



Plant **Connect**

Production Data Anywhere

PLANT CONNECT WEBSITE QUICKSTART GUIDE

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1. Introduction

The Plant Connect system allows the user to remotely monitor multiple Belt-Way conveyor belt scales over the Internet. The scale network may be wireless or hardwired. Internet access can come from a Broadband Local Area Network connection or Cellular Data Network (Verizon, AT&T, etc.).

The website is best viewed in Google Chrome. It be downloaded for free at www.google.com/chrome.

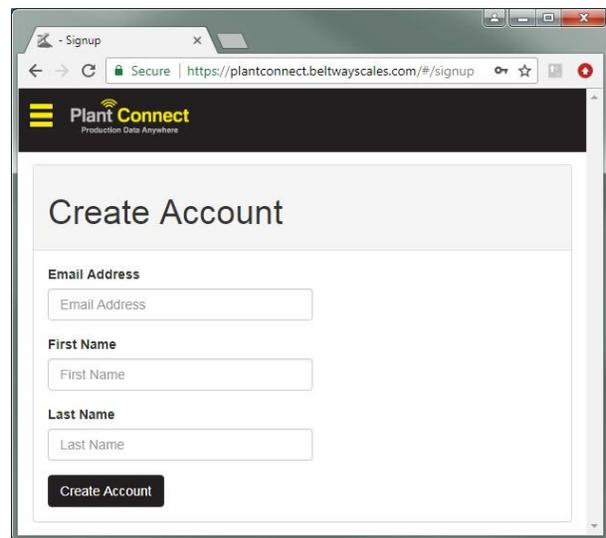
The Plant Connect address is <https://plantconnect.beltwayscales.com>

2. Create a User Account and Login

A user account is required to access scale data. Each customer may have an unlimited number of users.

A. Click **Create Account**.

Fill in the email address, first name and last name fields and click **Create Account**.

A screenshot of a web browser window showing the 'Create Account' page on the Plant Connect website. The page has a dark header with the 'Plant Connect' logo and the tagline 'Production Data Anywhere'. Below the header, the title 'Create Account' is centered. There are three input fields: 'Email Address', 'First Name', and 'Last Name'. At the bottom of the form is a 'Create Account' button.

B. You will receive a similar email. Click the link to verify your email account.

Complete your Plant Connect Registration

Click here to complete: <https://plantconnect.beltwayscales.com/#/preregister/EED2D-4A6C-A479>

C. Next you will receive a registration email. Click the login link to proceed.

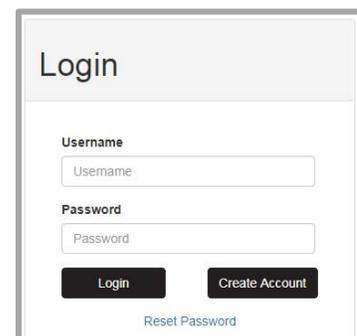
Your Registration is Completed successfully.

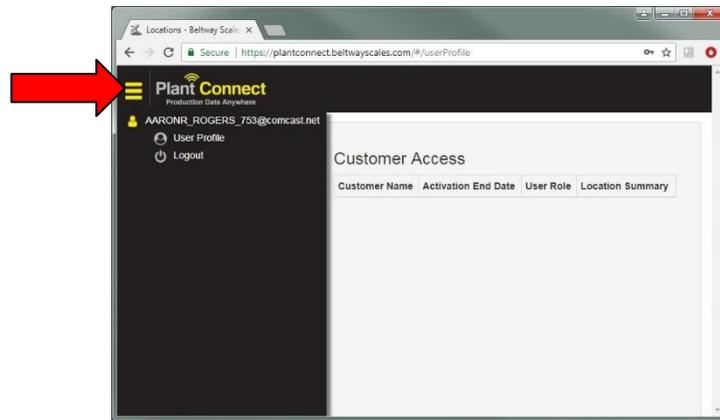
UserId:USER EMAIL

Password: xxxxxxxx

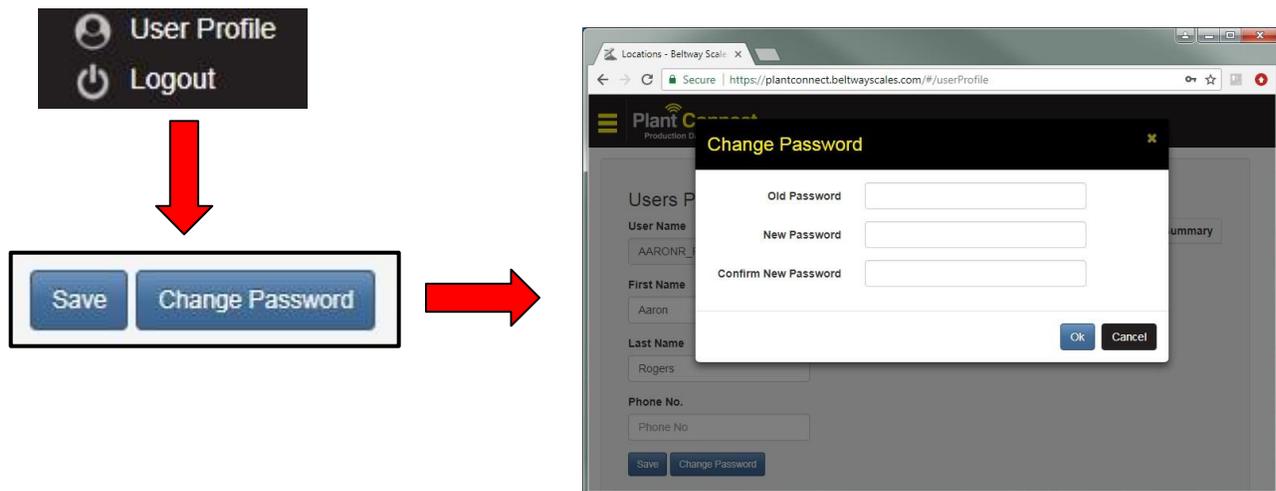
[Click here to login](#)

D. Enter your **USERNAME** and the initial **PASSWORD** to login for the first time.

A screenshot of the 'Login' page on the Plant Connect website. The page has a light gray header with the title 'Login'. Below the header, there are two input fields: 'Username' and 'Password'. At the bottom of the form are two buttons: 'Login' and 'Create Account'. Below the buttons is a link for 'Reset Password'.

E. Click the Main Menu

- F. Click **User Profile**.** Enter all your company contact information and click **Save**.
Next click **Change Password** to create a memorable password.
The password must be at least 8 characters. It must contain at least one uppercase letter, one lowercase letter, one number and may can contain special characters.



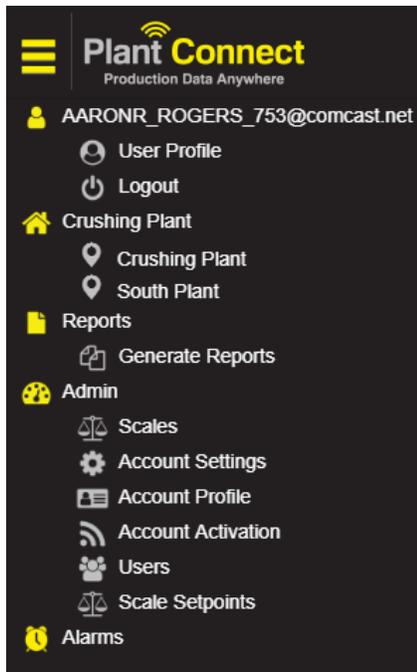
- G.** Now you can login with the new password but you will not see any data until a Belt-Way representative connects your user account to your company website.
This usually takes a few minutes after we receive the confirmation email.
- H.** The user should also update their contact information in the user profile.

3. Main Menu

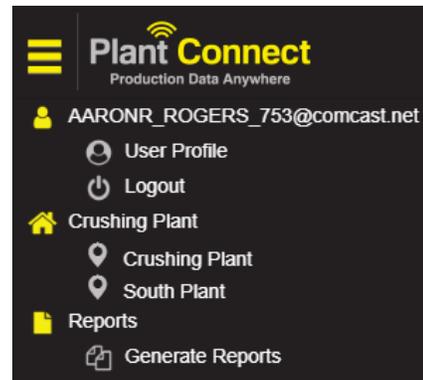
The **Main Menu** allows navigation to all other screens. Menu choices depend on user permissions.



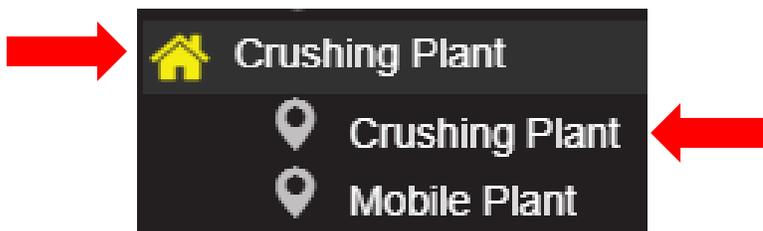
ADMIN Menu



USER Menu

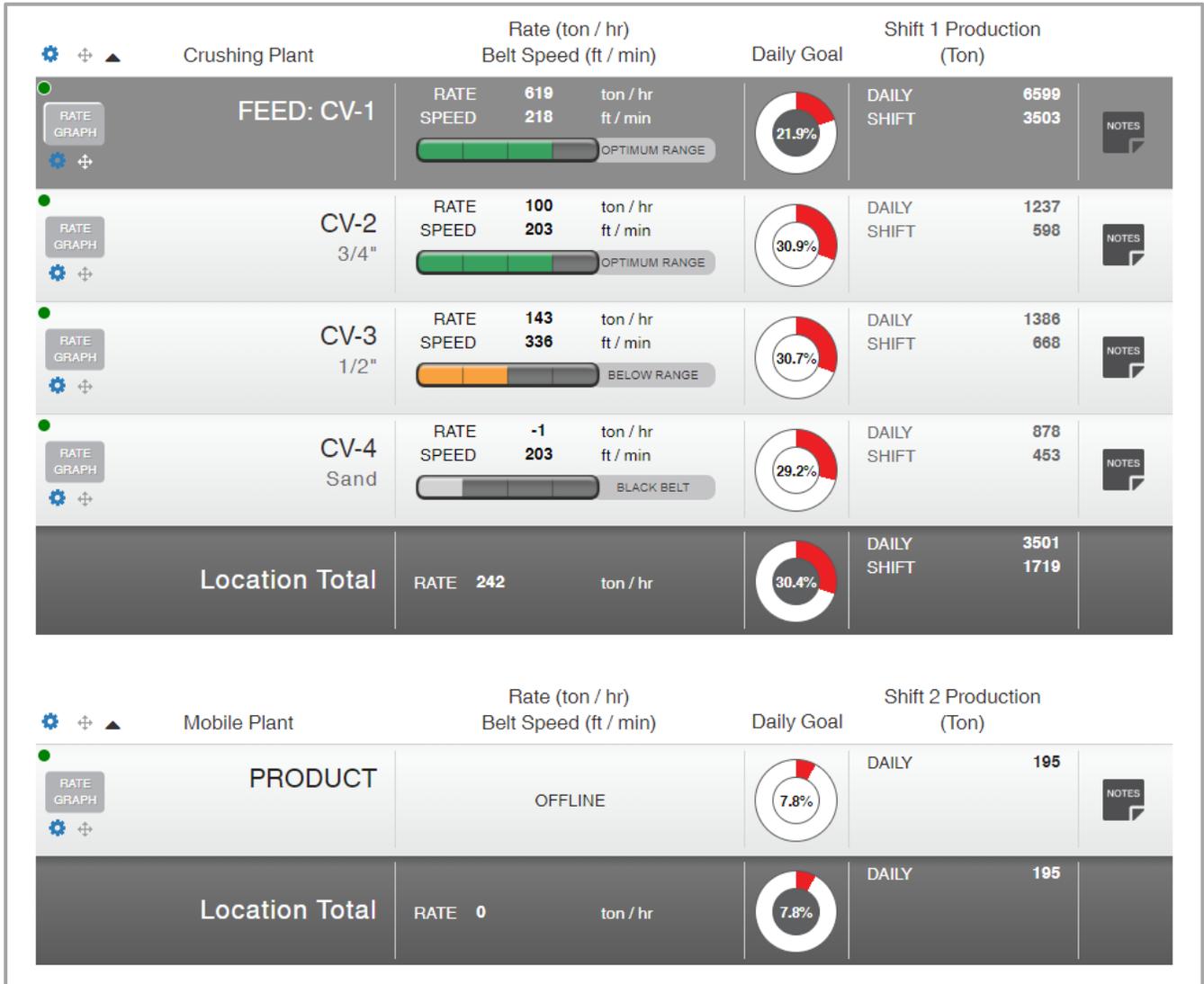


Click **HOME** to view all locations on one screen. Click each location to view one at a time.

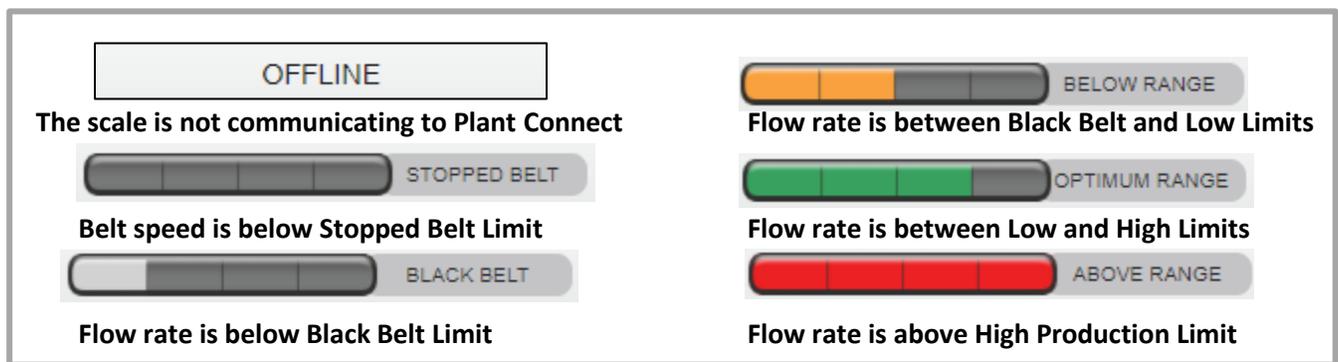


4. Dashboard

The **Dashboard** shows current readings from all scales reporting to Plant Connect. The values update once per minute to give the user a near real-time view of production. **ADMIN** users may also edit location and scale configuration values from the dashboard.



Each scale will display 1 of 6 possible states.

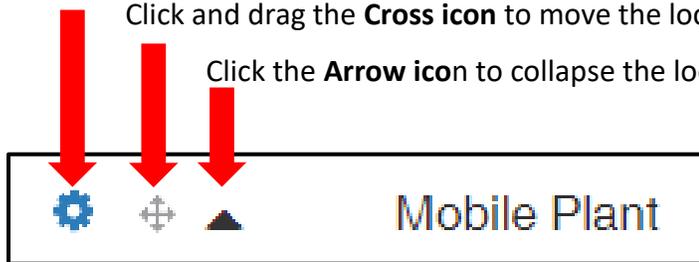


4. Dashboard – Edit Location

Click the **Gear icon** to open the **Edit Location** dialog box.

Click and drag the **Cross icon** to move the location up or down in the dashboard.

Click the **Arrow icon** to collapse the location view.



ADMIN users may modify any **Location** settings:

Location Name, Weight, Rate, Speed units, daily production or shift production goal.

Shift times must be 24-hour time.

00:00-23:59

Enter 00:00 as the start and end time for unused shifts.

The daily total is always shown on the dashboard.

Click a total check box to view additional totals:

Shift Total (Current shift total)

Job Total (Independent manually resettable total)

Scale Total (Total on the main screen of the scale)

Edit Location ✕

Location Name	<input type="text" value="Mobile Plant"/>
Weight Unit	<input type="text" value="Tons (English)"/>
Rate Unit	<input type="text" value="Tons / Hour"/>
Speed Unit	<input type="text" value="Feet / Minute"/>
Goals Type	<input type="text" value="Goals by Day"/>
Shift 1 Start Time	<input type="text" value="07:01"/>
Shift 1 End Time	<input type="text" value="15:00"/>
Shift 2 Start Time	<input type="text" value="15:01"/>
Shift 2 End Time	<input type="text" value="23:00"/>
Shift 3 Start Time	<input type="text" value="23:01"/>
Shift 3 End Time	<input type="text" value="07:00"/>
Show ShiftTotal	<input type="checkbox"/>
Show JobTotal	<input type="checkbox"/>
Show ScaleTotal	<input type="checkbox"/>

4. Dashboard – Edit Scale



Click and drag the **Cross icon** to move the scale up or down in the location.
Click the **Gear icon** to open the **Edit Scale** dialog box.

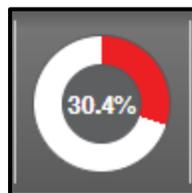
Edit Scale ✕

Conveyor Name	<input type="text" value="CV-1"/>	Scale Name (optional)	<input type="text" value="00:11:27:85:AA:EF"/>
IP Address	<input type="text" value="192.168.001.104"/>	Modbus Address	<input type="text" value="100"/>
High Production Limit	<input type="text" value="620"/> ton / hr	Target Production Rate	<input type="text" value="550"/> ton / hr
Low Production Limit	<input type="text" value="500"/> ton / hr	Black Belt Limit	<input type="text" value="10"/> ton / hr
High Belt Speed Limit	<input type="text" value="500"/> ft / min	Stopped Belt Limit	<input type="text" value="10"/> ft / min
Daily Production Goal	<input type="text" value="30000"/> Ton	Shift 1 Production Goal	<input type="text" value="200"/> Ton
Shift 2 Production Goal	<input type="text" value="0"/> Ton	Shift 3 Production Goal	<input type="text" value="0"/> Ton
Feed Scale	<input checked="" type="checkbox"/>	Colors List	Green ▼
Feed Scales	<input type="text" value="Crushing Plant (Location)"/>		

ADMIN users may edit any scale settings.

The production limits control when the scale changes state on the dashboard.

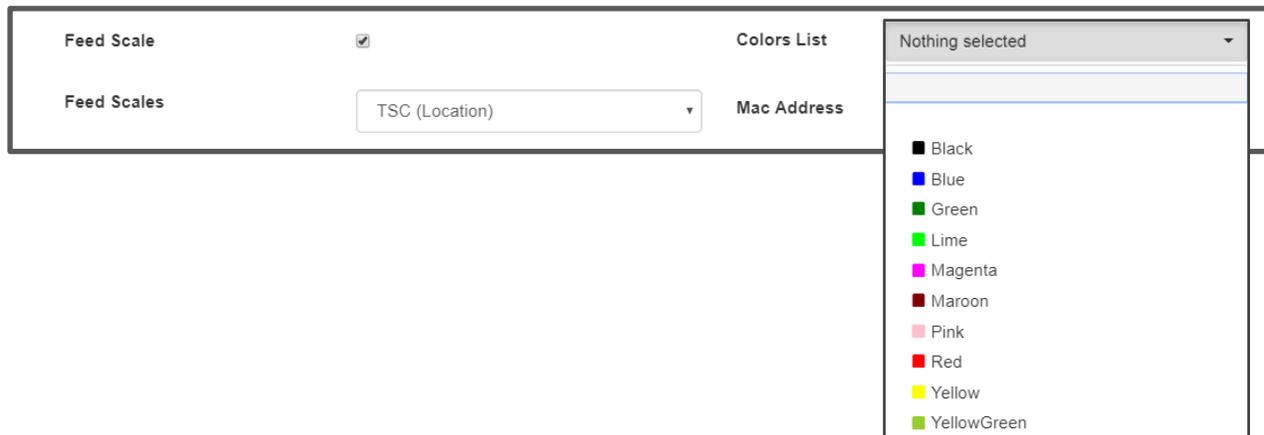
The daily or shift goal values control the doughnut % graph on the dashboard



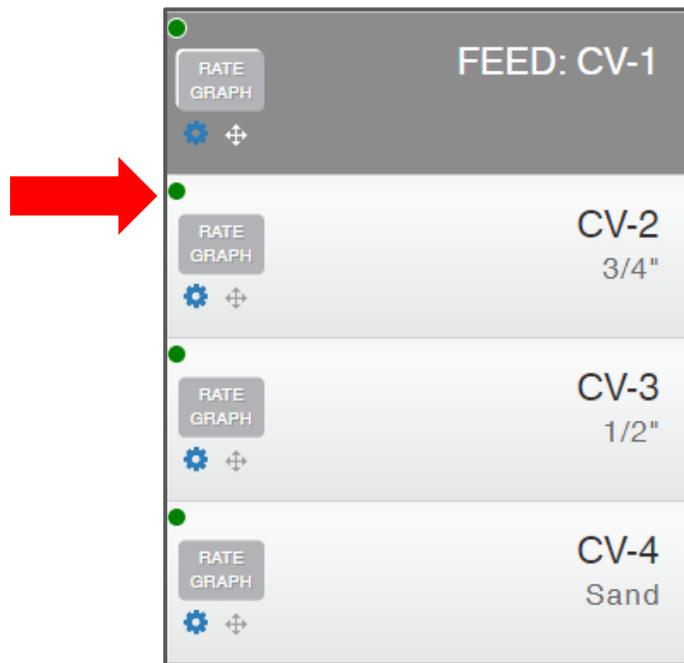
4. Dashboard – Feed Scale Setup

Utilizing a feed scale allows the user to compare the total of a feed conveyor to the sum of multiple product conveyors. Identify a feed scale by checking the box and choosing a color from the Colors List.

Choose the **FEED** scale and leave the box **UNCHECKED** on secondary and product scales. It is possible to create multiple feed conveyors at a single location.

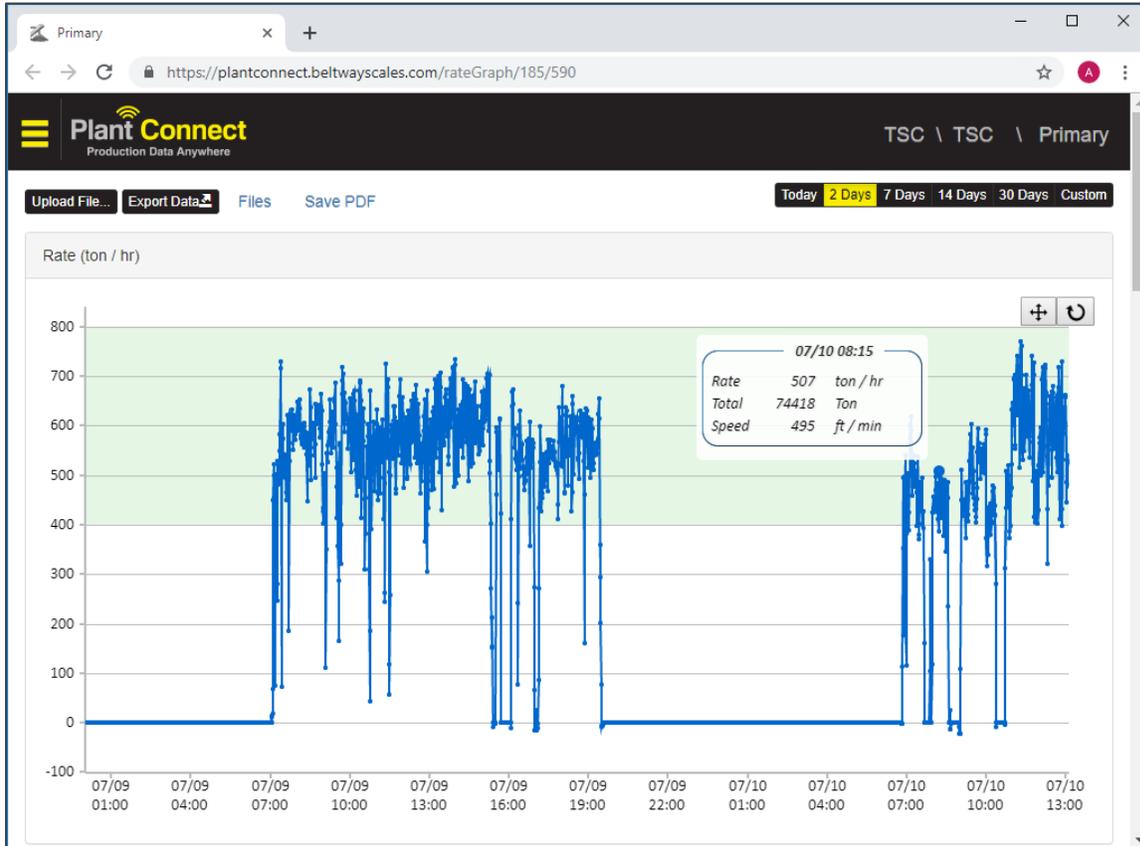


The feed scales have a dark gray background and product scales have a light gray background. Each product will show the color associated with the feed scale.



5. Rate and Speed Graph

Click the **RATE GRAPH** button by any scale to view historical flow rate and belt speed data.



Choose a preset range (**Today, 2 Days, 7 Days, 14 Days, 30 Days**) or click **Custom**. Use the calendar to select any date range up to 30 days. Filter time by shift or enter a custom time range. Click **Apply** to generate a new graph.

Today 2 Days 7 Days 14 Days 30 Days Custom

Start Date: 04/01/2019 End Date: 04/08/2019

Apr 2019

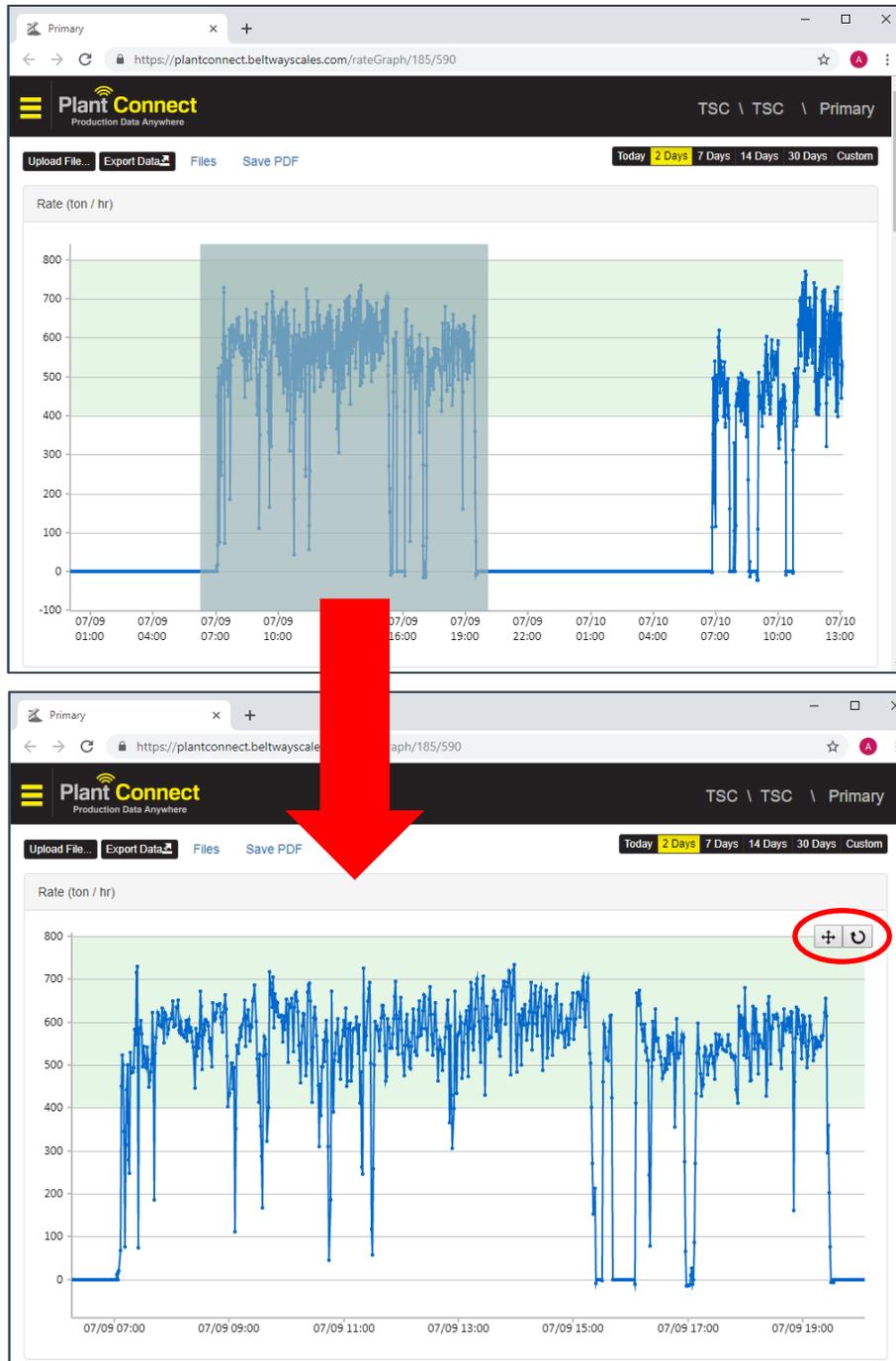
Su	Mo	Tu	We	Th	Fr	Sa
31	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	1	2	3	4
5	6	7	8	9	10	11

Time Range: All Day By Shift Custom

1st Shift 05:00 to 15:00 (Selected)
2nd Shift 15:00 to 01:00
3rd Shift null to null

Apply Cancel

Click and drag over any area of the graph to zoom in.



The Zoom toolbar will appear in the upper right corner of the rate graph.

Click the cross icon to switch to **PAN** mode.
Now you can click the graph and drag it left or right.

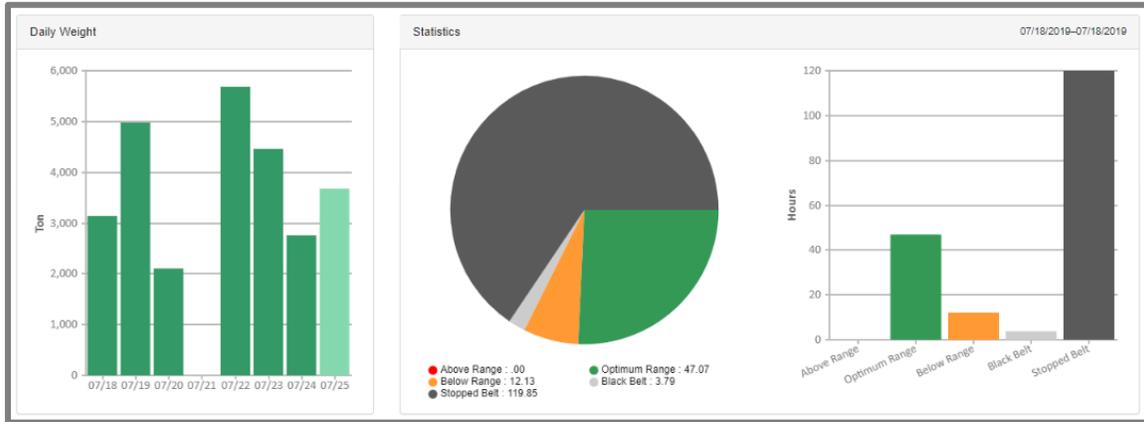


Click the magnifying glass icon to return exit **PAN** mode.
Click the circle arrow icon to **ZOOM OUT**.



5. Daily Weight and Statistics

The **Daily Weight** shows the accumulated weight for each day. **Statistics** shows important details about scale performance.



Start Time - First reading from the scale.

End Time - Last reading from the scale.

Production Today - Accumulated Weight for the day.

Stopped Belt - Time the belt speed is below the **Stopped Belt Speed**.

Black Belt - Time the belt is running but TPH is below the **Black Belt Limit**.

Low Production - Time the belt is running and TPH is above **Black Belt** but below **Low Production Limit**.

Optimal Production - Time the belt is running and TPH is between **Low Production** and **High Production**.

High Production - Time the belt is running with TPH above **High Production Limit**.

Belt Run Time - Total time the belt is running (**Black belt + Low + Optimal + High Production**).

Run Time Ave Rate - Average TPH for belt run time (**Accumulated weight / Belt Run Time**).

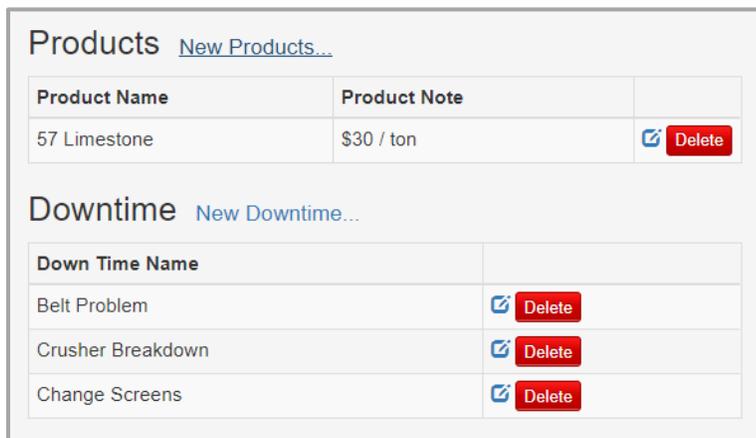
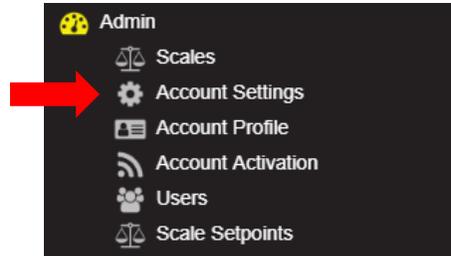
Run + Stopped Time Ave Rate - Average TPH for total time (**Accumulated weight / Run + Stopped Time**).

Daily Statistics										
Start DateTime	End DateTime	Production Today (Ton)	Stopped Belt (Hours)	Black Belt (Hours)	Low Production (Hours)	Optimal Production (Hours)	High Production (Hours)	Belt Run Time (Hours)	Run Time Ave Rate (ton / hr)	Run + Stopped Time Ave Rate (ton / hr)
07/19/2019 00:01:00	07/19/2019 23:59:59	4,978	12:38:54	00:42:00	01:50:00	08:49:00	00:00:00	11:21:00	438	207
07/20/2019 00:01:00	07/20/2019 23:59:59	2,099	18:42:24	00:49:12	00:56:00	03:31:00	00:00:00	05:16:12	398	87
07/21/2019 00:01:00	07/21/2019 23:59:59	0	23:59:59	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	0	0
07/22/2019 00:01:00	07/22/2019 23:59:59	5,677	11:52:56	00:08:00	02:05:00	09:54:00	00:00:00	12:07:00	468	236
07/23/2019 00:01:00	07/23/2019 23:59:59	4,458	12:53:00	00:28:53	01:31:00	08:57:00	00:00:00	10:56:53	407	187
07/24/2019 00:01:00	07/24/2019 23:59:59	2,765	17:00:56	00:50:00	01:36:00	04:33:00	00:00:00	06:59:00	395	115
07/25/2019 00:01:00	07/25/2019 23:59:59	5,680	11:14:00	00:32:20	02:31:00	09:42:00	00:00:00	12:45:20	445	236
07/26/2019 00:01:00	07/26/2019 10:22:00	1,372	07:35:14	00:10:13	00:16:00	02:19:00	00:00:00	02:45:13	497	132

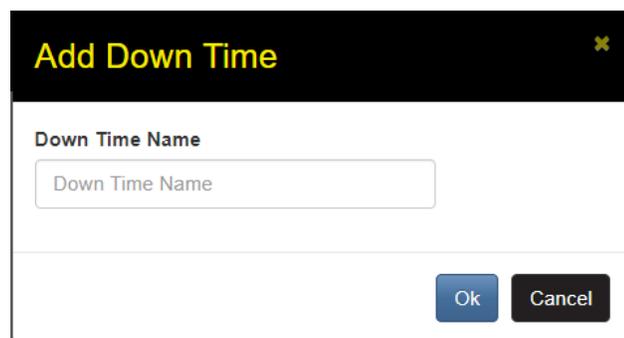
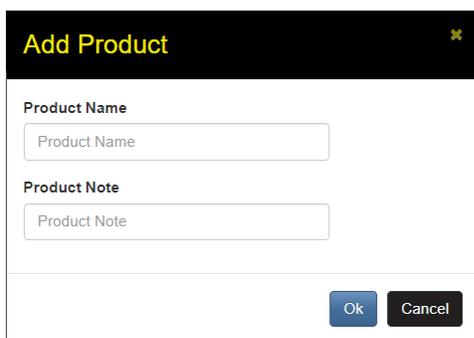
6. Production Notes (Downtime Reasons & Product Changes)

ADMIN users can create a list of downtime reasons and products. This allows an operator to easily record production events such as a product change on the conveyor or unscheduled downtime.

Choose **Account Settings** under the **Admin** menu.



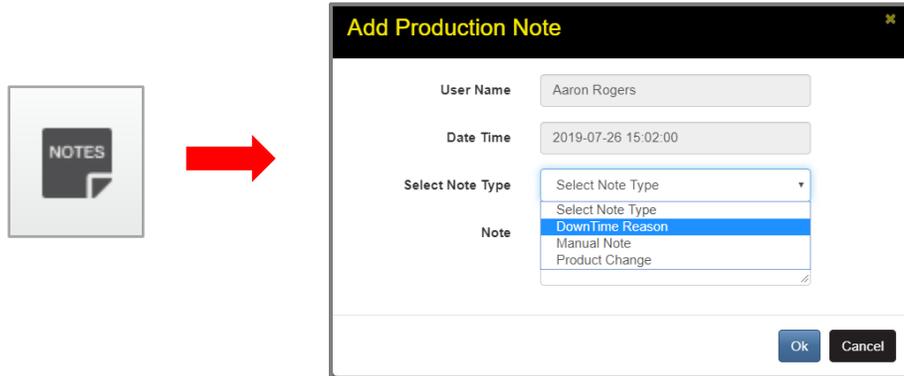
Click **New Products** or **New Downtime** to add new items.



Click the **Edit** icon to modify an existing item or **Delete** to remove it.

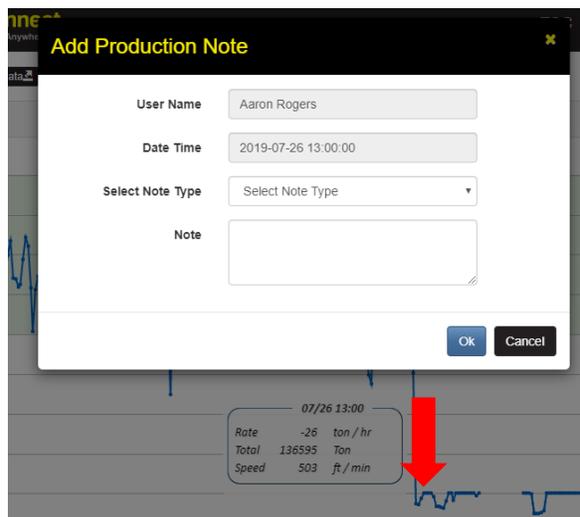


Production Notes can be created from the Dashboard. Click **NOTES** on the Dashboard and choose **Downtime Reason**, **Product Change** or **Manual Note**.



Production Notes can also be created from the rate graph.

Double Click on any point on the blue rate graph line to insert a note at that exact time.

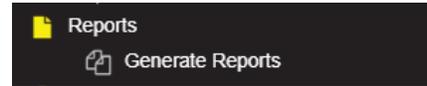


Production Notes appear in the table at the bottom of the rate graph page.

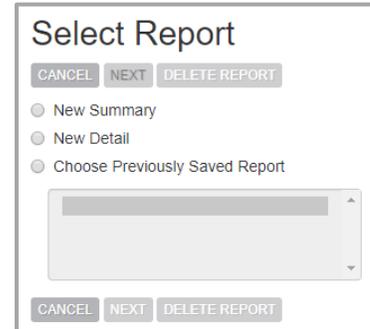
Date	User	Type	Note
07/26/2019 13:00:00	Aaron Rogers	DownTime Reason	Belt Problem

7. Production Reports

Any user can create and download production reports.
Choose **Generate Reports** under the **Reports** menu.



1. Choose **Summary** or **Detail** Report.
Summary calculates total production for the selected date range.
Detail calculates production for each day in the data range.



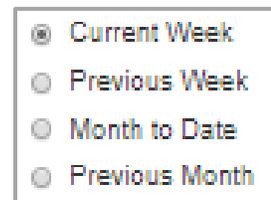
2. Select scales to be included in the Report.



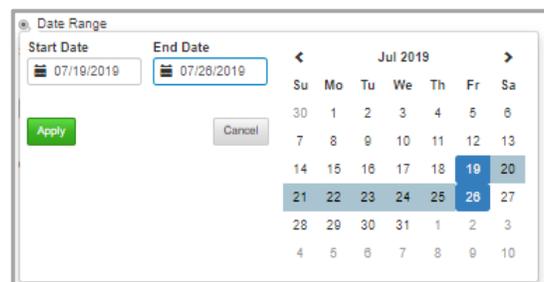
3. Choose a custom time range in 24-hour format or choose a pre-configured Shift range.



4. Select a preset data range.
(Current Week, Previous Week, Month to Date, Previous Month)

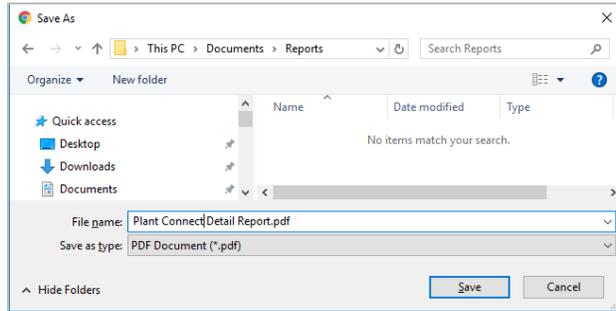


Alternatively select a custom date range on the pop-up calendar.
Reports longer than 30 days may process slowly.



- Click **GENERATE REPORT** to complete the process.

Rename the report if so desired and choose a location to save it to the computer.



- View the PDF report.

Summary Report Example

TSC

Production Summary Report

Report Date Range: **From: 2019-07-21 To: 2019-07-27**
 Shift Time: 10:00 To 18:00

Report Created Date: 07-29-2019
 Report Created By: aaron.rogers@beltwayscales.com

Location: TSC

Scale	Production (Ton)	Percent Of Feed	Stopped Belt (Hours)	Black Belt (Hours)	Low Production (Hours)	Optimal Production (Hours)	High Production (Hours)	Belt Run Time (Hours)	Run Time Ave Rate (ton / hr)	Run + Stopped Time Ave Rate (ton / hr)
Primary	17358.13	100.00	18:39:46	01:19:29	06:02:00	29:44:00	00:02:00	37:07:29	400.19	310.59
Production Total	17358.13		18:39:46	01:19:29	06:02:00	29:44:00	00:02:00	37:07:29	400.19	310.59

Detail Report Example

TSC

Production Detail Report

Report Date Range: **From: 2019-07-21 To: 2019-07-27**
 Shift Time: 10:00 To 18:00

Report Created Date: **07-29-2019**
 Report Created By: aaron.rogers@beltwayscales.com

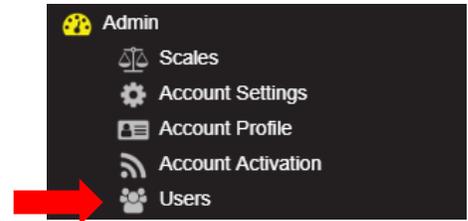
Location: TSC

Scale Name: Primary Product Name: Feed Scale:

Start Date/ Time	End Date/ Time	Accumulated Weight (Ton)	Percent Of Feed	Stopped Belt (Hours)	Black Belt (Hours)	Low Production (Hours)	Optimal Production (Hours)	High Production (Hours)	Belt Run Time (Hours)	Total Time (Hours)	Run Time Ave Rate (ton / hr)	Run + Stopped Time Ave Rate (ton / hr)
07/21 10:00	07/21 18:00	0.00	0.00	08:01:00	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	08:00:59	0.00	0.00
07/22 10:00	07/22 18:00	5005.39	0.00	00:37:00	00:08:00	01:14:00	06:02:00	00:00:00	07:24:00	08:00:59	676.40	624.37
07/23 10:00	07/23 18:00	4283.87	0.00	00:00:00	00:15:00	01:05:00	06:41:00	00:00:00	08:01:00	08:00:59	534.37	534.37
07/24 10:00	07/24 18:00	2782.23	0.00	03:03:00	00:14:00	01:19:00	03:25:00	00:00:00	04:58:00	08:00:59	560.18	347.06
07/25 10:00	07/25 18:00	5066.59	0.00	00:00:00	00:16:00	01:16:00	06:29:00	00:00:00	08:01:00	08:00:59	632.01	632.01
07/26 10:00	07/26 18:00	2770.52	0.00	04:15:46	00:21:57	00:19:00	02:45:00	00:01:00	03:26:57	07:42:42	803.24	359.25
07/27 10:00	07/27 18:00	4382.73	0.00	02:43:00	00:04:32	00:49:00	04:22:00	00:01:00	05:16:32	07:59:31	830.76	548.37
Total		24291.33	0.00	18:39:46	01:19:29	06:02:00	29:44:00	00:02:00	37:07:29	55:47:14	576.71	435.06

8. Create Users

An **Admin** can create an unlimited number of other users. Choose **Users** under the **Admin** menu.

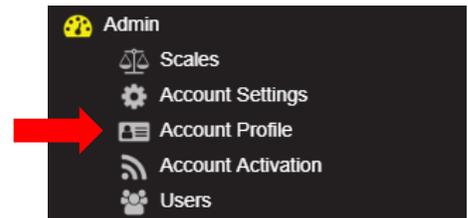


Enter the users email address, and choose Admin or User customer role and location role. Multiple users may be created at the same time as long as they have identical roles. The new user will receive a verification email as described on page 2.

 A 'New User' dialog box with a close button (X) in the top right. It contains three main sections: 'Email Address' with a text input field containing 'aaron.rogers@beltwayscales.com' and a placeholder 'Email Address(Comma Seprated)'; 'Customer Roles' with a dropdown menu set to 'Customer Admin'; and 'Location List' with a text input field containing 'TSC' and a dropdown menu set to 'Location Admin'. At the bottom right are 'Ok' and 'Cancel' buttons.

9. Account Profile / Activation End Date

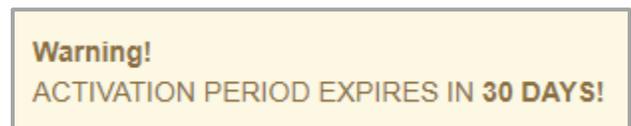
An **Admin** user must keep the **Account Profile** billing address up to date.



The **Plant Connect Activation End Date** is displayed on the profile screen. The service must be renewed through a local dealer prior to the end date.

 A light gray box titled 'Activation Details'. Below the title is the label 'End Date' and a text input field containing the date '2020-12-31'.

A warning messages appears when the **Activation End Date** is within 30 days.



Users can still login to Plant Connect after the activation period has expired but all functions will remain locked until the renewal request has been processed.



10. Alarms

Admin users can create alarms to track when the scale changes state. Choose **Alarms** under the main menu.



1. Click **Define Alarms**.



2. Click **Add** to create a new alarm for a scale.



Add Alarm for CV-2

State

Duration (minutes)

Color

Shift 1
 Shift 2
 Shift 3

Save Close

- 3. Choose the state to trigger the alarm.
Offline = Scale not communicating to Plant Connect
Stopped Belt = Belt speed below stopped belt limit
Black Belt = TPH below black belt limit
Low Production = TPH above black belt and below the low limit
Optimal Production = TPH above low and below high limit
High Production = TPH above high limit
Calibration Fault = TPH negative or much higher than high limit

State

Offline
 Stopped Belt
 Black Belt
 Low Production
 Optimal Production
 High Production
 Calibration Fault

4. Choose **Duration in minutes**.
The alarm will trigger only after the scale has changed state for longer than the duration period.

Duration (minutes)

10|

5. Choose the alarm **Color**.

Color

GREEN
 BLACK
 BLUE
 YELLOW
 ORANGE
 RED

6. Choose when the alarm should be active.
At least one shift must be configured for alarms to work.

Shift 1
 Shift 2
 Shift 3

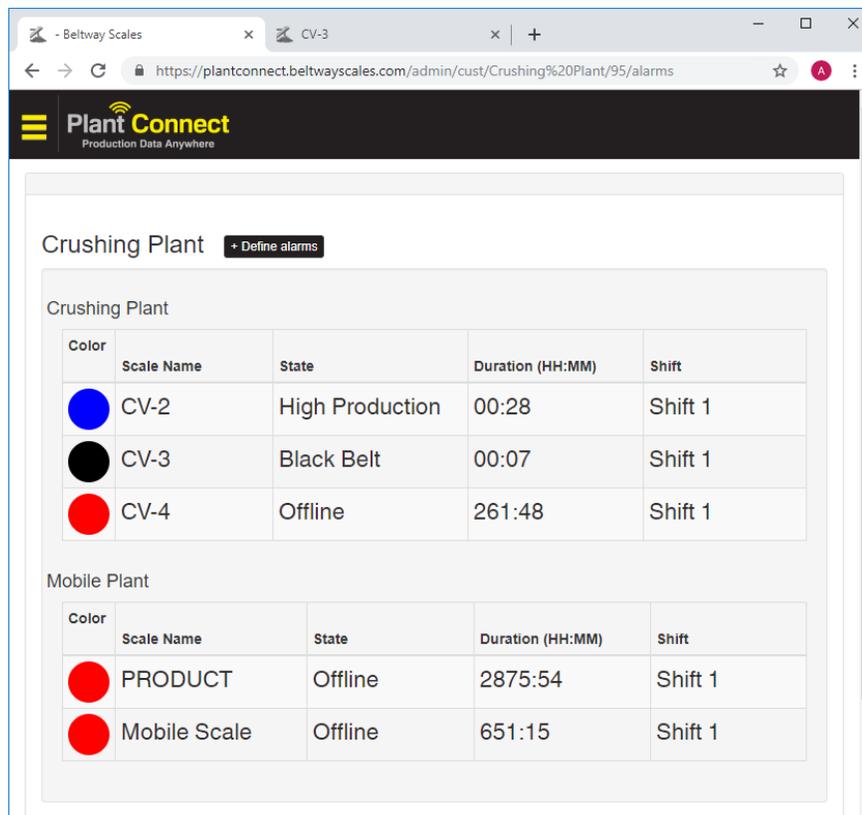
This example shows a scale with alarms configured to trigger after 10 minutes.

Crushing Plant + Add

State	Duration (min)	Shift(s)	Color	Delete
Offline	10	Shift 1, Shift 2, Shift 3		Delete
Stopped Belt	10	Shift 1, Shift 2, Shift 3		Delete
Black Belt	10	Shift 1, Shift 2, Shift 3		Delete
Low Production	10	Shift 1, Shift 2, Shift 3		Delete
High Production	10	Shift 1, Shift 2, Shift 3		Delete
Calibration Fault	10	Shift 1, Shift 2, Shift 3		Delete

Click **View Alarms** to return to the alarm monitoring page.

View alarms



The screenshot shows a web browser window with the URL <https://plantconnect.beltwayscales.com/admin/cust/Crushing%20Plant/95/alarms>. The page header includes the Plant Connect logo and the tagline 'Production Data Anywhere'. The main content area is titled 'Crushing Plant' and features a '+ Define alarms' button. Below this, there are two tables of alarm configurations.

Crushing Plant

Color	Scale Name	State	Duration (HH:MM)	Shift
	CV-2	High Production	00:28	Shift 1
	CV-3	Black Belt	00:07	Shift 1
	CV-4	Offline	261:48	Shift 1

Mobile Plant

Color	Scale Name	State	Duration (HH:MM)	Shift
	PRODUCT	Offline	2875:54	Shift 1
	Mobile Scale	Offline	651:15	Shift 1

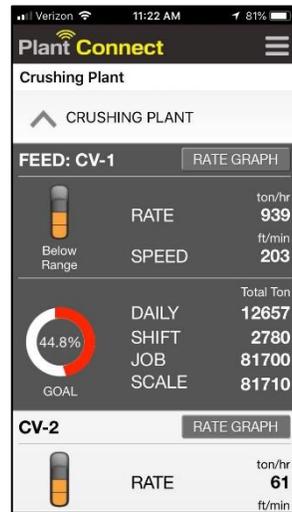
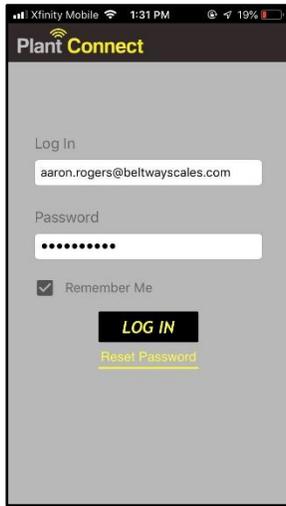
11. Smartphone App

The **Plant Connect** smartphone app is available from the Iphone or Android app stores.

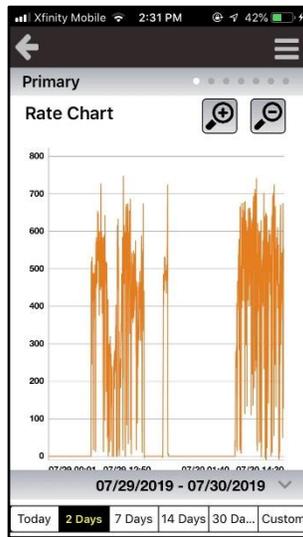
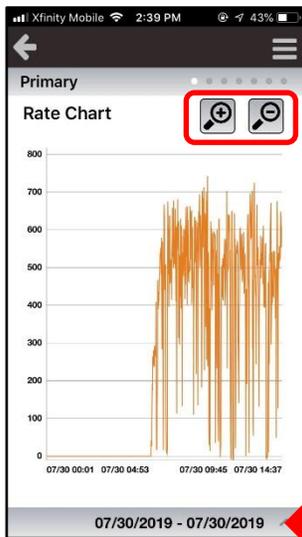


1. Login with username and password.

2. **Dashboard:** Shows Totals, Tons per hour, Belt Speed and Goals. Swipe Up to view other scales at the location.

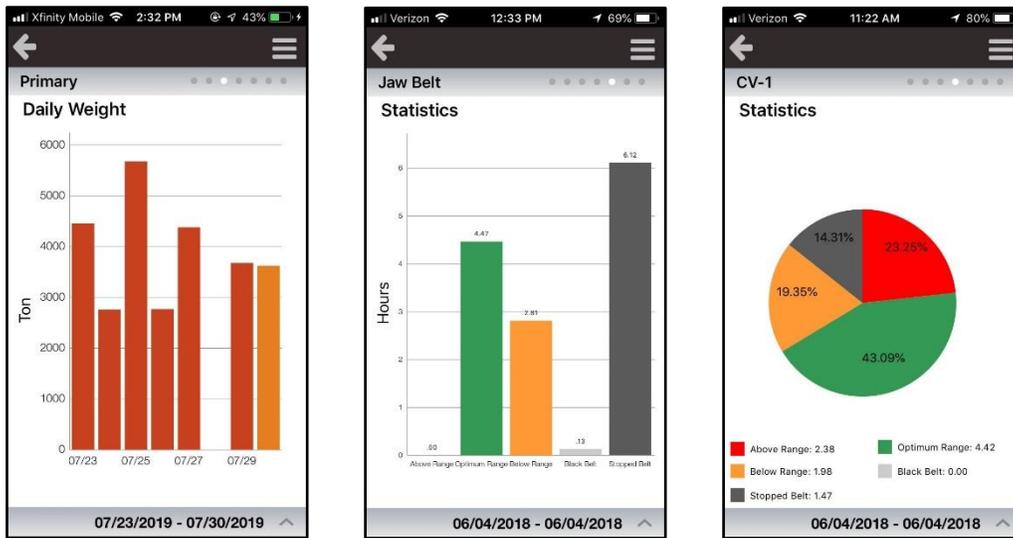


3. Click **RATE GRAPH** to view the historical graph. Use magnifier buttons to zoom in or out.



Click the date picker to choose a preset or custom time range.

4. Swipe left to view the historical totals and statistics.



Contact tech support for further assistance.

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