**GS-827 APRIL\_1 RELEASE TEST PLAN**



March 27, 2015

**UNDER CONSTRUCTION DO USE .**

Table of Contents

[1. Purpose and Scope 3](#_Toc416709467)

[1.1 Limitations 3](#_Toc416709468)

[1.2 Sprint/Release Schedule 3](#_Toc416709469)

[1.3 Assumptions and Risks 4](#_Toc416709470)

[2. Test Strategy 4](#_Toc416709471)

[2.1 Test Flow 4](#_Toc416709472)

[3. Test Environment 5](#_Toc416709473)

[3.1 Supported Devices and Browsers 5](#_Toc416709474)

[4. Test Case: Verify the current Water Balance Plan (main screen); In-Season Water Balance Functionality (GS-709). 6](#_Toc416709475)

[4.1 Test Case: Verify navigation to the Water Balance In-Season Plan; confirm the Navigation panels are designed and functions as expected. 7](#_Toc416709476)

[4.2 Test Case: Verify the Water Balance In-Season Plan is designed as expected. 12](#_Toc416709477)

[4.2.1 Test Case: Verify the Water Balance Chart is designed and defaults as expected. 17](#_Toc416709478)

[4.2.2 Test Case: Verify the Daily and Pivot Pass Metrics Selection is designed and defaults as expected. 22](#_Toc416709479)

# Purpose and Scope

This test plan describes the strategy for exercising the functionality **and/or fixes** for the JIRA issues in this release*.* As features are being designed the test scenarios described in this document will be updated to accommodate the modifications to the plans.

The purpose and scope of this test plan is to list and describe the test strategy for the following Jira Issues:

|  |  |  |
| --- | --- | --- |
| **Issue** | **User Story** | **Sprint/Release Schedule** |
| **GS-692**  **Sub task GS 783** | Generate Probe Credentials/  GUI display of probe username/password | Sprint 9 Apr 1 rel. |
| **GS - 727** | Step 1: Planting; Add Pioneer Hybrid Family - drop downbox field |  |
| **GS – 770 (GS 648)** | (Setup) Error message slightly inaccurate |  |

* The focus of this test is from the front end. It is only to examine and access the quality of the general functionality and that the current Fertility functionality has not degraded due to this change.

## Limitations

This test is limited as follows:

To front end testing. There is no back end testing.

Only the features mentioned in the box above is tested, with light testing of the areas of this feature It does not include a full regression test.

## Sprint/Release Schedule

Refer to the grid above for sprint schedule information.

## Assumptions and Risks

* Manual tests will be designed to allow any person to execute the test scripts. They will also be designed with the assumption for easy conversion to automated scripts in the future.
* Test Plan for this effort will be available as an attachment against the **Test plan** JIRA issue in pdf format.
* Functionality will be delivered by Engineering on time.
* Required resources will be available i.e. Test environments, Devices i.e. Laptop/iPad etc.
* There are no specification documents. Requirements are given via sprint discussions, email and/or accepted design Wire Frames therefore, test plans are built against these matters.
* Handling Leap year dates: there is no testing in this area; it is assume the code used in JavaScript Date object will know how to determine this situation and present the expect dates. This applies to date control, Date input, Dates in Settings, etc.

# Test Strategy

The following test strategies will be considered:

**Content** – is the message being communicated by the page delivered to the user?

**Functionality** – can users do everything they need to?

**Display** – does the page look as it should do in terms of style and layout?

A check that the content, functionality and display all work as intended. Verification of the different types of interaction will be exercised if applicable, for example: Navigation, Form filling – are the input boxes behaving as expected?

## Test Flow

The test scenarios designed in this document will flow as described below in each Test Case section:

* User Logs on.
* Selects an Operation or a Farm depending upon access.
* Proceeds to examine the Fertility Left Nav Menu
  + Confirm the display and expected functionality of the Strategy Toggle
  + Some regression will be done on the existing functionality as the User toggles between strategies.

# Test Environment

Unless otherwise instructed, testing will be executed against the following environment/ configurations:

**Test Environment**: <https://gmctest.east.pioneer.com/>

## Supported Devices and Browsers

**Device:** Laptop

**O/S:** Win 8.1

**Screen Resolution:** 1366 X 768

**Browsers:**

~~IE 9 (IE10 will also be examined)~~

IE 10 and current IE version

Firefox latest version (currently Version 36x)

Chrome latest version (currently Version 41.0.2272.118 m)

**Device:** IPad

**O/S:** Latest Version TBD at time of test and will be noted in JIRA

**Screen Resolution:** 768 X 1024

**Browser:**

Safari/Latest version

# Test Case: Verify the current Water Balance Plan (main screen); In-Season Water Balance Functionality (GS-709).

The test scenarios presented in this test case will exercise the JIRA issue GS-692 with sub task 783. **(See** Purpose and Scope**,** Limitations, Risks and Assumption section above).

|  |
| --- |
|  |

**Details shown here may be out dated. It is only an example.**

**Please check JIRA for the most recent information for this issue.**

## Test Case: Verify navigation to the Water Balance In-Season Plan; confirm the Navigation panels are designed and functions as expected.

**Fields before and after Setup**

|  |  |
| --- | --- |
|  |  |

| **Step** | **Perform Action** | **Expected Results** | **P**  **F**  **B** | **Remarks:** Use this section to add comments or notes. Or, actual results if feature was not as expected. You may also reference JIRA bug issue if a defect was written.  **PFB** = (P) assed, (F) ailed or (B) ypassed. The step was bypassed. |
| --- | --- | --- | --- | --- |
|  | **Instructions:**   * See the **Test Environment Supported Devices and Brower** section of this test plan for details. * Enter Browser/Device: | Able to follow instructions. | n/a |  |
|  | **Pre-requisites:**  **Clear** the cache of the browser under test before execution.  **To execute the scenarios** in this test case access to an Operation/Farm must contain at least 1 farm setup with the Water Irrigation Feature.  The following field configuration must also available.   * Fields that have not been set up * Fields that will not have a probe in the ground. | Test pre-requisites are met.  Familiar with the JIRA story. |  |  |
|  | * Open Jira to GS-709   <https://jira.appliedinvention.com/browse/GS-709>  Review the specification stated in this:  [Google Doc Water Balance Requirements](https://docs.google.com/a/dannenfeldt.com/document/d/1QPfHrAmKb_Kp-8M99dHP9vtcNt9UTbxbRU6xJA2cLHg/edit)  Review and have the most recent wireframe nearby for reference.  (***Note to Tester:*** Also Review the Comments for updates to this spec.) | Able to do as instructed. |  |  |
|  | **Test Set up:**  Log in as the User with an Operation as detailed in the Pre-requisites step. | **Able to follow instructions**: The User has at least 1 Farm 1 field setup for Water.   * Successfully logged in * Landed on the expected page. |  |  |
|  | **From** the Water page. Select a field that has not been setup for testing that **has a probe** in the ground.  (***Note to Tester:*** Water Dev – Jalai or Kelcey) | * Able to do as instructed. * Selected a un-setup Field that has a probe in the ground i.e. probe data coming in. |  |  |
|  | **Confirm** the crop zone status Button label is correct:   * Verify a Field that has **NOT** been setup. | * For fields that have not been setup the Crop Zone status button’s labeled is “**Setup”.** |  |  |
|  | **Confirm** the Field’s Icon displays a grey outline and is white filled. | * The field’s icon coloring is as expected. |  |  |
|  | **Click or Tap** on its Setup button. | * The Setup Step 1 Panel is displayed. |  |  |
|  | **Setup** the Field by completing each Setup Step panel. Click Save when done. | * Able to successfully setup the field. |  |  |
|  | **Confirm**  the Field’s crop zone status button updated to the correct status | * For fields that have been setup the Crop Zone status button’s labeled is “**Plan”.** |  |  |
|  | **Confirm** for the Field under test its Icon now appears “Grey”. | * The field’s icon coloring appears Grey as expected. |  |  |
|  | **Now click** or Tap on the Field’s Plan button . | * Page display is as expected for fields that are I**n-Season.** * The **In-Season** **Plan Page** opens defaulting to Water Balance screen. |  |  |
|  | **Confirm** the **In- Season Plan** is available. | The I**n-Season Plan Page** opens **defaulting to** the **Water Balance** screen. |  |  |
|  | **From** the Water page. Select a field that has not been setup for testing that **does not have probe** in the ground.  (***Note to Tester:*** Water Dev – Emils or Enosh) | * Able to do as instructed. * Selected a un-setup Field that DOES NOT have a probe in the ground i.e. no probe data coming in. |  |  |
|  | **V**erify for this field type that its crop zone status button is as expected | * For fields that have not been setup the Crop Zone status button’s label is “**Setup”.** |  |  |
|  | **Click or Tap** on the field under test Setup button. | * The Setup Step 1 Panel is displayed. |  |  |
|  | **Setup** the Field by completing each Setup Step panel. Click Save when done. | * Able to successfully setup the field. * The field’s icon coloring appears Grey as expected. * For fields that have been setup the Crop Zone status button’s label is “**Plan”.** |  |  |
|  | **Now click** or Tap on the Field’s **Plan** button . | * Page display is as expected for fields that are in the pre-season, with no probe in the ground. * The **Pre-Season** **Plan Page** opens. |  |  |
|  | **ad – hoc** **test:**   * Test the surrounding areas of this function: | Able to do as instructed. |  |  |
| ***Testing is completed for this section***  **Record** Time it took to execute this test:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  (This includes time it took for test setup. It does not include down time i.e. pauses in execution related to taking a break, attend a meeting, etc.) | | | | |

## Test Case: Verify the Water Balance In-Season Plan is designed as expected.

Scenarios will examine and focus on the In-Season Plan design and default settings.

| **Step** | **Perform Action** | **Expected Results** | **P**  **F**  **B** | **Remarks:** Use this section to add comments or notes. Or, actual results if feature was not as expected. You may also reference JIRA bug issue if a defect was written.  **PFB** = (P) assed, (F) ailed or (B) ypassed. The step was bypassed. |
| --- | --- | --- | --- | --- |
|  | **Instructions:**   * See the **Test Environment Supported Devices and Brower** section of this test plan for details. * Enter Browser/Device: | Able to follow instructions. | n/a |  |
|  | **Pre-requisites:**  **Clear** the cache of the browser under test before execution.  **To execute the scenarios** in this test case access to an Operation/Farm must contain at least 1 farm setup with the Water Irrigation Feature.  The following field configuration must also available.   * Fields that have been set up with a probe in the ground. | Test pre-requisites are met.  Familiar with the JIRA story. |  |  |
|  | * Open Jira to GS-709   <https://jira.appliedinvention.com/browse/GS-709>  Review the specification stated in this:  [Google Doc Water Balance Requirements](https://docs.google.com/a/dannenfeldt.com/document/d/1QPfHrAmKb_Kp-8M99dHP9vtcNt9UTbxbRU6xJA2cLHg/edit) | Able to do as instructed. |  |  |
|  | ***Note to Tester:*** Refer to the Wire Frames.  Observe and confirm any differences with JIRA/Owner expectations. | The latest wireframes will be referenced as instructed.  Able to continue testing. |  |  |
|  | **Test Set up:**  Log in as the User with an Operation as detailed in the Pre-requisites step. | **Able to follow instructions**: The User has at least 1 Farm 1 field setup for Water.   * Successfully logged in * Landed on the expected page. |  |  |
|  | **From** the Water page. Select a field for testing | * Able to do as instructed. * Selected a Field that has been setup that has a probe in the ground i.e. probe data coming in. |  |  |
|  | **Now click** or Tap on the Field’s Plan button . | * The **In-Season** **Plan Page** opens *defaulting* to Water Balance screen. * By default the “*bar chart”* is displayed representing the setup for the water balance. |  |  |
|  | Confirm the Page header (Title Area) is correct. | * There is a (**Back)** Arrow * The **Title** of the page is shown in the header and appears as expected. * The name of **Farm and Field** (Crop zone) is available and formatted correctly (consult wireframe.) * The **Crop zone Icon** is present and is as expected: represents the “shape” of the actual crop zone and its Icon coloring is correct for the stage it is in. * There is an **Edit Setup** button on the right side of page. |  |  |
|  | **Click or Tap** on the **Back** arrow. | * Clicking the Back arrow returns the user to the Water Page. |  |  |
|  | Return to Field under test In- Season Plan again to continue testing. | * The **In-Season** **Plan Page** is opened |  |  |
|  | **Click or Tap** on the **Edit Setup** button (to the right side of Header). | * Clicking the Back arrow returns the user to the Setup Panel pages. |  |  |
|  | **Return** to Field under test In- Season Plan again (to continue testing the In-Season Plan Page. | * Able to return to In**-Season** **Plan Page** to continue testing. |  |  |
|  | Confirm to the Right of the Plan View there is an **Icon** representing the Water Balance Bar Chart. | * The **Water Balance Icon** is available and positioned as expected. * The Icon resembles a “Bar Chart” and is legible on the device/browser under test. See the Support and Browser section * The Bar Chart Icon is highlighted in such a way that conveys to the User it is has the focus because the Water Balance is the default (active) screen. |  |  |
|  | Confirm to the Right of the Plan View there is an Icon representing the **Soil Depth**. | * The **Soil Depth Icon** is available and positioned as expected. * The Icon resembles “*Roots”* and is legible on the device/browser under test. * It does not have the focused (since it is not the active the currently active display).   ***Note to Tester:*** Refer to the Supported Devices and Browsers section |  |  |
|  | **Confirm Chart Selection:**  Verify the user can view the Total Water by Soil Depth chart.     * **Click or Tap**  on the “Roots” icon. | * Clicking on the Soil Depth icon displays the Total Water (TW) chart. * The “Roots” Icon is now highlighted. * The “Bar Chart” Icon becomes un-high-lighted. |  |  |
|  | **Return** to the Water Balance Chart via the toggle.   * **Click or Tap on the “Bar Chart”** Icon**.** | * Clicking on the “Bar Chart” icon displays the Water Balance chart. * The Icon is now highlighted. * The Roots Icon becomes un-high-lighted. |  |  |
|  | Examine and confirm the Water Balance Panel is as expected on default. | * The Panel’s Label “Water Balance” is available and is positioned correctly. * There is a Chart representing the field’s water balance variables. |  |  |
|  | Confirm the **Page footer** is available and designed as expected. | The page footer is as expected:   * There is text available detailing the current day pivot pass stats: The Start, Cycle and Rate stats are shown (consult the current wireframe.) |  |  |
| ***Testing is completed for this section***  **Record** Time it took to execute this test:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  (This includes time it took for test setup. It does not include down time i.e. pauses in execution related to taking a break, attend a meeting, etc.) | | | | |

### Test Case: Verify the Water Balance Chart is designed and defaults as expected.

Scenarios will examine and focus on the Water Balance Chart design and default settings.

| **Step** | **Perform Action** | **Expected Results** | **P**  **F**  **B** | **Remarks:** Use this section to add comments or notes. Or, actual results if feature was not as expected. You may also reference JIRA bug issue if a defect was written.  **PFB** = (P) assed, (F) ailed or (B) ypassed. The step was bypassed. |
| --- | --- | --- | --- | --- |
|  | **Instructions:**   * See the **Test Environment Supported Devices and Brower** section of this test plan for details. * Enter Browser/Device: | Able to follow instructions. | n/a |  |
|  | **Pre-requisites:**  **Clear** the cache of the browser under test before execution.  **To execute the scenarios** in this test case access to an Operation/Farm must contain at least 1 farm setup with the Water Irrigation Feature.  The following field configuration must also available.   * Fields that have been set up with a probe in the ground. | Test pre-requisites are met.  Familiar with the JIRA story. |  |  |
|  | * Open Jira to GS-709   <https://jira.appliedinvention.com/browse/GS-709>  Review the specification stated in this:  [Google Doc Water Balance Requirements](https://docs.google.com/a/dannenfeldt.com/document/d/1QPfHrAmKb_Kp-8M99dHP9vtcNt9UTbxbRU6xJA2cLHg/edit) | Able to do as instructed. |  |  |
|  | ***Note to Tester:*** Refer to the Wire Frames.  Observe and confirm any differences with JIRA/Owner expectations. | The latest wireframes will be referenced as instructed.  Able to continue testing. |  |  |
|  | **Test Set up:**  Log in as the User with an Operation as detailed in the Pre-requisites step. | **Able to follow instructions**: The User has at least 1 Farm 1 field setup for Water.   * Successfully logged in * Landed on the expected page. |  |  |
|  | **From** the Water page. Select a field for testing. | * Able to do as instructed. * Selected a Field that has been setup that has a probe in the ground i.e. probe data coming in. |  |  |
|  | **Now click** or Tap on the Field’s Plan button. . | * The **In-Season** **Plan Page** opens. * The Water Balance Chart is displayed. |  |  |
|  | Verify the chart defaults. | * Within the rectangular area of the chart there are bars representing the daily metrics for the water moisture balance. * The current days bar metrics is shown appearing in a darken state * The remaining days bars are appear lighter. * 3 Icons resembling Clouds appear above the bar for Precipitation forecasting. * Shown over the Bars is an Orange line representing the Refill point and Red line representing the Stress point. |  |  |
|  | Confirm the **Y-axis** default view :   * Verify the Y-axis is as expected | * The Y—axis displays a label “Total Water”. * There is an Icon resembling an encircled question mark appearing next to its label. * The Y-axis is composed of 1 inch markers up to 5 inches starting with 0 as the first marker. |  |  |
|  | Confirm the **X-axis** default view :   * Verify the chart displays the soil moisture balance Daily Metrics for the current day and into future as per requirements. | The X—axis displays markers beneath the bars shown in the rectangular section of the chart that are:   * 7 days prior to the Current day. * The Current Day. * The Current Day is the default day. * The Text “TODAY” appears beneath the current day. * And, 10 days past the forecast view. |  |  |
|  | * Verify the **month** of the first day in the daily Water Balance metric is available. | * The month of the first date is displayed and is abbreviated under the first bar in the metrics. |  |  |
|  | * Verify the **date** of the month in the daily Water Balance metric is available. | * The date of the month is shown for each subsequent day in the bar metric. * The current date is highlighted. |  |  |
|  | * Verify the **Pivot Pass time line** defaults to the current day and appears as expected. | * Pivot Pass time line defaults to the current day. * The selected timeline is darken and its line appears thicken to convey it is the selected time line. * Since the Pivot pass is current it is not editable in any way. |  |  |
|  | * Verify the Probe data Update | * There is an Update Icon appearing beneath the encircled question. * Triggering an causes the Icon to spin while the update is in process * **Got to setup a case to test this** |  |  |
|  | * Confirm when the Pivot Pass Metric is for a future pass there is an indication stating that it is editable. | * Got to setup a case to test this * The **Edit Pivot Pass** button will become available. |  |  |
|  | * Verify if a new month occurs within the 18-day range, the new month’s abbreviation appear underneath the bar for the first of the month. | Got to setup a case to test this. |  |  |
|  | * Confirm a maturity marker will appear at the base of a bar when the maturity stage changes. | Got to setup a case to test this. |  |  |
|  |  |  |  |  |
|  | **ad – hoc** **test:**   * Test the surrounding areas of this function: * Add new probes. Add ID add the previously serial numbers * Try adding different data types etc. * Enter more than 32 alphanumeric characters into the Probe Serial ID input box. Confirm the data is it retained? Did the extra character get truncated? | Able to do as instructed. |  |  |
| ***Testing is completed for this section***  **Record** Time it took to execute this test:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  (This includes time it took for test setup. It does not include down time i.e. pauses in execution related to taking a break, attend a meeting, etc.) | | | | |

### Test Case: Verify the Daily and Pivot Pass Metrics Selection is designed and defaults as expected.

Scenarios will examine and focus on the Daily /Pivot Metrics design expectations and default settings.

| **Step** | **Perform Action** | **Expected Results** | **P**  **F**  **B** | **Remarks:** Use this section to add comments or notes. Or, actual results if feature was not as expected. You may also reference JIRA bug issue if a defect was written.  **PFB** = (P) assed, (F) ailed or (B) ypassed. The step was bypassed. |
| --- | --- | --- | --- | --- |
|  | **Instructions:**   * See the **Test Environment Supported Devices and Brower** section of this test plan for details. * Enter Browser/Device: | Able to follow instructions. | n/a |  |
|  | **Pre-requisites:**  **Clear** the cache of the browser under test before execution.  **To execute the scenarios** in this test case access to an Operation/Farm must contain at least 1 farm setup with the Water Irrigation Feature.  The following field configuration must also available.   * Fields that have been set up with a probe in the ground. | Test pre-requisites are met.  Familiar with the JIRA story. |  |  |
|  | * Open Jira to GS-709   <https://jira.appliedinvention.com/browse/GS-709>  Review the specification stated in this:  [Google Doc Water Balance Requirements](https://docs.google.com/a/dannenfeldt.com/document/d/1QPfHrAmKb_Kp-8M99dHP9vtcNt9UTbxbRU6xJA2cLHg/edit) | Able to do as instructed. |  |  |
|  | ***Note to Tester:*** Refer to the Wire Frames.  Observe and confirm any differences with JIRA/Owner expectations. | The latest wireframes will be referenced as instructed.  Able to continue testing. |  |  |
|  | **Test Set up:**  Log in as the User with an Operation as detailed in the Pre-requisites step. | **Able to follow instructions**: The User has at least 1 Farm 1 field setup for Water.   * Successfully logged in * Landed on the expected page. |  |  |
|  | **From** the Water page. Select a field for testing | * Able to do as instructed. * Selected a Field that has been setup that has a probe in the ground i.e. probe data coming in. |  |  |
|  | **Now click** or Tap on the Field’s Plan button . | * The **In-Season** **Plan Page** opens. * The Water Balance Chart is displayed. |  |  |
|  | Confirm the **X-axis** on the bar chart is as expected. | The default view of the bar chart X-axis displays :   * 7 days prior to the Current day. * The Current Day. * And, 10 days past the forecast view. * The Calendar Date is shown for the day. * Show Irrigation Events (as a ‘one long pill’ corresponding to  the days) * Events in the past are Read Only <click to Edit, values are RO> * Current or Future events can <click to Edit> |  |  |
|  | * Verify the user can view a day’s metrics by clicking within the rectangular chart box or by clicking below it on the pivot pass line. * Confirm: the selected date bar will darken and a bubble-shaped overlay panel will appear. * Verify the Daily bubble overlay legend displays the TW, ET, and Active Roots. * Verify the x-axis line marking the pivot pass during the selected day will also thicken and darken.   Verify the chart defaults to the current day is the default selection |  |  |  |
|  |  |  |  |  |
|  | **ad – hoc** **test:**   * Test the surrounding areas of this function: * Add new probes. Add ID add the previously serial numbers * Try adding different data types etc. * Enter more than 32 alphanumeric characters into the Probe Serial ID input box. Confirm the data is it retained? Did the extra character get truncated? | Able to do as instructed. |  |  |
| ***Testing is completed for this section***  **Record** Time it took to execute this test:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  (This includes time it took for test setup. It does not include down time i.e. pauses in execution related to taking a break, attend a meeting, etc.) | | | | |