# Access Water Balance Plan from Navigation Panel

## Field Icon Color Coding

1. Verify for the following field its crop zone Icon coloring has grey outline and white fill:

- Fields that have not been set up

~~- Fields which have a partially complete setup~~

-Fields that are set up that does not have a probe in the ground

1. Verify for fields that have probe data coming in:

- Its icon use the refill alert colors.

* The field’s raster use the refill alert colors.

## Field Button Label

1. Verify the button text of fields for the following types:

* ~~Fields which have not yet been completely set up will read SETUP.~~
* Fields which have been completely set up will read PLAN.

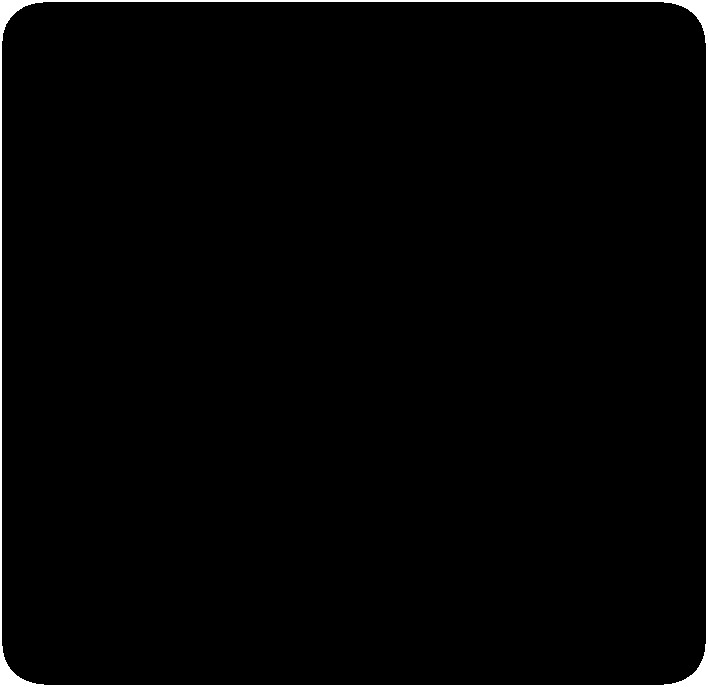
## Page display based on season:

1. Verify for each field type describe below:

* Fields that are in the pre-season, with no probe in the ground, clicking the PLAN button will launch the pre-season plan.
* Fields that are in -season, clicking the PLAN button will launch the Water Balance Screen.

# Examples

Field with untouched setup flow Field with partially complete setup flow.



2015

ENROLLED FIELDS

Farm Name

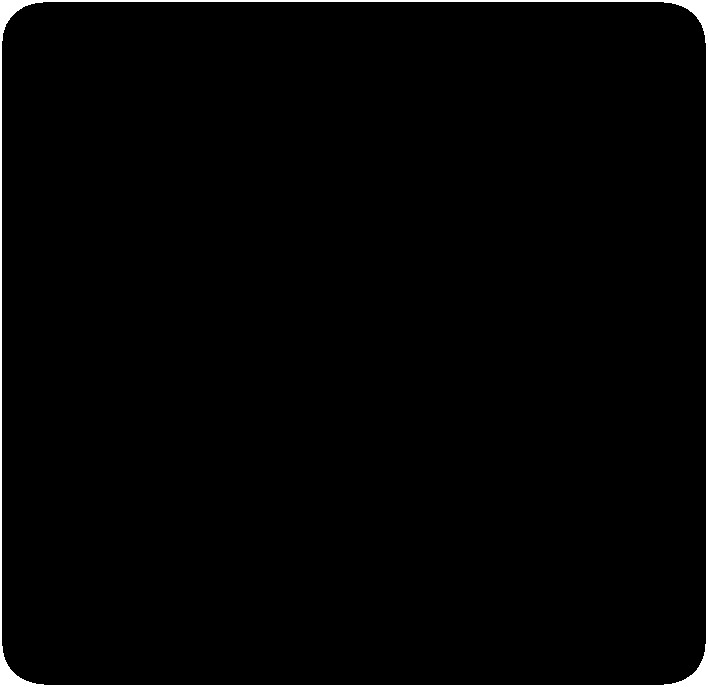
Windy Acre

Lookout Brook

East Meadow

Sunny Ridge

SETUP



ENROLLED FIELDS

2015

Farm Name

Windy Acre

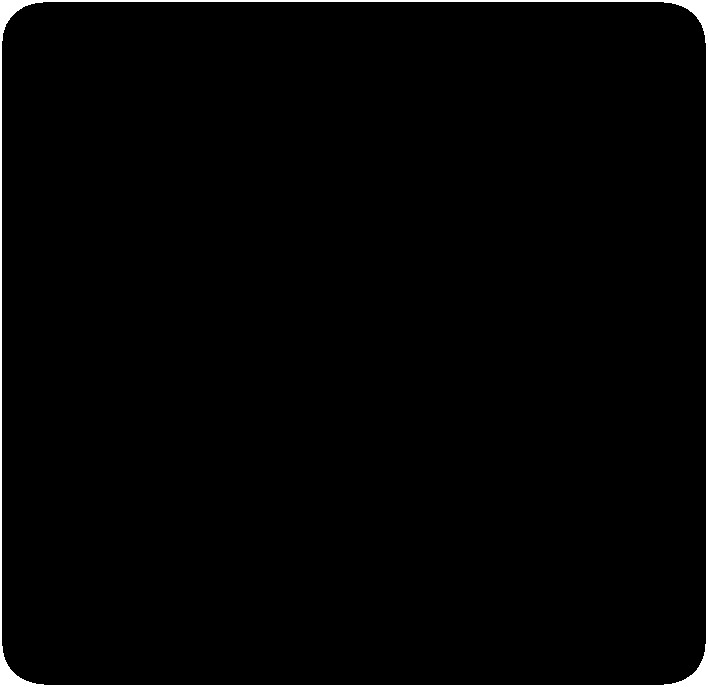
SETUP

Lookout Brook

East Meadow

Sunny Ridge

|  |  |
| --- | --- |
| Set up field, during pre-season. | Set up field, in-season. |



2015

ENROLLED FIELDS

Farm Name

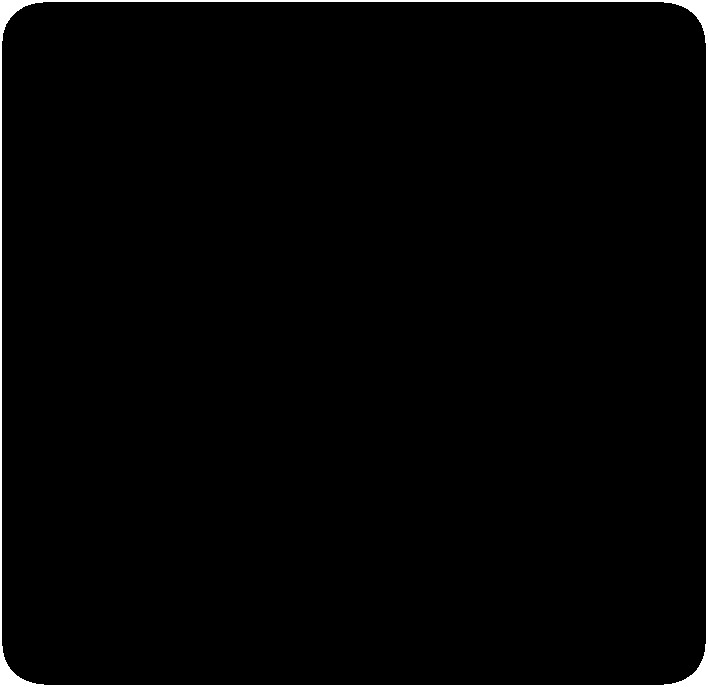
Windy Acre

Lookout Brook

East Meadow

Sunny Ridge

PLAN



ENROLLED FIELDS

2015

Farm Name

Windy Acre

Lookout Brook

East Meadow

Sunny Ridge

PLAN

|  |  |
| --- | --- |
|  | In-Season Plan  UNDERHILL - SUNNY RIDGE |
| TOTAL WATER  ? | Water Balance  MAY 03  04  05  06  07  08  09  TODAY  11  12  13  14  15  16  17  18  19  20  0  ”  1  ”  2  3  ”  ”  4  5  ”  V6  3.5  ”  0.2  ”  12  ”  TW:  ET:  Active  Roots: |
|  | **SELECTED PIVOT PASS:** START: MAY 08, CYCLE: 170 Hrs, RATE: 1” |

# In-Season Water Balance

## Chart Selection

* Verify the user can view the Water Balance chart (bar chart) by clicking the applicable toggle icon near the upper right corner.
* Verify the user can view the TW by Soil Depth chart (roots) by clicking the applicable toggle icon near the upper right corner.

## In-Season Daily and Pivot Pass Metrics Selection

* 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.

## Allocation Meter

The allocation meter is not part of the first release of in-season planning, but empty space will be set aside for this widget in the upper right corner

### Pivot Pass Metrics Display

* Verify Pivot Pass stats appear below the bars.
* Verify when the selected pivot pass is in the past, or is currently running, a marker appears to the right, stating it is not editable.
* Verify if the selected pivot pass is a future pass, this marker will become a button.
  + Verify clicking the “Marker” button enable the edit mode.

### X-axis Markers

* Verify the month abbreviation for the first bar’s day appear under the first bar only.
* 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.
* Verify the text TODAY appear beneath the current day.
* Confirm a maturity marker will appear at the base of a bar when the maturity stage changes.

### Precipitation

* Verify Precipitation during a single day is indicated by the presence of a cloud icon in the area above the bar.
* The y-axis will always slightly exceed the maximum possible value for TW plus precip,
* so there will room above the bars for maturity and cloud markers.
* Note that the 5” y-axis mark is shy of the chart top.
* The chance of rain is hinted by the darkness value of the cloud icon.
* The amount of rain is hinted by the number of cloud icons (one, two or three) placed over a single bar.
* The user may click on the icon to display a small overlay with number values for percentage and amount of rain.

### Precipitation Overlay

* Verify the default value for “Add to TW” will always be NO,
* Verify users can toggle that value to YES for individual events once the precip event overlay is open.
* Verify when YES is toggled, the y-axis height of the event’s bar will increase so the estimated amount is added.
* Verify the bar area that represents precipitation increase will have a pattern of diagonal striping.
* Verify The background color of the diagonal pattern will be match the bar color.
* Verify Once precip events are in the past, if precip has not occurred, the cloud icon will vanish.
* Verify If the Add to TW was toggled on, then it will be toggled off, so no diagonal pattern will show.
* Verify If the precip event has occurred, the “Chance of Precip” line will vanish.
* Verify The “Precip Estimate” line will change to “Precip Total” and the value will equal the reported amount of precip.
* Verify The “Add to TW” toggle will change, and precip will automatically be added to TW. The diagonal pattern for the amount of precip will appear on the bar.
* Verify Once the user clicks off the overlay, it wll vanish.

## Chart Legend

Verify If the user clicks the encircled question mark on the y-axis label, a legend overlay will appear

TW

REFILL POINT

STRESS POINT

PRECIP



+

## Data Update

* Verify Probe data will automatically update at regular to-be-decided intervals.
* Verify a user can trigger an update at any time by clicking the update icon in the lower left corner.
* Verify while the update is in progress, the icon will spin.

|  |  |
| --- | --- |
|  | In-Season Plan  UNDERHILL - SUNNY RIDGE |
| TOTAL WATER  ? | Water Balance  MAY 03  04  05  06  07  08  09  TODAY  11  12  13  14  15  16  17  18  19  20  0  1  ”  2  ”  3  ”  4  ”  5  ”  V6  ”  4.2  ”  0.2  ”  16  TW:  ET:  Active  Roots: |
|  | **SELECTED PIVOT PASS:** START: MAY 15, CYCLE: 170 Hrs, RATE: 1” EDIT PIVOT PASS » |

# In-Season Selection of Future Pivot Pass

## Edit Button

Now that the user has entered a future pivot pass, a button appears that will enable editing

## TW Overlay

Note that the position of the TW overlay is not higher than last screen, even though the bar is taller. The overlay arrow is positioned at the center top of a bar element, unless the height would cause the overlay to obscure the precipitation area at the top of the chart. In that case,

the overlay will be positioned as high as it can be, without obscuring the precip markers.

# In-Season Plan Editing

|  |  |  |
| --- | --- | --- |
|  | In-Season Plan  UNDERHILL - SUNNY RIDGE | |
| TOTALWATER  ? | Water Balance Edit Future Pivot Plan | |
| ”  1  2  ”  3  ”  ”  4  5  ”  ”  3.5  ”  0.2  ”  12  TW:  ET:  Active  Roots:  0  TODAY  11  12  13  14  15  16  17  18  19  20 | |  |  |  |  | | --- | --- | --- | --- | | |  | | --- | | MAY | | |  | | --- | | 15 | |   Pivot Pass Start: |
| |  | | --- | | 192 |   Pivot Pass Cycle:Hours  Pivot Pass Rate: 1” |
| |  |  |  |  | | --- | --- | --- | --- | | |  | | --- | | MAY | | |  | | --- | | 08 | |   Load Mgmt Start: |
| |  |  |  |  | | --- | --- | --- | --- | | |  | | --- | | JUN | | |  | | --- | | 12 | |   Load Mgmt End: |
| |  | | --- | | 3 |   Load Mgmt Hrs/Day: |
|  |
|  | **SELECTED PIVOT PASS:** START: MAY 15, CYCLE: 170 Hrs, RATE: 1” | « CANCEL EDIT COMPARE PLAN » |

|  |  |
| --- | --- |
| Daily and Pivot Pass Metrics  Once the user clicks the edit icon, the Daily Water Balance x-axis will horizontally shorten to display only the current day and the 10 day forecast. The calendar dates and pivot pass line will adjust accordingly.  Water Balance / Soil Depth Toggle  When the user is in edit or comparison mode, the soil depth chart will not be available, therefore the toggle in the upper left corner will not display.  Pivot Cycle and Rate Editability  Pivot Cycle and Rate are interdependent. Each is prefaced by a radio button that activates an input field around the selected value. The unselected value will not have an input field. The default selected value is Pivot Cycle. When the user edits the a value inside an input field, the value without an input field will update immediately. There is no white separator line between the Cycle and Rate lines  Pausing the Pivot  A user can create an irrigation pause in the pivot plan by moving the start date of a future pivot pass forward in time.  If the original plan looks like this, and the user wants to create a stop between pass #1 and pass #2 |  |

## END OF SEASON

A break will be introduced. All future passes maintain rate and duration, but any irrigation that occurs beyond the end of the season will need to be truncated.

END OF SEASON

|  |  |  |  |
| --- | --- | --- | --- |
|  | In-Season Plan  UNDERHILL - SUNNY RIDGE | |  |
| TOTAL WATER  ? | Water Balance Edit Future Pivot Plan | |
| ”  1  2  ”  3  ”  ”  4  5  ”  ”  3.5  ”  0.2  ”  12  TW:  ET:  Active  Roots:  0  TODAY  11  12  13  14  15  16  17  18  19  20 | |  |  |  |  | | --- | --- | --- | --- | | |  | | --- | | MAY | | |  | | --- | | 15 | |   Pivot Pass Start: |  |
| |  | | --- | | 192 |   Pivot Pass Cycle:Hours  Pivot Pass Rate: 1”  Apply Cycle/Rate To: THIS EVERY Pass |
| |  |  |  |  | | --- | --- | --- | --- | | |  | | --- | | MAY | | |  | | --- | | 08 | |   Load Mgmt Start:   |  |  |  |  | | --- | --- | --- | --- | | |  | | --- | | JUN | | |  | | --- | | 12 | |   Load Mgmt End:   |  | | --- | | 3 |   Load Mgmt Hrs/Day: |
|  | **SELECTED PIVOT PASS:** START: MAY 15, CYCLE: 170 Hrs, RATE: 1” | « CANCEL EDIT COMPARE PLAN » |

In-Season Plan Editing w/Apply Cycle/Rate Toggle

## Apply Cycle/Rate

Once an entry field for either Cycle or Rate has been changed, another line, “Apply Cycle/Rate To”, will appear. This line does not appear if the user only

edits Pivot Pass Start or the Load Mgmt values.

If the grower is extending the duration END OF SEASON of pass #2, and the pivot plan is like this:

PASS 1

PASS 2

PASS 3

PASS 4

PASS 5

If the grower applies cycle/rate to THIS END OF SEASON

END OF SEASON

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| pass, then pass #3 will be deleted and the start of pass #4 will move backward to start just after pass #2 ends. An extra pass may need to be added to the season end. | PASS 1 | PASS 2 | PASS 4 | PASS 5 | PASS 6 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| If the grower chooses to apply cycle/rate ro EVERY Pass, then every pass after pass #2 will lengthen. Any irrigation time that extends beyond the season end will truncate to end on that date. | PASS 1 | PASS 2 | PASS 3 | PASS 4 |

If the grower *shortens* the duration of pass END OF SEASON

PASS 1

PASS 2

PASS 3

PASS 4

PASS 5

#2, and the original pivot plan is like this:

If the grower applies cycle/rate to THIS END OF SEASON

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| pass, then all future pass start dates will move back in time. An extra pass may need to be added to the season end. | PASS 1 | PASS 2 | PASS 3 | PASS 4 | PASS 5 | PASS 6 |

If the grower chooses to apply cycle/rate END OF SEASON

Water Balance / Soil Depth Toggle

When the user is in edit or comparison mode, the soil depth chart will not be available, therefore the toggle in the upper left corner will not display.

ro EVERY Pass, then every pass after pass

PASS 1 PASS 2 PASS 3 PASS 4 PASS 5 PASS 6 PASS 7 PASS 8 PASS 9 PASS 10 PASS 11

#2 will shorten. Extra passes will need to be added to the season end.

# In-Season Comparison

|  |  |  |
| --- | --- | --- |
|  | TOTAL WATER  ? | In-Season Plan  SAVE NEW PLAN  »  «  BACK to EDIT    TODAY  09  08  07  06  05  04  MAY 03  11  12  13  14  15  16  17  18  19  20  0  ”  1  ”  2  ”  3  ”  4  ”  5  V6  Old TW:  New TW:  ET:  Active  Roots:  3.5  ”  3.9  ”  ”  0.2  ”  12  UNDERHILL - SUNNY RIDGE  Water Balance  CURRENT PLAN  NEW PLAN |

## Expansion Button

The expansion button hides the editing fields and brings the 7-day history back into view.

The editing fields will return if the user clickc the collapse button in the upper right corner.

In-Season Email

Email Panel

SAVE NEW PLAN

»

«

BACK to EDIT

TODAY

09

08

07

06

05

04

MAY 03

11

12

13

14

15

16

17

18

19

20

TOTAL WATER

0

”

1

”

2

”

3

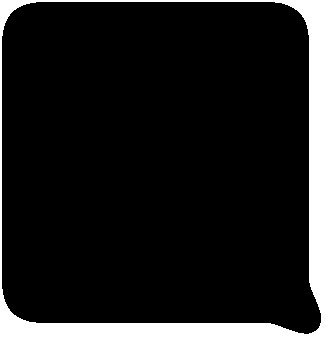
4

”

5

”

?



Old TAW:

New TAW:

ET:

Active

Roots:

3.5

”

”

3.9

”

0.2

12

”

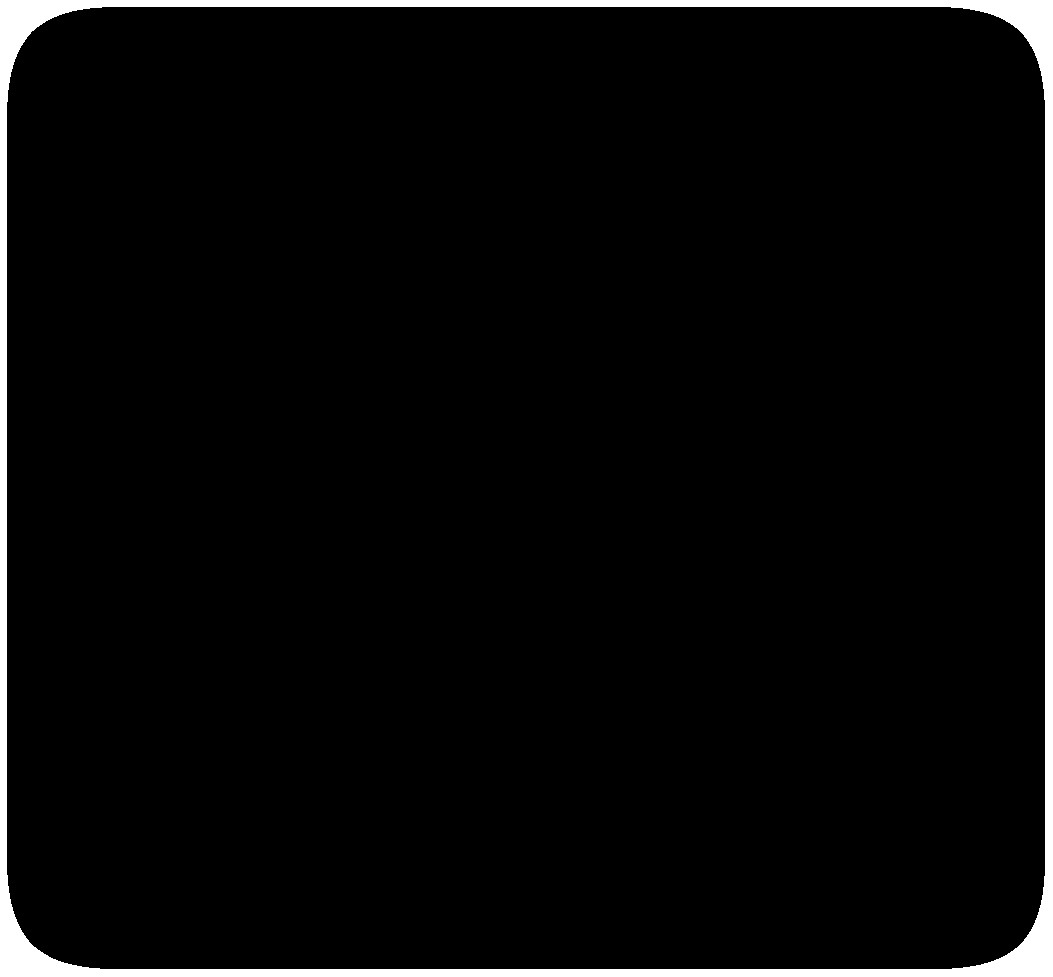
In-Season Plan

UNDERHILL - SUNNY RIDGE

Water Balance

CURRENT PLAN

NEW PLAN



Send To:

Subject:

Comment:

Attach: 05-06-15\_pivot\_plan\_change1.pdf

**+**

SEND

CANCEL

Email Preview Screenshot & Stats

~~olde~~

~~o~~

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oneer.com

r@p

acc

unth

Sunny Ridge Pivot

If the user clicks the email button, an overlay pops up, and the screen beneath the overlay will dim. The overlay allows the user to send a screenshot of the plan preview, plus a comment, to one or more recipients. The first recipient field is pre-populated with the account-holder’s email address. If the account holder wants to add another recipient, he/she must click the encircled plus icon, which will add another entry field below the first. The number of permissible entry fields is five, after which the plus-icon will vanish. The subject line value will be pre-populated with the field name concatenated with the text “Pivot”. The attachment name is defaulted as the date, concatenated with “\_pivot\_plan\_change”, appended with a numeral, in case the account holder sends more than one preview per day.

The .pdf will include a screen shot of the comparison bar chart, as well as full stats for the current plan vs. the new plan, including any load balancing changes.

The user must click SEND to send the email. If the user decides to cancel out of the email flow, he/she may click cancel, or click outside the overlay.