

BG-Map

Mapping the world... one plant at a time

Garden Notepad Plus Users Manual



Garden Notepad Plus version 4.2.5
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What is Garden Notepad Plus?

GN+ is a time and labor saving software application that allows garden staff to capture information about the size and condition of plants in the field on an iPad and automatically upload and transfer that information to *BG-BASE*. To use GN+, you must first install, Web-VQF, the BG-Map web interface.

What Data Can You Record With Garden Notepad Plus?

GN+ allows you to record:

- ❖ Condition
- ❖ Images
- ❖ DBH
- ❖ Number of Trunks
- ❖ Sex
- ❖ Reproductive Status
- ❖ Vegetative Status
- ❖ Container
- ❖ Die Why
- ❖ Location
- ❖ Number of Plants
- ❖ Special Characteristics
- ❖ Spread
- ❖ Height
- ❖ Check Note
- ❖ Performance Note
- ❖ Labels Existing
- ❖ Labels Needed
- ❖ Tree Hazard Score, Comments and Recommended Action
- ❖ Up to 6 Images per Plant
- ❖ iTree Data

Starting Garden Notepad Plus

Tap the GN+ icon on the iPad home screen.

About Garden Notepad Plus Inventories

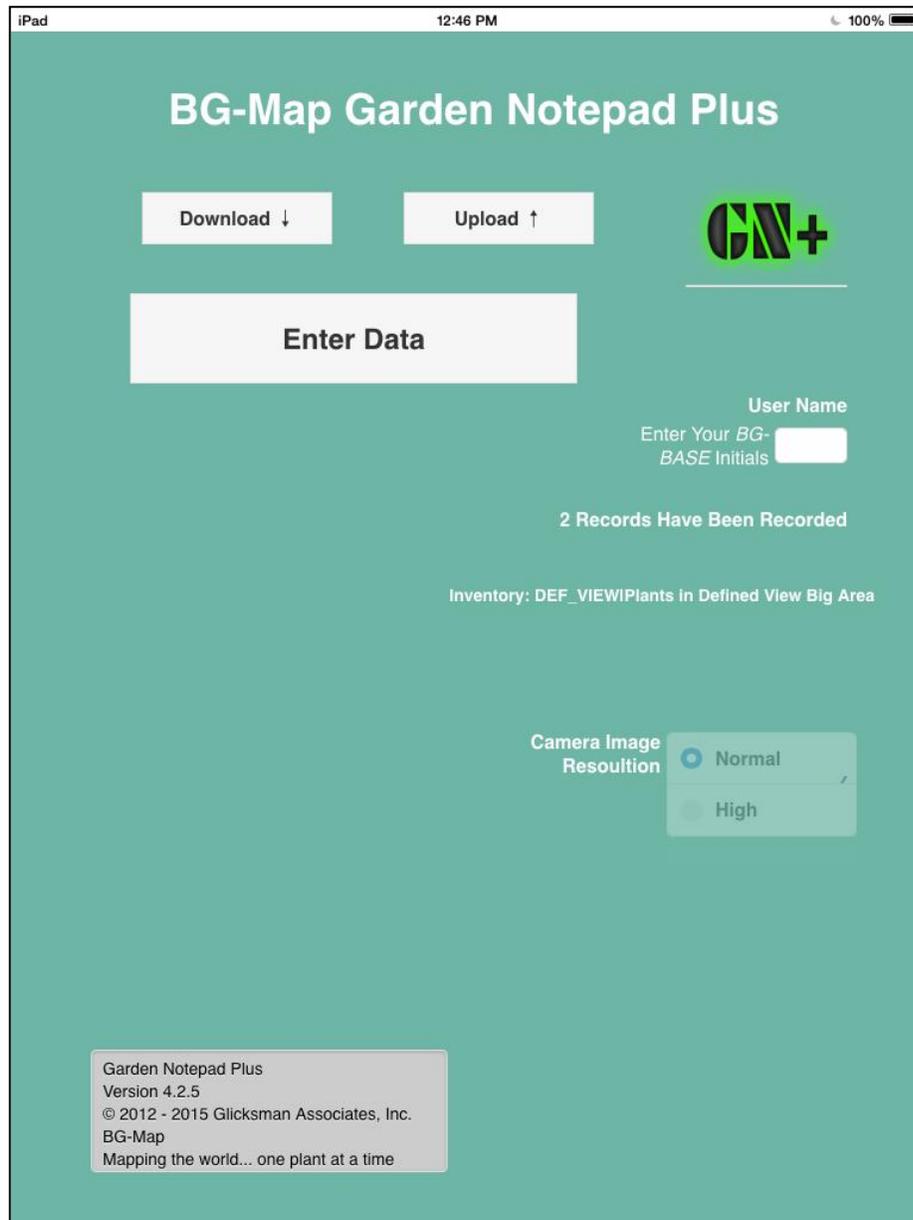
To use GN+, you need to create at least one inventory list. This can be a list of living plants in a *BG-BASE* Location or a Location Group, a *BG-BASE* saved list and/or a BG-Map Defined View. To create an inventory list, in BG-Map go to **Field Data/Create Garden Notepad Plus Inventories**, and follow the directions in the help screen. The list of plants in each inventory is automatically updated daily, so the inventory lists available for download by GN+ are always current.

Once you select an inventory list in the GN+ home screen, you cannot select another inventory list until the recorded data has either been uploaded or cleared. When using GN+, you can record data for other plants not on the selected inventory list by entering their accession numbers or other unique codes of your own choosing. And, you do not have to record data for all the plants on the inventory list before uploading the recorded data.

Exporting Other Data to Garden Notepad Plus

Before using GN+, you must also export data from several files, including codes for Containers, Die Why, Labels, Locations, Special Characteristics, and Staff. To do this, in BG-Map go to **Field Data/Export BG-BASE Label Types, Container and Die Why Codes**. You will also need to export Check Note phrases – for details, in BG-Map go to **Field Data/Edit Garden Notepad Checknote Phrases**, and follow the instructions in the help screen.

The Garden Notepad Plus Home Screen



Downloading the Latest Inventory Lists and Other Data

Before selecting a new inventory, tap **Download** to obtain the most recent inventory lists and other data. (**Internet Connection Required**) Restart GN+ when prompted.

Selecting an Inventory

Tap the down arrow, and select an inventory from the choices listed.

Selecting a Camera Image Resolution

Select either normal or high image resolution. This will change the size of the images recorded from the normal 960 x 720 to 1920 x 1440. Once you select a resolution, you cannot change it until you start a new inventory.

Beginning to Inventory – Entering Data

Enter your initials and then tap **Enter Data** to begin. This loads the inventory and takes you to the Inventory List Screen.

Note: Your initials must first be entered into the BG-BASE Staff file.

Note: If the inventory list is quite long, it may take some time to load.

Clearing all Recorded Data

To clear all recorded data without uploading it, tap “Download”, and download new data (**Internet Connection Required**.)

Uploading the Recorded Data

After you have recorded data for as many plants as you wish, you may upload it to the server by tapping **Upload** (**Internet Connection Required**.)

Editing the Uploaded Data and Transferring it to BG-BASE

The uploaded data is stored on the server in the folder **\bgmapwin\ECM\Web\GNP\GNP202\Field Data**. A new file in this folder is created each time data is uploaded. The file names consist of the initials entered plus numbers representing that date and time the data was uploaded.

To Insert the Data into BG-BASE without Editing

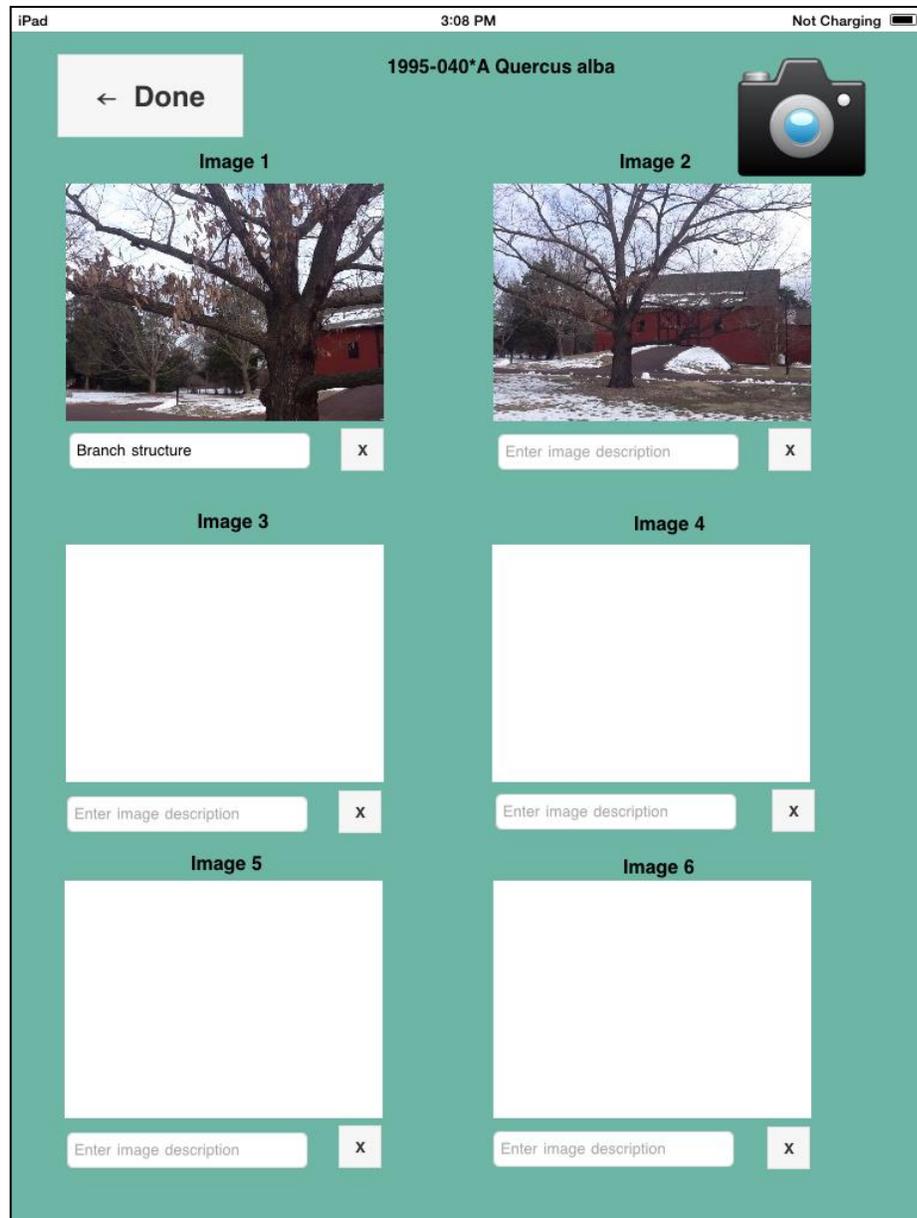
In BG-Map, tap **Field Data/Upload**, and select the data file in the folder listed above.

To Review and Edit the Data Before Inserting it into BG-BASE

In BG-Map, tap **Field Data/Edit/Print Garden Notepad Data**, and select the data file in the folder listed above. Edit the data as required, following the instructions in the help screen. Then, tap **Field Data/Upload**.

Recording Images

Using Garden Notepad Plus, you can record up to 6 images of each plant. Images can be recorded only after you have saved the record for the plant. Then, tap “Add Images” in the Inventory List Screen.



Taking Pictures and Adding Captions

Tap the camera icon, and choose “Take Photo.” Take the picture in the normal way and choose “Use.” The picture will be inserted into the first available empty space. You can then add an image description or leave it blank.

You may take additional pictures up to a maximum of 6. To delete an image, tap the corresponding “Delete” button.

Taking Images With Portrait Orientation

When you upload the image into BG-Map you will be able to correct any rotation so that all images appear right side up.

Uploading and Using the Images

When you upload the Garden Notepad Plus data, the images will be uploaded and stored in the `\bgmapwin\ECM\Web\GNP\GNP202\Field Data\Images` folder as JPEG images. The next time you choose "Upload" from the BG-Map field data menu, the images will be moved to the folder "GNP" in the web folder designated as "Plantpix." You will then be able to edit the images before they are automatically assigned in BG-Map to the corresponding Plants (not Names), where they will be available for viewing when a plant record is pulled up in BG-Map (but not in *BG-BASE*.) The images will also be viewable in Web-VQF at the Staff and Visitor Levels. To make these images only viewable at the Staff Level, uncheck the option "Display GNP Images at Staff Level Only" in the Web-VQF/ECM Settings Window/Admin Tab.

Acc. Num.	Name	Saved	Last Loc.	Qty.	Last Check	Co...	Repro. S...
2004-094*A	Abelia x grandiflora 'Sher...		H18	MASS	03 FEB 2015	A	
1993-105*A	Abies alba		E18	1	03 FEB 2015	A	
2007-080*A	Abies concolor 'Candicans'		F18	1	03 FEB 2015	A	
2008-034*A	Abies koreana 'Prostrate ...		F18	1	14 FEB 2013	A	
2008-034*B	Abies koreana 'Prostrate ...		F18	1	04 MAR 2013	A	
2007-098*A	Acer crataegifolium		G17	1	03 OCT 2013	A	
1981-415*B	Acer davidii		F20	1	03 FEB 2015	A	
2010-002*A	Acer davidii		G17	1	03 OCT 2013	A	
2002-281*B	Acer davidii		H17	1	08 APR 2013	G	
1996-453*A	Acer davidii ssp. davidii		F19	1	03 SEP 2002	A	
2008-062*A	Acer japonicum 'Green C...		F18	1	14 FEB 2013	A	
2008-062*B	Acer japonicum 'Green C...		F18	1	14 FEB 2013	P	
2010-041*A	Acer longipes ssp. catalp...		F20	1	14 JAN 2014	A	
1993-310*C	Acer mandshuricum		H17	1	08 APR 2013	G	
1996-491*C	Acer oliverianum		E20	1	14 JAN 2008	A	
1990-054*A	Acer palmatum var. hept...		H18	1	13 JUL 2010	A	
2009-008*A	Acer palmatum var. hept...		H19	1	25 FEB 2014	A	
2007-078*A	Acer palmatum 'Katsura'		F18	1	24 JAN 2012	A	

The Inventory List Screen

Previous Observations Shown on the List

Previous observations are shown in light green on the list. These are replaced by new data when you enter it.

Selecting a Plant to Inventory

Touch any plant on the list to select it. Then touch **Edit Record** to open the plant in the Data Entry Screen – Page 1.

Navigating the List

To scroll up or down the list, swipe the screen or use the scroll bar at the side of the list.

To move up or down the list several plants at a time, touch the **single arrow** buttons.

To move to the top or bottom of the list, touch the **double arrow** buttons.

To see other columns in the list, swipe from right to left.

To find a plant accession number or name in the list, touch a **Find** button, and all or enter part of the accession number or plant name.

Deleting Data for a Plant

As data for each plant is saved, check marks are added to the list. To delete all the data for any plant that has a check mark, select the plant, and touch **Clear Record**.

Data Entry Screen – Page 1

This screen allows you to enter data on plant condition and phenology plus a check note.

Condition

Select the *BG-BASE* condition code. The last previously recorded condition is displayed in the box below.

Reproductive Status

Select one or more *BG-BASE* phenology codes. Note, codes J (Juvenile) or V (Vegetative) cannot be combined with other codes. Double-tap the items to select them.

Check Note

You can type in your notes and/or select phrases to insert by picking them from the “Phrase Picker.” To insert a phrase, tap the “Phrase Picker” and select phrase from the dropdown list.

Opening the Record for This Plant in Web-VQF

Touch **Open in Web-VQF** to display the full record for this plant (**Internet Connection Required**)

Navigating to Other Pages

- ❖ **iTree** – Goes to the iTree Data Entry Screen
- ❖ **Page 2** – Goes to Data Entry Screen Page 2.
- ❖ **Page 3** – Goes to Data Entry Screen Page 3.
- ❖ **Cancel** – Returns to the Inventory List Screen without saving.
- ❖ **Save** – Saves and returns to the Inventory List Screen

2004-094*A Abelia x grandiflora 'Sherwoodii' Page 1

Condition

- A Alive
- E Excellent
- G Good
- F Fair
- P Poor
- Q Questionable
- I Indistinguishable Mass
- D Dead
- R Removed
- U Unable to Locate

Reproductive Status (Select one or more)

- I immature flowers
- F flowering
- O old flowers
- D immature fruits or seeds
- R ripe fruits or seeds
- J juvenile (not reproductuve)
- V vegetative or sterile

On 31 MAR 2005, condition was "A"

On 31 MAR 2005, reproductive status was ""

Check Note Phrase Picker ↓

needs pruning

Check Note

needs pruning

On 31 MAR 2005, check note was "GRHS PLANT SPRING 2005 RG LEA'S"

iTree Page 1 Page 2 → Page 3 →

Internet Connection Required

Open in Web-VQF Cancel Save

Data Entry Screen – Page 2

This screen allows you enter information for a number of different data fields.

Sex, Vegetative Status, Container, Number of Trunks

Select the appropriate codes from the dropdown lists.

Note: Before you enter the number of trunks for the first time, you must first set up BG-Map to assign a data field for this purpose. See “Quad Up Options” in the BG-Map Tools/Options menu.

iPad 2:22 PM Not Charging

1997-369*A Betula lenta Page 2

Sex

Cause of Death

Container

Reason for Death

New Location

On 09 NOV 1999, location was "F19"

Performance Note Phrase Picker

Number of Trunks

Performance Note

Vegetative Status

Spread in Feet Measurement Units English Metric

DBH Ht. in Feet

DBH in Inches

Height in Feet

Angle to Base

Angle to Top

Distance to Tree

Internet Connection Required

Cause of Death

If the plant has died, select a cause of death. A popup message will appear that allows you to change the recorded condition to Dead or Removed. You can also enter additional notes in the space labeled Reason for Death.

New Location

If the plant is in a new location that differs from the previous location shown in the box below, select the new location from the list. Then select a Location Change Type and a Number of Plants (or enter the word "MASS".)

Spread, DBH and Height

Select a unit type (English or Metric), and enter only numeric values in these spaces. If you change the unit type after entering values, the values will be converted to the selected units.

If you selected a number of trunks greater than 1, for DBH, enter multiple values in the spaces provided. The number of values must match the number of trunks as entered, except, for number of trunks = ">6", enter 6 values.

You can record the height at which you measured the DBH. If you leave this blank, a standard height of 4.0 feet or 1.2 meters will be recorded.

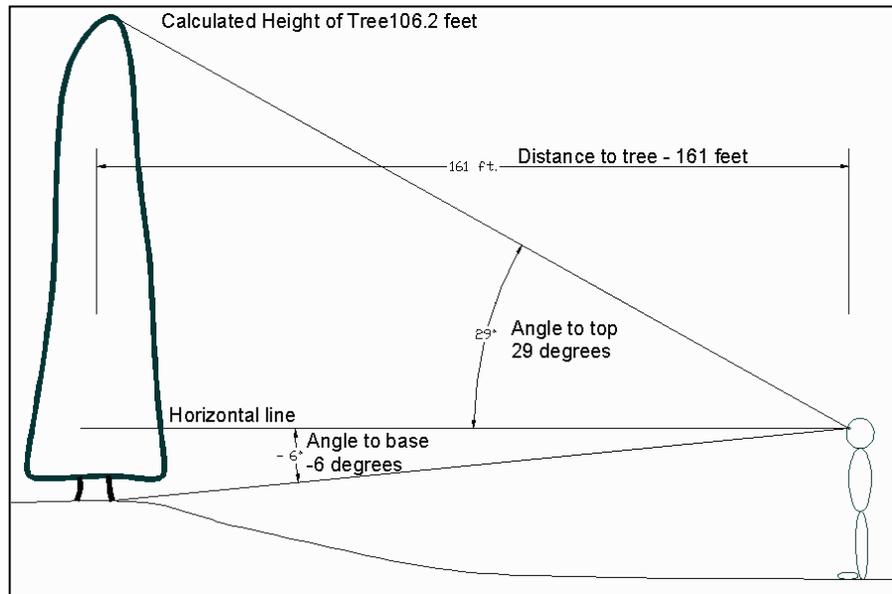
Using Multiple Trunk Size Data

In BG-Map, you can view the multiple trunk sizes recorded for any tree by going to Tools/Horticultural Management/Enter Additional Plants Data. Or, click this icon: 

You can export multi-trunk sized in a report by adding the multi-trunk data fields to a Plant List Format in BG-Map

Using the Tree Height Calculator

The height of a tree can be determined with the tree height calculator. To calculate the height, you must enter the angle to the base of the tree, angle to the top of the tree, and distance from the tree. These measurements are explained in the illustration.



In order to determine these three pieces of information, you will need to use a clinometer in conjunction with an electronic range finder or tape measure. The clinometer can determine the angles, the electronic range finder or tape measure can determine the distance.

Enter the angle to the base of the tree in the box labeled "angle to base". (If it is a downward angle, make sure it is negative.)

Enter the angle to the top of the in the box labeled "angle to top."

Enter the distance to the tree.

Touch **Calculate Height**. The tree's height will be calculated and automatically entered into the "Height" box.

Navigating to Other Pages

- ❖ **iTree** – Goes to the iTree Data Entry Screen
- ❖ **Page 1** – Goes to Data Entry Screen Page 1.
- ❖ **Page 3** – Goes to Data Entry Screen Page 3.
- ❖ **Cancel** – Returns to the Inventory List Screen without saving.
- ❖ **Save** – Saves and returns to the Inventory List Screen

Data Entry Screen – Page 3

1995-040* A Quercus alba Page 3

Labels		Have	Need	Note
DA	Datacard format			
DE	dedication label			
EM	embossed	√		
HE	New Hermes format			

Special Characteristics		Yes	Note
EX	exotic		
FA	fragrance		
FC	fall color	√	
FD	food		

Tree Hazard Rating Note: this section should be completed only by a certified arborist qualified in tree risk assesment.

Recommended Action Phrase Picker ↓

Probability of Failure: **2 possible** ↓

Probability of Hitting Target: **3 medium** ↓

Consequences of Hitting Target: **3 significant** ↓

Overall Rating: **1 low**

Recommended Action: needs pruning

Additional Note Phrase Picker → Additional Note: Enter text here

Buttons: iTree, ← Page 1, ← Page 2, Page 3, Open in Web-VQF, Cancel, Save

This screen allows you to enter data on labels, special characteristics and tree hazard rating.

Recording the Labels that the Plant Has

In the column labeled “Have”, touch the boxes corresponding to each type of label currently on the plant.

Recording the Labels that the Plant Needs

In the column labeled “Need”, touch the boxes corresponding to each type of label that the plant needs. When prompted, enter the quantity of labels needed and touch

OK. If you wish to enter a note regarding the needed labels, touch the box labeled “Note”, enter the note and touch **OK**.

Recording Special Characteristics

In the column labeled “Yes”, touch the boxes corresponding to the Special Characteristics that pertain to this plant. If you wish to enter a note regarding a Special Characteristic, touch the box labeled “Note”, enter the note and touch **OK**.

Tree Hazard Rating

Numerical Ratings

All three of these ratings must be entered in order to produce an Overall Rating.

- ❖ **Probability of Failure** (1 to 4) – indicates the likelihood of failure of all or a portion of the tree.
- ❖ **Probability of Hitting Target** (1 to 4) – indicates the likelihood of the tree or a failed part striking a target, such as a person, vehicle or structure.
- ❖ **Consequences of Hitting Target** (1 to 4) – indicates the expected consequences of the tree or a failed part hitting the target.

Overall Rating

This determined by 3 items described above. It is based on the tables in ISA Publication Tree Risk Assessment, Best Management Practices, companion publication to ANSI A300 Part 9.

Note: **This rating should serve as a guide only.**
Accurate determination of hazard should be based on the full evaluation of the tree and its surroundings by a certified arborist qualified in tree risk assessment.

Action to be Taken

Enter text and/or choose a phrase from the Phrase Picker.

Notes

Enter text describing defects and other factors related to the recommended action and/or choose a phrase from the Phrase Picker.

iTree Data

About iTree

iTree is a peer-reviewed software suite from the USDA Forest Service that provides urban forestry analysis and benefits assessment tools.

The screenshot shows the iTree Data entry screen on an iPad. The title is "1995-040*A Quercus alba" and "iTree Data". The form contains the following fields and values:

Field	Value
Height to Top of Crown	23
Height to Base of Crown	9
Crown Width (North-South)	21
Crown Width (East-West)	25
Percent of Crown Silhouette Missing	5
Percent of Crown Dieback	10
Crown Light Exposure	2
Land Use	Institutional
Tree Site	Street Tree

At the bottom of the screen are three buttons: "Cancel", "Clear iTree Data", and "Save iTree Data".

Entering iTree Data

In any of the data entry screens, click “iTree” to access the iTree data entry screen. Fill in all the required data, and save. For details on the iTree data entry fields, refer to the iTree website: <https://www.itreetools.org/>

Using iTree Data

In BG-Map, you can view the iTree data recorded for any tree by going to Tools/Horticultural Management/Enter Additional Plants Data. Or, click this icon:



You can export iTree data in a report by adding the iTree data fields to a Plant List Format in BG-Map

BG-Map

Mapping the world... one plant at a time

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