



# Valley® Scheduling™

## Client User Manual


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# Introduction

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This manual illustrates how to use Valley® Scheduling™ if you are in a Client role. Its use is online only which requires access to the internet and a user name and password for login.

Valley Scheduling is used to gather the user-entered values and or values acquired from various weather stations and sensors in order to make irrigation scheduling suggestions.

All information in this manual is based on information available at the time of printing. Valmont Industries Inc. reserves the right to make changes at any time without notice and without incurring any obligation. Specifications are applicable to equipment sold within the United States, and may vary outside of the United States.

## Requirements

- Access to the internet.
- Internet speed: 25 Mbps or above download, with 2 Mbps upload preferred.
- Recommended Browsers: Google Chrome™<sup>1</sup>, Firefox®<sup>2</sup>, Safari®<sup>3</sup> or Microsoft Edge™<sup>4</sup>.

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1 Google Chrome™ is a trademark of Google LLC.

2 Firefox® is a registered trademark of the Mozilla Foundation.

3 Safari® is a trademark of Apple Inc., registered in the U.S. and other countries.

4 Microsoft Edge™ is a trademark of Microsoft Corporation, registered in the U.S. and other countries.

# Getting Started

## Sign In

At the sign in screen, enter your **Assigned User ID (usually an e-mail address)** (1) and **password** (2), then click **Sign In** (3). See Figure 5-1.

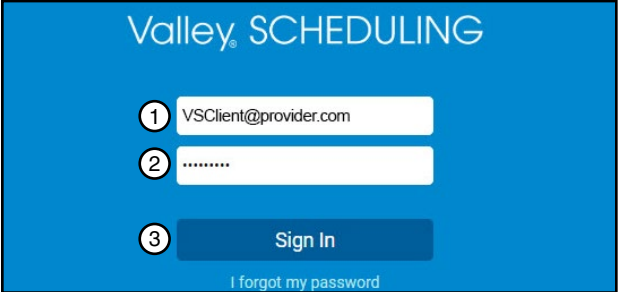


Figure 5-1 1. E-Mail Address 2. Password 3. Sign In

## Dashboard

Valley Scheduling opens to the Dashboard (1). Refer to Figure 5-2.

The dashboard screen allows a quick overview of everything going on with the farm.

The default farm is displayed with fields (2) and Irrigation Forecast (3) on the map, and the Decision table (4) below. Farm Weather (5) and Weather Forecast (6) are at the bottom of the page.



Figure 5-2 1. Dashboard 2. Fields 3. Irrigation Forecast 4. Decision Table 5. Weather 6. Weather Forecast

# Getting Started

## User Preferences

The User Preference settings for units, display formats and language can be changed at any time.

In the upper right hand corner of the display, the gear icon allows access to the user preferences. Choose from Celsius or Fahrenheit temperature units, Imperial or Metric measurement units, three date display formats, two number display formats and languages: English, Portuguese, Russian, Spanish or Turkish. The languages can be very useful for communicating irrigation needs when different languages are spoken by growers and farm workers. For the mobile app, the language setting for the phone is automatically set as the language for Valley Scheduling.

For example, to set the Measurement System user preferences, refer to Figure 6-1 and do the following:

1. Click the **Gear** icon.
2. To choose a different Measurement System, click the **Arrow** to show all the choices.
3. Select either Imperial or Metric. The change is made immediately and the user preferences screen closes.
4. Repeat steps 1 through 3 as needed to set other user preferences.

The screenshot shows the Valley Scheduling web application. At the top, there's a navigation bar with 'Valley Farm' and 'Valley SCHEDULING'. A gear icon (1) is in the top right corner. Below the map, a 'Decision' table is visible. A dropdown menu (2) is open, showing options for 'Imperial System' and 'Metric System', along with other settings like 'Temperature Unit' (Fahrenheit), 'Dates' (dd/mm/yyyy), 'Numbers' (1,000.00), and 'Language' (English).

Field	Date	Area (ac)	Day	Days to Stress	ETc (in)	Current Root Zone			Speed (%)	Time (h)	Total Irrigation (in)	Effective Irrigation (%)	Next 7 Days Irrig	
						Allowable Depletion (in)	%FC (%)	Irrigation Depth (in)					ETc + Soil (in)	Stress Index (%)
ICON 10 (Corn)	03/09/2018	105.9	138	9	0.13	1.15	100.0	0.00	0	00:00	36.00	95.4	0.33	7.56
ICON 5 (Potato)	03/09/2018	105.9	111	8	0.06	0.81	95.6	0.62	20	39:52	27.44	93.6	0.77	5.21
ICON X (Peppermint)	03/09/2018	105.9	246	6	0.15	0.88	100.0	0.00	0	00:00	38.02	87.3	0.36	4.60
PRO 2 (Soybean)	03/09/2018	105.9	109	16	0.10	1.56	86.1	0.68	18	43:55	6.04	79.9	0.93	14.80

Figure 6-1 1. Gear  
2. Arrow



# Using Valley Scheduling

## Dashboard Overview

Figure 7-1 shows a typical dashboard for a farm. From the dashboard the user can access all functions.

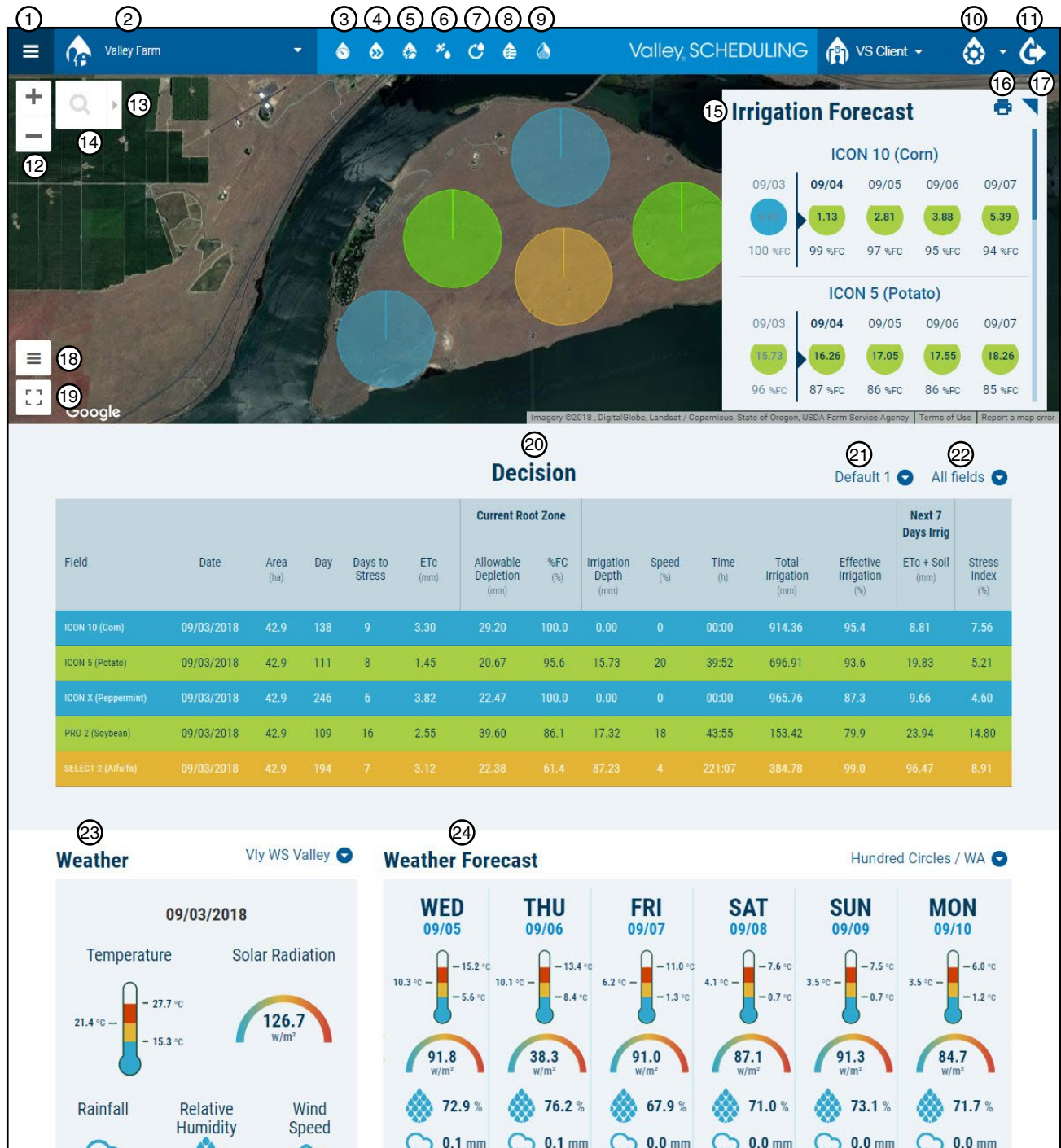


Figure 7-1

- |                          |                                     |  |
|--------------------------|-------------------------------------|--|
| 1. Menu                  | 11. Sign Out                        | 21. Decision information display options |
| 2. Selected farm         | 12. Zoom In (+) and Out (-)         | 22. Field status sort                    |
| 3. Dashboard Shortcut    | 13. Display sensors                 | 23. Weather                              |
| 4. Data Shortcut         | 14. Search fields and stations      | 24. Weather Forecast                     |
| 5. Farm weather Shortcut | 15. Irrigation forecast             |  |
| 6. Imagery Shortcut      | 16. Print five day forecast         |  |
| 7. Scheduling Shortcut   | 17. Toggle irrigation forecast view |  |
| 8. Reports Shortcut      | 18. Legend                          |  |
| 9. Fields Shortcut       | 19. Toggle full screen view         |  |
| 10. Settings             | 20. Decision table                  |  |

# Using Valley Scheduling

## Dashboard Overview

### Menu

The Menu icon is located in the upper left corner of the screen. Click the icon to display the menu, then navigate to a feature of interest. Refer to Figure 8-1.

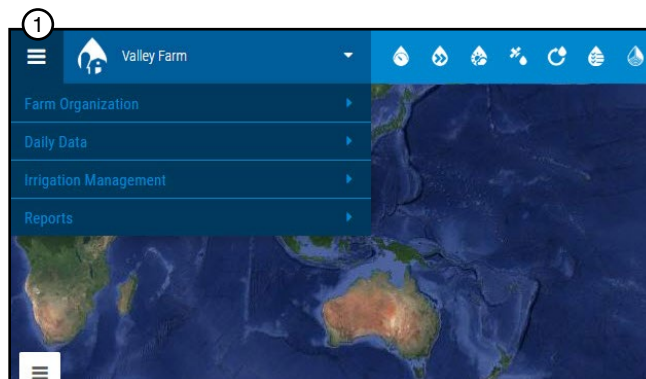


Figure 8-1 1. Menu

### Selected Farm and Search

The name of the Selected Farm that is currently displayed is shown at the top of the screen. To display a different farm, click on the selected farm to open the search window. The search window displays the available farms that you can view and edit (depending on your permissions). Select a farm to view or enter the farm name in the Search. Refer to Figure 8-2.

### Shortcut Icons

There are several shortcut icons across the top of the screen. You can use these shortcuts at any time to go directly to frequently used screens in the Valley Scheduling application. Refer to Figure 8-2.

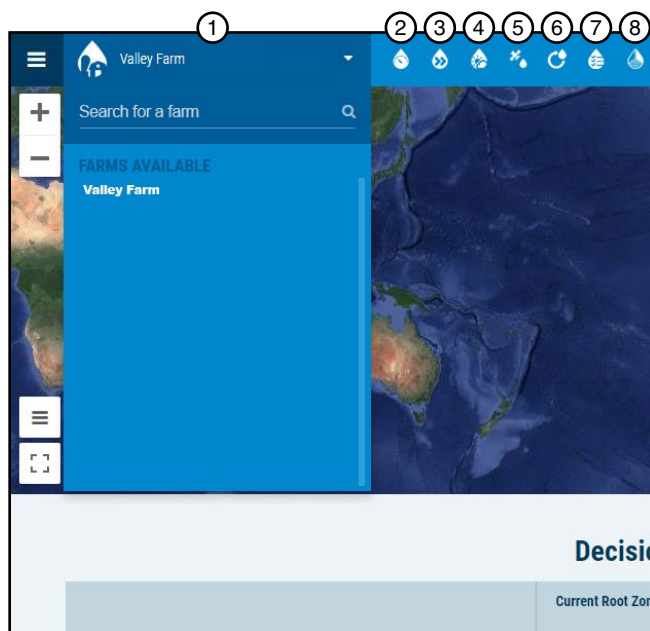


Figure 8-2 1. Selected Farm  
2. Dashboard: Shortcut to the Dashboard  
3. Data: Shortcut to Daily Data/Simplified Registration  
4. Farm Weather: Shortcut to Daily Data/Farm Weather  
5. Imagery: Shortcut to Daily Data/Imagery  
6. Scheduling: Shortcut to Irrigation Management/Scheduling  
7. Reports: Shortcut to Reports/Irrigation Reports  
8. Fields: Shortcut to Farm Organization/Fields



# Using Valley Scheduling

## Dashboard Overview

### Zoom

To zoom in click (+) and to zoom out click (-).

### Search Fields and Stations

Use to search for a field or select a field or weather station from the list. To open the fields and stations search, click the magnifying glass icon.

### Full Screen View

For a full screen view of the map, click the toggle to expand or collapse the map view.

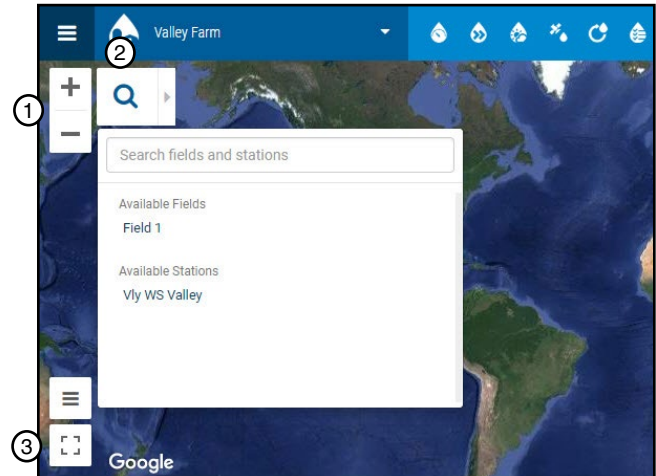


Figure 9-1 1. Zoom In (+) and Out (-)  
2. Search fields and stations  
3. Toggle full screen view

### Display Sensors

To open or close the sensor display drawer, click the arrow. Toggle the sensor type on to display the sensors on the map or toggle off to hide. Refer to Figure 9-2.

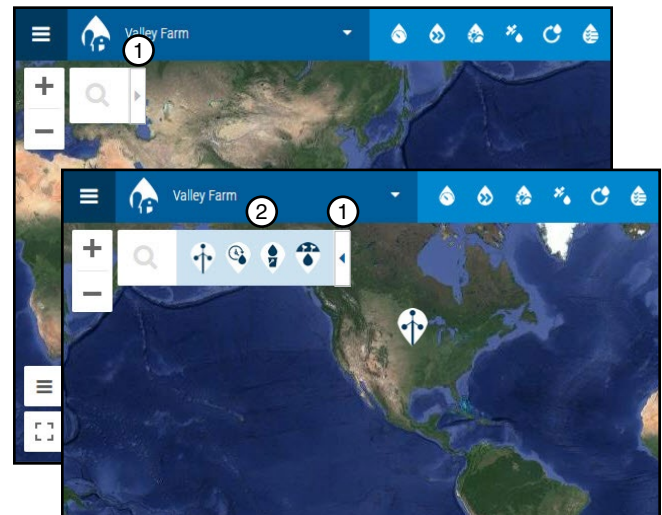


Figure 9-2 1. Arrow  
2. Display Sensors

### Legend

Click to display the color, sensor and climate legend. Refer to Figure 9-3.

Blue – Soil moisture is full.

Green – Soil moisture is in a good range.

Yellow – Soil moisture is low.

Red – Soil moisture too low. Crop is likely to be stressed.

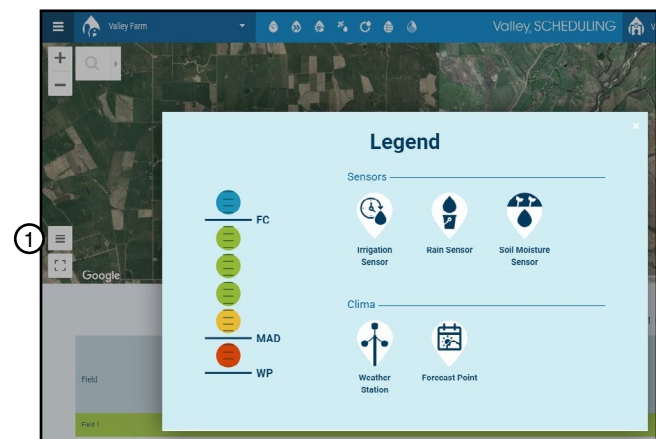


Figure 9-3 1. Legend

# Using Valley Scheduling

## Information Triangle

When critical information about the field, crop or data is available, the information triangle is displayed on the dashboard decision table next to a field name. Hovering over the triangle displays a popup message above the field row. The information triangle is also displayed on the fields result management page occurrences tab.

When the information triangle is displayed, go to the Occurrences tab to view the message. Refer to Figure 10-1.

To view the Occurrences tab do one of the following:

- Go to the **Dashboard** and click on the **Field Name** in the decision table to display the Fields Result Management page. Then click the **Occurrences** tab.
- If the dashboard decision table is not populated with a field name, click **Menu, Farm Organization** and **Fields**. On the Manage Fields page, click the **Management** icon in front of the field name, select the **Calculation Option** and click **Calculate** to display the Fields Result Management page. Then click the **Occurrences** tab.
- If the field name cannot be found, please contact your Valley Dealer Consultant.

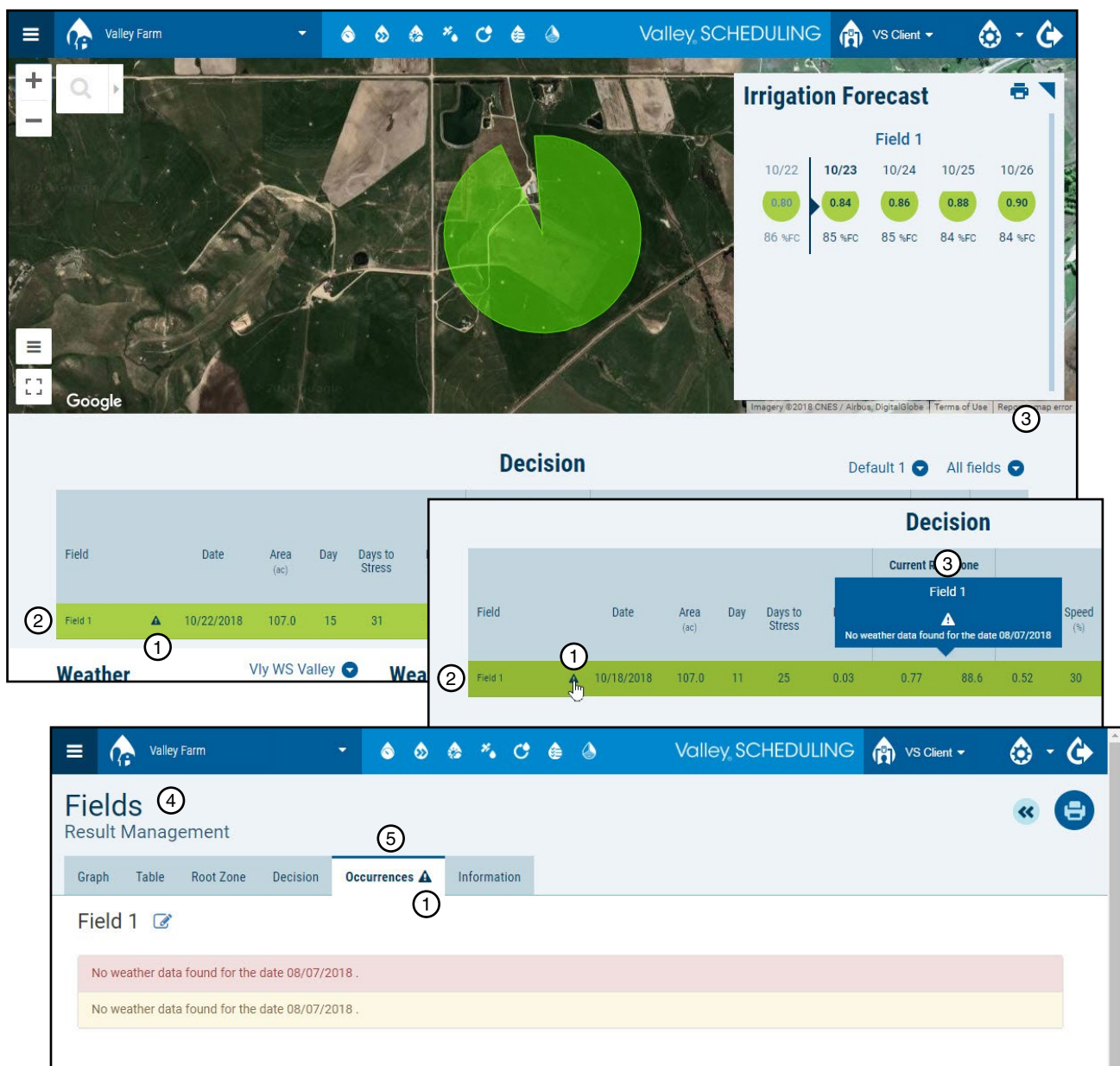


Figure 10-1 1. Information Triangle 3. Popup Message 5. Occurrences  
2. Farm Name 4. Fields Result Management

# Using Valley Scheduling

## Five-Day Irrigation Forecast

In this irrigation forecast, a five day irrigation forecast is displayed for all fields associated with the farm. Refer to Figure 11-1.

The first day of the forecast shows the moisture status and inches of irrigation needed as of the end of the day last night near midnight. The forecast bubbles to the right indicate what will happen if you don't irrigate over the next four days.

You can click on any day of the forecast to gain additional information, such as pivot speed recommendations, hours of irrigation needed, degree days, forecast rainfall and Reference ET (ET<sub>o</sub>). This forecast is updated at the end of each day or every two hours depending on the farm update setting.

To print the forecast, click the **Printer** icon. This will print the five day irrigation forecast for all fields associated with the farm.

To collapse or expand the irrigation forecast window, click the **Collapse / Expand** icon.

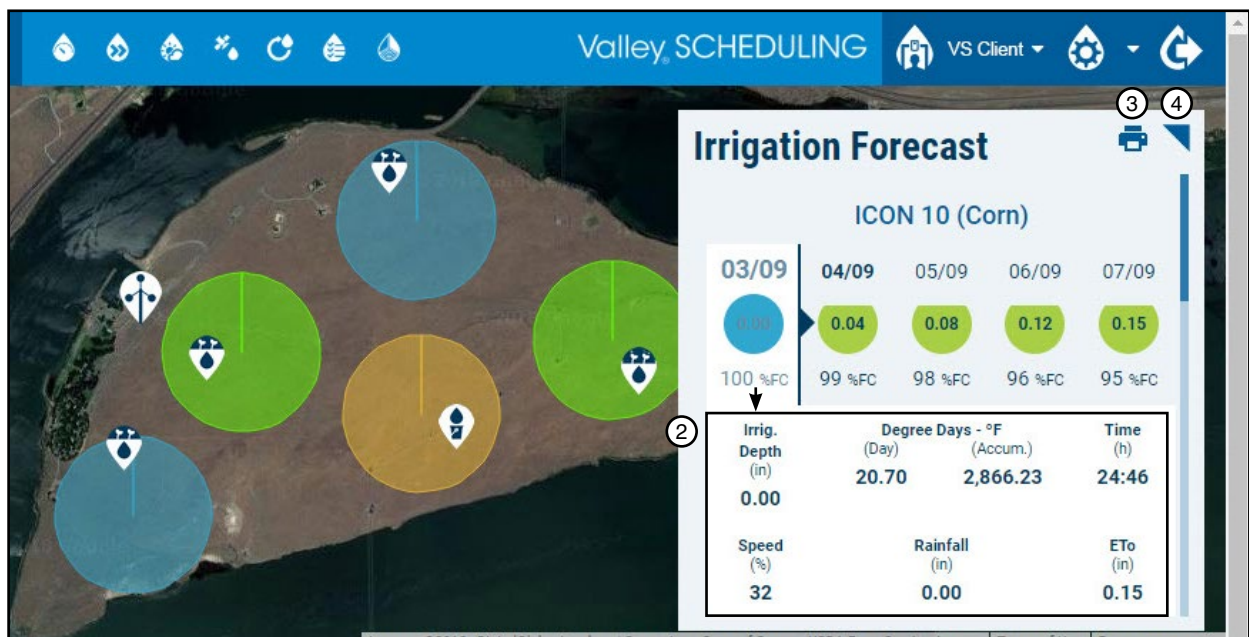
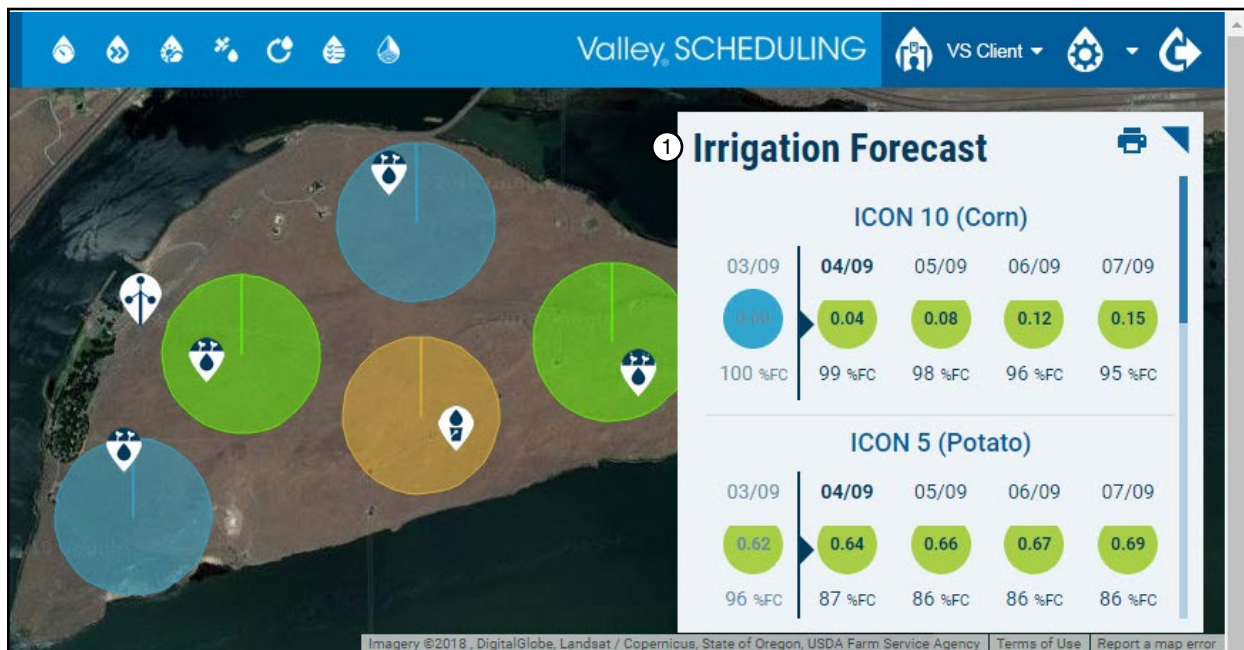


Figure 11-1 1. Irrigation Forecast 2. Additional Information 3. Print 4. Collapse/Expand



# Using Valley Scheduling

## Field Map > Seven Day Forecast

The Dashboard provides an interactive field map showing all managed fields on your farm. Refer to Figure 12-1. The fields are color-coded to indicate current day soil moisture status just like the irrigation forecast. Icons show the locations of the monitoring sites and weather stations.

The map is interactive so when you click on a field, a seven-day extended irrigation forecast will appear. Click on any individual day in this forecast and gain access to the additional forecast details provided by the five-day forecast.

To access the result management screen click the **Graph** icon.

To return to the seven-day forecast, click **Back**.



Figure 12-1 1. Field Map 2. Seven-Day Forecast 3. Additional Information 4. Graph Icon 5. Back

# Using Valley Scheduling

## Decision Table

The decision table gives you a customizable table of all the current data for all your fields in a convenient list view. Refer to Figure 13-1.

The background color of each field row represents the current soil moisture the same as the irrigation forecast and map. The information on the decision table provides expanded soil moisture, root zone and irrigation details such as:

- Days since planting (Days)
- Days before stress (Days to Stress)
- Available water in the root zone (Allowable Depletion)
- Approximate root depth (Root Depth)
- Irrigation needed to fill the soil today (Irrigation Depth)
- Irrigation the last 7 days (Last 7 Days)
- Irrigation needed the next 7 days (Next 7 Days – ETC Maintain and ETC+Soil)

This information is included in the default information formats. However, the information that can be included in this table is customizable from an extensive list of options to meet your specific preferences. To change between information formats, click the format arrow and choose a format type.

The field display can be set to display All Fields, only the Active fields or only fields with a Historical record. To change the field display, click the display arrow and choose a display type.

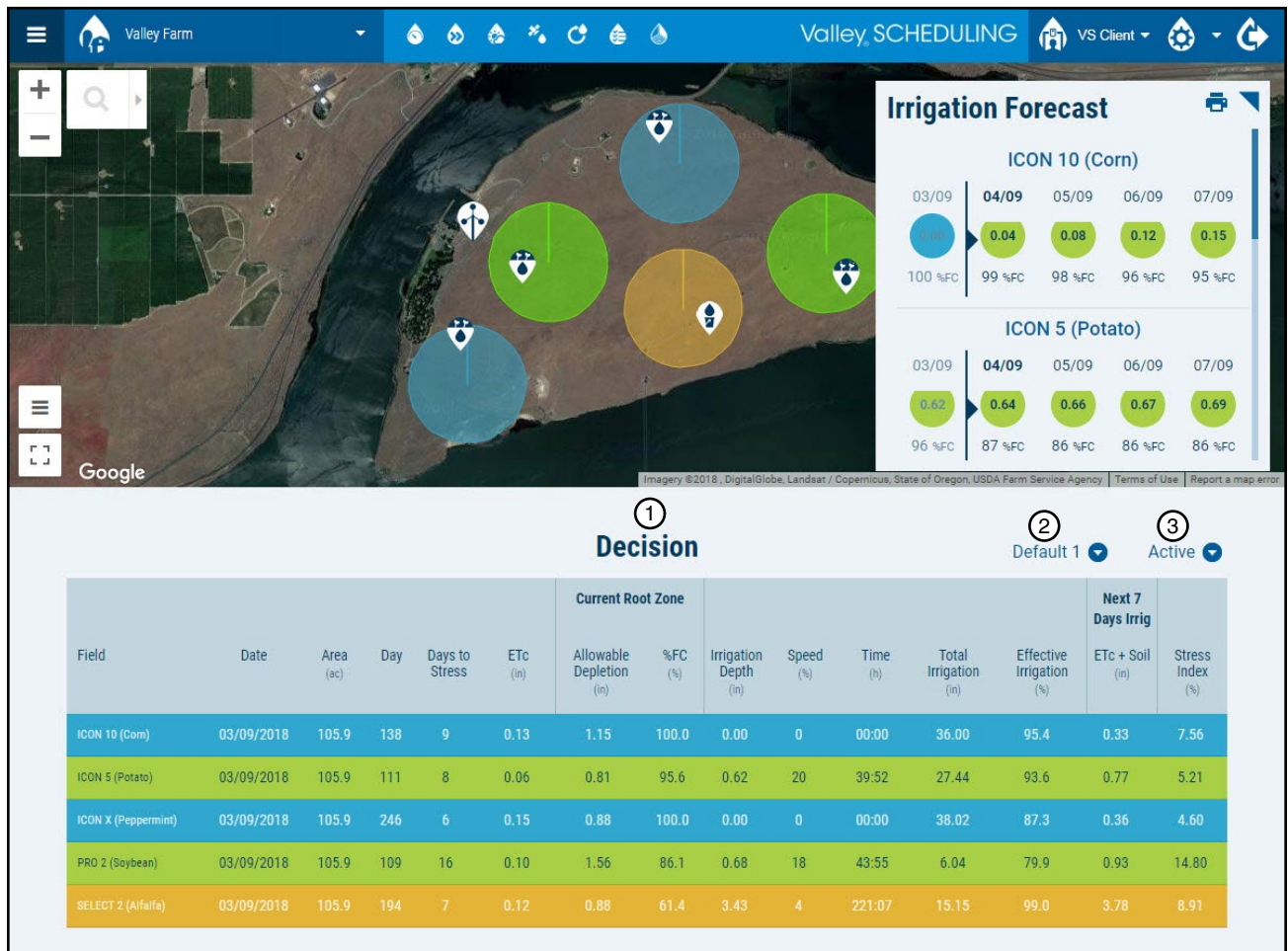


Figure 13-1 1. Decision Table 3. Field Display  
2. Information Format

# Using Valley Scheduling

## Weather Forecast

Scrolling down to the bottom of the page on the dashboard screen, you will see the weather forecast. Refer to Figure 14-1.

The Weather displays yesterday's weather from a local weather station. However, if an AgSense Weather Station is integrated with Valley Scheduling, the current weather will be displayed and updated hourly.

The Weather Forecast displays the forecast for the next seven days. Each individual day gives you a forecast for Temperature (high, low, average), rainfall, solar radiation, relative humidity and wind speed.



Figure 14-1 1. Weather  
2. Weather Forecast



# Using Valley Scheduling

## Result Management

The result management screen allows you to go deeper into your data. Refer to Figure 15-1.

You can navigate to this screen from the dashboard by clicking on a field in the decision table, or by clicking on the graph icon in the seven-day forecast. This will take you to the Graph tab, where you will see your irrigation management summary for the selected field.

To view a different field, click the arrow and choose a field from the drop-down list.

From the result management screen, advanced users may want to navigate to other screens to adjust platform settings. To go to the edit fields screen click the edit pencil or go to the manage fields screen by clicking the back button.

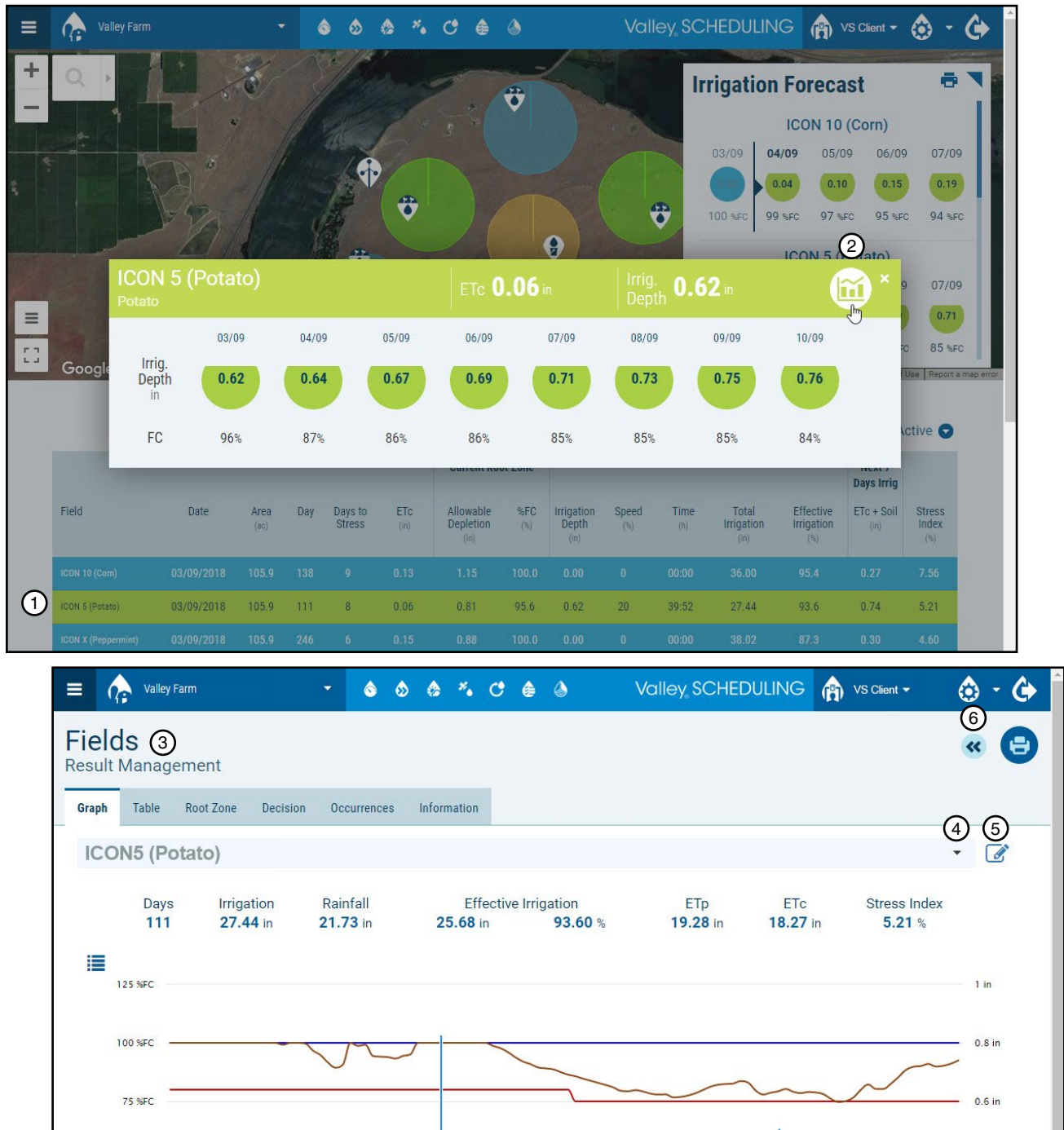


Figure 15-1 1. Click Field 2. Click Graph Icon 3. Result Management Screen 4. Arrow 5. Pencil (edit fields) 6. Back (manage fields)

# Using Valley Scheduling

## Result Management > Printing / Saving

To print or save the result management screen tabs, click print. This opens the field print screen, by default, only the default graph of the current field is selected to be printed or saved. However, you can change the print settings to match your needs. Refer to Figure 16-1.

### Print / Save > All Tabs Report for a Field

For this example all the tabs for the current field will be printed. Refer to Figure 16-1 and do the following:

1. On the Result management screen, click **Print**.
2. For this example, Fields to be printed should be set to **Just this field**.
  - To change to a different field or select more fields, click Just this field and then select More Fields and the Active and Archive field categories are displayed. Expand a field category by clicking the category title or the arrow, then check or uncheck fields as desired.

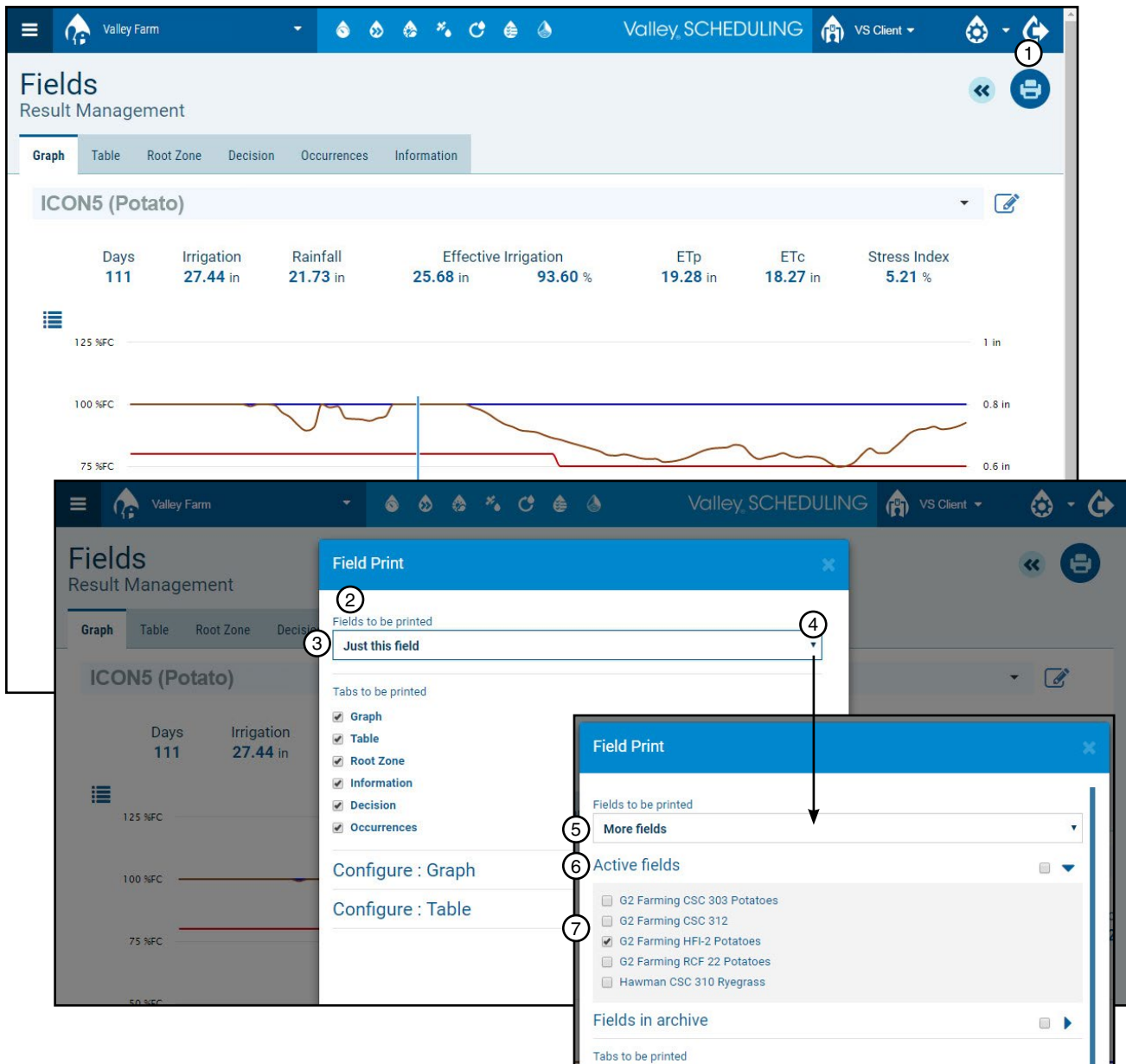


Figure 16-1 1. Print 2. Fields to be printed 3. Just this field 4. Click to Change 5. More fields 6. Click a Category 7. Select Field(s)

# Using Valley Scheduling

## Result Management > Print / Save > All Tabs Report for a Field

- For this example, under Tabs to be printed, all of the tabs are selected. To change what will be printed check or uncheck the tabs as desired. Refer to Figure 17-1.
- Optional: To make changes to the a tab configuration, click the tab Configure Category or arrow and then check or uncheck the data and information to configure what you want to be shown.
- When done, click **Print** and the selected information is compiled into a report on the result management screen.
- Click **Print Report**.

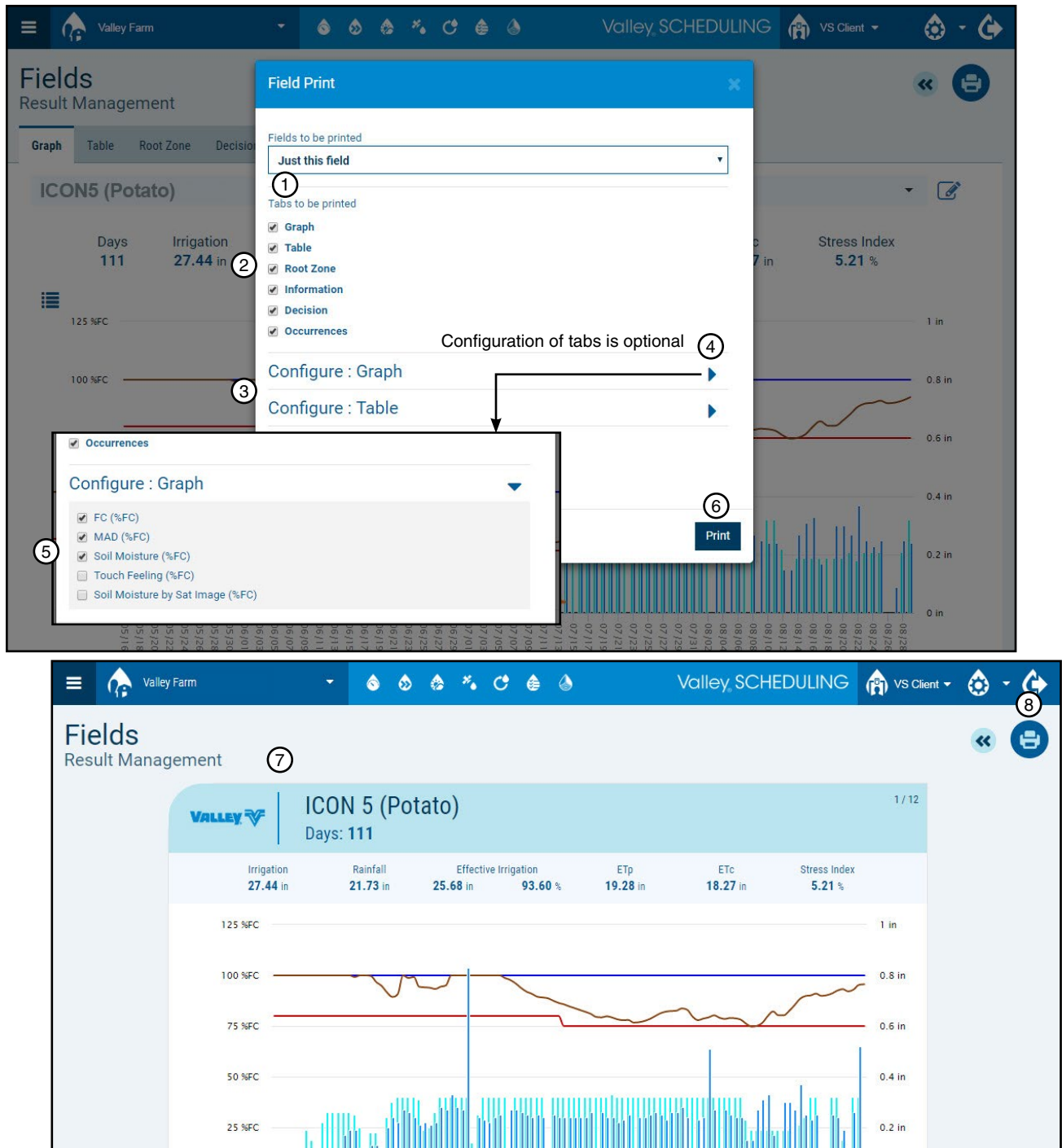


Figure 17-1 1. Tabs to be printed 2. All tabs selected 3. Configure Categories 4. Click to Change Configuration 5. Select Information and Data 6. Click Print 7. Report 8. Print Report

# Using Valley Scheduling

## Result Management > Print / Save > All Tabs Report for a Field

7. In the print window, shown in Figure 18-1, you can do one the following:

- **Print to a selected printer:** Click **Change**, then select a printer. Adjust the settings if needed.
- **Save as a PDF file:** Click **Change**, then select **Save as PDF**. Adjust the settings if needed.

The image shows two overlapping windows from the Valley Scheduling software. The top window is titled 'Printing to a selected printer' and the bottom window is titled 'Saving as a PDF file'. Both windows are overlaid on a report for 'G2 Farming CSC 312'.

**Printing to a selected printer window:**

- 1. Print: Total: 7 sheets of paper (13 pages). Buttons: Print, Cancel.
- 2. Destination: P\_516E-1 on USVAL... 516 Eakes Service Call ...
- 3. Change... button.
- 4. Pages: All (selected), e.g. 1-5, 8, 11-13.
- Copies: 1
- Layout: Portrait
- Color: Color
- Paper size: Letter (8.5 x 11")
- Margins: Default
- Quality: 600 dpi
- Scale: 80
- Options: Headers and footers (checked), Two-sided (checked), Background graphics (unchecked).
- Fewer settings button.

**Saving as a PDF file window:**

- 1. Print: Total: 13 pages. Buttons: Save, Cancel.
- 2. Destination: Save as PDF
- 3. Change... button.
- 4. Pages: All (selected), e.g. 1-5, 8, 11-13.
- Layout: Portrait
- Paper size: Letter
- Margins: Default
- Scale: 80
- Options: Headers and footers (checked), Background graphics (unchecked).
- Fewer settings button.

**Background Report: G2 Farming CSC 312, Days: 106**

Metric	Value
Irrigation	25.08 in
Rainfall	20.72 in
Effective Irrigation	24.30 in
ETp	21.35 in
ETc	20.22 in
Stress Index	5.27 %

The chart displays various metrics over time (07/01/2018 to 08/04/2018):

- FC (NFC): Field Capacity (No Frost Control)
- MAD (NFC): Moisture Available (No Frost Control)
- Soil Moisture (NFC): Soil Moisture (No Frost Control)
- WP (NFC): Wilting Point (No Frost Control)
- Irrigation (in): Irrigation (in)
- Precipitation (in): Precipitation (in)
- Flag: Flag
- Justification of Excess: Justification of Excess

Figure 18-1 1. Print Window 3. Change (optional)  
2. Destination 4. Settings

# Using Valley Scheduling

## Result Management > Print / Save > All Tabs Report for a Field

8. Refer to Figure 19-1, and do one the following:

- **To print:** click **Print** and the document should print on the printer you selected. Refer to Figure 19-1.
- **To save:** click **Save**.
  - (a) Navigate to the location where you want to save the report.
  - (b) Enter a meaningful **File Name**.
  - (c) Click **Save** and the file should save to the selected location.

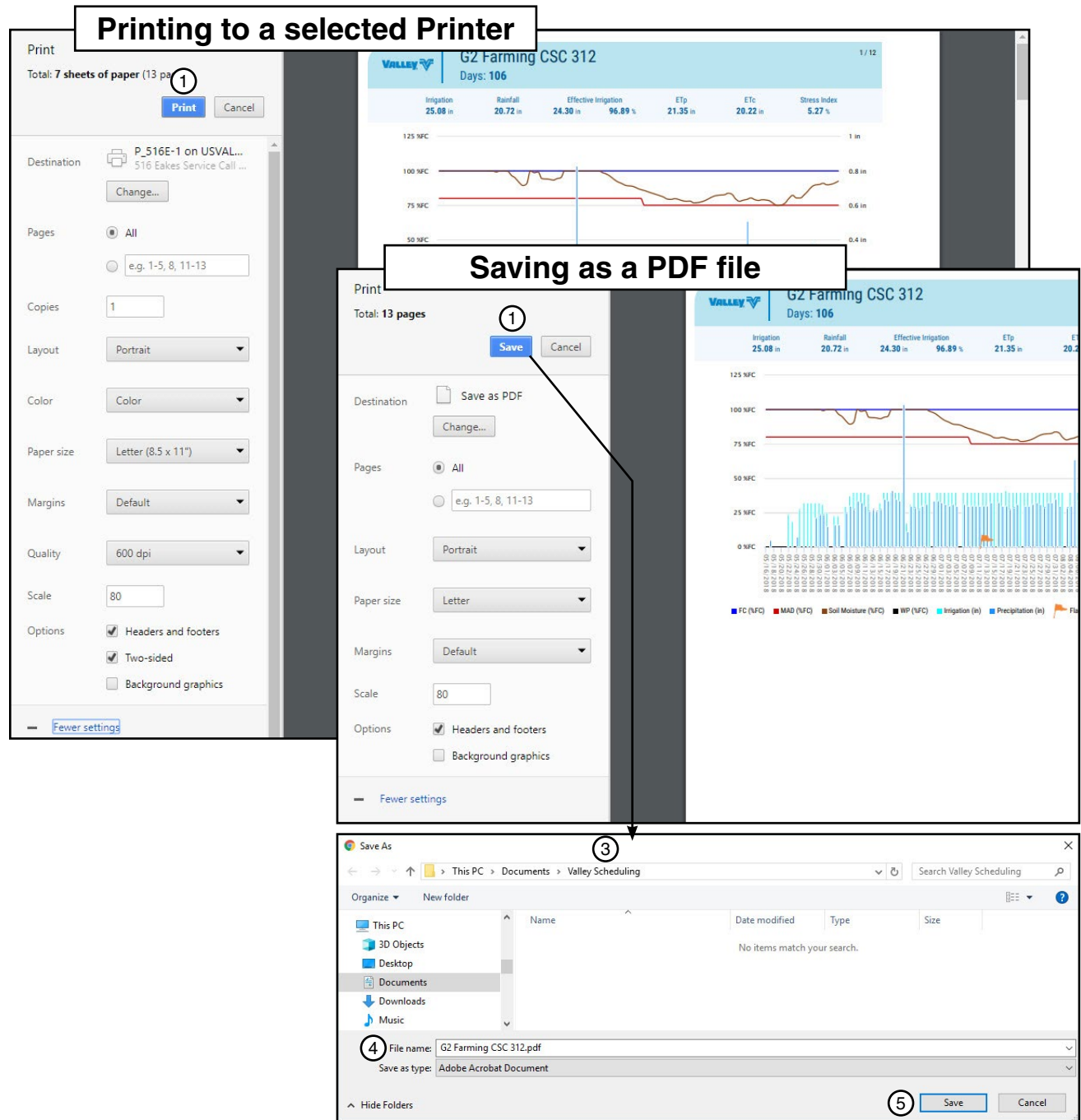


Figure 19-1 1. Print 2. Save 3. Navigate 4. File Name 5. Save



# Using Valley Scheduling

## Results Management > Graph Tab

On the Graph tab, you can see a summary of totals for the season for the field shown, the number of days the data was recorded, total irrigation applied, total rainfall, how effective the irrigation was, total potential ET, ETp, calculated actual crop ET, ETc, and total stress index for the field. Refer to Figure 20-1.

To switch to a different field, click on the field name and select from the list that appears.

In the graph you can see the daily activity. Hover over sections of the graph to see a specific day's information.

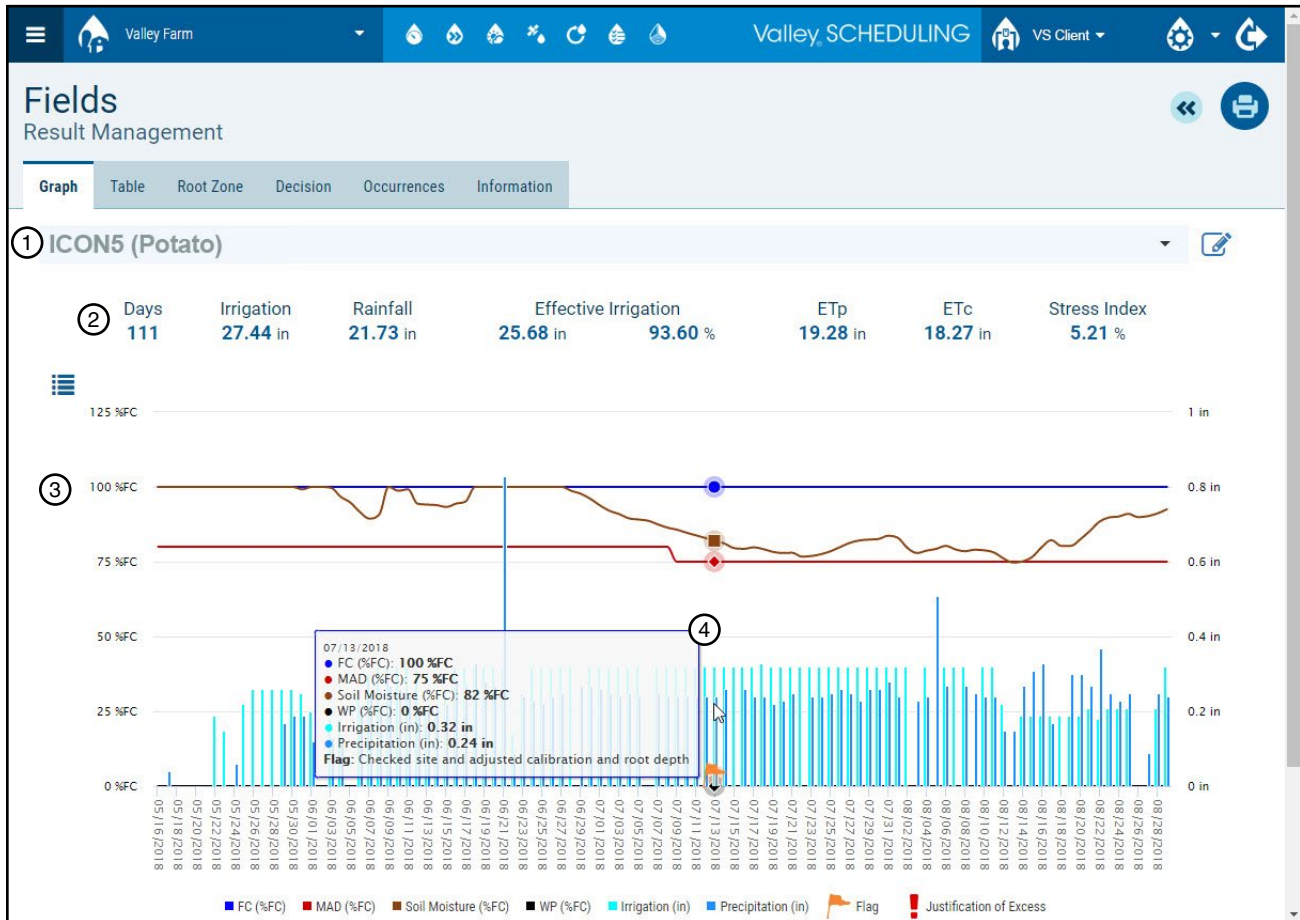


Figure 20-1 1. Field Name 2. Totals 3. Graph Daily Activity 4. Specific Day Information



# Using Valley Scheduling

## Results Management > Graph Tab > Default Profile

The graph has a default profile that is set to show the subject of Soil Moisture field capacity percentage and graph the FC, MAD, Soil Moisture, WP, Irrigation, Precipitation, Flags and Justification of Excess data types. Refer to Figure 21-1.

You can change the subject of the graph from Soil Moisture field capacity percentage, to Soil Moisture weight percentage or Available Water in inches.

To change the subject, click **Menu** and the **Subject**, then select a different subject from the list.

If there are no other profiles, the default profile is displayed. The tabs below the profile contain lists of displayed data options for Irrigation, Soil, Crop and Weather data types. On the Irrigation tab notice that the data types that are currently displayed in the graph are bold. The data type and color appear in the color key below the graph.

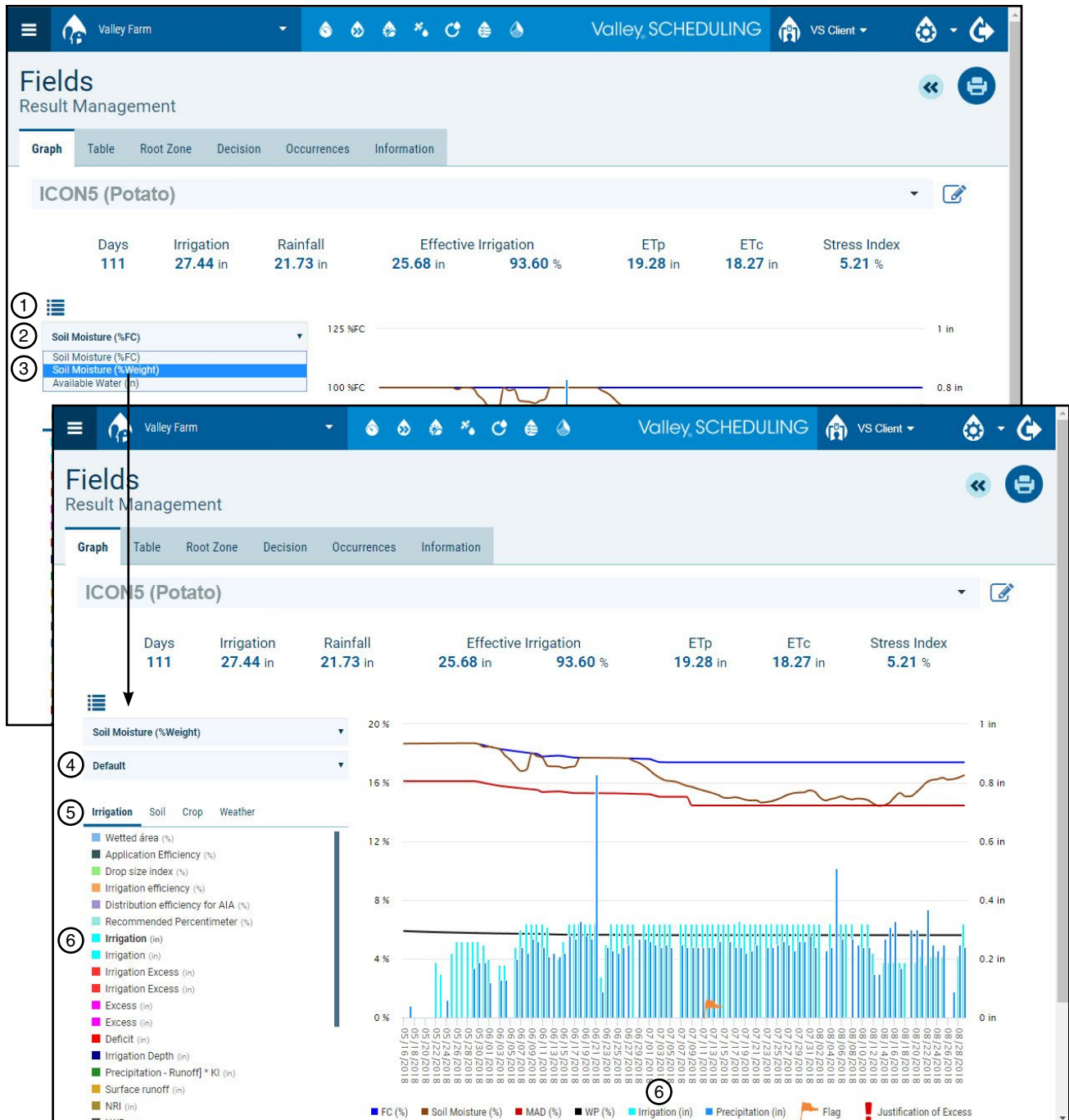


Figure 21-1 1. Menu 2. Subject 3. Select Subject 4. Profile 5. Tabs 6. Displayed Data Options

# Using Valley Scheduling

## Results Management > Graph Tab > Custom Profile

You can customize what information is displayed on the graph and save the profile.

To create a custom profile, refer to Figure 22-1 and do the following:

1. Click **Menu** and the **Profile**, then select **Create a new profile**.
2. Choose data types for the graph. Select the data type to toggle between bold text for inclusion and regular text for exclusion. You should notice the data type being added or removed from the graph and color key.
3. Enter a **Profile name** and click **Save**. After the profile is saved it appears in the profile list. When you make a change to the profile that you want to keep, click **Save**. To delete the profile click the **X**.

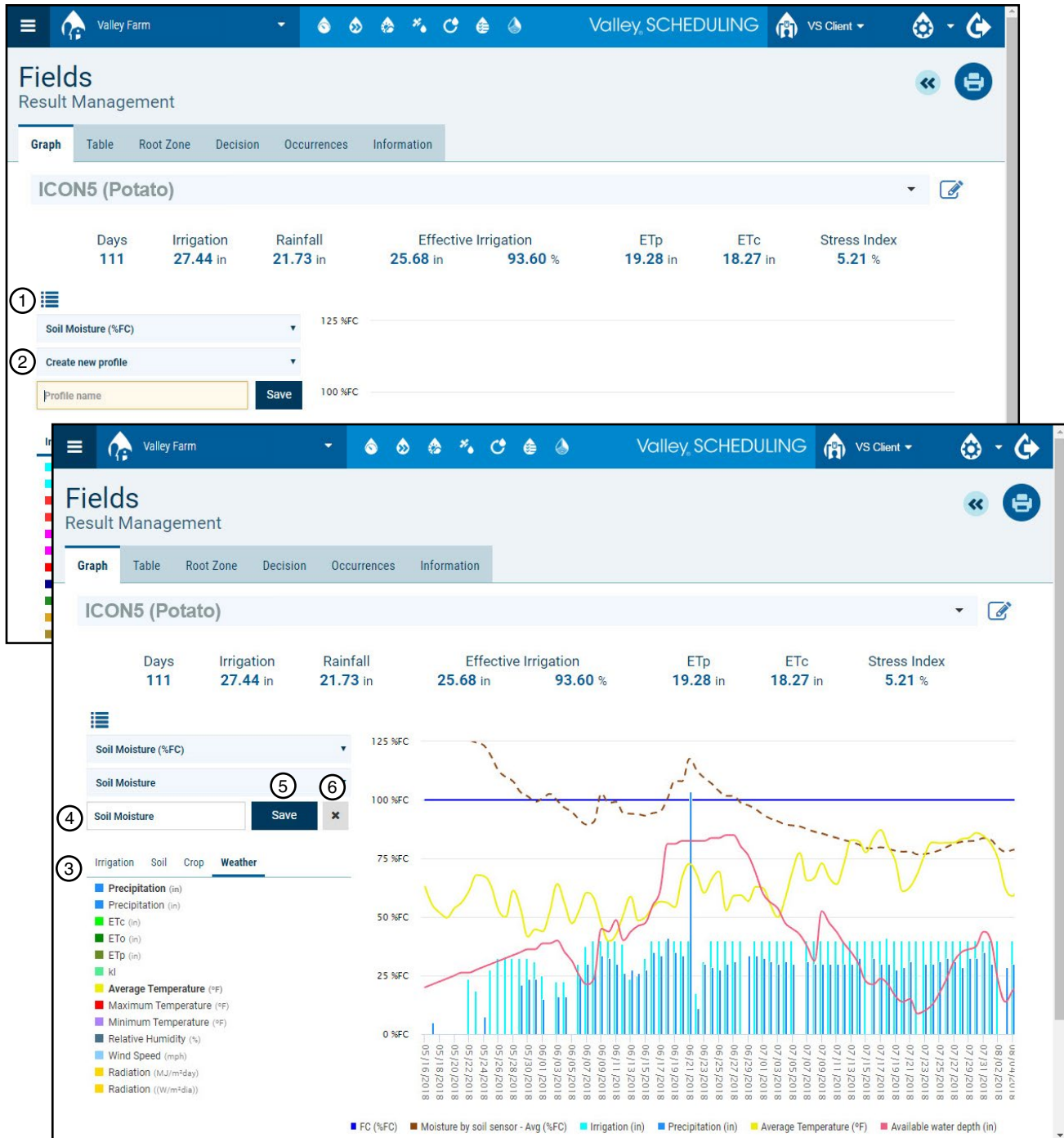


Figure 22-1 1. Menu 2. Create a new profile 3. Choose Data Types 4. Profile name 5. Save 6. Delete

# Using Valley Scheduling

## Results Management > Table Tab

On the Table tab, you can see and customize your daily irrigation management data in a table format. You can view all data, by overall global average, by (growth) stage, annual, monthly, or ten-day intervals. Refer to Figure 23-1.

You can change the subject of the table tab from Soil Moisture field capacity percentage or Soil Moisture weight percentage. To change the subject, click the **Subject**, then select a different subject from the list.

Clicking **Clear Table** clears all the columns from all the screens on the table tab. To restore the default columns to the screens choose a different subject.

Use Search to search the current screen by a date.

You can change which columns are displayed. Click the **Column** menu. Check a title to show the column and uncheck a title to hide the column.

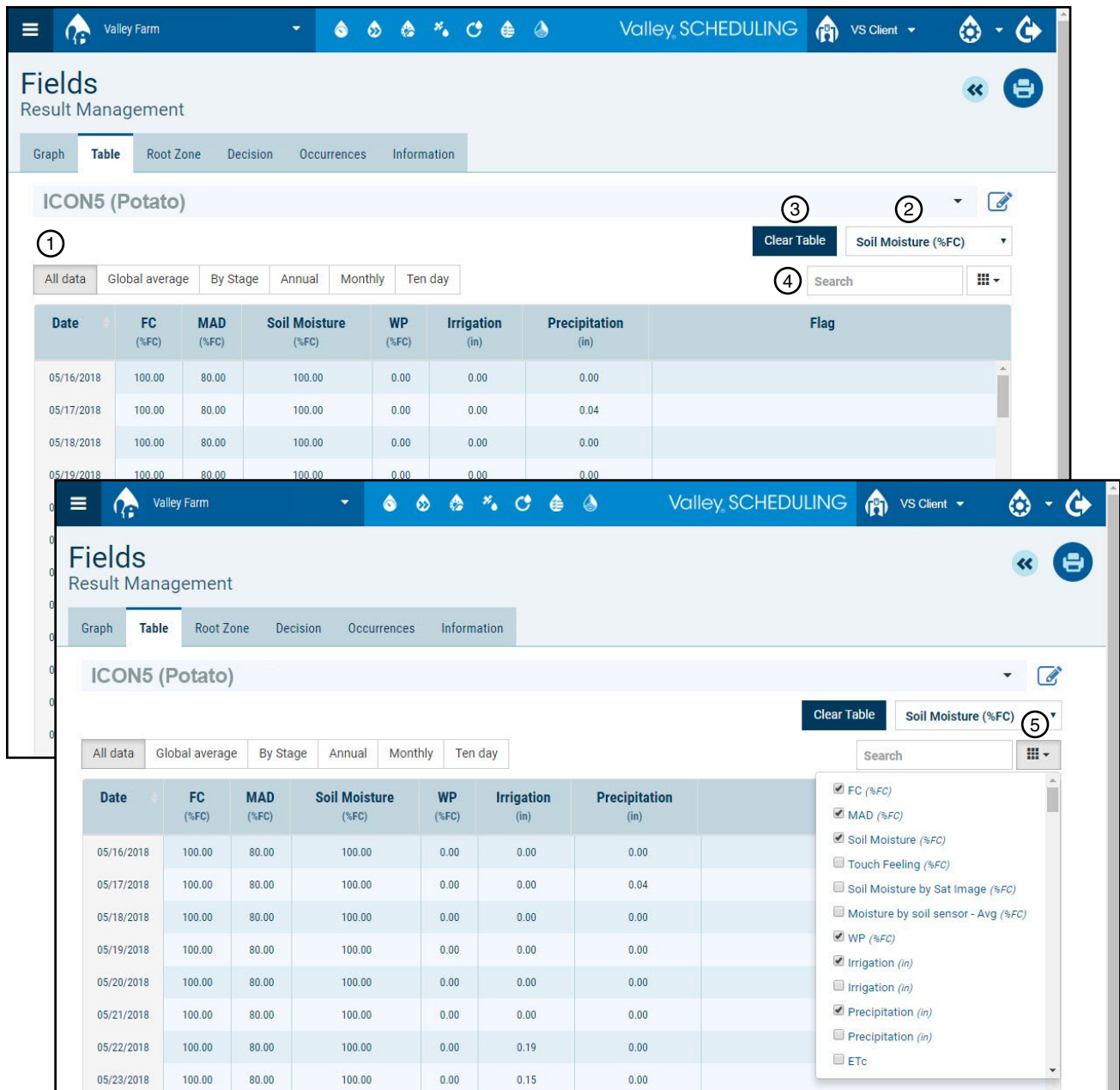


Figure 23-1 1. Daily Irrigation Data Screens 2. Subject 3. Clear Table 4. Search 5. Column Menu

# Using Valley Scheduling

## Results Management > Root Zone Tab

On the Root Zone tab, You can view an image of the root zone model. How deep your crops roots are and the moisture content at each layer. Refer to Figure 24-1.

You also can see the percent of field capacity for each individual layer, in graph form. Below the graph, you can see which data is being displayed. To include or exclude data in the graph, select the data type to toggle black text for inclusion or gray text for exclusion. Hover over sections of the graph to see a specific day's information.

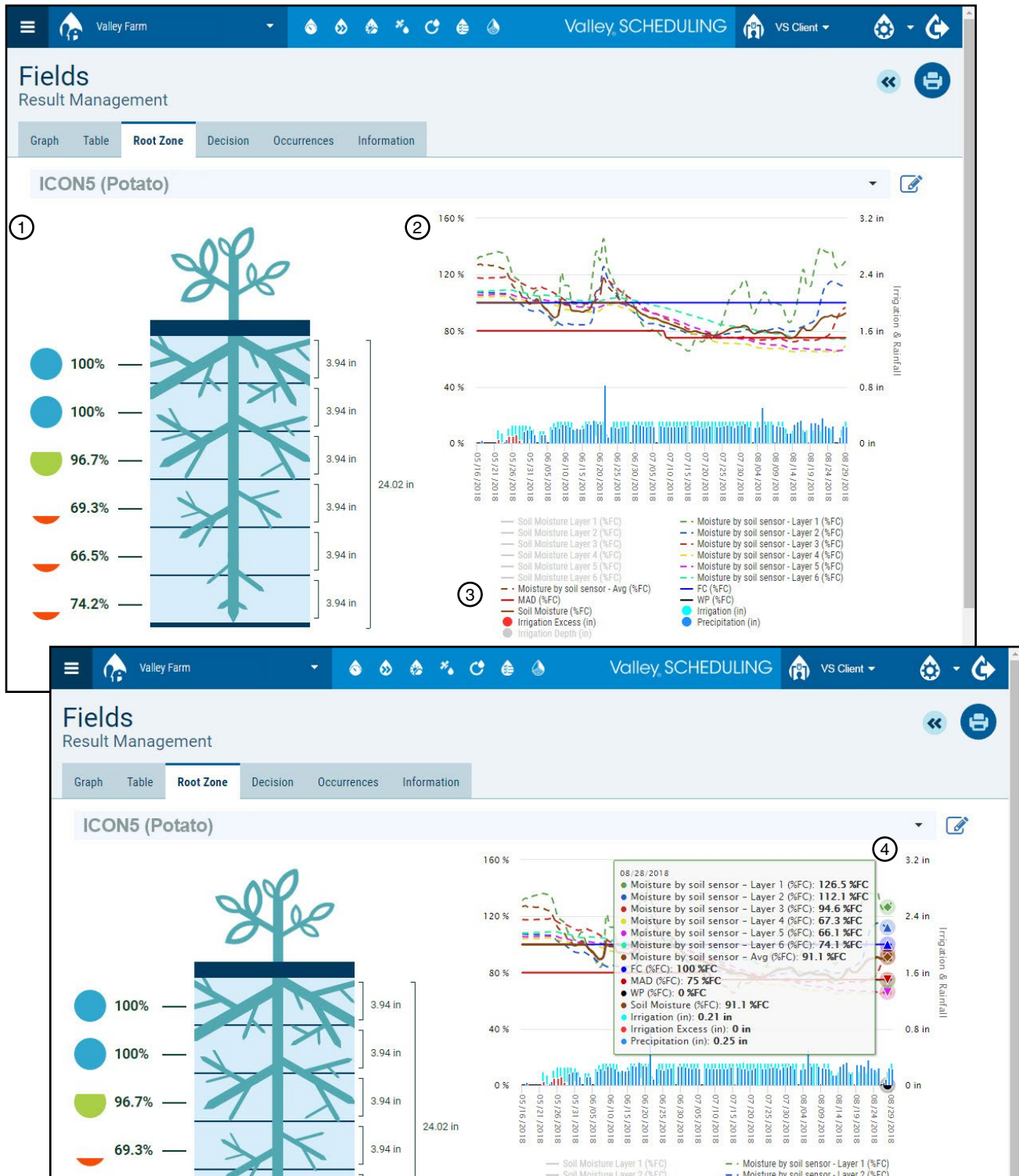


Figure 24-1 1. Root Zone Model 2. Graph 3. Graph Data 4. Daily Activity



# Using Valley Scheduling

## Results Management > Root Zone Tab

When a soil moisture probe is in use, you can select **Sensor Graph** below the root zone image. Refer to Figure 25-1.

This will take you to the raw data from AgSense, in volumetric water content. View the graph data for the last 1 Day, 2 Days, 1 Week, 2 Weeks, 1 Month, 2 Months, 6 Months, All or use the Date Range Slide to show data between dates.

Along the left side of the Soil Sensor Graph, the data being displayed is in black text. You can also turn on and off each layer, as well as turn on soil temperatures for each layer, and electrical conductivity (if available).

The Sensor Graph checks for updates on an hourly basis

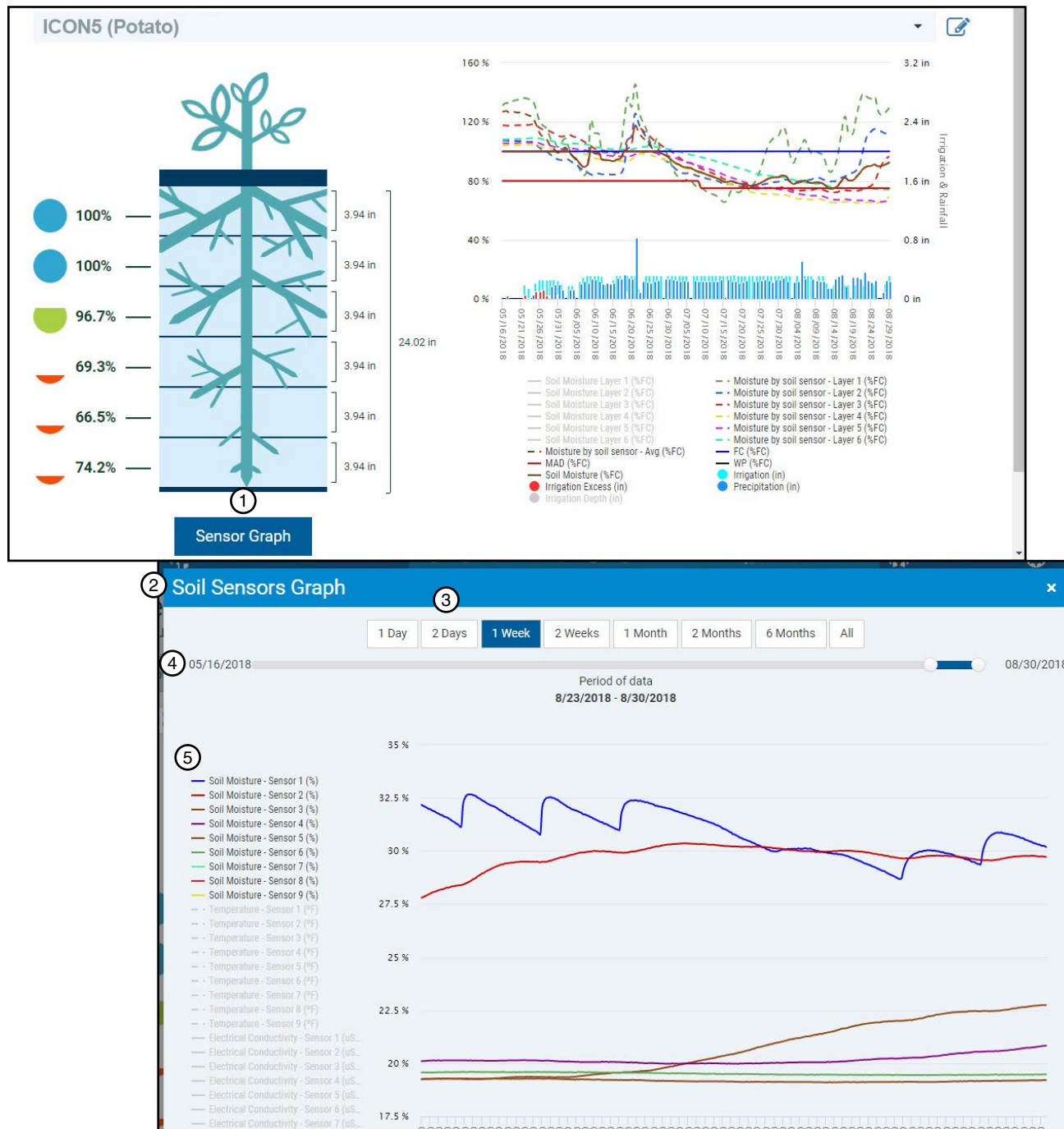


Figure 25-1 1. Sensor Graph 3. Graph Data Periods 5. Graph Data Displayed  
2. Soil Sensor Graph 4. Date Range Slide

# Using Valley Scheduling

## Results Management > Decision Tab

On the Decision tab, you essentially see a tabulated version of the Dashboard Decision information. Refer to Figure 26-1.

The Information tab shows all information that was used to provide the forecast, including the field crop, soil, pivot, and water.

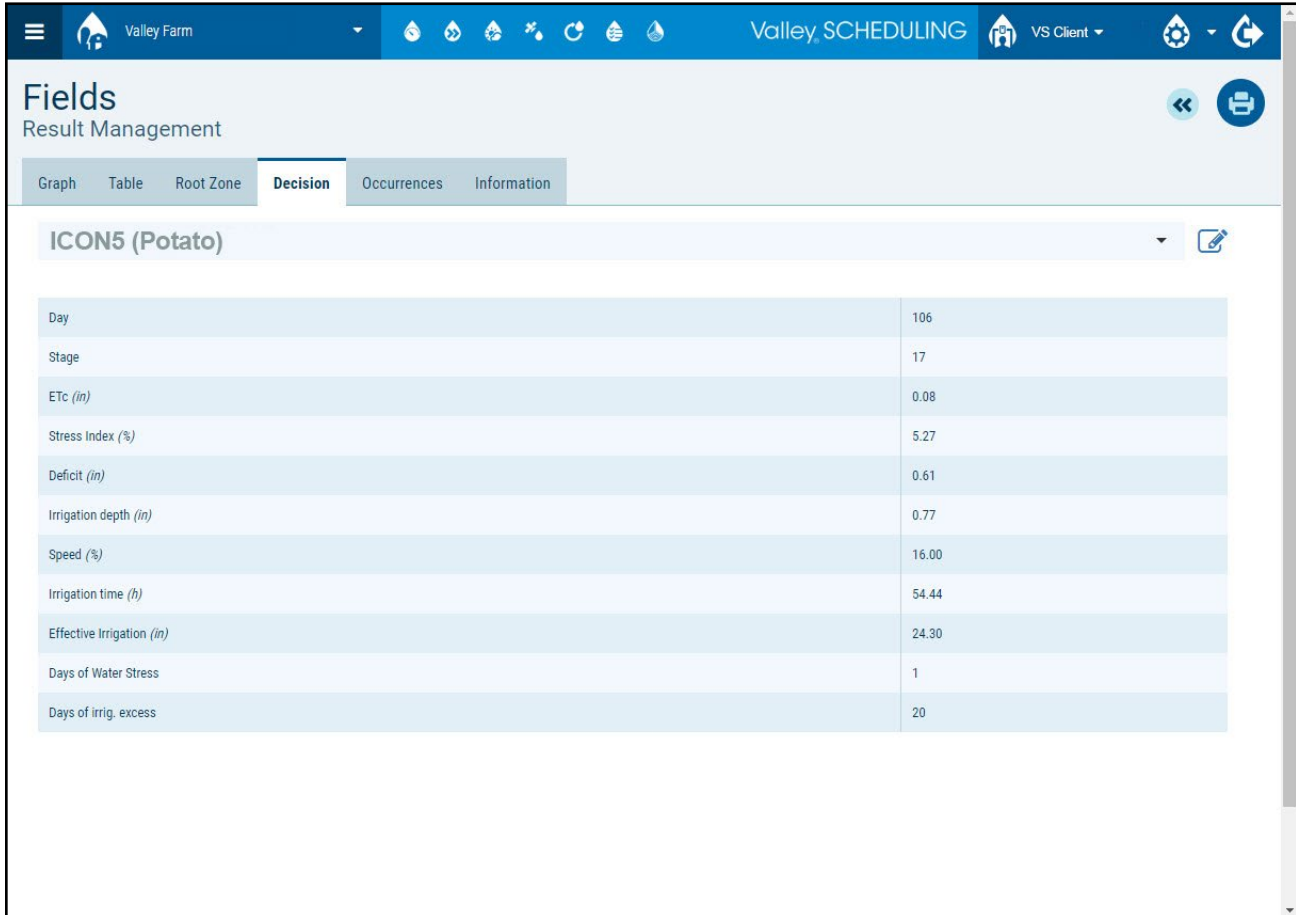


Figure 26-1



# Using Valley Scheduling

## Results Management > Occurrences Tab

The Occurrences tab shows you issues you may be having with your field display or data acquisition. For example: no weather data, or weather station failure. Refer to Figure 27-1.

It will also tell you if any of your sensor layers are above field capacity or below maximum allowable depletion (MAD).

This tab is also helpful when troubleshooting farm/field set-up issues.

The screenshot shows the Valley Scheduling software interface. The top navigation bar includes 'Valley Farm', 'Valley SCHEDULING', and 'VS Client'. The main header is 'Fields Result Management'. Below this is a tabbed interface with 'Graph', 'Table', 'Root Zone', 'Decision', 'Occurrences', and 'Information'. The 'Occurrences' tab is active, showing a list of issues for field 'ICON5 (Potato)'. The first occurrence is 'No weather data found for the date 08/30/2018'. The subsequent occurrences are 'Depth of root absorption reached the maximum soil depth on 08/15/2018' and multiple instances of 'Moisture recorded at layer 1 on [date] is above field capacity' and 'Moisture recorded at layer 2 on [date] is above field capacity'.

Occurrence	Date
No weather data found for the date	08/30/2018
Depth of root absorption reached the maximum soil depth	08/15/2018
Moisture recorded at layer 1 is above field capacity	08/16/2018
Moisture recorded at layer 1 is above field capacity	08/17/2018
Moisture recorded at layer 1 is above field capacity	08/18/2018
Moisture recorded at layer 1 is above field capacity	08/19/2018
Moisture recorded at layer 1 is above field capacity	08/20/2018
Moisture recorded at layer 1 is above field capacity	08/21/2018
Moisture recorded at layer 1 is above field capacity	08/22/2018
Moisture recorded at layer 2 is above field capacity	08/22/2018
Moisture recorded at layer 1 is above field capacity	08/23/2018
Moisture recorded at layer 2 is above field capacity	08/23/2018
Moisture recorded at layer 1 is above field capacity	08/24/2018
Moisture recorded at layer 2 is above field capacity	08/24/2018

Figure 27-1

# Using Valley Scheduling

## Results Management > Information Tab

The Information tab shows all information that is used to provide the forecast, including the field crop, soil, pivot, and water. Refer to Figure 28-1.

The screenshot shows the 'Valley SCHEDULING' software interface. At the top, there is a navigation bar with 'Valley Farm' and 'VS Client' dropdowns. Below this is a 'Fields Result Management' header with tabs for 'Graph', 'Table', 'Root Zone', 'Decision', 'Occurrences', and 'Information'. The 'Information' tab is selected, showing details for 'ICON5 (Potato)'. The field information is organized into two main sections: 'Field' and 'Crop'.

**Field Information:**

- Name: **ICON 5 (Potato)**
- Water: **River Water**
- Planting date: **05/07/2018**
- Spacing between emitters: **0**
- Final date of management: **09/03/2018**
- Interval of days that characterizes indian summer: **7**
- Probability of occurrence of precipitation: **75**
- Area (ac): **105.93**
- Crop: **Potato**
- Soil: **VF Sandy Loam (ICON 5)**
- Equipment: **Center Pivot**
- Spacing: **0 x 0 x 0**
- Spacing between lateral lines: **0 x 0**
- Initial date of stage: **05/14/2018**

**Crop Information:**

- Name: **Potato**
- Market Value: **--**
- Basal Temperature: **4.44**
- Management Allowed Depletion: **0.2**
- Maximum Salinity: **2.3**
- Optimum Temperature: **25.56**


**Stage Information:**

- Stage 0: Pre-Planting**
  - Period (Days): **1**
  - Kc: **0.00**
  - Root depth (ft): **0.00**
  - Next Cycle Stage: **No**
  - Cycle Change: **No**
- Stage 1: Week 1**
  - Period (Days): **7**
  - Kc: **0.3**
  - Root depth (ft): **0.13**
  - Next Cycle Stage: **No**
  - Cycle Change: **No**
- Stage 2: Week 2**
  - Period (Days): **7**
  - Kc: **0.3**
  - Root depth (ft): **0.26**
  - Next Cycle Stage: **No**
  - Cycle Change: **No**
- Stage 3: Week 3**
  - Period (Days): **7**
  - Kc: **0.4**
  - Root depth (ft): **0.36**
  - Next Cycle Stage: **No**
  - Cycle Change: **No**
- Stage 4: Week 4**
  - Period (Days): **7**
  - Kc: **0.6**
  - Root depth (ft): **0.46**
  - Next Cycle Stage: **No**
  - Cycle Change: **No**
- Stage 5: Week 5**
  - Period (Days): **7**
  - Kc: **0.7**
  - Root depth (ft): **0.59**
  - Next Cycle Stage: **No**
  - Cycle Change: **No**

Figure 28-1

# Using Valley Scheduling

## Data Icon > Daily Data Simplified Registration

 Clicking the dashboard Data icon takes you to the Daily Data Simplified Registration page. Refer to Figure 29-1.

The Daily Data Simplified Registration page allows users to enter flags which are notes about the data, equipment or field observations. These notes show up on the Result Management Graph and Daily Data Flags screen for easy future reference. In international operations, where cell phone telemetry is not available it also allows manual entry of rainfall and irrigation.

To enter a flag, do the following:

1. From the dashboard, click the **Data** icon or click **Menu**, go to **Daily Data** and select **Simplified Registration**. Refer to Figure 29-1.
2. Select a **Start Date** for the daily posting and click **Confirm**. The start date is the date that the flag event occurred.
3. Go to the **Flag** section for the field and enter your notes. Flags are limited to 220 characters including spaces.
4. When you're done, click **Save**. Choose the next step, either enter a flag for another date or update the Management and the Irrigation Forecast to make the flag visible on the result management graph.

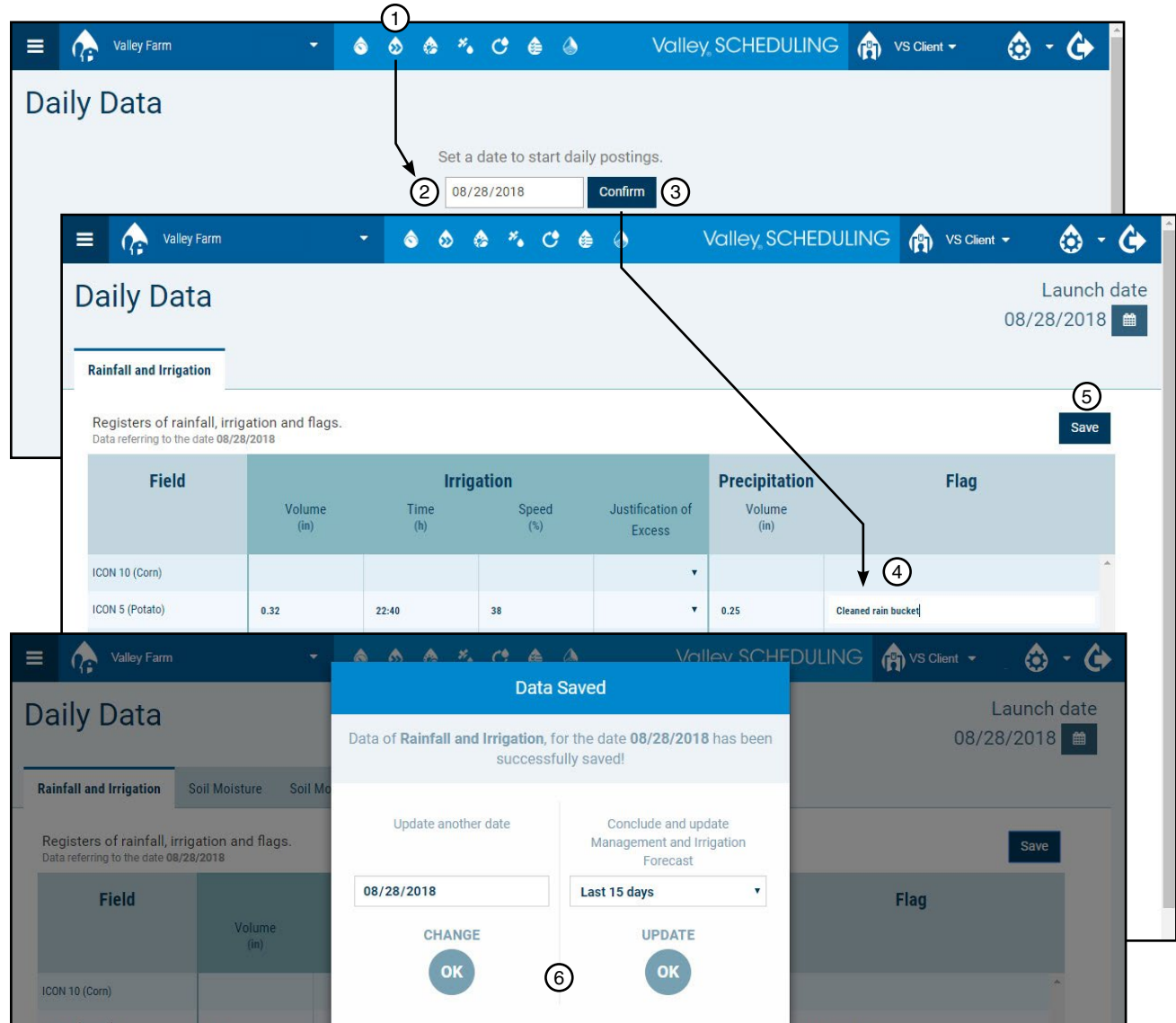



Figure 29-1 1. Data Icon 2. Start Date 3. Confirm 4. Flag Area 5. Save 6. Choose the next step

# Using Valley Scheduling

## Farm Weather

 Clicking on the dashboard Farm Weather icon will take you to the Daily Data Farm Weather screen. This is a detailed past-weather log. You can see the data in table and graph forms. You can also add, import, export, edit or delete weather data. Refer to Figure 30-1.

## Readings Tab

On the Readings tab, you can select a different weather station (when multiple weather stations are associated with the farm), use the search bar to search for a certain day's weather, edit the information for each entry or delete entries. At the bottom of the page, you can use the page navigation to view all the data.

Farm Weather
+

1

Readings
Graph
Import
Export

Vly WS Valley
Weather Station

mm/dd/yyyy
Search a date

25
Nº of items

Date	Max Temp. (°F)	Avg Temp. (°F)	Min Temp. (°F)	Relative Humidity (%)	Wind Speed (mph)	Solar Radiation (w/m²)	Rainfall (in)	Actions
08/29/2018	88.34	71.58	61.70	35.89	5.72	121.88	0.00	<span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">4</span> <span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">5</span>
08/28/2018	80.24	63.87	51.62	52.75	5.02	246.20	0.00	<span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">4</span> <span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">5</span>
08/27/2018	71.60	62.23	53.60	68.50	10.85	149.29	0.10	<span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">4</span> <span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">5</span>
08/26/2018	71.24	64.14	58.82	56.68	11.77	71.85	0.00	<span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">4</span> <span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">5</span>
08/25/2018	73.22	62.06	51.08	51.50	9.32	81.88	0.00	<span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">4</span> <span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">5</span>
08/24/2018	85.46	66.57	55.94	49.62	18.95	101.27	0.00	<span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">4</span> <span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">5</span>
08/23/2018	89.24	76.37	67.10	32.19	12.90	145.61	0.00	<span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">4</span> <span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">5</span>
08/22/2018	88.16	73.51	62.96	35.88	4.20	295.85	0.00	<span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">4</span> <span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">5</span>
08/21/2018	83.30	70.20	57.56	45.23	6.29	284.05	0.00	<span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">4</span> <span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">5</span>
08/20/2018	89.24	74.80	65.48	30.33	5.58	196.17	0.00	<span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">4</span> <span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">5</span>
08/19/2018	91.22	77.64	66.38	31.08	5.60	110.93	0.00	<span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">4</span> <span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">5</span>
08/18/2018	90.14	74.75	62.42	33.62	6.60	181.89	0.00	<span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">4</span> <span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">5</span>
08/17/2018	98.06	79.35	65.30	35.96	11.60	257.22	0.05	<span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">4</span> <span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">5</span>
08/16/2018	94.28	82.09	71.96	28.38	4.15	259.93	0.00	<span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">4</span> <span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">5</span>
08/15/2018	93.02	79.24	67.28	24.83	4.83	172.95	0.00	<span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">4</span> <span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">5</span>
08/14/2018	90.68	74.76	62.60	34.52	5.33	308.94	0.00	<span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">4</span> <span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">5</span>
08/13/2018	85.46	70.52	60.44	40.39	5.08	272.79	0.00	<span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">4</span> <span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">5</span>
08/12/2018	82.04	68.86	55.76	51.01	12.21	309.54	0.00	<span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">4</span> <span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">5</span>
08/11/2018	97.34	78.62	64.76	38.07	17.78	310.06	0.00	<span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">4</span> <span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">5</span>
08/10/2018	102.38	90.30	80.24	25.32	8.48	304.56	0.00	<span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">4</span> <span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">5</span>
08/09/2018	103.64	88.57	77.00	23.68	5.35	315.65	0.00	<span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">4</span> <span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">5</span>
08/08/2018	103.46	86.59	74.48	23.44	5.53	291.19	0.00	<span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">4</span> <span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">5</span>
08/07/2018	98.78	82.99	72.50	21.31	5.53	323.41	0.00	<span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">4</span> <span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">5</span>
08/06/2018	95.18	78.94	66.20	29.72	4.76	181.54	0.00	<span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">4</span> <span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">5</span>
08/05/2018	89.60	74.26	62.60	37.89	5.17	145.75	0.00	<span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">4</span> <span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">5</span>

Items found: 106

6

«
1
2
3
4
5
»

Figure 30-1 1. Readings Tab 3. Search Bar 5. X (delete)  
 2. Weather Station 4. Pencil (edit) 6. Page Navigation

# Using Valley Scheduling

## Farm Weather > Readings Tab

For most locations, the weather data is automatically entered by Valley Scheduling from local weather sources. Refer to Figure 31-1.

However, when data is not automatically entered, you can add weather data by clicking **Registration** and entering the data on the Weather Data tab.

When done, click **Save**.

Back on the Readings tab notice the information triangle indicating that the data was entered manually. Historical Weather is a record of manually entered data.

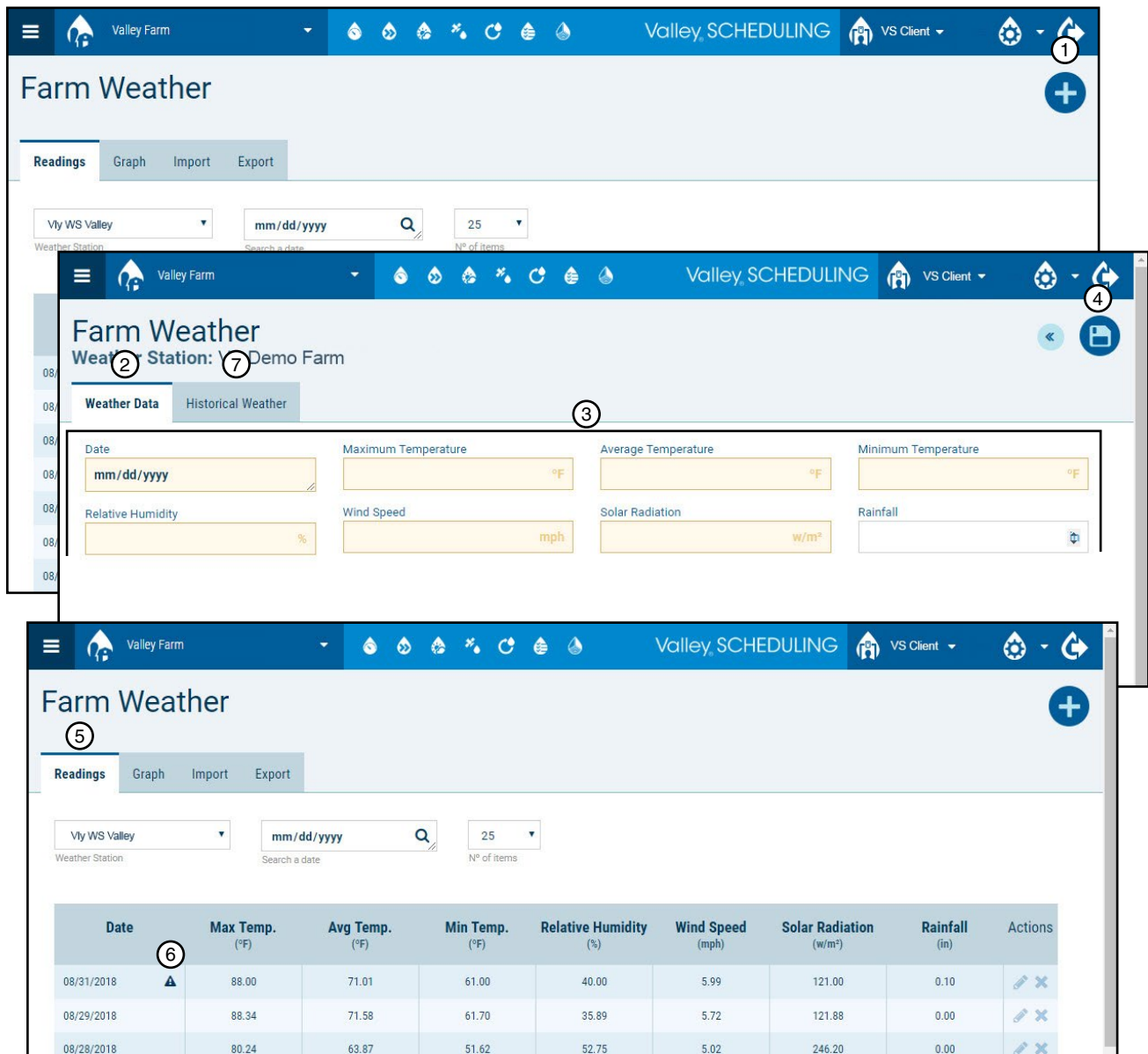


Figure 31-1 1. Registration 2. Weather Data 3. Data 4. Save 5. Readings 6. Information Triangle 7. Historical Weather



# Using Valley Scheduling

## Farm Weather > Graph Tab

On the Graph tab, you can see a graph of the data for the weather station selected on the readings tab. Refer to Figure 32-1.

Use the Grouping of dates too see the data in the graph grouped by hour, day, month or year.

The date range of the data can be filtered by entering the Initial Date and Final Date, then click **Filter**.

On the left side of the graph you can choose the data types that are displayed.



Figure 32-1 1. Graph 2. Grouping of dates 3. Initial date 4. Final date 5. Filter 6. Data Types



# Using Valley Scheduling

## Farm Weather > Import Tab

On the Import tab, you can import weather data from a .csv file to the weather station selected on the readings tab. Refer to Figure 33-1.

To import data do the following:

1. The order of the data in the file must match the order listed on the import screen.
2. The format parameters must be set to match the units of measure in Valley Scheduling.
3. Click **Choose File** and navigate to the file location on your computer.
4. Choose the file and click **Open**.
5. Click **Import**.

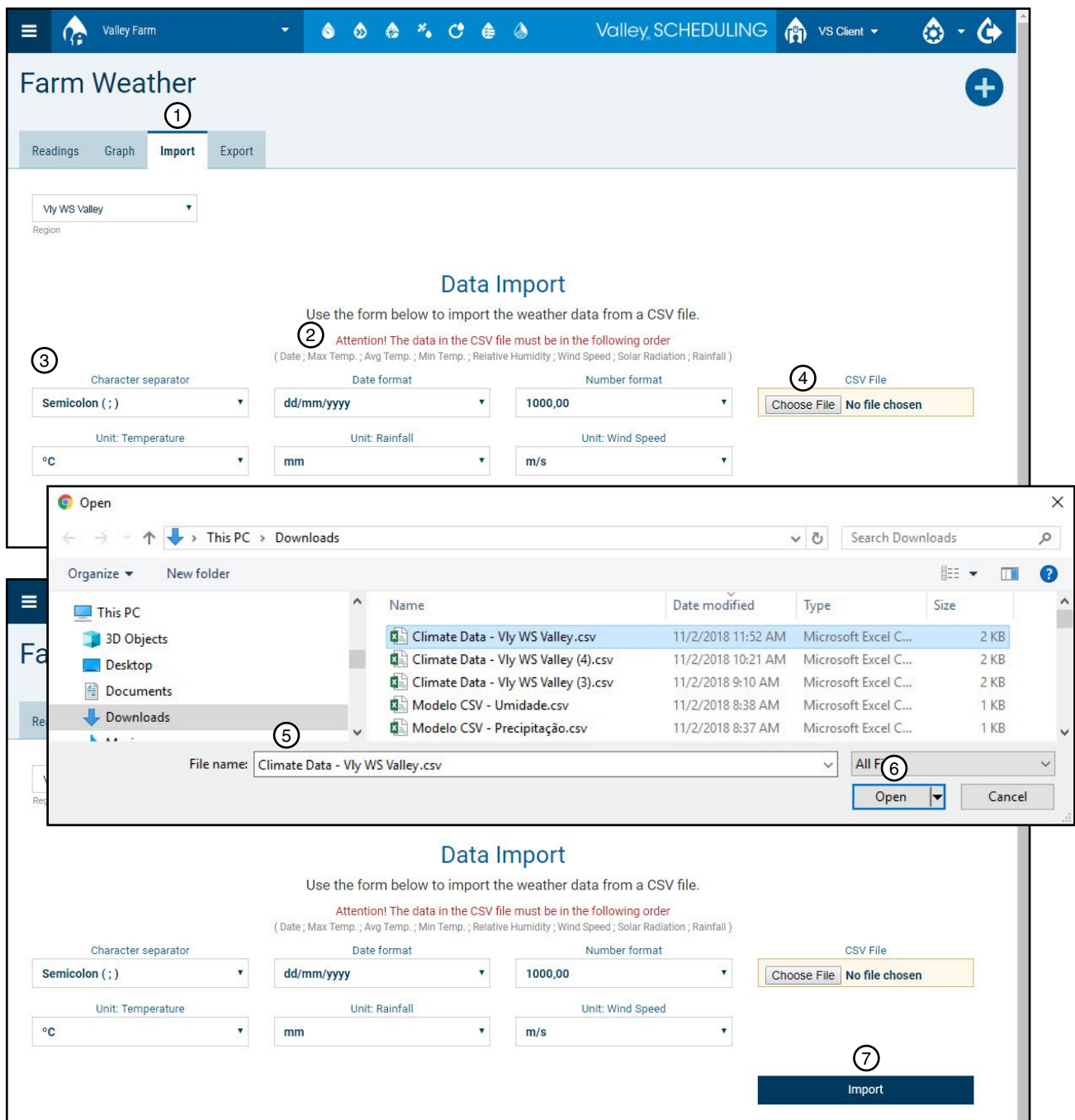


Figure 33-1 1. Import 2. File Order 3. Format Parameters 4. Choose File 5. Select File 6. Open 7. Import

# Using Valley Scheduling

## Farm Weather > Import Tab

- Set the Data overwrite to Replace existing records with imported values. Refer to Figure 34-1.
- Click **Confirm Import**. On the Data Import screen a confirmation message for successful import or failure is displayed.

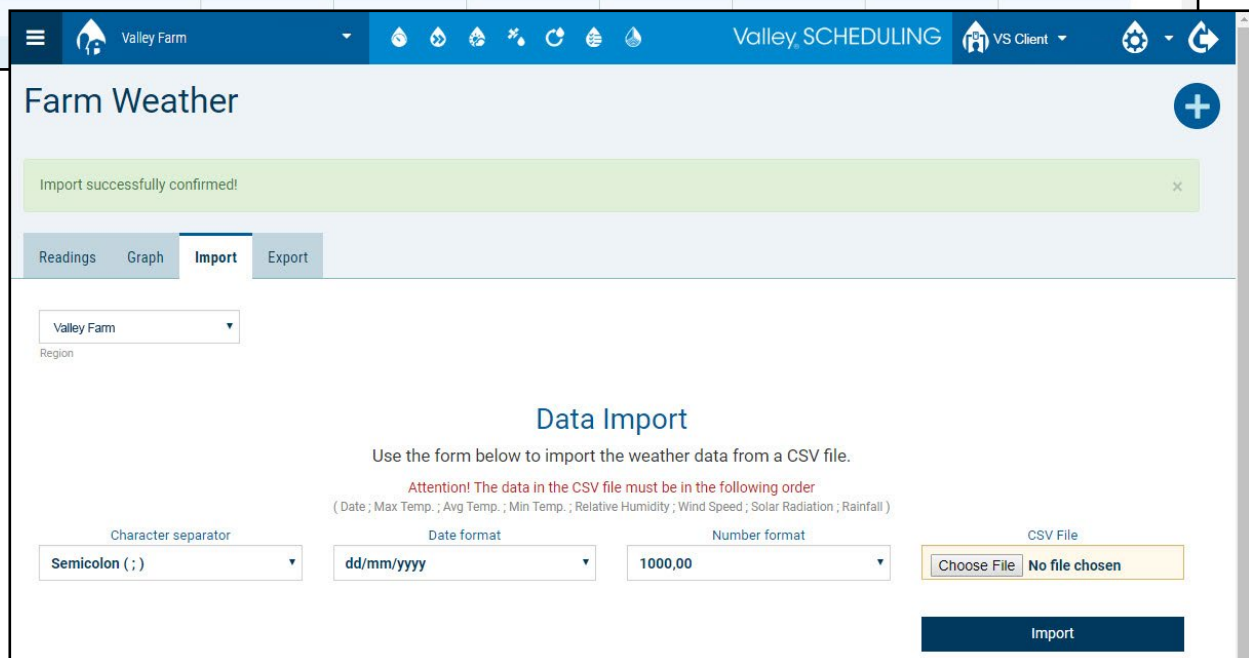
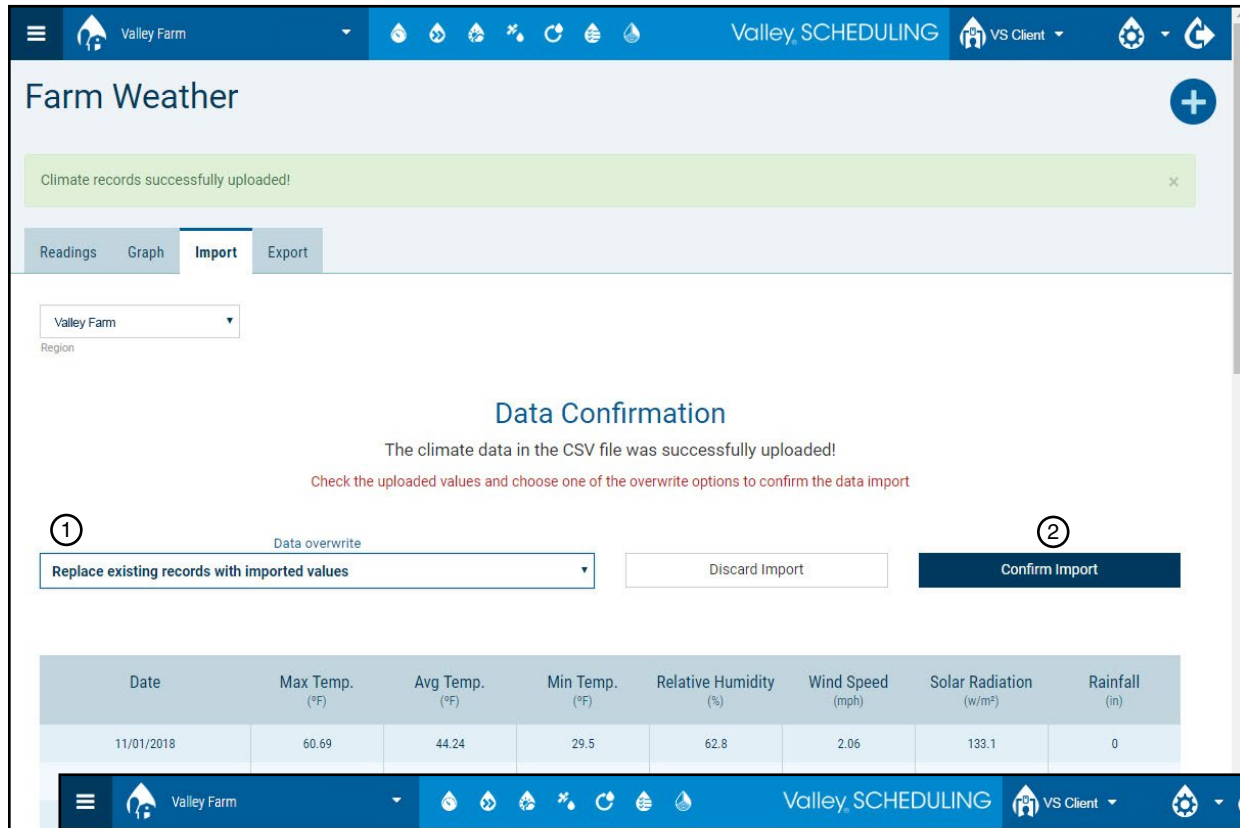


Figure 34-1 1. Data Overwrite  
2. Confirm Import

# Using Valley Scheduling

## Farm Weather > Export Tab

On the Export tab, you can export all or part of the data for the weather station selected on the readings tab. Refer to Figure 35-1.

To export a file, do the following:

8. Leave Show Header set to No.
9. Set the date and number format.
10. Choose the Initial and Final dates.
11. Click **Export** and the .csv file is saved to the download folder on your computer.

In this example using Google Chrome browser, the spreadsheet is exported to the Downloads folder on the computer and a link to the file is shown at the bottom of the screen. The default name of the file will be Climate Data - followed by the weather station name.

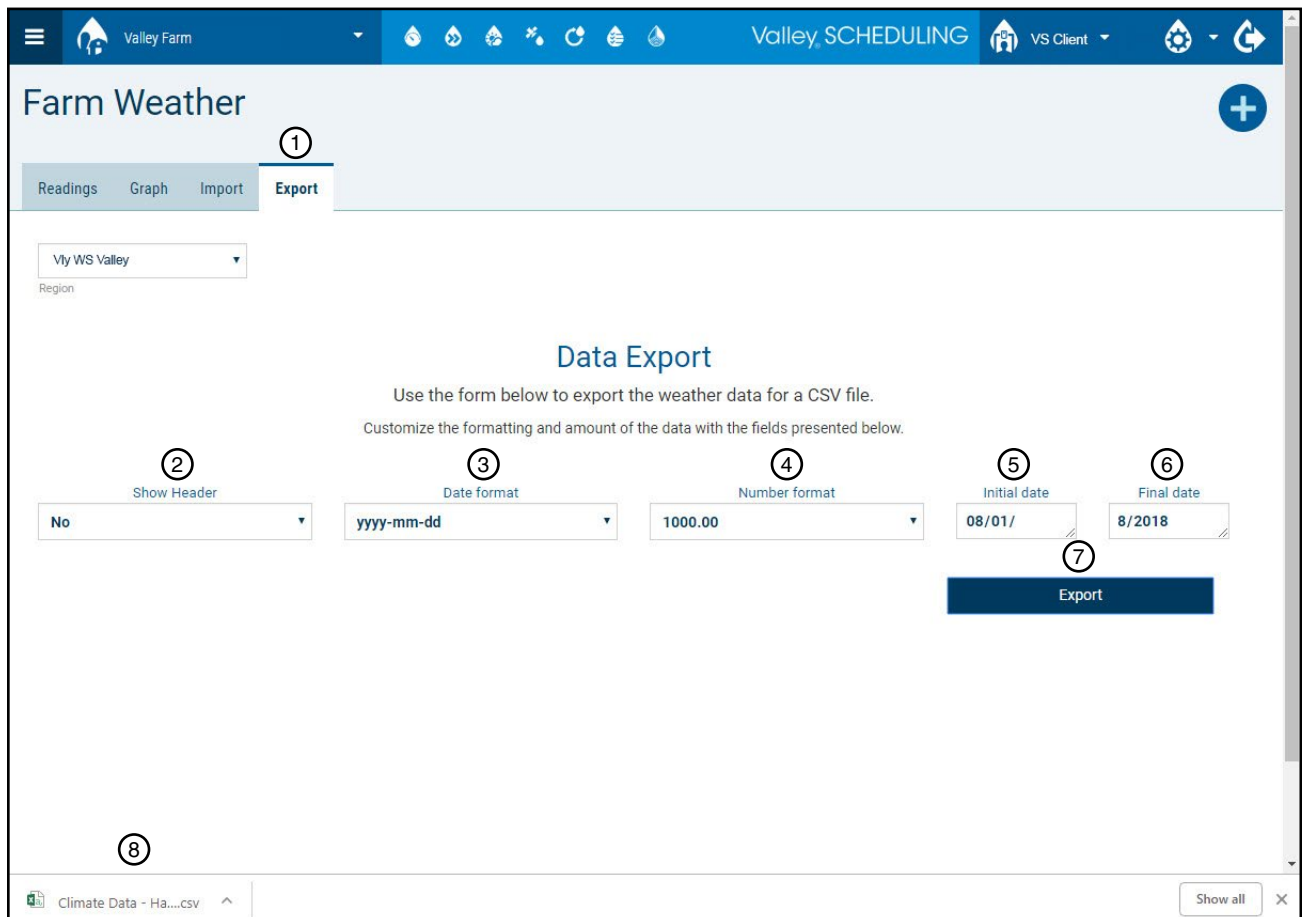



Figure 35-1    1. Export                    3. Date format                    5. Initial date                    7. Export  
                  2. Show Header                    4. Number format                    6. Final date                    8. Spreadsheet

# Using Valley Scheduling

## Imagery

 Clicking the dashboard Imagery icon takes you to the Daily Data Imagery screen. Refer to Figure 36-1. This will show you normalized difference vegetation index (NDVI) images of your fields to look for crop health problems or irrigation uniformity issues.

## NDVI Tab

On the NDVI tab You can select which field you want to see images for, or look at all available images.

To get a closer look at any image, click on it and an enlarged version will pop up. Click anywhere on the page to exit the enlarged image.

Soil Moisture by Image is not available in the United States.

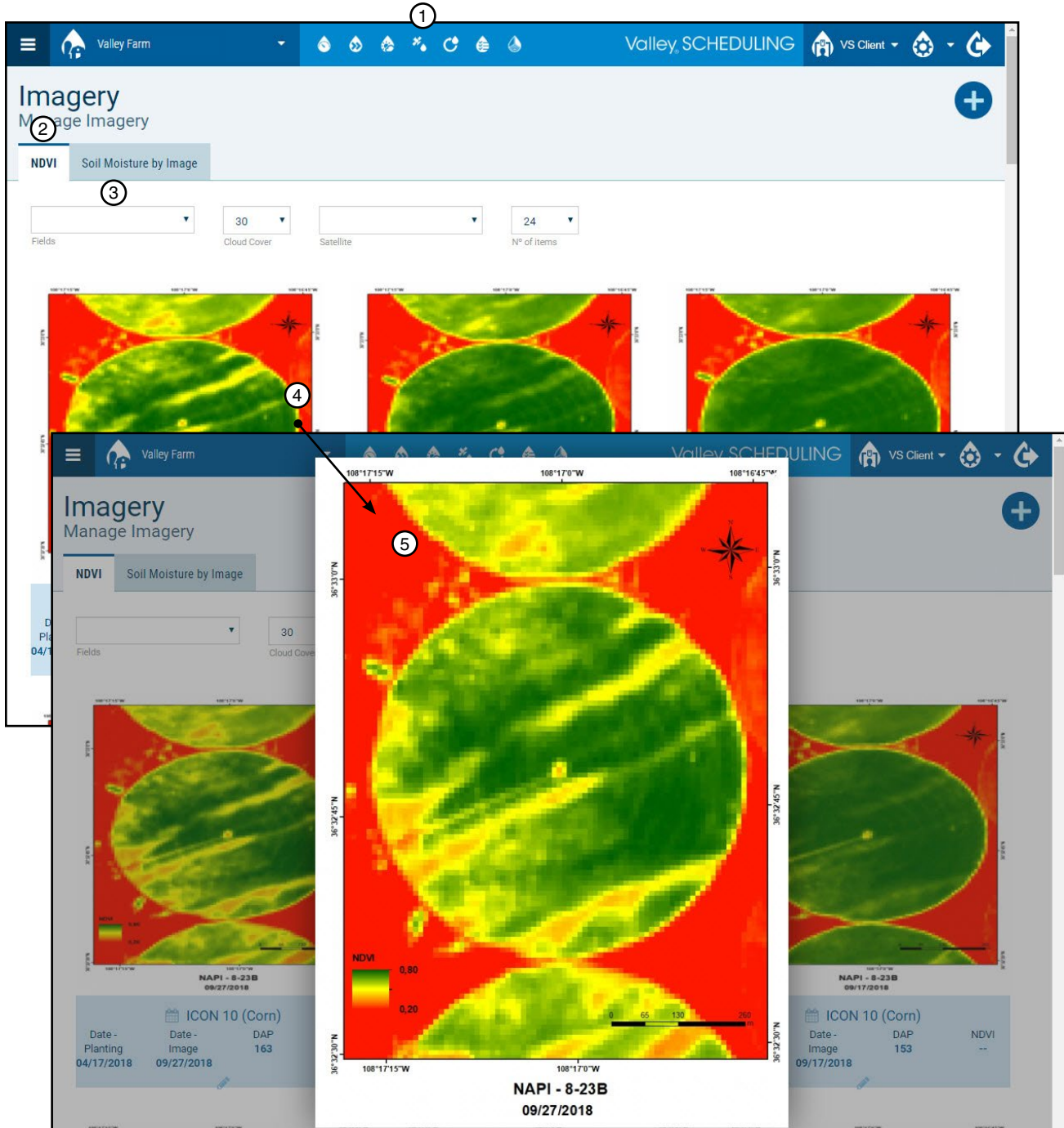



Figure 36-1 1. Imagery 2. NDVI 3. Field Options 4. Click an Image 5. Enlarged version



# Using Valley Scheduling

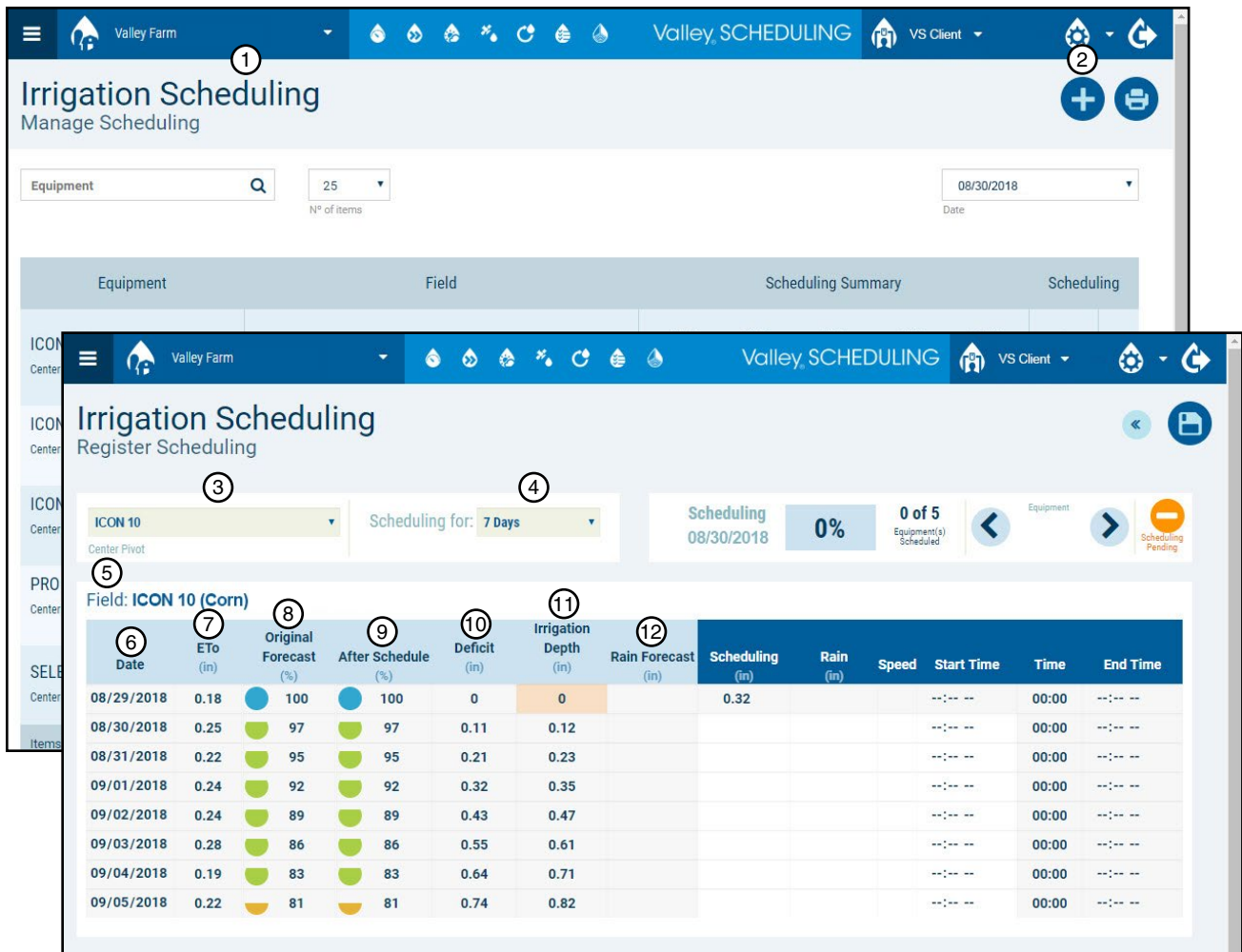
## Scheduling > Irrigation Scheduling

 Clicking on the dashboard Scheduling icon will take you to the Irrigation Management Scheduling screen. Refer to Figure 37-1. This will show you a table of the most recent irrigation schedule.

The irrigation scheduling tool allows you to plan irrigations for 5, 7, 10, or 15 days. It allows you to create a printable plan that will keep the soil moisture in the optimum range.

To create a new irrigation schedule, do the following:

1. On the irrigation scheduling page, click **Register** to display the Register Scheduling screen.
2. Choose the **Center Pivot** (field) you want to schedule for irrigation from the drop-down list.
3. Select a time period for the schedule, typically 5 or 7 days.
4. Starting on the left side of the **Field** table, you can see:
  - The **Date** that the irrigation will be applied.
  - The **Reference ET (ETo)** in inches for perspective.
  - The **Original Forecast** indicated by the available soil moisture percentage and color code, and then
  - **After Schedule** shows what the available soil moisture percentage and color code will be after scheduling.
  - In the **Deficit** column, you can see the amount of water that is needed to fill the soil.
  - The **Irrigation Depth** indicates how much actual irrigation needs to be applied to fill the soil.
  - The **Rain Forecast** column shows the weather forecast so you can consider rainfall in your plan.



6	7	8	9	10	11	12	Scheduling	Rain	Speed	Start Time	Time	End Time
Date	ETo (in)	Original Forecast (%)	After Schedule (%)	Deficit (in)	Irrigation Depth (in)	Rain Forecast (in)	(in)	(in)				
08/29/2018	0.18	100	100	0	0		0.32			--:--	00:00	--:--
08/30/2018	0.25	97	97	0.11	0.12					--:--	00:00	--:--
08/31/2018	0.22	95	95	0.21	0.23					--:--	00:00	--:--
09/01/2018	0.24	92	92	0.32	0.35					--:--	00:00	--:--
09/02/2018	0.24	89	89	0.43	0.47					--:--	00:00	--:--
09/03/2018	0.28	86	86	0.55	0.61					--:--	00:00	--:--
09/04/2018	0.19	83	83	0.64	0.71					--:--	00:00	--:--
09/05/2018	0.22	81	81	0.74	0.82					--:--	00:00	--:--

Figure 37-1 1. Scheduling 2. Register 3. Center Pivot 4. Time Period 5. Field 6. Date 7. Reference ET (ETo) 8. Original Forecast 9. After Schedule 10. Deficit 11. Irrigation depth 12. Rain Forecast

# Using Valley Scheduling

## Scheduling > Irrigation Scheduling

5. The Scheduling column is where you will begin adjusting application rates for each day.
  - (a) Based on the data shown in the field table, decide on which day irrigation is needed.
  - (b) Then in the **Scheduling** column, in the row for the chosen day, enter the irrigation application rate you want to apply and click anywhere outside of the table to apply the rate.
    - You can hover the cursor over any scheduling entry box to see the minimum application rate for this equipment.
    - After application is applied, the speed setting for the pivot percent timer and time (hours of irrigation) automatically calculate. Also, the after schedule irrigation forecast, deficit and irrigation depth data changes.
    - Set the schedule to keep the after schedule irrigation forecast in the desired soil moisture range.
    - There are on screen notifications that appear when:
      - » A scheduling application rate is smaller than the minimum application rate for the equipment.
      - » A scheduling application rate will generate irrigation excess.
      - » An irrigation depth is smaller than the equipment minimum application rate.
  - (c) Set the irrigation **Start Time**, and the irrigation **End Time** updates automatically.
  - (d) Repeat steps (a), (b) and (c) for other days as needed.
    - Changing equipment or clicking the next or previous arrow before saving a schedule will clear all of the values that you entered.

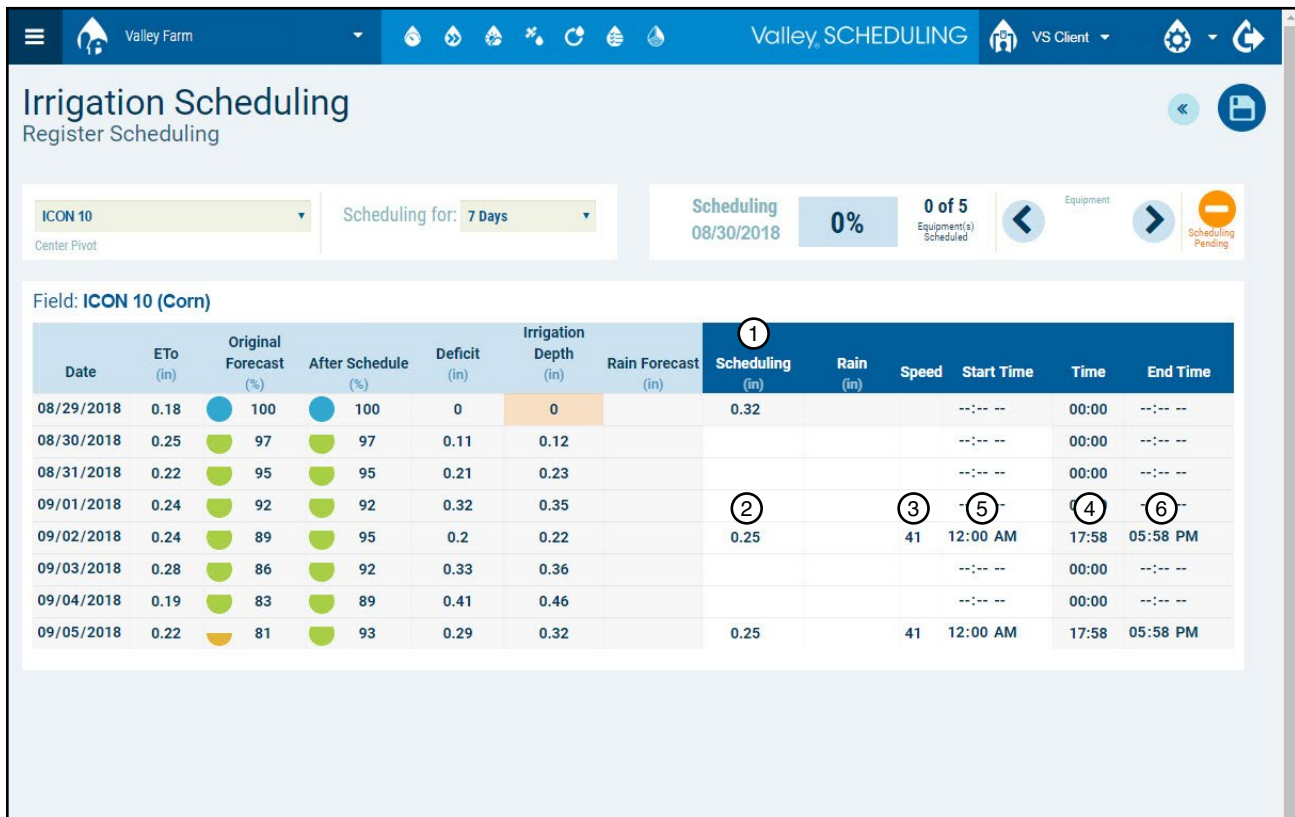


Figure 38-1 1. Scheduling 2. Application Rate 3. Speed 4. Time 5. Start Time 6. End Time

# Using Valley Scheduling

## Scheduling > Irrigation Scheduling

6. Once you have set the schedule for this center pivot, click the **Save** button.
  - Scheduling status changes from Pending to Saved for this equipment.
  - The scheduling completed percent and number of fields scheduled changes to reflect the number of irrigation schedules saved on the current date, for equipment on this Farm.
  - Notice that a graph icon is displayed after the field name. Click the graph icon to see a graph of the irrigation forecast.
7. To schedule another Center Pivot (field), select it from the **Center Pivot** drop-down list in the top left or by clicking the **Next** or **Previous** arrow on the top right.
8. Once you have finished the schedule click the **Back** button.

The screenshot displays the Valley Scheduling interface. The top navigation bar includes 'Valley Farm' and 'Valley SCHEDULING'. The main header shows 'Irrigation Scheduling' and 'Register Scheduling'. Below this, there are controls for 'Center Pivot' (set to 'ICON 10') and 'Scheduling for' (set to '7 Days'). A status bar indicates 'Scheduling 0%' and '0 of 5 Equipment(s) Scheduled'. Navigation arrows and a 'Save' button are visible. The main content area shows 'Field: ICON 10 (Corn)' with a table of scheduling data. A callout window shows the 'Irrigation Forecast Graph' for 'Field: ICON 10 (Corn)' with a 'Scheduling Date: 08/30/2018'. The graph plots various metrics over time from 08/29/2018 to 09/05/2018.

Date	ETo (in)	Original Forecast (%)	After Schedule (%)	Deficit (in)	Irrigation Depth (in)	Rain Forecast (in)	Scheduling (in)	Rain (in)	Speed	Start Time	Time	End Time
08/29/2018	0.18	100	100	0	0		0.32			12:00 AM	00:00	12:00 AM
08/30/2018	0.25	00	00	0.00	0.1							
08/31/2018												
09/01/2018												
09/02/2018												
09/03/2018												
09/04/2018												
09/05/2018												

Figure 39-1 1. Save 2. Scheduling Status 3. Scheduling Completed 4. Graph Icon 5. Irrigation Forecast Graph 6. Center Pivot 7. Next 8. Previous 9. Back

# Using Valley Scheduling

## Scheduling > Irrigation Scheduling > View / Edit

On the manage scheduling screen:

- The revised irrigation forecast from the newly created schedule is displayed in the Scheduling Summary column.
- Clicking on the **Eye** icon will allow you to view a schedule.
- Clicking on the **Pencil** icon will allow you to view and edit that field's irrigation schedule.

When editing an irrigation schedule, you can manually adjust the application rate scheduled to be applied or the expected rainfall amount. The effect on the original irrigation forecast will be revised, as will the percent timer speed setting, and the start time.

Equipment	Field	Scheduling Summary					Scheduling
ICON 10 Center Pivot	ICON 10 (Corn)	08/29 0.0	08/30 0.1	08/31 0.2	09/01 0.3	09/02 0.1	
ICON 5 Center Pivot	ICON 5 (Potato)						
ICON X Center Pivot	ICON X (Peppermint)						
PRO 2 Center Pivot	PRO 2 (Soybean)						
SELECT 2 Center Pivot	SELECT 2 (Alfalfa)						

Figure 40-1 1. Scheduling Summary 2. Eye (view)  
3. Pencil (edit)



# Using Valley Scheduling

## Scheduling > Irrigation Scheduling > Saving / Printing

To save or print the schedule, refer to Figure 41-1 and do the following:

1. Click the **Printer** icon in the top right corner.
2. Select the **Date** for the schedule you wish to print.
3. Choose the **Information** that you want to include. The printed schedule can include inches of irrigation, start and stop times, percent timer speed settings and flow in gallons per minute.
4. Select the **Scheduled Equipment** to include.
5. Once the options are selected, click **Confirm** to display the schedule in table form.

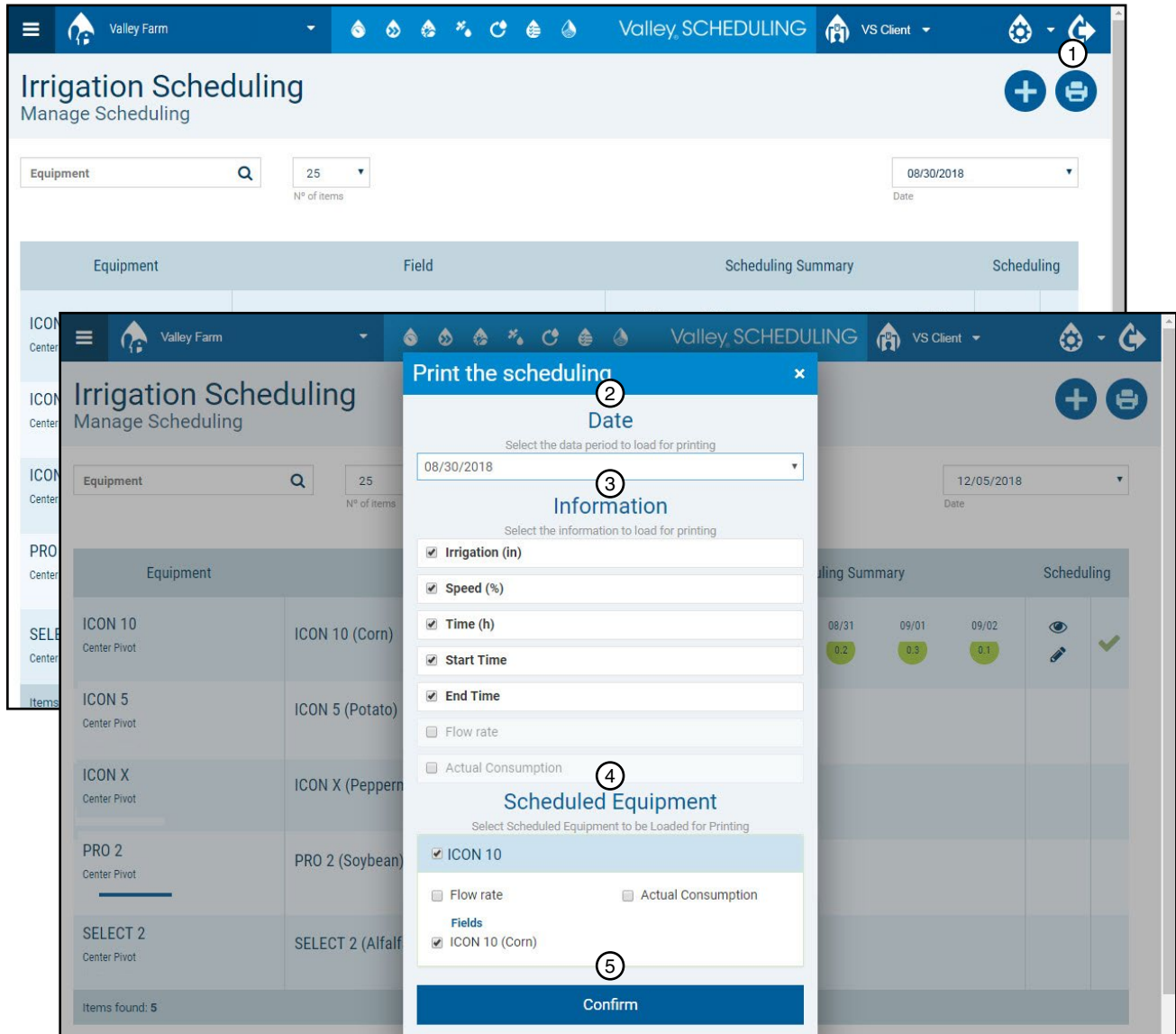


Figure 41-1 1. Print 2. Date 3. Information 4. Scheduled Equipment 5. Confirm

# Using Valley Scheduling

## Scheduling > Irrigation Scheduling > Saving / Printing

The schedule displayed can be saved as a pdf for e-mailing or sent to a printer for handy reference.

- To save the file, continue with Saving below on this page.
- To print the file, continue with Printing on the next page.

### Saving

To save the file, refer to Figure 42-1 and do the following:

1. Click the **Download** arrow.
2. Navigate to the location where you want to save the file.
3. Enter the **File Name**.
4. Click **Save**.

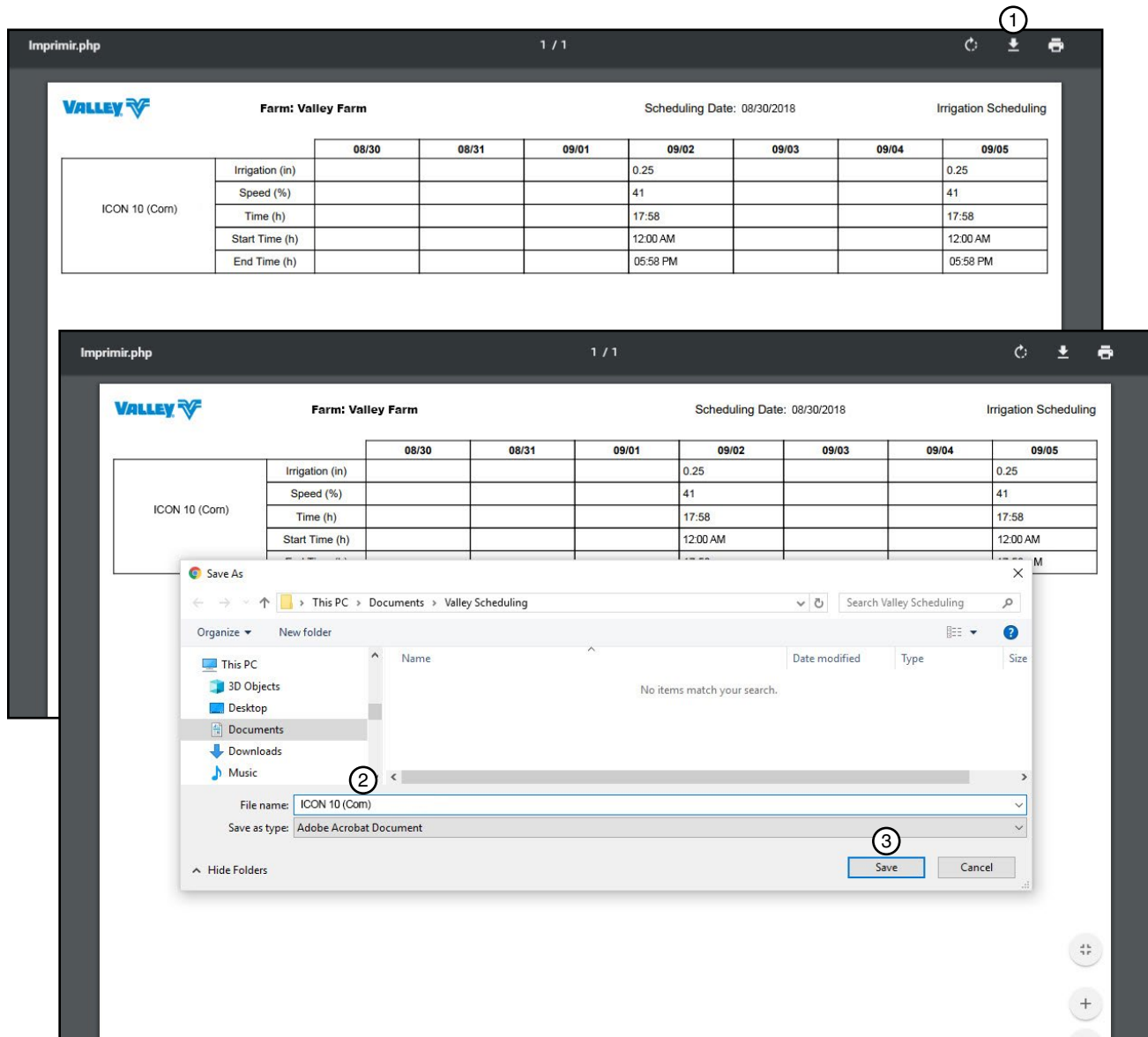


Figure 42-1 1. Download 2. File Name 3. Save

# Using Valley Scheduling

## Scheduling > Irrigation Scheduling > Saving / Printing Printing

To print the file without saving, refer to Figure 43-1 and do the following:

1. Click the **Printer** icon.
2. Click **Change** to select the printer.
3. Adjust settings as needed.
4. Click **Print**.


The screenshot shows the Valley Scheduling software interface. At the top, it displays 'Imprimir.php', '1 / 1', and a printer icon. The main content area is titled 'Farm: Valley Farm' and 'Scheduling Date: 08/30/2018'. It contains a table with irrigation data for 'ICON 10 (Corn)' from 08/30 to 09/05. A print dialog box is open on the left, showing 'Total: 1 sheet of paper' and a 'Print' button. The dialog box has several sections: 'Destination' (P\_516E-1 on USVALPRI...), 'Pages' (All), 'Copies' (1), 'Color' (Color), 'Paper size' (Letter (8.5 x 11")), 'Quality' (600 dpi), 'Scale' (Fit to page, 91), and 'Options' (Two-sided). A 'Change...' button is next to the destination field. The print dialog box also has a 'Fewer settings' link and a 'Print using system dialog... (Ctrl+Shift+P)' option. The irrigation scheduling table is as follows:

	08/30	08/31	09/01	09/02	09/03	09/04	09/05
ICON 10 (Corn)							
Irrigation (in)				0.25			0.25
Speed (%)				41			41
Time (h)				17:58			17:58
Start Time (h)				12:00 AM			12:00 AM
End Time (h)				05:58 PM			05:58 PM

Figure 43-1 1. Print 2. Change 3. Printer Settings 4. Print

# Using Valley Scheduling

## Reports

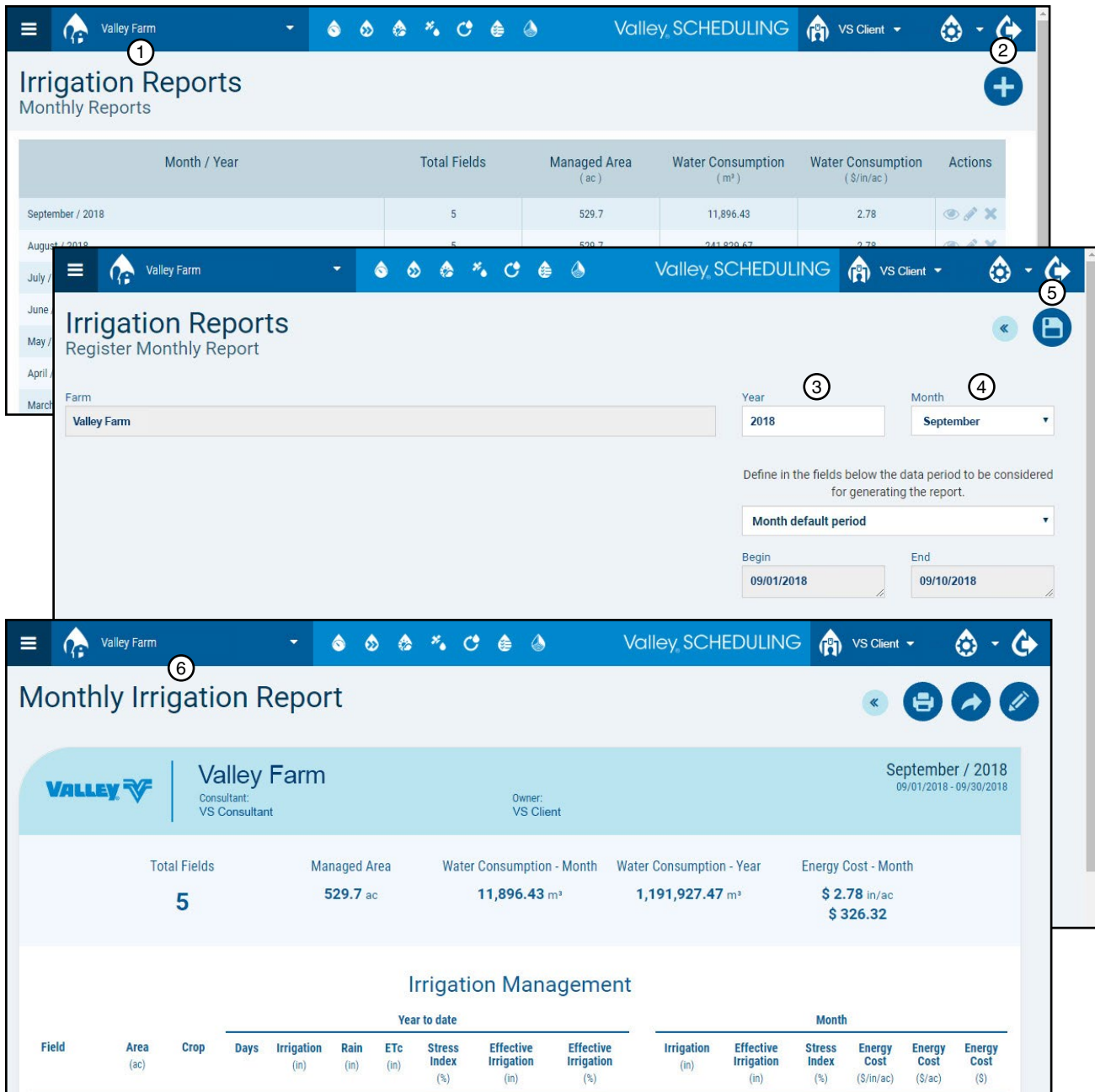
 Clicking the dashboard Reports icon takes you to the Irrigation Reports screen. Refer to Figure 44-1. Here you can generate and view monthly reports for total water consumption and cost.

However, the ability to register, or generate, a monthly irrigation report requires advanced level platform set up of cost parameters for energy and water.

## Generating Monthly Reports

To generate a monthly report, refer to Figure 44-1 and do the following:

1. On the irrigation reports screen, click the **Registration** button at the top of the page.
2. Enter the **Year** and select the **Month** that you want to report data for.
3. Click **Save**. This will calculate the monthly irrigation report for the year and month you selected.



The screenshot shows the Valley Scheduling software interface. It is divided into three main sections, each with a circled number indicating a step in the process:

- Section 1 (Top):** 'Irrigation Reports Monthly Reports'. It features a table with columns: Month / Year, Total Fields, Managed Area (ac), Water Consumption (m³), Water Consumption (\$/in/ac), and Actions. The first row shows data for September / 2018.
- Section 2 (Middle):** 'Irrigation Reports Register Monthly Report'. This is a form where users can register a report. It includes fields for Farm (Valley Farm), Year (2018), Month (September), and a date range (Begin: 09/01/2018, End: 09/10/2018).
- Section 3 (Bottom):** 'Monthly Irrigation Report'. This section displays a summary of the report for September / 2018. It includes a header with the Valley Farm logo and consultant information. Below this is a summary table with the following data:
 

Total Fields	Managed Area	Water Consumption - Month	Water Consumption - Year	Energy Cost - Month
5	529.7 ac	11,896.43 m³	1,191,927.47 m³	\$ 2.78 in/ac \$ 326.32

 Below the summary is an 'Irrigation Management' table with columns for Field, Area (ac), Crop, Days, Irrigation (in), Rain (in), Etc (in), Stress Index (%), Effective Irrigation (in), and Energy Cost (\$).

Figure 44-1 1. Irrigation Reports 3. Year 5. Save  
2. Register 4. Month 6. Monthly Irrigation Report



# Using Valley Scheduling

## Viewing Monthly Reports

To view the details of the report, refer to Figure 45-1 and do the following:

- On the irrigation reports screen, click on the **Eye** (view).

In this example, the monthly irrigation report shows the irrigation management summary for all of your fields. Year to date and monthly data is shown.

At the bottom of the summary you can see the average irrigation inches, inches of rain, ETc, stress index, effective irrigation in inches and percentage for all fields. The bar graphs below the summary, break these data down even further.

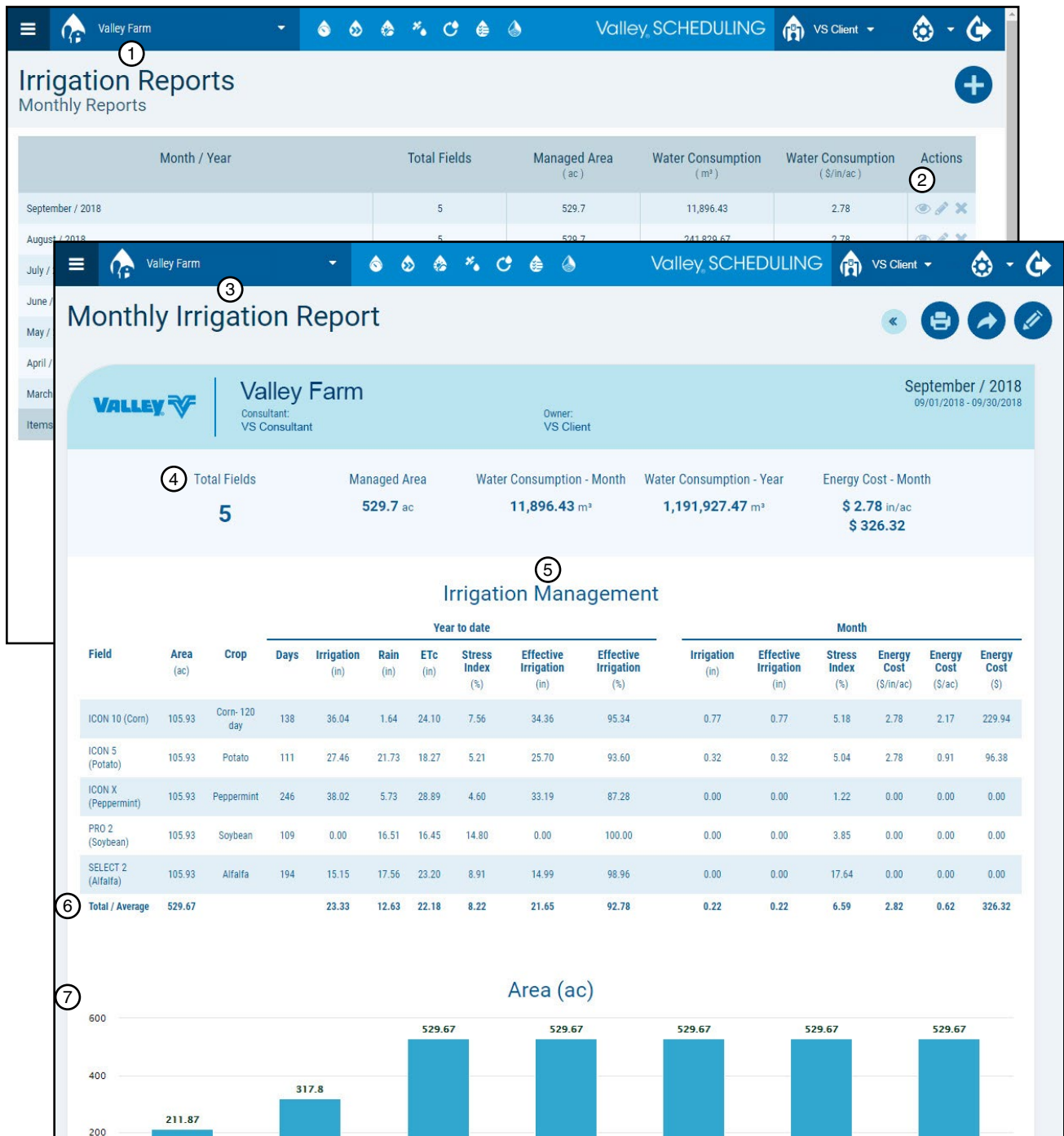


Figure 45-1 1. Irrigation Reports 3. Monthly Irrigation Report 5. Management Summary 7. Bar Graphs  
2. Eye (view) 4. Total Fields 6. Averages

# Using Valley Scheduling

## Viewing Monthly Reports

Continued from the previous page, refer to Figure 46-1.

Below the bar graphs you can see data from all reports accumulated in a table by month with a total for each data point.

The last part of the report displays the soil moisture graph for each field on the farm.

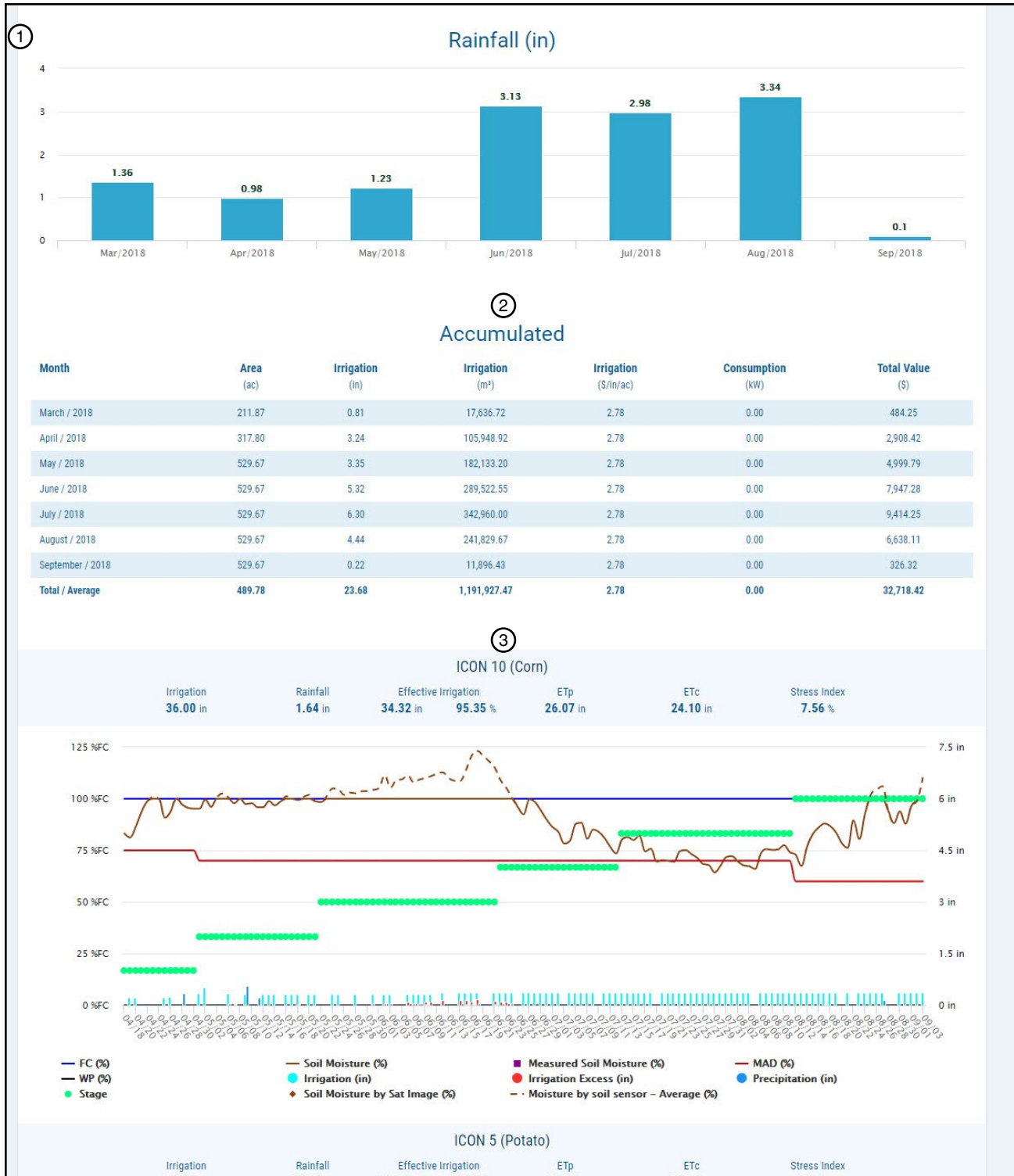


Figure 46-1 1. Bar Graph 2. Accumulated Data 3. Soil Moisture Graph

# Using Valley Scheduling

## Viewing Monthly Reports > Printing

To print the monthly irrigation report, refer to Figure 47-1 and do the following:

1. View the monthly irrigation report screen, then click the **Print** button to generate the printer version of the report.
2. Click **Print** again to open the print window.
3. To change the printer, click **Change**.
4. Change other print settings as needed.
5. Click **Print** to print the report.

The screenshot shows the Valley Scheduling software interface. The top navigation bar includes the Valley Farm logo, a user profile icon, and the text 'Valley SCHEDULING' and 'VS Client'. The main content area displays the 'Monthly Irrigation Report' for September 2018, showing summary statistics for 5 fields, 529.7 ac of managed area, and 11,896.43 m³ of water consumption. Below this is an 'Irrigation Management' table with columns for Field, Area, Crop, Days, Irrigation, Rain, ETc, Stress Index, and Effective Irrigation. A print dialog box is overlaid on the bottom left, showing 'Total: 4 sheets of paper (7 pages)', a printer selection dropdown (P\_516E-1 on USVALPRI...), page selection options, and a 'Print' button.

Field	Area (ac)	Crop	Days	Irrigation (in)	Rain (in)	ETc (in)	Stress Index (%)	Effective Irrigation (in)	Effective Irrigation (%)
KDOW 10 (Corn)	105.93	Corn-120 day	138	36.04	1.64	24.10	7.56	34.36	95.34
KDOW 5 (Potato)	105.93	Potato	111	27.46	21.73	18.27	5.21	25.70	93.60
KDOW X (Peppermint)	105.92	Peppermint	246	38.02	5.73	28.89	4.60	33.19	87.28
PRD 2 (Soybean)	105.93	Soybean	109	0.00	16.51	16.45	14.80	0.00	100.00
SELECT 2 (Alfalfa)	105.93	Alfalfa	194	15.15	17.56	23.20	8.91	14.99	98.96
<b>Total / Average</b>	<b>529.67</b>			<b>23.33</b>	<b>12.63</b>	<b>22.18</b>	<b>8.22</b>	<b>21.65</b>	<b>92.78</b>

Figure 47-1 1. Monthly Irrigation Report 3. Printer Version Report 5. Change 7. Print  
2. Print 4. Print 6. Print Settings

# Using Valley Scheduling

## Viewing Monthly Reports > Exporting

To export the monthly irrigation report to a .xls file, refer to Figure 48-1 and do the following:

1. View the monthly irrigation report screen, then click the **Export** button and the report is exported as a .xls file to the download folder on your computer. In this example using Google Chrome browser, a link to the file appears at the bottom of the screen.
2. Click on the link to open the .xls file and view the report in spreadsheet format.

**Valley Farm**  
 Consultant: VS Consultant  
 Owner: VS Client  
 September / 2018  
 09/01/2018 - 09/30/2018

**Summary Metrics:**

- Total Fields: 5
- Managed Area: 529.7 ac
- Water Consumption - Month: 11,896.43 m<sup>3</sup>
- Water Consumption - Year: 1,191,927.47 m<sup>3</sup>
- Energy Cost - Month: \$ 2.78 in/ac, \$ 326.32

**Irrigation Management Table:**

Field	Area (ac)	Crop	Days	Year to date						Month					
				Irrigation (in)	Rain (in)	ETc (in)	Stress Index (%)	Effective Irrigation (in)	Effective Irrigation (%)	Irrigation (in)	Effective Irrigation (in)	Stress Index (%)	Energy Cost (\$/in/ac)	Energy Cost (\$/ac)	Energy Cost (\$)
ICON 10 (Corn)	105.93	Corn- 120 day	138	36.04	1.64	24.10	7.56	34.36	95.34	0.77	0.77	5.18	2.78	2.17	229.94
ICON 5 (Potato)	105.93	Potato	111	27.46	21.73	18.27	5.21	25.70	93.60	0.32	0.32	5.04	2.78	0.91	96.38
ICON X (Peppermint)	105.93	Peppermint	246	38.02	5.73	28.89	4.60	33.19	87.28	0.00	0.00	1.22	0.00	0.00	0.00
PRO 2 (Soybean)	105.93	Soybean	109	0.00	16.51	16.45	14.80	0.00	100.00	0.00	0.00	3.85	0.00	0.00	0.00
SELECT 2 (Alfalfa)	105.93	Alfalfa	194	15.15	17.56	17.56	8.91	15.15	88.87	0.00	0.00	0.26	0.00	0.00	0.00
<b>Total / Average</b>	<b>529.67</b>		<b>238</b>	<b>120.67</b>	<b>62.65</b>	<b>24.28</b>	<b>6.23</b>	<b>100.00</b>	<b>88.87</b>	<b>0.00</b>	<b>0.00</b>	<b>2.78</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**Exported Spreadsheet Data:**

Field	Area(ac)	Crop	Days	Irrigation (in)	Rain (in)	ETc (in)	Stress Index (%)	Irrigation Excess (in)	Irrigation Excess (%)	Irrigation Excess (\$)
ICON 10 (Corn)	105.93	Corn- 120 day	138	36.04	1.64	24.1	7.56	1.68	4.66	0
ICON 5 (Potato)	105.93	Potato	111	27.46	21.73	18.27	5.21	1.76	6.4	0
ICON X (Peppermint)	105.93	Peppermint	246	38.02	5.73	28.89	4.6	4.84	12.72	0
PRO 2 (Soybean)	105.93	Soybean	109	0	16.51	16.45	14.8	0	0	0
SELECT 2 (Alfalfa)	105.93	Alfalfa	194	15.15	17.56	23.2	8.91	0.16	1.04	0
<b>Total</b>	<b>529.67</b>		<b>160</b>	<b>23.33</b>	<b>12.63</b>	<b>22.18</b>	<b>8.22</b>	<b>1.69</b>	<b>4.96</b>	<b>0</b>

Figure 48-1 1. Monthly Irrigation Report 3. File  
 2. Export 4. Spreadsheet



# Using Valley Scheduling

## Viewing Monthly Reports > Editing

The edit function allows you to enter notes that will display below the different sections, bar graphs or field soil moisture graphs of the monthly irrigation report.

You can also display or hide any sections, bar graphs or field soil moisture graphs from the monthly irrigation report.

To edit a report, refer to Figure 49-1 and do the following:

1. View the monthly irrigation report that you want to edit, then click the **Pencil** button and the edit monthly report screen is opened.

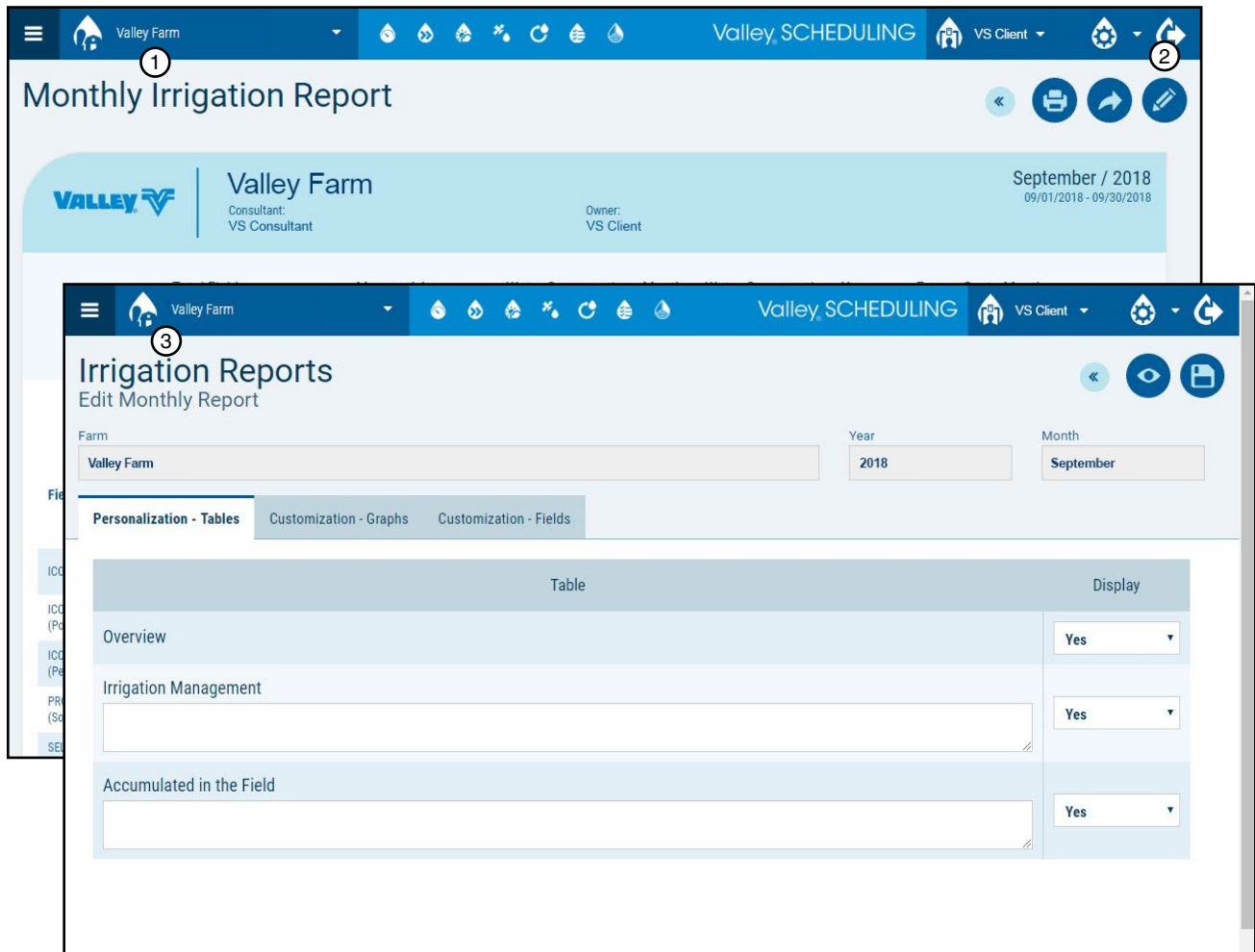


Figure 49-1 1. Monthly Irrigation Report  
2. Edit Monthly Report

# Using Valley Scheduling

## Viewing Monthly Reports > Editing

Continued from the previous page, refer to Figure 50-1.

2. Enter note(s):

- **Personalization - Tables** tab: Notes can be entered for the Irrigation Management section and the accumulated section.
- **Customization - Graphs** tab: Notes can be entered for the Area, Irrigation(in), Irrigation (m<sup>3</sup>), Rainfall, Stress Index and Irrigation Excess bar graphs.
- **Customization - Fields** tab: Notes can be entered for each field soil moisture graph.
- In this example, notes were entered for the irrigation management section.

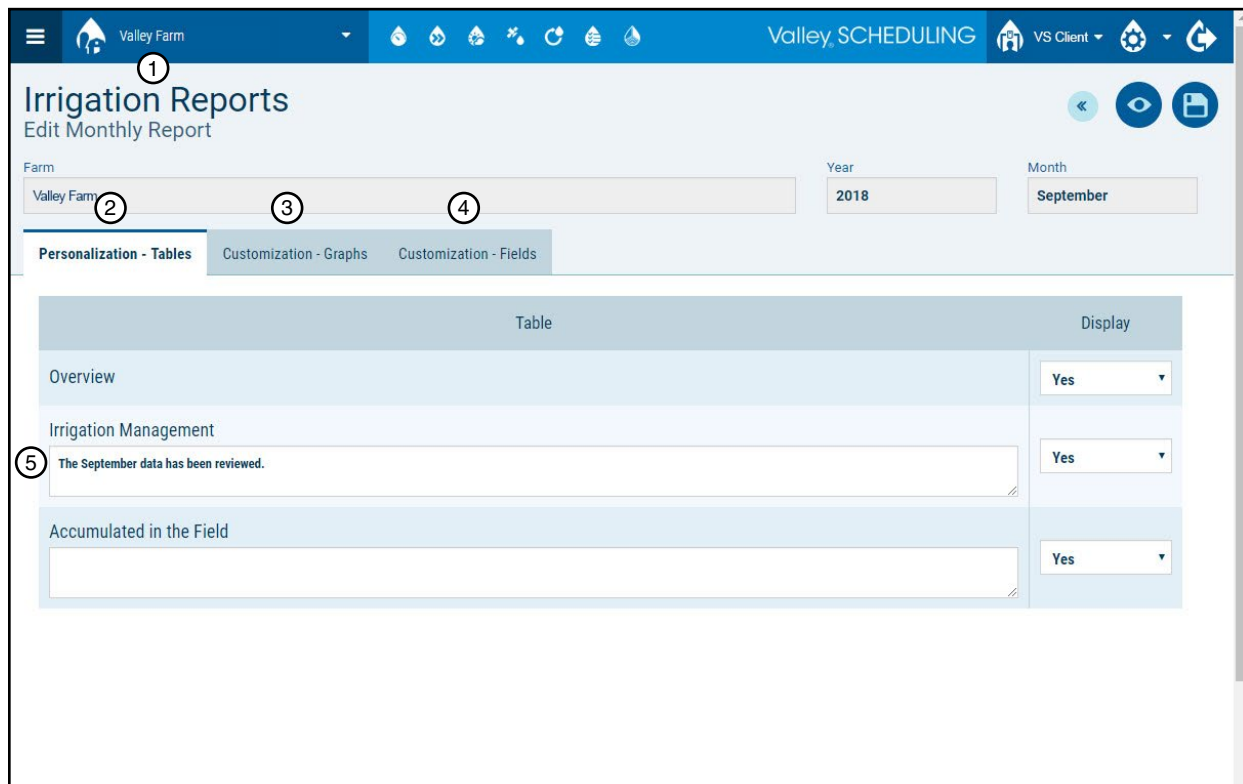


Figure 50-1 1. Edit Monthly Report 3. Customization - Graphs 5. Enter Note  
2. Personalization - Tables 4. Customization - Fields

# Using Valley Scheduling

## Viewing Monthly Reports > Editing

Continued from the previous page, refer to Figure 51-1.

- To hide or display any section, bar graph or field soil moisture graph from the monthly irrigation report, under **Display**, toggle No to hide and Yes to display.
- When you finish editing, click **Save** and then click **View**. This displays the monthly irrigation report so you can verify that the note is displayed correctly.

**Irrigation Reports**  
Edit Monthly Report

Farm: Valley Farm | Year: 2018 | Month: September

Personalization - Tables | Customization - Graphs | Customization - Fields

Table | Display

Overview: Yes

Irrigation Management: The September data has been reviewed. Yes

Accumulated in the Field

---

**Monthly Irrigation Report**

Valley Farm | Consultant: VS Consultant | Owner: VS Client | September / 2018 (09/01/2018 - 09/30/2018)

Total Fields	Managed Area	Water Consumption - Month	Water Consumption - Year	Energy Cost - Month
5	529.7 ac	11,896.43 m <sup>3</sup>	1,191,927.47 m <sup>3</sup>	\$ 2.78 in/ac \$ 326.32

**Irrigation Management**

Field	Area (ac)	Crop	Year to date							Month					
			Days	Irrigation (in)	Rain (in)	ETc (in)	Stress Index (%)	Effective Irrigation (in)	Effective Irrigation (%)	Irrigation (in)	Effective Irrigation (in)	Stress Index (%)	Energy Cost (\$/in/ac)	Energy Cost (\$/ac)	Energy Cost (\$)
ICON 10 (Corn)	105.93	Corn-120 day	138	36.04	1.64	24.10	7.56	34.36	95.34	0.77	0.77	5.18	2.78	2.17	229.94
ICON 5 (Potato)	105.93	Potato	111	27.46	21.73	18.27	5.21	25.70	93.60	0.32	0.32	5.04	2.78	0.91	96.38
ICON X (Peppermint)	105.93	Peppermint	246	38.02	5.73	28.89	4.60	33.19	87.28	0.00	0.00	1.22	0.00	0.00	0.00
PRO 2 (Soybean)	105.93	Soybean	109	0.00	16.51	16.45	14.80	0.00	100.00	0.00	0.00	3.85	0.00	0.00	0.00
SELECT 2 (Alfalfa)	105.93	Alfalfa	194	15.15	17.56	23.20	8.91	14.99	98.96	0.00	0.00	17.64	0.00	0.00	0.00
<b>Total / Average</b>	<b>529.67</b>			<b>23.33</b>	<b>12.63</b>	<b>22.18</b>	<b>8.22</b>	<b>21.65</b>	<b>92.78</b>	<b>0.22</b>	<b>0.22</b>	<b>6.59</b>	<b>2.82</b>	<b>0.62</b>	<b>326.32</b>

The September data has been reviewed.

Figure 51-1 1. Edit Monthly Report 3. Save 5. Monthly Irrigation Report  
2. Display 4. View 6. Note



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