Preferences specify that you record naturals at the plot level, the "Regen" section is hidden and you will record naturals by editing the number directly in the "Nat" column. The total naturals will be calculated and displayed at the plot level as "Nat".

Species composition from planting and from plot regen (if available) can be viewed on the Paycert report.

The "Errors" section records planting faults by species (optional). Error codes are specified under Setup > Code Lists.

The top of the screen shows a number of plot calculations:

- "Quality" is measured as the number of satisfactory trees planted divided by the number of plantable spots in each plot. The formula is set up this way in the default Paycert report in Plant Wizard but can be modified to suit your own [custom](#) formula for determining planting quality.

The Paycert report includes formulas for assessing penalties or charges against the planting contractor based on quality and excess measures for the site. These formulas are also user definable by modifying your own version of the report.

- "Excess" is measured as the number of excess trees recorded divided by the number of trees planted.

- "Density" is measured as the number of trees planted plus the number of non-plantable (NP) spots recorded in the plots. The 90% confidence interval ("CI-90") is calculated with this number to provide an indication of accuracy in the numbers.
- "Plant" is measured as the number of trees planted divided by the number of plantable spots. "Plantable" is the number of density of plantable spots. "Sat" is calculated as the number of satisfactory trees planted divided by the number of total trees planted. "Satisf" is the density of satisfactory planted trees. "Naturals" is the density of total naturals (TN) recorded in the Plot Regen section, if applicable, otherwise from the Plot "Nat" column.

### **Australia Plots:**

For users logging in to the Australian server, the **Plot Tab** will allow recording of above ground, below ground, and fertilizer quality. There is checkbox to indicate whether or not the plot is a final plot (in the case of re-plotting an area). Only final plots are used in Paycert reports. "Final Plot" is checked by default when a plot is created - uncheck it if you replace the plot with another. On the mobile device, rename the replaced plot, then uncheck the "Final Plot" box on the desktop after syncing.

#### **4.2.5 Wx/Soil**

The **Wx/Soil Tab** allows users to track weather and soil conditions that are tracked by date/time. Weather tracks % humidity, air temperature, wind speed and direction, precipitation, and whether or not it was cloudy. Under soil conditions, users can track dry/wet status, 6" soil temperature, and whether or not there was snow present. General comments can be used for further description.

These conditions appear on the Potlatch Daily Planting and Potlatch Planting Summary reports.

#### **4.2.6 Notes**

The **Notes Tab** allows users to add, edit, or delete site-specific comments. You can specify whether these are "Pre-Plant Notes" or "Post-Plant Notes". These appear with a username and date/time stamp on the screen as well as on the Map Legends and Paycert reports.

Notes can also be entered on the main [Planting Tab](#).

#### **4.2.7 Deliveries**

The **Deliveries Tab** shows all the [site deliveries](#) as recorded on the mobile device, or entered on the desktop. These delivered amounts can be used in the [Balance Tab](#) to reconcile planter tallies and planted amounts. The seedling list shows each seedling's suitability (coloured circle), as well as amounts allocated and delivered for reference.

Deliveries can also be entered on the main [Planting Tab](#).

#### 4.2.8 Planted

Add, delete, edit, or view all planting records for a site. You can add multiple planting records at once for the same date. There is a checkbox to indicate if the planted seedlings were also fertilized. The seedling list shows each seedling's suitability (coloured circle), as well as the amounts allocated, delivered, planted, and tallied (visible only to payroll users) for reference.

Planting can also be entered on the main [Planting Tab](#).

#### 4.2.9 Tallies

All planter tallies for the selected site are shown and recorded under the **Tallies Tab**. You can enter more than one tally at once for any given day and planter. The seedling list shows each seedling's suitability (coloured circle).

Tallies can also be recorded under the **Payroll Tab**.

Rates are highlighted if they do not match the default planter rate set in the **Rates Screen** accessed from the mail **Planting Tab**.

#### 4.2.10 Costs

The **Costs Tab** allows users to track site-specific costs. Cost codes can be added from Setup > Code Lists.

The summary at the top of the screen compiles all costs incurred for a particular site and prorates any project costs by area and by tree. You can compare planned (allocated) costs versus done (planted) costs.

### 4.3 Exchanging Project Data with Other Users

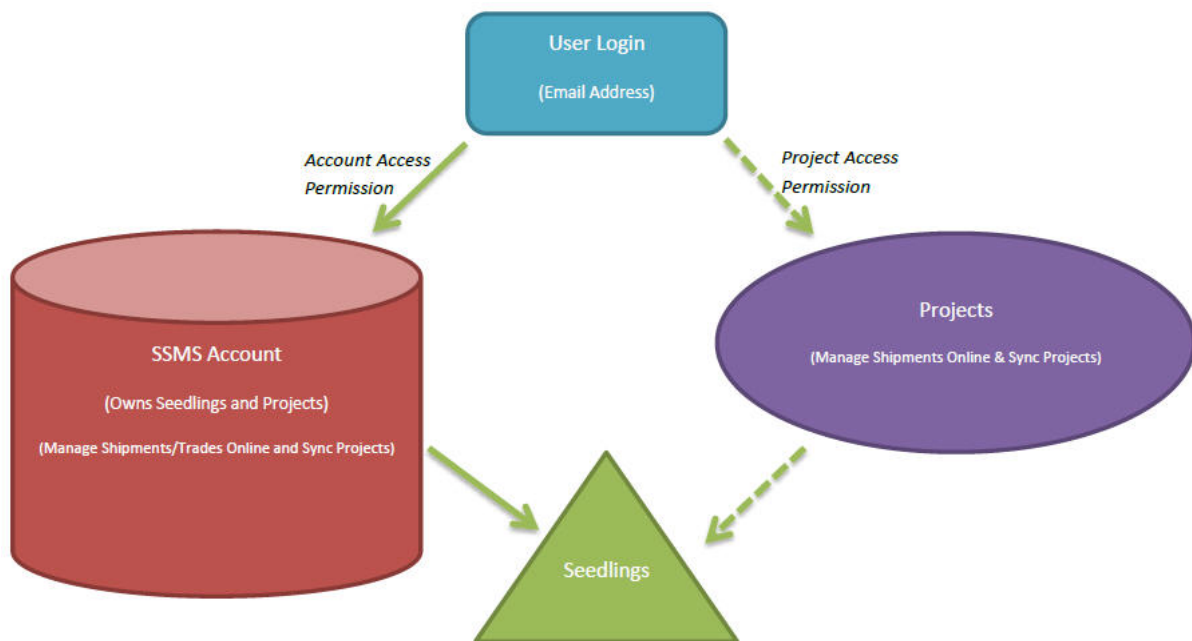
To share data with other Plant Wizard users, use the **Sync button**.

When syncing data with the desktop, depending on your project permissions and account you are filtered to, any changes you have made on the desktop will automatically be uploaded to the SSMS server and you will receive any changes from SSMS. New data will always be added.

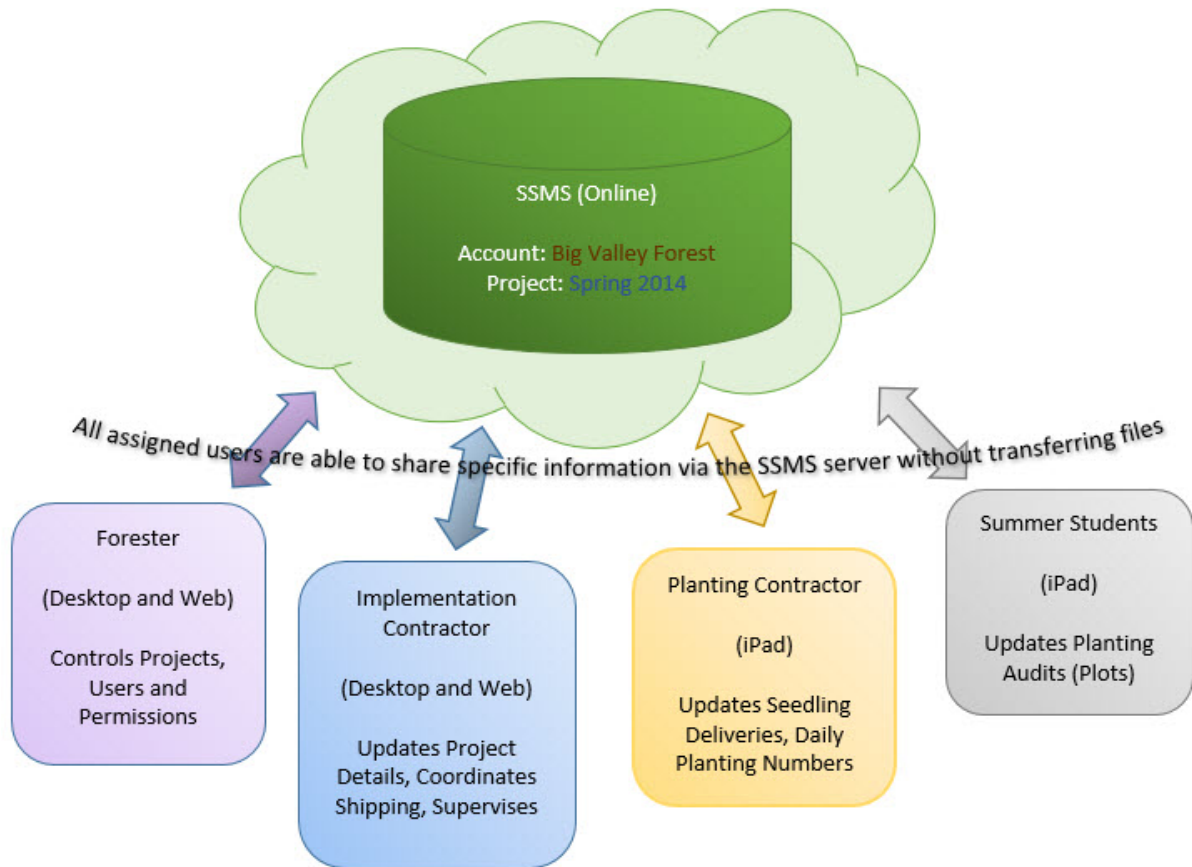
Depending on the permissions a user has, they may have access to an SSMS account and all of its projects, or simply a project within an account. Account permissions allow users to create and manage projects, shipments, trades, and seedlings. Project permissions allow users to access project and seedling data and create shipments.

When syncing with SSMS, account users have access to sync all data, whereas project users may be limited. Separate syncing access for sites, plots, planted numbers, planting contract rates, seedling allocations, seedling suitability, site secondary properties, project seedlings, and project details can be granted within the projects' **Permissions Tab** on the desktop or from the **Projects Screen** on SSMS.

Payroll information (planters, tallies, work, planter rates) will only be available and sync if you have the payroll module and have specified your payroll users on SSMS.



The example below demonstrates how data can be shared via SSMS with other users:



## 4.4 Exchanging Project Data with Excel

Plant Wizard can import site information from MS Excel and export sites, seedlings, allocations, payroll, and balance details to MS Excel.

### 4.4.1 Importing Site Data from Excel

To import site data from an Excel file, follow these steps:

1. Format the data for import.
  - The table below shows the possible data that can be imported. If your column headers match those in the table, PW may find them automatically (regardless of what order they are in).
  - PlantingUnitName should be filled in for each row of data.
2. Choose File > Import from Excel > Import Site Data.
3. Select the **Load Excel File button**, navigate to the location of the Excel file, and select 'Open'.
4. Choose the project to import the sites into from the pull down list.

5. Switch to the **Site Property Mapping Tab** and match up the columns in the Excel file with the fields that Plant Wizard is looking for (if not found automatically). PW will remember this field mapping to aid in future imports.
6. Switch to the **Prescription Mapping Tab** and match up the columns for species prescriptions. Select the check box for "Import prescriptions with 0% PrefMix" if you wish to import any species that have no Pref % specified. You will need to manually select Pref % in PW before being able to allocate seedlings.
7. Switch to the **Preview Site Data Tab** to quickly review the data. By default, only new sites (matched by Site Label) are imported unless you select an option to "Update Existing Sites" or "Import Duplicate Sites". "Update Existing Sites" will update all mapped properties and replace existing prescriptions, whereas "Import Duplicate Sites" imports all sites as new without any attempt to update existing data.
8. Choose the **Save Data button** at the bottom of the screen.

#### Data Import Format of Site & Prescription Fields:

Column Header	Field Description
Priority	Planting order or priority for each planting unit
Area	Number of units of area (up to 2 decimals)
ElevationHigh	Maximum point of elevation on the planting unit
ElevationLow	Lowest elevation point of the planting unit
TargetDensity	The target density of stems
CurrentDensity	The pre-existing number of stems per unit area
PlantingDensity	The density to plant
PlantingDone	TRUE or FALSE
Locked	TRUE or FALSE
Latitude	Latitude (in degrees to 2 decimals)
Longitude	Longitude (in degrees to 2 decimals)
BlockName	The block unit name
PlantingUnitName	The name of the individual planting unit within a block

CuttingPermitName	The cutting permit name
StartDate	Start date of planting
FinishDate	End date of planting
SeedZone	Geographic seed provenance zone (not considering species) - B class seed
Ecology	Biogeoclimatic zone
BECVariant	Ecological classification, including zone, subzone, and variant
Note	Comments
Status	The current planting status (Planned, Done, Trees Ordered, etc.)
Location	Site geographic location (text)
Mapsheet	Mapsheet reference number
FundingSource	Funding source
District	Forest district
Division	Company division code
GLAccount	General ledger account code
Tenure	Forest tenure number (if applicable)
Timbermark	Logging timbermark
Township	Private land
Range	Private land
Section	Private land
ExternalID	Block sequence number from an external system
ExternalActivityID	Activity sequence number from an external system
ExternalPlantingUnitID	Planting unit sequence number from an external system
Licence	Licence number

MinimumSpacing	Minimum spacing between trees (numeric)
PlantType	Plant type code (ex. fill plant = FP)
SiteIndex	Site index value
SiteIndexSource	Site index source value
PersonDays	Number of person days used to plant the planting unit
DollarsPerHa	Dollars per area cost of planting (contract rate)
DollarsPerDay	Day rate cost of planting (contract rate)
WellSpacedTarget	The target stems per unit area of all trees (planted and natural)
Spacing	Preferred spacing between trees (numeric)
StandHeight	Stand description
StandAge	Stand description
CrownClosure	Stand description
BudgetType	Capital, Expense, etc.
Aspect	Site aspect
SiteSeries	Ecological site series
Contractor	Planting contractor
Forester	Forester supervising planting
Treatment	
Compartment	
RegenTargetSPH	
DenudationType	
RowSpacing	
FileID	Used to identify the block in Phoenix Planting & Regen exports

EstimatedTreesPlantedPerDay	Used on the <b>Scheduling Tab</b>
SchedulingOrder	Used on the <b>Scheduling Tab</b> to initially sort the sites
Species	Prescribed species
Stock Size	Prescribed stock type, size, age
Percent	Prescribed species %
Seed Zone	Class A seed zone (by species)

Rules:

- Column headings are not case sensitive.
- One planting unit per row.
- Species data in separate columns. The import allows 10 separate species.
- One file per project.
- The first line in the file must be the headings.
- All other lines in the file must be data.

#### 4.4.2 Exporting Data to Excel

From the **Sites Tab** you can export the sites to Excel selecting the **Excel button**.

To export prescriptions, use the **Planting Tab**, add in the appropriate prescription properties using the **Display button**, then export to Excel.

### 4.5 Exchanging Project Data with LRM (formerly Resources)

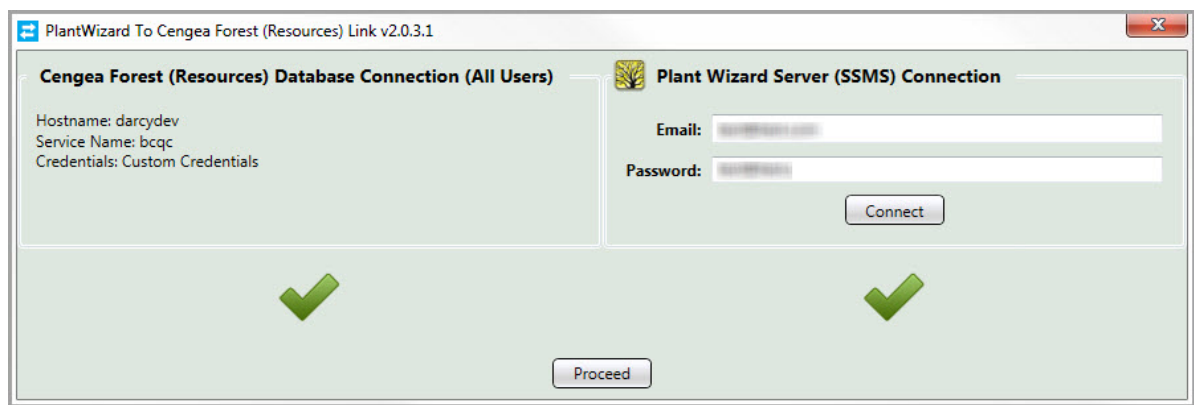
Planting data can be exchanged between SSMS and LRM (formerly Cengea Forest or Resources) using the separate "Plant Wizard Resources DataLink" tool. Any desktop or mobile device planting data must be synced with SSMS in order to be exchanged with LRM.

After installing this tool, you will need to configure the ConnectionSettings.xml file within the installation folder (C:\ProgramFiles (x86)\JRP Solutions\Plant Wizard Resources DataLink) using a text editor (Notepad, Wordpad, etc). It will look something like this:

```
<?xml version="1.0" encoding="utf-16"?>
<ConnectionSettings xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <HostName>host</HostName>
  <ServiceName>service</ServiceName>
</ConnectionSettings>
```

Add in the proper host and service names as highlighted above and save. The application uses these values to connect to your Oracle database, so once they have been set and saved you can successfully run the application.

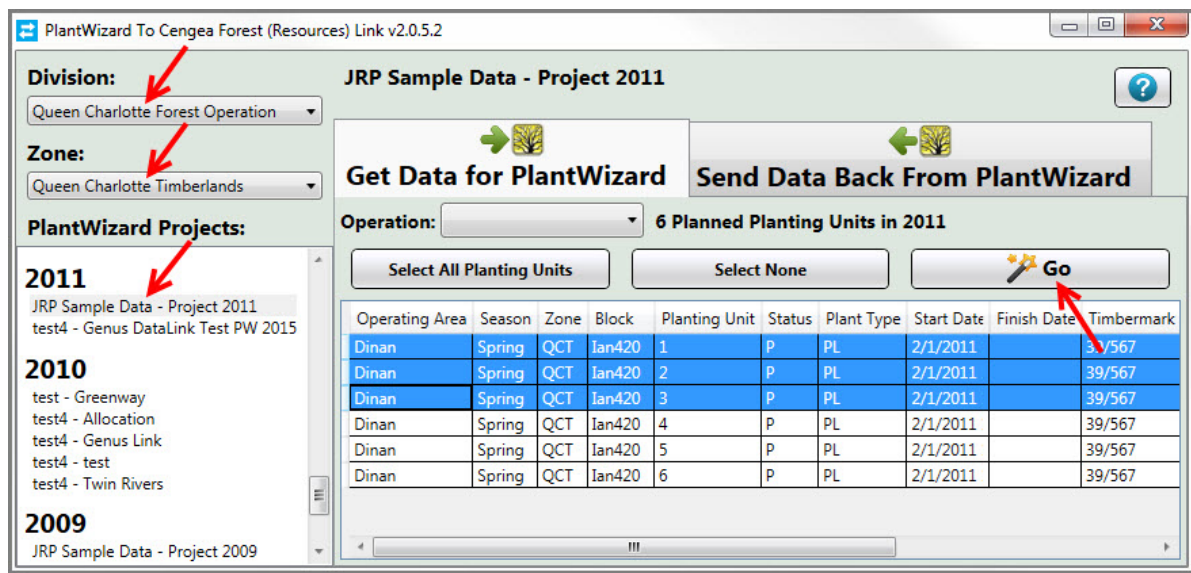
### Connecting:



Start the Plant Wizard Resources Data Link and you will be automatically connected to the Resources Oracle database. Enter your email and password to login to the Plant Wizard server (SSMS) and click the **Connect button**. Once both sides have green check marks showing, select the **Proceed button**.

If you are prompted for a Resources Database Username and Password Override, please contact JRP Solutions support.

### To Get Data for Plant Wizard:



1. Use the ***Get Data for PlantWizard Tab***.
2. Select your Division, then the Operating Zone you would like to import data from. This step limits the amount of data loaded into the DataLink from LRM in order to speed up the data loading process.
3. Select a Plant Wizard Project on the left. If there are no projects listed, you will need to create one in SSMS or on the desktop first.
4. A list of blocks and planting units from LRM will be selected from planned planting (with a base code of 'PL') that matches the project year selected. This list excludes any seedling protection (SE) or seedling fertilization (CG) activities.
5. If you wish, you can filter the data by Operation to narrow down the list of Blocks and Planting Units.
6. Select the planting units you wish to import from Resources and use the **Go** button. Planting Units that already exist in Plant Wizard as sites will be updated, whereas new ones will be inserted.
  - If a planting unit has already been imported into Plant Wizard, another copy will not be made upon subsequent imports. New planting units within the same planting activity from LRM can be added.
  - Species prescriptions are imported once from LRM. If, after importing to PW, changes need to be made to these prescriptions, make those changes in Plant Wizard rather than LRM. Also, there is no benefit to allocating requestkeys in LRM prior to importing into PW because that information is not brought into PW.

The following data from LRM will be imported into SSMS if it exists:

LRM Field	PW Field Name	Description
<b><i>From Silv. Treatment - Details Tab:</i></b>		
Sila_seq_nbr	Ext. Activity ID	Hidden field in LRM.
Status	Status	
Technique	Plant Type	
Start Date	Start	
Completion Date	Finish	
Fund Srce	Funding Source	
Comments	Site Notes	Comments will be imported into the site notes for every planting unit associated with the activity upon creation in PW. If the planting unit already exists in PW, subsequent imports will not update the notes.
<b><i>From Silv. Treatment - Planting Units Tab</i></b>		
Plun_seq_nbr	Ext. PU ID	Hidden field in LRM.
Planting Unit ID	Planting Unit	Added only when PU is first created, it is never updated.
Area (ha)	Area (A)	
Density (st/ha)	Target Density AND Planting Density	
Contract Min Spacing	Min. Spacing	

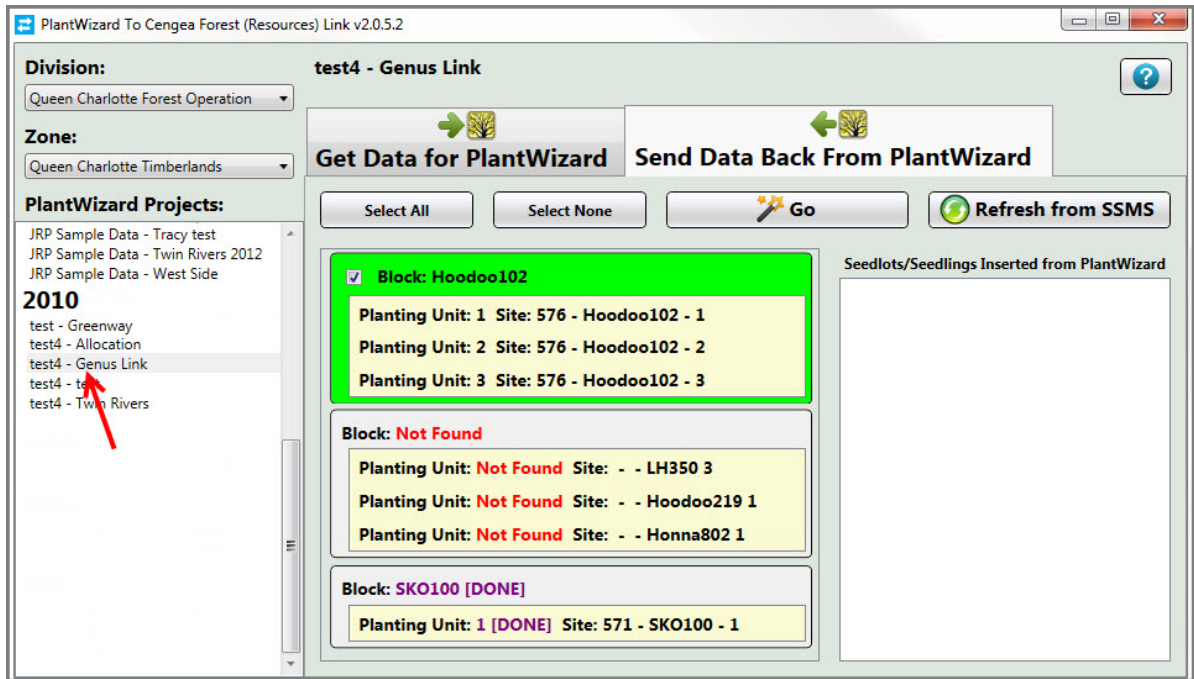
Contract Target Spacing	Spacing	
Species	Species	Added only when PU is first created, it is never updated.
Trees	Preferred Mix	Percent of total based on species grouping. Added only when PU is first created, it is never updated.
<b>From Block - Details Tab</b>		
Cutb_seq_nbr	External ID	Hidden field in LRM.
Block ID	Block Name	Added only when PU is first created, it is never updated.
Location	Location	
Site Index	Site Index	
Lat	Latitude	
Long	Longitude	
Mapsheets ID	Mapsheets	
Seed Zone	Seed Zone	Seed Zone for 'A' Class seed populates SZ-A at species prescription level. SZ-A added only when PU is first created, it is never updated. Seed Zone for 'B' Class seed populates Seed Zone at the planting unit level. Multiple seed zones are listed, comma separated.
<b>From Block - Allocation Tab</b>		
Mark	Timbermark	
Licence	Tenure AND Licence	Imports to the Tenure field and to the Licence field if it is blank.


Permit	CP Name	Added only when PU is first created, it is never updated.
Admin District Name	District	From Cutting Permit screen
<b>From Ecology - Details Tab</b>		
Classification Zone	Ecology	Uses the BGC Zone from the first Eco Unit found with the largest area.
Elevation Min	Min Elevation	The minimum elevation of all Eco Units.
Elevation Max	Max Elevation	The maximum elevation of all Eco Units.

**\*\*Note:** The block's overall lowest and highest elevations are brought in as the planting unit's low and high elevation points respectively. All planting units within the same planting activity that are imported from LRM will have the same elevations.

**To Send Data Back From Plant Wizard:**

Data can be sent back to LRM for Planting Units that originated from LRM. If new planting units are added in Plant Wizard, they will not be sent back to LRM.



1. Ensure you have synced your Plant Wizard desktop and mobile devices with the Plant Wizard server (SSMS). This will send all of your data to SSMS in preparation for sending to LRM.
2. Use the **Send Data Back From PlantWizard Tab**.
3. Select a Plant Wizard Project on the left that contains data you wish to export to LRM.
4. A list of blocks and planting units from LRM that have a match in Plant Wizard will be listed.
  - If no corresponding block or planting unit from Resources is found to match the site in Plant Wizard, you will see "Not Found" text in red. These sites will not be exported to Resources.
  - If the associated planting activity in LRM has a status of "DONE", this will be indicated at the block level and it will not be included in the update.
  - If multiple planting units in Plant Wizard have the same Ext. PU ID entered, you will get a warning message stating that more than one planting unit matches the same record in LRM. You will need to either delete or change the duplicate Ext. PU ID numbers, then sync, and try the export process again.
5. Choose which blocks in LRM to update.
6. A reminder message will pop up asking if you remembered to sync. At this point the data from SSMS has already been loaded into the DataLink, so if you still need to sync, do that now, then choose the **Refresh from SSMS button** before trying again. Also, if you have left the DataLink window open while data on SSMS has changed, you will need to use the **Refresh from SSMS button** (or close the DataLink and reopen it).
7. Use the  **Go button** to send all planned and completed planting to LRM.
  - This will update all the species prescriptions in LRM with the allocated species from Plant Wizard for sites where "Planting Done" is not checked.
  - This will update all the species prescriptions in LRM with the planted species and request keys from Plant Wizard for sites where "Planting Done" is checked off.
  - If a site has no allocation or planting records in Plant Wizard, the corresponding planting units in LRM will not be updated.
  - If all of the sites for a particular activity are marked as "Planting Done" the activity in LRM will be updated to Done as well.
  - If there are any new seedlings or seedlots used for allocation or planting in the Plant Wizard sites being exported to LRM, those request keys and seedlots will

be inserted into the appropriate maintenance tables in LRM and listed on the right under "Seedlots/Seedlings Inserted from PlantWizard".

- When the update is complete, each block and planting unit will be listed with the results of the export. Note that when "Planting Done" is not set, some of the data is skipped and not exported to LRM (Comments, Finish Date, Status, Minimum Spacing, Target Spacing, Planting Quality %).
- Site Notes are grouped together for all planting units within an activity and sent to the planting activity comments field when planting is done.
- If a planting unit from LRM does not exist in Plant Wizard, it will be left as is during the update.
- The update will never insert or delete activities, or planting units in LRM.

The following data in Plant Wizard (via SSMS) is sent to LRM:

PW Field Name	LRM Field	Description
<b><i>Silv. Treatment - Details Tab</i></b>		
Start	Start Date	Minimum start date of all planting units within the same silviculture activity.
Finish	Completion Date	Maximum finish date of all planting units within the same silviculture activity. Sent only when "Planting Done" is checked.
Project - Season	Season	
Fund. Source	Fund Srce	Unique funding source for all planting units within the same silviculture activity, otherwise left blank.
Notes	Comments	Sent only when "Planting Done" is checked. All site notes from all planting units within the same silviculture activity (trimmed to 3999 characters).
Area (A)	Area (ha)	Sum of all planting units.
Planting Done	Status	If all planting units within the same planting activity have 'Planting Done' checked, status is set to 'D'.
<b><i>Silv. Treatment - Planting Units Tab</i></b>		
Area (A)	Area (ha)	

Min. Spacing	Contract Min. Spacing	
Spacing	Contract Target Spacing	
Planted/Area Allocated/Area	Density (st/ha)	Total Planted/Area where "Planting Done", otherwise Total Allocated/Area.
Plots: Planted and Plantable Spots	Quality (%)	From plots: Sum of Planted/Sum of Plantable Spots.
Species	Species	If "Planting Done", uses planted species, otherwise uses allocated species.
Planted or Allocated	Trees	If "Planting Done", uses planted #s, otherwise allocated #s.
Seedlot	Seed Lot	If "Planting Done", uses planted seedlots, otherwise allocated seedlots.
Crop Name	Request Key	If "Planting Done", uses planted croppnames, otherwise allocated.
Planted or Allocated	Pct	If "Planting Done", uses % of planted #s, otherwise % of allocated #s.

#### 4.6 Exchanging Project Data with LRM (formerly TFM)

Planting data can be exported to LRM using the generic "LRM Export (XML)" under the **Exports Tab** of the **Reports Tab**. The export produces an .XML file that can be used for importing into LRM.

You will be prompted for which plots to use when exporting data (Audit, Check, Survival). The plot filter affects the calculated values sent to the XML file.

There are also custom exports for specific companies.

#### 4.7 Exchanging Project Data with Phoenix Pro

Exports to Phoenix Pro are found in the **Exports Tab** under the **Reports Tab**:

- Planting data can be exported using the "Phoenix Planting Export"

- Regen data (from planting plots) can be exported using the "Phoenix Regen Export".

Both exports produces a MS Excel spreadsheet that can be used for importing into Phoenix.

You will be prompted for which plots to use when exporting data (Audit, Check, Survival). The plot filter affects the calculated values sent to the spreadsheet.

Please note that Column A is populated with the "File ID" field found on the **Sites Tab**.

## 4.8 Exchanging Project Data with Phoenix Connect

Exports to Phoenix Connect are found in the **Exports Tab** under the **Reports Tab**:

- Planting data can be exported using the "Phoenix Connect Planting Export"
- Regen data (from planting plots) can be exported using the "Phoenix Connect Regen Export".

Both exports produces a MS Excel spreadsheet that can be used for importing into Phoenix.

You will be prompted for which plots to use when exporting data (Audit, Check, Survival). The plot filter affects the calculated values sent to the spreadsheet.

Please note that Column A is populated with the "File ID" field found on the **Sites Tab**.

**Part**

**5**

## 5 Managing Seedling Information

Seedlings are created and tracked online using [SSMS](#) and synced with the desktop and mobile devices to allow recording of seedling allocations, project assignments, planting numbers, and tallies.

If you own trees grown by a nursery that uses SSMS, your trees will be entered by the nursery. If you own trees that are not already in the system, you will need to manually enter them on SSMS.

Payroll users please refer to the projects' [Seedlings](#) section for information on how to create your own seedlings and assign them to your project.

In order to separate seedlings by project or contract, you must assign seedlings to a project. Please refer to the projects' [Seedlings section](#) for more information.

### 5.1 Importing Seedlings from SSMS

To import from the Seed & Seedling Management System (SSMS) website, use the **Sync button**, select "Sync all Seedlings", and then the **Sync Seedlings button**. You can sync projects at the same time if you wish.

### 5.2 Exporting Seedling Data to Excel

To export the seedling data to MS Excel, select the **Excel button** at the top of the **Seedlings Tab**.

### 5.3 Seedling Properties

Seedling properties can be viewed in the **Seedlings Tab**. The seedlings shown are those that match the year or alternate year of the projects available within the current account and year selected. Also included, are any seedlings that are already associated (assigned, allocated, shipped, planted, tallied, or delivered).

Sync to get any seedling changes from the SSMS server.

Using the **Display button**, users can show more or less data and determine the order in which to display it.

Seedling items can be sorted by any of the columns provided in this screen by clicking below the desired header of the column to be sorted. Items can also be filtered by selecting the filter icon beside the headings. When filters are applied, they show in yellow.

To update any of the seedling properties, double-click on a seedling row, and use the **Edit Values Online button** to make any edits. "Site Allocations and Planted" in the bottom left of the editing window shows a breakdown of where each crop is being used.

The projects' **Seedlings Tab** allows users to view and update how much of each crop is assigned to individual projects. This displays on the **Planting Tab** when viewing the seedling balance by "Project Assignment".

## 5.4 Seedling Balance

The **Balance Tab** is used to view the balance by seedling, by individual or multiple projects or accounts, for some or all of the sites. Using the **Balance Filter button** to specify which records you wish to compare from which dates.

The screenshot displays the 'Balance' tab in the software. At the top, there are icons for Sync, Balance Filter, Display, and Excel. The 'Account' is set to 'JRP Sample Data' and the 'Year' is '2015'. The main navigation bar includes tabs for Projects, Sites, Seedlings, Planting, Scheduling, Shipments, Seeds, Sowing, Payroll, Balance, and Reports. The 'Balance' tab is active, showing a table with the following data:

Seedling Label	Delivered	Planted	Balance
BA, DPM0049	1,386	1,400	-14
BA_Sample03	250	0	250
BA_Sample04	0	0	0
BA_Sample100			
BA_Sample15-01			
BA_Sample20			
CW, 2014Test15-03	2,000		
CW_Sample01	2,300		
CW_Sample02			
CW_Sample21			
CW_Sample23			
CW_Sample31			
CW_Sample40	0	0	0
HW_Sample22	0	0	0
<b>Totals:</b>	<b>8,471</b>	<b>6,015</b>	<b>2,456</b>

A pop-up window titled 'Planted Details for BA, DPM0049' is open, showing a detailed breakdown of the planted amount for BA, DPM0049:

Location	Date	Amount
Ripple Creek: 166	December 16, 2016	300
Ripple Creek: 166	December 16, 2016	500
Ripple Creek: 166	December 16, 2016	200
Ripple Creek: 166	December 3, 2015	400

Seedling items are displayed on the right-hand side of the screen. Select the two columns of data to be compared from the pull down lists at the top. Your choices are Allocated, Planted, Tallied, Delivered, Assigned, Shipped, Planned/Shipped, and Owned. You can double-click on any of the compared values to see a detailed breakdown. Tallied can be shown as long as all projects in the filter have the same payroll account linked and your login has access.

## 5.5 Seedling Shipments / Deliveries

Seedling shipments and deliveries are used to record the movement of seedlings as they travel from the nursery to the field.

- Shipments - creating and editing shipments is done through the main **Shipments Tab** (or online with SSMS). Use the **Refresh button** to update information from the SSMS server.

Projects	Sites	Seedlings	Planting	Scheduling	Shipments	Seeds	Sowing	Payroll	Balance	Reports
Ripple Creek										
Shipped										
Shipment Code	Ship Date	From:	Last Change:	Trees:	Boxes:					
79215	Dec 20, 2016	Big Tree Nursery	Dec 16, 2016 02:20 PM (jrp_admin)	50000	125					
Seedling	Species:	Boxes:	Trees/Box:	Quantity:						
Sample03	BA	125	400	50000						
Shipment Code	Ship Date	From:	Last Change:	Trees:	Boxes:					
71030	Feb 03, 2015	Big Tree Nursery	Feb 13, 2015 04:36 PM (jrp_admin)	1200	10					
Planned										
Shipment Code	Ship Date	From:	Last Change:	Trees:	Boxes:					
79217	Dec 14, 2016	Big Tree Nursery	Dec 14, 2016 02:17 PM (test@test.com)	3000	2					
Shipment Code	Ship Date	From:	Last Change:	Trees:	Boxes:					
79216	Dec 13, 2016	Big Tree Nursery	Dec 15, 2016 03:12 PM (test@test.com)	12500	10					
Shipment Data Updated (Jan 06, 2017 2:08)										

- Site Deliveries - on the sites' **Deliveries Tab**, you can record trees deliveries taken to and from individual sites. These numbers are commonly used to reconcile tree planter claimed numbers on the **Balance Tab**. Site deliveries can also be recorded on the handheld. You can record deliveries by initials for better tracking.

Edit Site								
Project: Ripple Creek		Site Label: 4999-A						
Summary	Prescriptions	Plots	Wx/Soil	Notes	Deliveries	Planted	Tallies	Costs
Date	By	Seedling	Boxes	Trees/Box	Amount	Notes		
Dec 9, 2015	JP	BA, DPM0049	2.00	400	800			
Feb 18, 2015	SR	CW, Sample0	0.25	1,500	375			
Feb 14, 2015	SR	CW, Sample0	6.60	1,500	9,900			
Feb 12, 2015	JJ	CW, Sample2	9.20	220	2,025			
Feb 1, 2015	JJ	CW, Sample2	22.70	220	4,994	Need to thaw further on site.		

To export seedling deliveries, go to the **Sites Tab** and use the **View All button** to select "Deliveries". You can then export the results to Excel.

**Part**

**6**

## 6 Suitability, Allocation, Planting, Rates

From the **Planting Tab** you can edit and/or view seedling suitability, allocation, planting, deliveries, and rates.

Navigating the **Planting Tab**:




- In the matrix, the projects, sites, and prescriptions are listed down the left side, while the seedling details are listed across the top.
- You can choose which site and prescription fields (in which order) you would like to show on the left, and which seedling fields you would like to see along the top by using the **Display button**. Some fields are recommended to give you optimal viewing. Using the **Restore Defaults button** will automatically select and sort the recommended site headers.
- Using the **Display button**, you can choose how you would like to calculate your seedling balance, as well as select other options for viewing (with shortcut keys):
  - Seedling Balance:
    - *Owned* - this will use the number of trees owned by the account and subtract any allocation (where planting is not done), and planting numbers (where planting is done). For reference, you will also see "# Prj. Assigned", which shows how many trees are assigned to the projects within your view, "Used Elsewhere", which indicates how many trees are allocated to sites in projects not in your view, and "Used", which sums all of the site allocations for the projects within your view.
    - *Project Assignment* - this will use the number of trees assigned to the projects within your view and subtract any allocation (where planting is not done), and planting numbers (where planting is done). You will see "# Owned" for reference as well.
    - *Shipped* - this will use the number of trees shipped to the projects within your view and subtract any allocation (where planting is not done), and planting numbers (where planting is done). You will see "# Owned" and "# Prj. Assigned" for reference as well. There is an option to include planned shipments as well.
  - Additional Info [Ctrl-I to cycle]:
    - *None* - does not show any additional information in the cells.
    - *Show Number of Boxes in the Cells [Ctrl-B]* - shows the estimated number of boxes allocated (or planted if done) in the upper left corner of each cell. This






is calculated based on the number of trees per box. When this option is selected, a hover hint will appear showing the calculation.

- *Show Seed Sown From Sowing Page* - shows the number of trees that were requested to be sown for the seedlot in the upper left corner of each cell. Desired Nursery must match the grow nursery (or be blank).
- *Show Tallies* - shows the number of trees that were tallied in the upper left corner of each cell.
- *Seedling Column Width (in characters)* - sets the width of all the seedling columns to a standard width.
- *Show Details Tool Tip when mouse is over a Cell [Ctrl-T]* - when your mouse moves over cells in the grid, you will see a popup with details of that cell, including sowed, allocated, planted, fertilized, contract rate, planter rate, tallied, and suitability (depending on your permissions).
- *Show surplus Seedlings available on SSMS* - if there is an Internet connection, any seedlings marked as surplus that match the year and season of the loaded projects will show in separate columns. These will match on Year/Season, Alt Year/Alt Season, or Override Year/Override Season if specified. These seedlings cannot be allocated or planted, but are shown in order to help the user identify potential seedlings purchases to fill any shortages.
- *Site Planted amounts [Ctrl-P]:*
  - *Show only if Planting Done* - numbers shown in the grid will be allocated numbers if planting is not done, otherwise planted numbers will show.
  - *Show all planted amounts* - numbers shown in the grid will be planted numbers only regardless of planting status. Balances will use planted numbers only.
- Some display options are available at the top of the screen for quick access:
  - *One Row per Site [Ctrl-R]* - rather than viewing as one row per species prescription, you can view one row per site. This will collapse all species to be listed on one row together.
  - *Show Planted Only [Ctrl-P]* - numbers shown in the grid will be planted numbers only. Balances will use planted numbers only.
  - *Hide Note Indicator [Ctrl-N]* - with this selected, you will no longer see a little green triangle appear in the upper right corner of the grid cells where a note has been entered.

- *Hide Unassociated Seedlings [Ctrl-H]* - this will hide all seedlings along the top that are not directly related to the projects or sites in your view. This includes project and site allocations, deliveries, planting records, contract rates, planter rates, tallies, and notes. Click on the **"i" button** to see what this includes.
- Click on any heading column or row heading to sort data.
- Click on the filter icon beside any heading name to filter the data. To limit your view to just the species you are working on, filter the species column or row.
- Allocations can be entered directly into the grid, whereas you must double-click to add planting and delivery numbers.
- Right-click a cell to quickly set suitability or to allocate trees.
- The **Allocate button** is used to allocate seedlings to sites using the seedling suitability saved for each cell.
- The **Suitability button** sets the seedling suitabilities on each cell based on the suitability criteria you have selected along the bottom of the screen.
- The **Rates button** allows you to set contract, fertilizer, and planter rates.
- The **Scenarios button** allows you to manually save your current seedling allocations in case you need to restore them later. Any time you perform an auto-allocation, a snapshot will automatically be taken just prior to the allocation and saved as a scenario.
- Export or Save to Excel using the **Excel button**.
- For quick navigation, you can go directly to a Planting Unit by double-clicking the Site Label. Leaving the Site Editor open, you can also navigate between sites by selecting another one from the grid in the background.
- For quick navigation, you can go directly to a seedling by double-clicking it.
- When a site is marked as "Planting Done", the planted numbers for that site will appear in the grid and be accounted for in the balance. You will not be able to edit allocation for these sites.

### Symbols:

	Allocations are locked
	"Planting Done" has been checked
	No allocation and/or no planting

	Partially allocated (less than 95%) hover over the symbol to see the details
	Partially allocated or planted - hover over the symbol to see the details
	100% allocated and/or planted
	Site has been allocated and/or planted 105% or more - hover over the symbol to see the details
	A warning symbol to indicate numerous possible conflicts or deficiencies - hover over the symbol to find out what the issues are

## 6.1 Suitability

Suitability criteria are listed along the bottom of the screen.

Elevation, Latitude, Longitude, Seed Zone, and Ecology are used to determine suitability using the GBST (geographic-based seed transfer) system. When using these criteria, seedlings are assessed using all of the criteria selected to determine if they are suitable to be planted in any of the sites.

If BEC Variant is selected, Plant Wizard ignores any other criteria that may be selected. BEC Variant is used to determine suitability using the CBST (climate-based seed transfer) system. The site BEC Variants are compared to each seedlot's area of use BEC Variants to find a match, and if a match is found, the seedling is considered suitable on that site.

If no criteria are selected, no suitability determination is made.

Geographic Suitability Criteria:

- Elevation - seedlings that have an elevation range that covers the site's elevation range will be considered suitable
- Elevation buffer (-/+ ) - using the "-" buffer field allows the seedlings to be moved below their minimum elevation by the amount entered, while using the "+" buffer field allows the seedlings to be moved up past their maximum elevation by the amount entered.
- Latitude - seedlings that have a latitude range that covers the site's latitude range will be considered suitable. If the minimum and maximum latitude for a seedling are identical (but not zero), latitude will automatically be considered a match for that seedling.

- Longitude - seedlings that have a longitude range that covers the site's longitude range will be considered suitable. If the minimum and maximum longitude for a seedling are identical (but not zero), longitude will automatically be considered a match for that seedling.
- Seed Zone:
  - for Class B or B+ seed, SZ-B recorded at the site level must match a seed zone for a particular seedlot to be suitable
  - for Class A seed, SZ-A recorded at the species prescription level must match a seed zone for a particular seedlot to be suitable
- Ecology - evaluated for Class B seed only, if the SZ-B does not match the seedlot's seed zone, but ecology does, the seedlot will be considered suitable

#### Climatic Suitability Criteria:

- BEC Variant recorded at the site level must match a BEC Variant for a particular seedlot to be considered suitable

All seedlings are defaulted to suitability "Not Set" until either suitability criteria are selected and the **Suitability button** is used, or suitability is manually set. Once you start selecting suitability criteria, the cells will change colour so that the right half of the cell shows the currently saved suitability, while the left half shows the live suitability based on the criteria selected.

#### Matrix Color Coding:


Light Green	Preferred (criteria match and seedling stock size is found within the planting unit stock size)
Pink	Suitability not set
White	Suitable
Light Grey	Unsuitable
Light Orange	Current selection
	Seedlot was sown for this site and nursery matches

Manually change seedling suitability by double-clicking the cell and changing suitability, or right-click to change suitability.

If you are using a particular criteria, ensure you have the necessary data entered in the sites and seedlings in order to make a proper determination. If you check on "Ecology", seedlings will try to match based on ecology if the seed zone match fails for B class seed only. Fields that turn green show that the seedling item is preferred on that planting unit because the seedling stock size is found within the planting unit stock type. If you use latitude suitability criteria, any seed that has the same (but not 0) minimum and maximum values will match automatically as long as the other selected criteria also matches. The same is true for longitude. SPAR data accounts for latitudinal and longitudinal seed transfer guidelines and sets minimum and maximum latitude and longitude values the same where they are not pertinent.

Use the **Suitability button** to set the suitability on all site-seedlings to what is calculated using the suitability criteria you have selected. All cells will become the colour indicated in the left half of the cell.

If any seed was sown for a site using the **Sowing Tab**, the cell will be outlined in purple if the seedling nursery matches the desired nursery.

The **Planting Tab** has a feature to check how many seedlings have been allocated or planted in unsuitable locations. Hover over the Unsuitable icon  in the bottom right corner of the screen.

Hover over any cell to see the suitability of all criteria, regardless of the suitability criteria selected. To activate the hover hint, use the **Display button** to check the box for "Show Details Tool Tip when mouse is over a Cell", or use the Ctrl-T shortcut.

To view the suitability details for a site-seedling combination, double-click on a cell to bring up the **Association Details Screen**. Under the **Suitability Tab**, you will see all of the seedling characteristics listed on the left and the site characteristics listed on the right, with a "Test Result" listed for each. If there are any suitability tests that you wish to ignore for a particular site-seedling combination, check the "Ignore" box.

Seedling suitability is visible when selecting seedlings for Deliveries, Planted, and Tallies, and on the **Prescriptions Tab**.

#### SPAR data:

	Class A and B+	Class B
<b>Min / Max Elevation</b>	The intended range of use for the lot.	Transfer limits have been applied to the mean elevation at the time of lot

		registration to indicate the allowable range of use for the lot.
<b>Min / Max Latitude</b>	Will only have a minimum and maximum latitude if they are from a coastal seed planning zone.	Transfer limits have been applied to the mean latitude at the time of lot registration, to indicate the allowable range of use for the lot.
<b>Min / Max Longitude</b>	Will not have minimum and maximum longitude values.	Transfer limits have been applied to the mean longitude at the time of lot registration, to indicate the allowable range of use for the lot. Only lots from interior seed planning zones will have minimum and maximum longitude values.

## 6.2 Allocation

Plant Wizard is designed to manually or automatically allocate seedlings to sites. The [seedling balance](#) can be determined from seedlings owned, project allocated, or shipped by using the **Display button**.

From the **Planting Tab**, you can allocate seedling by entering a number in the grid where the species and prescriptions match.

If you double-click a cell in the grid or right-click a cell, you will be presented with more options. You can choose to allocate "All" which will allocate all the seedlings needed or available of that species, or "All Site Needs" which will allocate all the seedlings needed for the entire site based on availability.

If allocations are locked on any site, you will not be able to manually or automatically update the allocation numbers for it.

The # of boxes is shown calculated as allocation divided by the number of trees per box. Use the **Round button** if you wish to round the allocation number to the nearest box.

You can also allocated seedlings on the **Edit Site Screen** by entering a number under the Allocated column of the **Prescriptions Tab**.

The **Allocate button** is used to automatically assign available seedlings to suitable sites. The objective is to fit selected seedlings to the selected sites in order of site priority (1 being highest priority). Only sites and seedlings selected in the **Auto-Allocate Seedlings Screen** will be included in the allocation. Sites marked as "Allocations Locked" are not included as options in the auto-allocation. There is a checkbox to "Consider Sowing Allocations" which will try to allocate to seedlings where the seedlot was sown and the desired nursery matches the grow nursery (or is blank).

Users can allocate against seedlings owned or seedlings assigned to the project(s) depending on how the seedlings are being balanced using the **Display button**. If you balance against shipped and use auto-allocate, it will allocate to owned but balance to shipped (and planned shipments if selected). When auto-allocating with project assigned selected, each project assignment is considered individually in the allocation process.

To delete allocations, you can drag-select multiple cells and use the **[Delete] button** on your keyboard.

Set your site-seedling [suitability](#) first for best results.

### 6.3 Planting

The number of seedlings planted in each site is recorded in the **Planting Tab**. Alternatively, you can record planting under the sites' **Planting Tab**.

Double-click a cell to record planted numbers, notes, and fertilizer application. You can reference the total site deliveries and tallies from this screen.

Navigating and color coding tips are provided in the [Suitability, Allocation, Planting, Rates section](#).

When planting is completed for a site, edit the site and check "Planting Done". This will check to ensure that the start and finish dates match the planting dates.

### 6.4 Rates

Using the **Rates button**, users can set the contract rate, fertilizer rate, and planter rate. Values can be drag-filled and/or copy and pasted within the grid.

Planter rates are only visible to payroll contractors. The planter rates are used as the pay rate in the **Tallies Tab** and in the Payroll reports.

Contract rates are used in the Schedule B report, the Planting Invoice report, and the Paycert report.

You can drag columns at the top to change the sort order, and you can hide rows with no associated allocation or planting records by checking the box at the bottom.

Export values to Excel by using the **Excel button** in the top right corner.

Rates can also be seen on the **Association Details Screen** that opens when users double-click on a cell within the **Planting Tab** grid.

**Part**



**7**

## 7 Scheduling and Shipments

With the **Scheduling Tab** and **Shipments Tab**, users can schedule planting and project shipments to ensure an adequate supply of seedlings.

### 7.1 Scheduling Trees

Manually schedule planting, or use the **Auto-Schedule button** to schedule planting based on the trees per day entered and the scheduling pattern chosen.

Planned (and Shipped) shipments add to the seedling inventory. This works from shipments downloaded to the desktop from the SSMS server.

When planting numbers are entered for a particular day (does not matter which site), it is assumed that all planting numbers are up to date as of that date, and planning resumes after it.

Right-click a scheduling cell to Auto-Schedule that site, Auto-Schedule Cascade to schedule from the selected site down the list, or Enter Actuals which will open the Site Editor to the **Planting Tab**.

Scheduled amounts are highlighted in orange if there are not enough seedlings to fulfill the planting requirements. Hover over the cell to see the seedling shortages, or use the **Required button** to get a list of shortages and what locations contain the seedlings you need.

Total Balance cells are highlighted in red if the total inventory of seedlings is more than the "Max Seedlings Inventory" specified in the [Projects' Details Tab](#).

Change the order of sites by clicking and dragging the grey square beside the site label, or use the **Sort button** to choose a sorting option.

### 7.2 Seedling Shipments

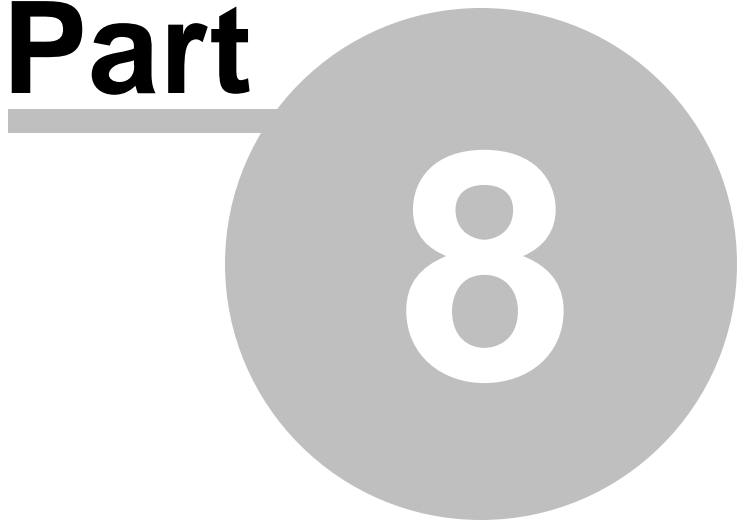
Shipment on the desktop are similar to shipments on SSMS. SSMS shipments are updated when the desktop is synced. Desktop shipments are updated when the desktop is synced and/or when the **Refresh button** is used.

When shipping to a project, the 'Project' list under Shipment Destination only includes projects within the filter year.

Only shipments to the project are shown.

Refer to [Seedling Shipments / Deliveries](#) for more info.

**Part**



## 8 Sowing

Create a project for each account, year and season for sowing seed. If foresters have different geographical areas that they like to manage separately, these can be further broken down into projects as well. These projects will be used for the purposes of creating sow plans, but will also provide the basis for planting when time comes.

There is a Sowing Needs Report that summarizes all the seed needs for any projects and accounts that you select. You can choose to combine projects on the report or keep them separate. If you combine them, any seedlot required by sites from different projects that has the same desired nursery and stock type will be combined in one row and the Project column will list "Multiple". "Seed Needed" is calculated as Total / Seeds Per Gram (or Pound) x Sow Factor x Oversow Factor. Users must fill in the desired Sow Factor and Oversow Factor manually if needed (highlighted in orange).

To specify which units of weight to use, go to the Setup menu and choose Preferences. Select either "Use Metric Weight Units" or "Use Imperial Weight Units". This will change the display of the units, and converts the amounts from one unit to the other.

### 8.1 Seeds

Seed does not sync with the SSMS server, instead it exists only in the desktop database. To create a seed list, you can either create new seed manually using the **New Seed button**, download seed from SSMS using the **Download button**, or import SPAR spreadsheet data using File... Import from Excel... Import Seed Data.

To create a new seedlot, give it a name and choose a species. Fill in the relevant information, including Reserve Potential Trees. You can use the "Calculate Reserve Potential Trees" section at the bottom to determine potential trees from the Grams Reserved. To use this feature, the seedlot needs Grams (or Pounds) Reserved, Seeds Per Gram (or Pound), Germination Rate, and Purity. Germination Rate and Purity will be assumed at 100% for this calculation if they are left blank. If you wish to apply a sow factor, use the second calculation.

You can also use the **Set All Potential Trees button** to calculate the Reserve Potential for all seedlots at once.

If you download seed from SSMS, you can select which accounts to download seed for. Seed owned by or shared with the selected accounts will be downloaded. The Reserve Potential Trees will be automatically calculated upon download as Grams (or Pounds) Available x Seeds/g (or lb). The calculation will also use Germination Rate and Purity if they are entered.

\* Recommended for BC Users \* - Importing seed from a SPAR extract allows you to choose the seed owner and locations you are interested in:

1. From the SPAR website, go to Reports -> Extracts -> Seedlot Extract and request both the SPRX503-SeedlotExtract and the SPRX503-SeedlotExtractForCBST\_AreaOfUse reports by seedlot owner. These reports will be saved with a date/time stamp.
2. In PW, choose File > Import from Excel > Import Seed Data.
3. Choose the **Browse button** to find the Extract Report prefixed with "SeedlotExtractReport".
4. Choose the next **Browse button** to find the Area of Use Report prefixed with "SeedlotExtractReportForCbstAreaOfUseReport".
5. Under "Select SPAR Owner/Locations to Download Reserve Seeds for", select only those owners and locations that you wish to import BOTH reserve and surplus seed for. To see the locations for an owner, expand the list by clicking the arrow beside the owner name.
6. If you wish to download surplus seed from all other owners (those not selected), check the box for "Download SPAR Surplus Seed for ALL Owner/Locations". This includes surplus for owners and locations not selected.
7. Choose whether or not you would like to "Overwrite Existing Seed Data".
8. Choose the **Import button** at the bottom of the screen.

Importing seed from SPAR or downloading from SSMS automatically prioritizes the seedlots. There is also an **Auto-Prioritize button** that will run through all seed in your database and assign them a priority. Priority is given as follows:

- 2 = Owned A Class
- 3 = Surplus A Class
- 4 = Owned B+
- 5 = Surplus B+
- 6 = Owned B Class
- 7 = Surplus B Class

To delete seedlots, select from the list (multiples can be selected using the Shift key or click and drag), and use the **Delete** or **Delete All button**.

To export the seed list to Excel, use the **Excel button** in the top toolbar.

## 8.2 Managing Sow Plans

Sow plans are managed as [projects](#) created for the expected year of planting. Each project needs a list of the sites expected to be planted. These projects can then be reused later for planting purposes which provides the added benefit of seeing which seedlots were originally sown for each site.

Seed allocations, suitability, and desired nursery are synced with the SSMS server, however, seedlots are not. [Seed lists](#) must be created on each desktop separately.

The **Sowing Tab** displays similar to the **Planting Tab**. Sites are listed down the left and seedlots are listed across the top. If a seedlot has been allocated to a site, but the seedlot does not exist in the current desktop database, the seedlot will still appear across the top. If the user clicks on the header, they will be prompted to create the seedlot and fill in the details. This prevents a seedlot being assigned on one desktop and being missed on another. If an allocated seedlot is not in the database, the user will see an allocated amount highlighted in red with a tool tip warning appearing if they hover their cursor over it (if this option is active in the Display Options).

Using the **Display button**, you can choose how you would like to display your data and calculate the seed balance:

- Under "Site Headers", you can choose which site and prescription fields (in which order) you would like to show on the left, and under "Seed Headers" you can select which seed fields you would like to see along the top.
- Under "Balance Against", choose which accounts and projects you want to consider when balancing potential trees and seed amounts.
- *One Row per Site [Ctrl-R]* - rather than viewing as one row per species prescription, you can view one row per site. This will collapse all species to be listed on one row together.
- *Show Details Tool Tip when mouse is over a Cell [Ctrl-T]* - when your mouse moves over cells in the grid, you will see a popup with details of that cell, including allocated, suitability, and a warning when seed is allocated that does not exist in your database.
- *Use Surplus Seed* - Select this option if you would like to use surplus seed where it is available. Seed usage will be balanced using surplus and reserve combined. If not using Surplus Seed, seedlots with only surplus seed amounts will be hidden from view in the Sowing Tab and the auto-allocation window.
- *Hide Unallocated Seed* - Seed that has not been allocated to any sites will be hidden from view.

- *Hide Seed that is not Suitable or Preferred* - Seed that is not suitable or preferred will be hidden.

Suitability and "Apply Suitability" works the same as [Seedling Suitability](#) with the exception of "Preferred" being fully manual.

Auto-allocate works similar to the same function on the [Planting Tab](#). Sowing auto-allocation allocates in order of seed priority and descending potential trees to sites in order of suitability and priority. The seed list in the auto-allocate window is narrowed down to relevant species.

Double-clicking a cell allows users to select the "Desired Nursery" to sow seed at. Much of the other functionality is the same as within the [Planting Tab](#).

Scenarios can be saved of the **Sowing Tab** to aid in backing up data. Scenarios can be restored if needed, overwriting existing data.

To export the sowing matrix to Excel, use the **Excel button** in the toolbar.

**Part**

**9**

## 9 Payroll

Planters, tallies, work, and planter rates can be recorded and reported within Plant Wizard for users that have the Payroll Module. This allows contractors to use the payroll functions in Plant Wizard. Payroll users that have edit permissions can edit and sync any payroll-related changes, whereas other payroll users will only be able to view data.

Payroll users also have Planting Schedule permissions by default on projects they are linked to. This can be turned off manually.

From the **Payroll Tab**, you can use the **Payroll Filter button** to specify your date range and planters that you wish to include or hide. This filter affects all tabs within the **Payroll Tab**, including the **Reports Tab**. Custom date ranges cannot exceed 5 years.

When setting the custom date range, you can use the **Skip buttons** to move back or forward the same number of days in your original date range.

Every project (including archived projects) that contains tallies or work records will be displayed and available to use from the **Payroll Tab**.

**\*\* Note:** Plant Wizard produces gross payroll numbers (which can be exported to Excel). It does not do source deductions as required by most government agencies.

### 9.1 Planters

To add or edit planters, go to the **Payroll Tab** and either use the **Edit Planters button** at the top, or use the **Planters Tab** and double-click on a planter to bring up the **Edit Planters Screen**. Click on the **Add New Planter button** and enter enough information into the "Name" field to help you identify different planters with the same name. This is the field used when entering tallies and work on the desktop and mobile device.

The remainder of the fields are not necessary to fill out unless you want them as reference. Please note that planters' SIN#s are never displayed on the mobile device.

Alternatively, you can import a planter list from MS Excel by going to File > Import from Excel > Import Planters from the main menu. You can also export a list of planters to Excel using the **Excel button**.

Archiving planters removes them from your list of planters to choose from when entering tallies and work, but also removes them from all payroll screens and reports. Archiving data, archives it for everyone you share payroll data with. This feature should only be used if you have run all necessary payroll reports for those planters, typically at the end of the planting season or before the start of the next season if the planters no longer work for you.

A list of favorite planters can be created on the mobile devices under the **Payroll Screen** by clicking on the star beside the planter's name. Planter lists on the **Tallies** and **Planter Work Tabs** will show the favorite planters listed at the top and alphabetically sorted.

## 9.2 Planter Rates

Planter [rates](#) can be accessed using the **Rates button** on the **Planting Tab** and are used by the planting contractor to determine payment to the individual planters and their overall planting costs. Prices are recorded for each seedling and planting unit combination. These rates are only visible to payroll contractors. The planter rates are used as the pay rate in the **Tallies Tab** and in the Payroll reports. If rates do not match between the **Edit Rates Screen** and the **Tallies Screen**, they will be highlighted in yellow.

Prices can be stored to four decimals and are recorded as dollars per seedling.

## 9.3 Planter Tallies

Entering or viewing planter tree tallies on the desktop can be done from the **Tallies Tab** within the **Payroll Tab**:

1. From the **Payroll Tab**, select the the **Tallies Tab**.
2. Use the **Payroll Filter button** to specify your date range and planters that you wish to include or hide.
3. Choose the **New button** and fill in the details including project, site, date, initials, planter, rate, and amount. Note that you can enter tallies for multiple seedlings at once. The rate will automatically fill in if you have the planter rate filled out in the **Edit Rates Screen** on the **Planting Tab**. Rates will be highlighted yellow if they do not match the default planting rate. The new tally will default details from the previous tally entry in order to speed up the process, however, these values can be changed.

The screenshot displays the 'Payroll' tab in a software application. A 'Create Planter Tallies' dialog box is open, allowing users to generate tallies for specific planters. The dialog includes the following fields and options:

- Project:** Ripple Creek (JRP Sample Data)
- Site:** 4999-A
- Date:** Mar 31, 2015
- Initials:** JP
- Planter:** Barb

A summary table within the dialog shows the following data:

Seedling	Rate	Amount	Total
BA, Sample20	\$0.157	250	\$39.25
CW, Sample01	\$0.205	200	\$41.00
BA, DPM0049	-	-	-
BA, Sample03	\$0.20	-	-
BA, Sample04	-	-	-
PLI. 2011TEST0313-ir	-	-	-
<b>Total</b>		<b>450</b>	<b>\$80.25</b>

The background grid shows payroll entries with columns: Date, Initials, Planter, Seedling, Site, Rate, Amount, Total, Project, and Account. The 'Rate' column is highlighted in yellow for several entries.

You can filter and sort data by clicking below the column headings. Data can be exported to Excel using the **Excel button**.

Use the **Work Tab** to record other types of planter pay and deductions.

Planter tallies can also be entered or viewed on the **Tallies Tab** within the **Edit Site Screen** on the desktop, or on the [mobile device](#).

Total tallies can be turned on for reference in the **Planting Tab** grid using the **Display button**.

## 9.4 Work Types

Work Types define all types of work, besides tree planting tallies, that planters would get paid for (or pay deductions). Under the **Payroll Tab**, you can use the **Edit Work Types button** to add new work types, assign a default pay rate (positive or negative), and specify a sequence number to determine the list order.

These work types are used under the **Payroll Tab** when recording work, and under the projects' **Planter Work Tab**.

If there are any unpaid work types that you need to track amounts for, you can leave the "Default Rate" blank. This works in cases where you need to track hours worked without additional payment.

Any work types no longer used or needed for payroll reports can be archived using the **Archive Work Types button**.

## 9.5 Planter Work

Entering or viewing planter work on the desktop can be done from the **Work Tab** within the **Payroll Tab**:

1. From the **Payroll Tab**, select the the **Work Tab**.
2. Use the **Payroll Filter button** to specify your date range and planters that you wish to include or hide.
3. Choose the **New button** and fill in the details including project, date, initials, planter, site (which is optional), rate, and quantity. Note that you can enter multiple work records at once for the same day and planter. The rate will automatically fill in if you have the default pay rate filled out in the work types table. The new work records will default some details from the previous work entry in order to speed up the process, however, these values can be changed.

You can filter and sort data by clicking below the column headings. Data can be exported to Excel using the **Excel button**.

Planter work can also be entered or viewed on the **Planter Work Tab** within the **Projects Tab** on the desktop, or on the [mobile device](#).

## 9.6 Payroll Summary

Under the **Payroll Tab**, the **Summary Tab** shows you (for your filtered date range and planter list) daily total \$, work \$, tally \$, or tally # records by planter or initials. Use the pull down lists to determine grouping and cell values. Totals are calculated for each row and column. Export this data to Excel using the **Excel button**.

## 9.7 Payroll Reports

To generate gross payroll numbers and reports, follow the steps below:

1. Enter the planters as per the ['Planters'](#) section.
2. Enter the planter rates for each site and seedling as per the ['Planter Rates'](#) section.

**\*\* Note:** It is advisable to enter prices for all areas that will be planted before planting commences. This ensures that the default rate is used automatically when new records are created.

3. [Sync](#) your desktop, then any mobile devices.
4. Record planter tallies and work as per the '[Planter Tallies / Work](#)' section.
5. Sync the mobile devices, then the desktop.
6. To view [tallies on the desktop](#), go to the **Tallies Tab** under the **Payroll Tab**. You may have to adjust your Payroll Filter for date range and planters.
7. Tallies can be viewed on the desktop by project. The **Tallies Tab** can be sorted by clicking on the column headers, or by exporting to Excel and sorting there.
9. To add different 'Work Types' and their default pay rate, simply go to the **Projects Tab** and select the **Work Types button**.
10. Once all of the data is in the desktop (via sync), payroll numbers can be generated according to your needs. To generate payroll reports go to the **Payroll Tab** and choose the **Reports Tab**. The payroll reports use the date ranges specified in your payroll filter selections, but includes all non-archived planters that have data within that date range.
  - The Payroll Detail report has an option to email individual planters their payroll numbers. Email addresses must be entered for each planter you wish to email to.

**Part**

**10**

## 10 Plant Wizard on Mobile Devices

Plant Wizard is available as version 2018.1 on older iPads and as version 2020 on newer devices and Android tablets/phones. There are some navigational differences between the 2 versions, but the functionality is the same.

Plant Wizard can be used on a mobile device to track, view, and record the following items (some items are view-only):

- [Site details](#)
- Pre and post plant notes
- [Planting plots](#)
- Seedling details
- [Shipments of seedlings](#) to the project (recorded on SSMS)
- [Deliveries of seedlings](#) to the site
- [Planter tallies](#) and work
- [Planting prescriptions](#)
- [Planted numbers](#)
- Weather and soil conditions

**\*\* Note:** Plant Wizard on mobile devices will sync data with SSMS to update and /or share data with another user via an Internet connection.

To install Plant Wizard onto your mobile device, follow the installation instructions found within "[Mobile Device Installation and Upgrading](#)".

### 10.1 Syncing

All data is transferred to and from the mobile device via syncing with SSMS using an Internet connection (Wi-Fi, cellular network).

#### To get new projects - PW 2018.1

- Choose the Download a Project button at the bottom of the screen. The "Select a Project to Download" window shows you which projects are on the SSMS server for download.

- Click on a project to download it. The projects available for you to download include all the projects within any SSMS accounts you have access to, plus any projects for which you are a contributor or are the designated payroll contractor.

### To get new projects - PW 2020

- Choose the Menu button in the top left corner and choose "Download Project" from the list . The "Download Projects" window shows you which projects are on the SSMS server for download.
- Click on a project to download it. The projects available for you to download include all the projects within any SSMS accounts you have access to, plus any projects for which you are a contributor or are the designated payroll contractor.
- There is an option to Show/Hide Archived projects, however, archived projects cannot be downloaded to the device.

To improve mobile device performance, only load the projects you need.

Any new data collected on the mobile device will be transferred to SSMS when you sync, and any new data that exists on the server for that project will be downloaded to the mobile device.

Choose the **Sync button** (or the "Sync" option under the **Menu button** in PW 2020) when you want to send your changes and receive changes to the selected project on your mobile device.

## 10.2 Navigation

From the first screen in PW 2018.1, you can access Settings and Projects:

- Login - select the login name (or the "Not Logged In" message) in the upper left corner to change or enter a username and select an SSMS server to sync with.
- Initials - select the Initials to enter user initials (to be used when entering Plots, Tallies, and Site Deliveries to help determine where data originated from).
- Settings - select the **Settings button** change the seedling label, the site label, the site sort order, customization, plot GPS location data collection, and enter or sort any quick text you wish to have available anywhere notes are recorded.
- Projects:
  - Select a Project, or use the **Download a Project button** to download a different project.

- The **Download a Project button** talks to the SSMS server and allows you to download other projects that you permissions on.
- The **Sync button** will sync all of the listed projects data with the SSMS server.
- After selecting a project, there is also a project-specific **Sync button** that syncs only the data related to the project selected.

In PW 2020, these options can be found using the **Menu button**:

- The header shows the regional server you are syncing with (North America or Australia), the version and build #, the initials being used and the current login.
- Projects - select a project to view, filter to find a project, delete a project, or show/hide archived projects.
- Download Project - allows users to select projects from the server to download
- Sync - to send your changes and receive changes on your mobile device.
- Settings - set initials, change the seedling label, the site label, the site sort order, customization, plot GPS location data collection, and enter or sort any quick text you wish to have available anywhere notes are recorded.
- Change Login - login as a different user.
- Log Out - log out of PW.
- Help - a device-specific help guide is available.

Selecting a project will take you to the Projects Screen. Use the buttons along the bottom to access:

- Details - Project details including Name, Year/Season, Contact, Plot Multiplier, Site Count, Sites Completed, Email, Phone, etc. There is also a summary section showing you the project status and compares total trees and densities from within the program. You can edit the plot multiplier using the **Set Plot Multiplier button** at the bottom, or sync the selected project only using the **Sync button**.
- Sites - listed by active, planned, and done, accesses Details, Plots, Wx/Soil Conditions (Wx/Soil), Prescriptions, Deliveries, Planted, Tallies, and Balance
- Payroll - a list of planters with their contact information, ability to select favorites, view, edit, and add tallies and planter work by date
- Seedlings - seedling list and details associated with the selected project, and a list of seedling allocations
- Planter Work - view, edit, and create [planter work](#) records

- Shipments - view a list of seedling shipments to (and from) the project created on SSMS
- Balance - shows the balance of shipped, planted, and delivered trees

After selecting a site, you can access:

- Details - site details including PU Name, Block Name, CP Name, Planted status, Priority, Area, Elevations, Dates, Densities, and a summary of the PU status. Users can specify which site details they wish to see at the top of the screen, by selecting the **Site Properties button** (on PW 2018.1) or the **Info button** (on PW 2020) and using the Reorder Mode or Sort. The top 15 properties will be displayed. Enter Site Notes (or Notes) from the **Details Screen**.
- Plots - view, edit, create [plots](#) with associated regen (species composition) and plot errors, filter plots, and view plot summary
- Wx/Soil - view, edit, record weather and soil conditions by date/time
- Prescriptions - edit and create [species prescriptions](#), and view allocated and planted numbers
- Deliveries - view, edit, create [seedling deliveries](#) to the site
- Planted - view, edit, add daily planting records by seedling ID, add post-plant notes
- Tallies - view, edit, create planters' [seedling bagups](#) by seedling ID and date, view production summary
- Balance - shows the balance of Delivered versus Tallied by initials and date

General navigation:

- Use the **Add New button** to add new records.
- Use the **Change Site button** in the top right of any site screen, to quickly switch to another site without having to go back to the **Projects Screen**.

You can delete the following records by swiping to the left and using the **Delete button** on Plant Wizard 2018.1, or by activating the Delete icon on Plant Wizard 2020 (or newer) and use the **Delete button** to the right of the record you wish to delete:

- Sites (only sites that don't exist on the server can be deleted)
- Planter Work

- Plots
- Plot Regen
- Plot Errors
- Deliveries
- Tallies
- Planted
- Conditions
- Notes
- Prescriptions

You can delete individual projects from the mobile device by swiping to the left or activating the Delete icon and using the **Delete button**. This does not delete the project from the server.

If you delete the Plant Wizard app from the mobile device, any unsynced data will be lost.

## 10.3 Plots

### Plot Collection

1. Select 'Plots' from the **Sites Screen**.
2. Select the **Add New Plot button** at the bottom.
3. Fill in the appropriate fields for your plot:
  - Name – Plot name will fill in automatically by auto incrementing the last plot name (if there are any), can be manually changed
  - Initials (Init.) - Initial of data collector will fill in automatically based on the initials from the **Settings Screen**, can be manually changed
  - Plot Type - Audit, Check, Survival, or a custom plot type name
  - Trees Planted (P) – Number of trees planted in the plot
  - Plantable Spots (PS) – Plantable spots in the plot
  - Excess Trees (E) – Number of excess trees planted in the plot. Hidden if using Potlatch customization.
  - Satisfactory Planted (S) – Number of satisfactory planted trees in the plot

- Unsatisfactory Planted (U) – Number of unsatisfactory trees planted in the plot
  - Non-Plantable Spots (NP) – Spots taken up by non-plantable area (this number is added to trees planted to determine planting density)
  - Dropped Trees (Drop) - Any trees noted as dropped in between or within plots
  - Penalty (Pen.) - Any fines associated with the plot or planting unit. Hidden if using Potlatch customization.
  - Latitude / Longitude - Coordinates for this plot, can use **Get From GPS button** if GPS is available. This data may be automatically collected if "Automatically set GPS on new plots" was selected in the project settings.
  - Comments – Plot comments
3. If you are recording naturals at the Plot Regen level, click on the **Add New Regen button** to record well spaced planted and naturals, as well as total planted and naturals by species to get a species composition.
  4. Click on the **Add New Error button** to record planting errors by species (optional) and error code (summarized on the Paycert Report).

### Plot Calculations

On the **Plots Screen** the handheld calculates the following values dependent on the type of plots you are viewing and/or the filter you are using:

- **Qual** - Satisfactorily planted trees divided by plantable spots
- **Ex** - # Excess/Trees Planted
- **Sat** - Satisfactorily planted trees divided by planted trees
- **Plant** - Planted trees divided by plantable spots
- **Spp** - Uses the Total Planted numbers from the regen records to display species mix %
- At the bottom of every column is a total, density and CI-90 (90% confidence interval) calculation

### Plot Filter

There is a **Set Plot Filter button** in the bottom left allowing users to filter plots based on plot type, initials, and/or date. Selecting one of these plot filters will re-calculate the plot

calculations. The filter button will be highlighted in yellow to indicate that it is being used and will show you how many plots are being included.

## 10.4 Australia Plots

The **Plots Screen** allows you to add new plots (**Add New Plot button**), edit plots (click on a row), and delete plots (swipe to the left and choose "Delete", or select the Delete icon and use the **Delete button**). Density, Quality, Target Stocking, Species Mix, Fertilizer Quality and To Be Fertilized are calculated across the top and change based on any plot filters you may have set.

When you add a new plot, or edit an existing one, you will be accessing the **Tree Screen**. Here you can add planted trees (or non-plantable spots) and natural trees. You can track GPS coordinates and comments as well. The bottom of the screen summarizes your tree entries.

For each tree, you can specify the species, above ground, below ground, and fertilizer quality (and ashbed versus non ashbed).

The **Plots Screen** has a **Filter button** at the bottom to allow selection of individual plots. The **Filter button** indicates how many plots are filtered out. The plot calculations change on-the-fly when you filter plots.

## 10.5 Prescriptions

To collect planting prescription data in the field:

1. Choose the **Add New Prescription button** on the **Prescriptions Screen**, then select a species and the Pref species ratio. You may also specify stock type and Min/Max species ratios to help with suitability and automatic allocation. Select a fertilizer code if you plan to fertilize that tree species and specify a %.
2. The **Prescriptions Screen** also contains a summary of seedlings required, allocated, planted, and the suitability of individual seedlings (P = Preferred, A = Acceptable, U= Unsuitable), as well as the area (on larger devices) and planting status.

## 10.6 Deliveries

The mobile device will track signouts to sites:

1. Choose a site, then the **Deliveries button**
2. Select the **Add New Site Delivery button**
3. A list of seedlings that have been associated with the project will appear on the handheld with an indication of which ones are preferred, acceptable, and

unacceptable. There are also symbols indicating which seedlings have already been delivered, allocated, planted, and/or tallied on that site.

4. Enter the number of boxes or seedlings you are signing out.
5. The other fields are filled in automatically but can be changed manually if needed. Notes can be added if desired.

The **Add New Site Return button** simply adds a negative delivery record and is used to send any unused trees back at the end of the day.

## 10.7 Planting Numbers

The number of seedlings planted of each seedling item in each site is recorded on the **Planted Screen**. Choose the **Add New Planted button** at the bottom, then select a seedling item from the list and enter in the amount planted. Seedlings have indicators showing which ones are preferred, acceptable, unacceptable, allocated, delivered, planted, and tallied. You can specify whether or not the trees were fertilized by editing the Fert. field.

## 10.8 Planter Tallies / Work

Plant Wizard tracks individual [planter tallies](#) and other [work types](#). Tallies can be entered on the handheld then synced to SSMS, or [entered directly into the desktop](#). Once on the desktop, they can be used for [payroll reports](#).

Planters must be [created on the desktop](#) prior to syncing to SSMS and the mobile device. Planters can enter each bagup, or the foreman can enter daily totals as a summary.

Planter work items other than tree tallies can also be tracked on the mobile device. Work is tracked at the project level and/or site level, whereas tallies are tracked by site.

A list of favorite planters can be created on the mobile devices under the **Payroll Screen** to aid in quick data entry. Indicate a favorite planter by selecting the star symbol beside the planter name. Planter lists on the **Tallies** and **Work Screens** will show the favorite planters listed at the top and alphabetically sorted.

The **Payroll Screen** can be used to quickly add tallies and work for each day without having to go to the **Work** or **Tallies Screens**.

## 10.9 Seedling Balance

The **Balance Screen** at the Project level is used to view the balance between seedlings shipped to the project, planted, and delivered to the project's sites.

---

The **Balance Screen** at the Site level is used to view the balance between seedlings delivered to the site and seedlings tallied. The balance is shown by initials and date.

**Part**

**11**

## 11 Reports

Some of the reports will prompt the user for additional information before running (date range, blocks, sites, plot types, etc.). If you select more than one site to run a report on, the extra sites will be added to the existing report and calculations will include all sites. If you wish to run individual reports for multiple sites at once, choose "Run Batch", select the sites and choose whether you want one report per block or one report per site. Each block or site report will be exported as an Excel sheet.

With the exception of the Payroll Detail, Plot Analysis, and the Export reports, all the reports in Plant Wizard can be customized by the user in MS Excel.

The report files are specifically named so that Plant Wizard can identify them as Plant Wizard reports and provide the correct data for them. The file name contains two parts separated by an underscore (ie. POSTPLANT\_Seedlings Planted.xls).

- The first part of the example file name (POSTPLANT) identifies the report type so when it runs, Plant Wizard will send out the relevant information.
- The second part of the name (Seedlings Planted) is displayed as the report name in the **Reports Tab**.

There are 2 report directories:

- CustomReports – contains any reports specific to your operation. Any reports that you have edited can be placed here to show under the 'Custom Reports' section.
- ReportsTemp\_Volatile – reports within this folder are replaced when Plant Wizard is opened and after upgrade to ensure users have the latest version.

To determine which section a report will appear under (and the description of it), navigate to the appropriate report folder and edit the .txt file associated with the report. On the first line enter the section name you wish the report to appear in on the **Reports Tab** and on the second line enter a report description.

If you wish to [customize](#) any of the reports, use "Clone Report", give it a new name, and edit it from the CustomReports folder.

Most Plant Wizard tabs also have the option to send data to MS Excel where data can be sorted, manipulated, and printed.

### 11.1 Customizing Reports

#### Customize a Report

Any reports that show the **Clone Report button** when selected, can be customized.

1. In the **Reports Tab**, select the report you wish to customize, and click the **Clone Report button**.
2. After giving the report a name and an optional description, the report will open and you can edit it.
3. If you need data in the report in order to edit it, run the original report from within Plant Wizard, open your custom report (using Windows Explorer), and copy the resulting "Data Tables" sheet from the original to your custom report. The Data Tables contain the field names and ranges that you may need for customizing your report.
4. Make the necessary edits to your custom report and delete the Data Tables sheet when you are happy with it.
5. This custom report will appear in the Custom Reports section in Plant Wizard.

### Rules for Single Fields

To ensure good results, there are several rules that need to be followed when editing a template.

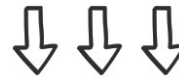
- They can be placed anywhere on the report and are referenced by a specific formula.
- They are named to be easily identified.
- They can be formatted in any way.
- Their cells and resulting values can be referenced to other worksheets for summarizing, etc.

### Rules for Repeating Rows of Data

Rows of data are treated differently when the number of rows is variable depending on the number of records in the database (i.e. number of plots relative to a site - the site name is a single field but the plot data is a variable number of rows for each site).

- These rows of data will exist in a specified range within the Data Tables worksheet.
- To reference a range of data from the Data Tables worksheet, select a row of cells on your report and type in 'Fill\_rangename' in the formula editor.

Nursery	PlantingCost	SeedlingCost	SeedlingLabel	SiteArea	SiteName	Species	StockAge	StockSize	StockType	TreesPlanted
NUR2	0.512	0.052	2009DSI0034	20	3339 - A	CW	1+0	412B	PSB	325
NUR1	0	0.051	2009RQ0007	20	3339 - A	Hw	1+0	412A	PSB	200
NUR1	0.512	0.045	09M08LVM04A	20	3339 - A	FDC	1+0	412B	PSB	250



Site Name	Seedling Label	Nursery	Planted	Cost (\$)/Tree	Planting (\$)/Tree	Seedling \$	Planting \$
SiteName	SeedlingLabel	Nursery	TreesPlanted	dlingCostAtNursery	PlantingCost	#VALUE!	#VALUE!
Total			#REF!			#VALUE!	#VALUE!

- For individual cell references, specify the column heading names from the Data Tables (ex. SiteLabel, SeedlingLabel, Nursery, etc).
- A range can only be used once for the entire workbook. If there is more than one instance of it, only the first range will get data.
- New rows are inserted as needed when the report is run.
- All data and ranges below a range are moved downward to accommodate the rows needed when the report is run.
- To change the defined range in Excel use the Name Manager.

**\*\* Note:** This is the most complex area of the report and should be edited very carefully. Failure to follow the rules associated with ranges can cause the entire report to fail.

## 11.2 Silviculture and Inventory Labels

The silviculture and inventory labels that are produced for some of the reports are based on the plot types selected when the reports are run.

### Silviculture Label

- species composition is determined using the plot regen well-spaced planted (WSP) + well-spaced natural (WSN) numbers by species
- age and height come directly from the Stand Age and Stand Height fields at the site level
- site index and source come from the Site Index and Site Index Src fields at the site level
- well spaced density is determined using the plot regen well-spaced planted (WSP) and well-spaced natural (WSN) numbers combined, capping each plot at the maximum of the WS target density<sup>1</sup> / plot multiplier
- 2-digit survey year reflects the project year

<sup>1</sup> - uses "Target Density" if "WS Target Density" is blank

### Inventory Label

- species composition is determined using the plot regen total planted (TP) + total naturals (TN) numbers by species to the nearest 10%
- age and height come directly from the Stand Age and Stand Height fields at the site level
- site index and source come from the Site Index and Site Index Src fields at the site level
- crown closure comes from Crown Closure at the site level
- total density is determined using the plot regen total planted (TP) and total naturals (TN) numbers combined
- 2-digit survey year reflects the project year

**Part**

**12**

## 12 Appendix A: "How To" Guide

Click on the links below for further information on each of the topics.

### Managing Plant Wizard Licenses:

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- [Installing PW](#)
- [Upgrading PW](#)
- [Registering PW](#)
- [Setting up Payroll](#)

### Preferences:

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- [Plot multiplier](#)
- [Recording Naturals at the Plot or Plot Regen level](#)
- [Setup custom plot type names](#)
- [Seed, seedling and site labels](#)
- [Metric versus imperial](#)
- [Auto populate "Initials" fields](#)
- [Setting a minimum planting quality %](#)

### Entering Project Data:

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- [Importing project data from Excel](#)
- [Importing project data SSMS](#)
- [Manually entering project data](#)

### Managing Sowing:

---

- [Setting up sow plans \(projects\)](#)
- [Importing or downloading seed](#)

### Managing Seedlings:

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- [Importing seedlings from SSMS](#)

- [Comparing seedling balances](#)
- [Tracking seedling deliveries](#)
- [Tracking seedling deliveries \(signouts\) on mobile device](#)

### Tree Planting:

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- [Recording planter tallies on the desktop](#) and [on the mobile device](#)
- [Recording planted trees \(reconciled\)](#)
- [Recording planting plots](#)

### Financial Data:

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- [Contract prices](#)
- [Planter prices](#)
- [Managing payroll data](#)

### Exchanging Data:

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- [Exchanging data with SSMS](#)
  - [Importing seedlings](#)
- [Exchanging data with Excel](#)
  - [Exporting seedlings](#)
  - [Importing projects](#)
  - [Exporting projects](#)
  - [Exporting allocations](#)
- [Exchanging data with other PW users](#)
- [Exchanging data with mobile devices](#)
  - [Loading data](#)
- [Exchanging data with LRM](#)

### Reports:

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- [Managing reports](#)

**Part**

**13**

## 13 Appendix B: Troubleshooting

### Startup

---

#### Why is Plant Wizard slow to start at times?

Turn off windows automatic proxy setting detection:

1. Click "Start" and "Control Panel".
2. Double-click "Internet Options".
3. Click the Connections tab and click on "LAN Settings". This will open the Local Area Network (LAN) settings window.
4. Uncheck "Automatically detect settings". Click "OK".
5. Restart your computer.

### Seedling Allocation

---

#### How do I reallocate some of my seedlings without losing all of the current allocations?

For sites that you want to leave untouched, check the box called "Locked" on the **Site Tab** (or leave them unselected during the [auto allocation](#) process).

### Payroll

---

#### Why can't I see or enter Planters, Tallies, Work, Planter Rates?

Ensure that you have payroll permissions for the projects you are working on.

**Part**

**14**

## 14 Appendix C: Technical Support

### Help Desk:

Technical support is available for licensed Plant Wizard users.

The Help Desk is open Monday to Friday, 8:30 a.m. to 5:00 p.m. PST. We are closed for Canadian statutory holidays.

We can be reached in the following ways:

**Phone:** (250) 703-0451 ext. 300

**E-mail:** [support@jrpltd.com](mailto:support@jrpltd.com)

Please have the following information available when contacting us:

- Operating system (i.e. Windows version or iOS version)
- Plant Wizard desktop version
- Plant Wizard device version
- Any error messages that may have occurred

### Help Manual:

Plant Wizard help manual is available from the Help menu.

### Cheat Sheets:

Task oriented help is available in short individual "Cheat Sheets" available online and under the Help menu.

### Help Videos:

Task oriented help is available in short individual videos available online and under the Help menu.

### Sync Logs:

To see previous sync logs, look under the Help menu.

### Online Support:

Visit our online support website at <https://plantwizard.jrpltd.com/support/>.

# Index

## - % -

% Humidity 37

## - . -

.pw7 16

.xls 40, 44, 55, 75

## - 6 -

6" Soil Temperature 37

## - A -

A Class Seed 33

A% 26

Above Ground 87

Above Ground Plot 35

Acceptable 87

Account 19

    Preferences 12

Accounts

    Managed 55

    Unmanaged 55

Air Temperature 37

Allocated 21, 33

Allocated to Site 21

Allocation 59

    Project 55

    Seed 72

    Seedling 65

    Troubleshooting 99

Allocations Locked 29, 65, 72

Amount Assigned 21

Amount Assigned Server 21

Android 8, 81, 82, 85, 87, 88

Android Phone

    Installation 9, 11

    Upgrade 9, 11

Android Tablet

    Installation 9, 11

    Upgrade 9, 11

App Store 9, 10

Apply Suitability 62, 72

Archive

    Project 19

Archive Planters 75

Archive Work Types 77

Assigned 21

Assigned to Other Projects (SSMS) 21

Association Details 62

Audit Plot 35, 85

Australia 12

Australia Plots 35, 87

Australia Plotting System 12, 33

Auto Allocate 59, 65, 72

Auto Suitability 72

Auto-Prioritize 70

Avery Label 91

## - B -

Bagup 38, 76

Balance 55, 56, 72, 82, 88

Balance Against 72

Balancing Numbers 56, 88

BEC Variant 4, 29, 62

Begin 7

Below Ground 87

Below Ground Plot 35

Buffer 62

Buttons 14

## - C -

Calculations 85

CBST 4, 29, 62

Cell Ranges 91

Cell Value 78

Cengea 16, 17, 44

Change Project 26

Changes 26

Charges 35

Cheat Sheets 101

Check Plot 35, 85

CI-90 35

Class A 33, 62, 70

Class B 62, 70

Class B+ 62, 70  
 Climate-Based Seed Transfer 62  
 Clone Report 91  
 Clone Site 26  
 Cloudy 37  
 Code Lists  
   Cost 12  
   Costs 25, 38  
   Fertilizer 12  
   Plot Errors 12  
   Site Conditions 12  
 Collecting  
   Planting Plots 85  
   Prescription Data 87  
 Colour Coding 59, 72  
 Comments 37  
 Comparing Numbers 56, 88  
 Compilation 35  
 Confidence Interval 35  
 Connect 44  
 Contract Rate 59, 66  
 Contractors 2  
 Contributor 24  
 Cost Codes 12, 25  
 Costs 25, 38, 78  
 Create  
   Project 19  
 Criteria 62  
 Customize 12, 91  
   Reports 91

## - D -

Data Exchange 16  
   Excel 16  
   JRP SSMS 16, 38  
   Server 16, 38  
 Database 8, 101  
 DataLink 44  
 Deductions 25, 78  
 Default Plots 35  
 Default Plotting System 33  
 Default Rate 77  
 Default Settings for Payroll Users 24  
 Delete  
   Mobile Device Data 82  
   Project 19  
   Seed 70

  Site 26  
 Deliveries 26, 37, 56, 59, 66, 81, 87  
   View All 26  
 Density 35, 85  
 Density Summary 21, 33  
 Desired Nursery 72  
 Desktop  
   Activation 8  
   Installation 8  
   Registration 8  
   Upgrade 8  
 Details 25  
 Display 14, 26, 55, 59, 72  
 Downloading  
   Seed 70  
   Seedlings 55  
 Dropped Trees 35  
 Dry/Wet 37

## - E -

Ecology 62  
 Edit  
   Reports 91  
   Values Online 55  
   Work Types 77  
 Edit Sites 26, 29  
 Elevation 62  
 Email 101  
 Error Codes 12, 35  
 Errors 35, 85  
 Excel 14, 16, 40, 55, 78, 91  
   Exporting 16, 40, 44  
   Importing 16, 40  
   Reports 91  
 Excess 85  
 Excess % 35  
 Exchanging 16, 38  
   Cengea 44  
   Genus 44  
   LRM 44  
   Resources 44  
 Exporting 16, 38, 40, 78  
   Cengea 17, 44  
   Excel 16, 44, 55  
   Genus 17, 44  
   LRM 17, 44, 52  
   Phoenix Connect 53

Exporting 16, 38, 40, 78  
 Phoenix Pro 17, 52  
 Planters 75  
 Resources 17, 44  
 Seedlings 55  
 TFM 17, 52  
 Ext Act ID 29  
 Ext PU ID 29  
 External ID 29

## - F -

Faults 35, 85  
 Favorite Planters 75  
 Features 2  
 Fert Type 33  
 Fert. % 33  
 Fert. Code 33  
 Fertilized 38  
 Fertilizer 33, 66, 87  
 Codes 12  
 Rate 66  
 Fertilizer Plot 35  
 Fertilizer Rate 59  
 Filename 91  
 Files 8, 16, 40, 91  
 Filter 14, 19, 26, 85  
 Final Plot 35  
 Finish Date 29  
 Forester 2  
 Formulas 91

## - G -

GBST 62  
 Genus 16, 17, 44  
 Geographic-Based Seed Transfer 62  
 Germination Rate 70  
 Getting Started 7  
 Google Play Store 9, 11  
 Group By 78

## - H -

Hard drive 8  
 Help 99, 101  
 Hide 59

Hide Unallocated Seed 72  
 Home Screen 19  
 Host Name 44  
 Hours 78  
 How to... 96, 99

## - I -

Ignore 62  
 Imperial Weight Units 70  
 Importing 16, 38  
 Cengea 44  
 Excel 16, 40, 75  
 Genus 44  
 LRM 44  
 Planters 75  
 Prescriptions 40  
 Resources 44  
 Seed 70  
 Seedlings 55  
 Sites 40  
 SSMS 55  
 Indicator 59  
 Information 82  
 Initials 82  
 Installation 7, 81  
 Android Phone 9, 11  
 Android Tablet 9, 11  
 Desktop 8  
 iPad 9, 10  
 iPad Mini 9, 10  
 iPhone 9, 10  
 Internet 81  
 Introduction 2  
 Inventory Label 29, 93  
 iOS 9, 10, 81, 82, 85, 87, 88  
 iPad 8, 16, 81, 82, 85, 87, 88  
 Installation 9, 10  
 Upgrade 9, 10  
 iPad Mini  
 Installation 9, 10  
 Upgrade 9, 10  
 iPhone 8, 81, 82, 85, 87, 88  
 Installation 9  
 Upgrade 9  
 iTunes 9, 10

**- J -**

JRP SSMS 16, 38  
 Importing 55

**- L -**

Label 91  
 Inventory 29  
 Silviculture 29  
 Labels  
 Inventory 93  
 Report 93  
 Silviculture 93  
 Latest 4  
 Latitude 35, 62  
 Legend 62  
 Licence 8  
 Load Excel File 40  
 Loading data 81  
 Lock 59  
 Locked Allocations 65  
 Login 12, 24, 82  
 Longitude 35, 62  
 LRM 16, 17, 44, 52  
 LRM Export 29

**- M -**

Manual 101  
 Map Legends 37  
 Matrix 59  
 Max % 33  
 Max Seedling Inventory 12, 25  
 Max Seedlings Inventory 68  
 Menus 14  
 Messages 19  
 Metric Weight Units 70  
 Microsoft .NET 8  
 Microsoft .NET Framework 8  
 Microsoft Excel 8  
 Min % 33  
 Minimum System Requirements 8  
 Mobile Device 81, 85, 87, 88  
 Delete Data 82  
 Loading data 17

Navigation 82  
 Syncing 17  
 Move Plots 26  
 Move Sites 26

**- N -**

Naturals 35  
 Navigation 14, 82  
 Network 8  
 New  
 Features 4  
 Project 19  
 Seed 70  
 Site 26  
 User 2  
 Non-Audit 85  
 Non-Plantable Spots 35, 85  
 North America 12  
 Not Set 62  
 Notes 37  
 NP 85  
 Nurseries 2

**- O -**

One Row Per Site 59, 72  
 Operations 12  
 Options 12  
 Owned 21

**- P -**

P% 26  
 Password 12  
 Pay Period 78  
 Paycert 35, 59, 66, 85  
 Paycert Report 29  
 Paycert Reports 37  
 Payments 78  
 Payroll 16, 25, 38, 59, 75, 78, 82, 88  
 Contractor 25  
 Filter 75, 76  
 Report 66  
 Summary 78  
 Tab 77  
 Tallies 38

Payroll	16, 25, 38, 59, 75, 78, 82, 88
Troubleshooting	99
Users	75
PC	8
Penalties	35
Penalty	85
Performance	35
Permissions	24
Phoenix Connect	53
Phoenix Connect Planting Export	53
Phoenix Connect Regen Export	53
Phoenix Planting Export	52
Phoenix Pro	16, 17, 52
Phoenix Regen Export	52
Phone	8, 101
Planned Planting	68
Plant Type	12
Plantable %	35
Plantable Spots	35
Planted	33, 38, 59
Planter	
Archive	75
Bagups	76
Create	75
Email	78
Favourites	75, 82
Information	75
New	75
Payroll	75, 78
Planter Data	75
Planter Details	75
Planter Information	75, 76, 78
Prices	76
Production	88
Rate	59, 66
Rates	75, 76, 78
SIN	75
Tallies	38, 59, 75, 76, 78, 88
Work	25, 75, 78, 88
Work Types	78
Planters	2, 12, 81
Planting	19, 26, 38, 40, 44, 81
Done	66
Invoice	59, 66
Numbers	66, 88
Planting Screen	66, 88
Seedlings Planted	66, 88
View All	26
Planting Density	29
Planting Done	29
Planting Tab	62
Plot Multiplier	25
Plot Type	12, 35
Plots	26, 35, 81
Above Ground	35
Audit	85
Below Ground	35
Calculations	85
Check	85
CI-90	35
Collection	85
Comments	35
Date	35
Density	35
Dropped Trees	35
Error Codes	12
Errors	35, 85
Excess	35, 85
Fault Codes	12
Faults	35
Fertilizer	35
Filter	85
Initials	35
Latitude	35
Longitude	35
Move	26
Multiplier	12
Name	35
Naturals	35
Non-Plantable Spots	35, 85
Penalty	35
Plantable Spots	35, 85
Planted	35
Plot Type	35
Quality	35, 85
Regen	35, 85
Results	85
Satisfactorily Planted Trees	85
Satisfactory	35
Survival	85
Unsatisfactory	35
View All	26
Well Spaced	85
Plots Summary	21, 33
Plotting System	12
Post-Plant Notes	37

- Potential Trees 70
  - Potlatch Daily Planting Report 29, 37
  - Potlatch Planting Summary Report 29, 37
  - Potlatch Summary for Tree Planting Payment Report 29
  - Precipitation 37
  - Pref % 33
  - Preferences
    - Account 12
    - User 12
  - Preferred 62, 87
  - Pre-Plant Notes 37
  - Prescription Mapping 40
  - Prescriptions 19, 33, 38, 40, 44, 65, 81, 87
  - Preview Site Data 40
  - Prices 76
  - Production Summary 21, 33
  - Program
    - Files 8
  - Project 12
    - Active 19
    - Allocated 21
    - Archive 19
    - Assigned 21, 55
    - Contractor 25
    - Costs 25, 38
    - Create 19
    - Delete 19
    - Delivered 21
    - Details 25
    - Exporting 17, 40, 44, 52, 53
    - Filter 14
    - Importing 40, 44
    - Messages 19
    - New 19
    - Planted 21
    - Planting Prescriptions 19, 40, 44
    - Plot Multiplier 25
    - Prescribed 21
    - Production 21
    - Screen 82
    - Seed 21
    - Seedlings 21
    - Shipments 56
    - Sites 19
    - Species Prescription 19
    - Summary 21
    - Tab 19
    - Tallied 21
    - Unlink Seedlings 21
  - Project Filter 14
  - Project Shipments 68
  - Prorate 25
  - Proxy 99
  - Purity 70
- Q -**
- Quality % 35
- R -**
- Rates 66, 76, 78
    - Contract 59
    - Fertilizer 59
    - Planter 59
  - Refresh Values 55
  - Regen 35, 85
  - Region
    - Australia 12
    - North America 12
  - Register 8
  - Registration 8
  - Remaining 21
  - Reports 78, 91
    - Clone 91
    - Copying 91
    - Customize 91
    - Descriptions 91
    - Directory 91
    - Editing 91
    - Excel 91
    - Files 91
    - Paycert 35, 59
    - Payroll 59, 91
    - Planting Invoice 59
    - Plot Analysis 91
    - Reports Directory 91
    - Reports Screen 91
    - Run 91
    - Run Batch 91
    - Schedule B 59
    - Sections 91
    - Silviculture and Inventory Labels 93
    - Sowing Needs 70
- 
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Reports 78, 91  
 Tab 91  
 Templates 91  
 Required 33  
 Fields 25, 29  
 Reset Display Settings 12  
 Resources 16, 17, 44  
 Round 65  
 Run Batch 91

## - S -

Satisfactory % 35  
 Satisfactory Trees 35, 85  
 Scenarios 59, 72  
 Schedule B 59, 66  
 Scheduling 68  
 Scheduling Seedlings 68  
 Screens 14  
 Seed 62  
 Add 70  
 Allocated other Projects 21  
 Allocated to Sites 21  
 Allocation 72  
 Auto-Prioritize 70  
 Create 70  
 Delete 70  
 Download 70  
 Edit 70  
 Export to Excel 70  
 Germination Rate 70  
 Import 70  
 New 70  
 Owner 70  
 Potential Trees 70  
 Priority 70  
 Properties 70  
 Purity 70  
 Reserve 70  
 Sow Factor 70  
 SPAR Seed 70  
 Suitability 72  
 Surplus 70, 72  
 Seed Allocation 72  
 Seed Needed 70  
 Seed Planning Zone 62  
 Seed Suitability 72  
 Seed Zone 62  
 Seedling 38, 55  
 Add 55  
 Allocation 55, 65  
 Balance 55, 56, 88  
 Clone 55  
 Column Width 59  
 Delete 55  
 Deliveries 37, 56  
 Information 55, 56  
 Label 82  
 New 55  
 Numbers 56  
 Properties 55  
 Screen 55  
 Shipments 56  
 Signouts 56  
 Suitability 59, 87  
 Tab 21  
 Unlink 21  
 Seedling Inventory 68  
 Seedling Shipments 68  
 Seedlots 62, 70, 72  
 Sequence 77  
 Server 16, 38  
 Server Login 82  
 Service Name 44  
 Settings 12  
 Setup 12  
 Sharing 16, 38  
 Shipment # 25  
 Shipments 25, 56, 68  
 Show Surplus 59  
 Signouts 87  
 Silviculture Label 29, 93  
 Site Conditions Codes 12  
 Site Details 29  
 Site Properties 29  
 Site Property Mapping 40  
 Sites 19, 26, 29, 44  
 Allocated 33  
 Allocations Locked 29  
 Clone 26  
 Comments 37  
 Contractor 29  
 Costs 38  
 Current Density 29  
 Delete 26  
 Delivered 33

Sites 19, 26, 29, 44  
     Deliveries 37, 56  
     Details 29  
     Edit 26, 29  
     Ext. Act. ID 29  
     Ext. PU ID 29  
     External ID 29  
     Fertilized 38  
     Fields 29  
     Move 26  
     New 26  
     Notes 37  
     Planted 33, 38  
     Planting Density 29  
     Plots 35  
     Prescribed 33  
     Prescriptions 33  
     Priority 29  
     Production 33  
     Properties 29  
     Required Fields 29  
     Screen 82  
     Species 33  
     Summary 33  
     Tallied 33  
     Target Density 29  
     Trees Needed 29  
 Slow 99  
 Snapshots 72  
 Snow 37  
 Software Upgrades 8, 9, 10, 11  
 Soil Conditions 37  
 Soil Conditions Codes 12  
 Sort 14, 26, 59  
 Sow Factor 70  
 Sow Plan 70, 72  
     Export to Excel 70  
     Print 70  
     Report 70  
 Sowing 70, 72  
     Export to Excel 72  
 Sowing Needs 70  
 SPAR 62  
 SPAR Seed 70  
 Species 19, 33  
     Prescriptions 33  
 SSMS 16, 38  
     Importing 55

Start 2, 7, 14  
 Start Date 29  
 Startup 99  
 Stock Size 62  
 Stock Type 33, 62  
 Suitability 59, 62, 65, 72, 87  
 Suitable 62  
 Summary 21, 33, 78  
 Support 101  
 Surplus Seed 72  
 Surplus Seedlings 59  
 Survival Plot 35, 85  
 Symbol 59  
 Sync 12, 14, 16, 17, 26, 38, 81, 88  
 Sync History 26  
 Sync Logs 101  
 System Password 12  
 SZ-A 33

## - T -

Tablet 8, 81  
 Tabs 14  
 Tallies 38, 59, 66, 75, 76, 77, 78, 81, 88  
 Target Density 29  
 Technical Support 101  
 Templates 91  
 Test Result 62  
 TFM 16, 17, 52  
 TFM Export 29  
 To Be Planted 33  
 Toolbar 14  
 Tot. N 85  
 Tot. P 85  
 Total Stems 85  
 Transfer Limits 62  
 Tree Screen 87  
 Troubleshooting 96, 99  
     Allocation 99  
     Payroll 99

## - U -

Unlink Seedlings 21  
 Unsatisfactory Trees 85  
 Unsuitable 62, 87  
 Upgrade 8

Upgrade 8  
  Android Phone 9, 11  
  Android Tablet 9, 11  
  Desktop 8  
  iPad 9, 10  
  iPad Mini 9, 10  
  iPhone 9, 10  
User 8  
  Preferences 12

## - V -

Videos 101  
View All 56  
  Deliveries 26  
  Planting 26  
  Plots 26  
Viewing a report 91  
Visibility 59

## - W -

Warning 59  
Weather Codes 12  
Weather Conditions 37  
Weight Units 70  
Well Spaced 85  
What's New 4  
Wi-Fi 81  
Wind Direction 37  
Wind Speed 37  
Windows 8  
Work 25, 75, 78, 81, 88  
Work Types 12, 75, 77, 78, 88  
WS N 85  
WS P 85  
WS Target 29  
Wx/Soil 37

## - Y -

Year 19