

# BreviSmart<sup>®</sup>

A web based system for optimizing Brevis® application timing

**GO TO BREVISMART®** 

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### BACKGROUND

BreviSmart® is a decision support web-based application for optimizing Brevis® application timing

- BreviSmart® is designed to be used by advisors in order to assist in the process of recommending the optimal time for applying Brevis®, based on the desired results.
- The BreviSmart® model has been developed by a group of fruit thinning exerts. The model is connected exclusively to Brevis® to assist in predicting application efficacy.
- For generating a result, the model is using both crop and climatic variables



A simple interface for advisors to use the model - developed by a group of fruit thinning experts.



Global coverage for accurate weather data -ADAMA is using the most accurate weather data available (The Weather Company)



Multilingual - currently available in English, French, German, Dutch, Spanish and Italian



Computer and mobile availability adaptable to screen size





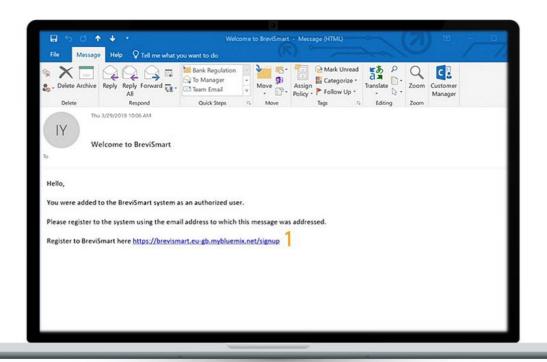




### MANAGE ACCOUNT

#### Welcome to BreviSmart®

New advisor added to the system by a country admin will receive the following email:



1. Clicking on the link will redirect the user to the registration page on the online BreviSmart® system





### Registration

Language of the system will be according to user's personal browser settings (Currently support the following languages: English, German, French, Italian, Dutch, Spanish).



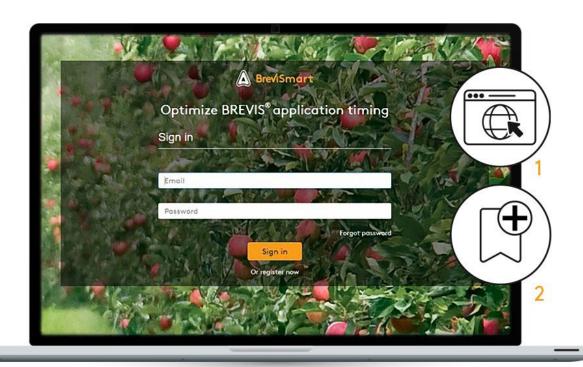
- 1. Only authorized email addresses can be registered.
- 2. Fill in all the fields.
- 3. Choose your own password.



### Login page

Login only after registration.

Reset password option from 'forgot password'.



#### **Recommendation:**

- 1. Allow browser to save email and password for fast login.
- 2. Save login page to Favourites /Bookmarks for fast access.





#### Home screen



- Allow BreviSmart® to know your location.
- 2. The home screen will present current and forecasted temperature and radiation in your location.
- \* Option to toggle between F° & C°



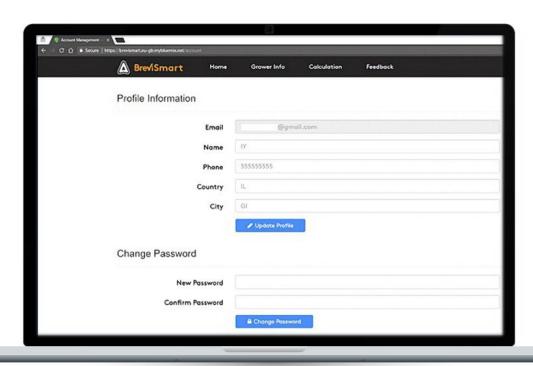


### **Account management**

 Profile information and password can be changed from 'My Account'.



2. The authorized email address can not be changed.

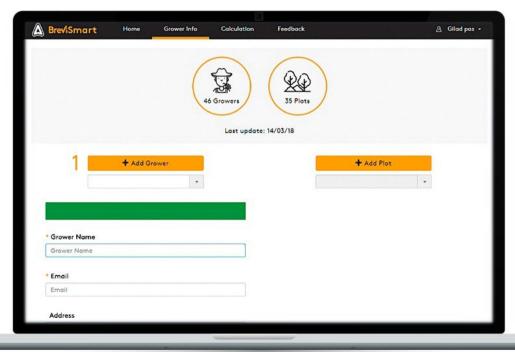


# ADD GROWER AND PLOT INFORMATION

#### **Grower Info**

In order for the system to generate recommendations, grower's specific information should be added.

1. Click on +Add Grower for adding new grower's information or, if grower's information already exists, choose a grower from the list by clicking on the arrow. Mandatory fields marked with \*.

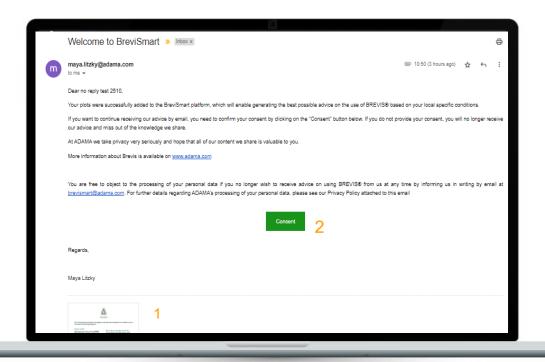


2. After saving, grower info can be edited by clicking the 'Edit' button or deleted by clicking on the button.

Delete

### Privacy notice to grower

 Once added to the platform, a new grower will automatically receive the following email with ADAMA's BreviSmart® Privacy Policy attached.



- A consent button will appear at the bottom of the email. The grower will have to click the consent button in order to receive calculations from the platform.
- Once clicked consent, the grower will be navigated into a "thank you for your confirmation" landing page.
- 4. After accepting the privacy policy (by clicking consent), the advisor will receive a confirmation email, including the grower's consent approval.

### Privacy policy guidelines, recommendations to advisors:

- 3. Enter growers before the season to allow time to receive data and confirmation.
- 4. Once you sign up a grower to the system, wait for at least 12 hours to receive a consent notification from the grower

PRIVACY POLICY ACCEPTED



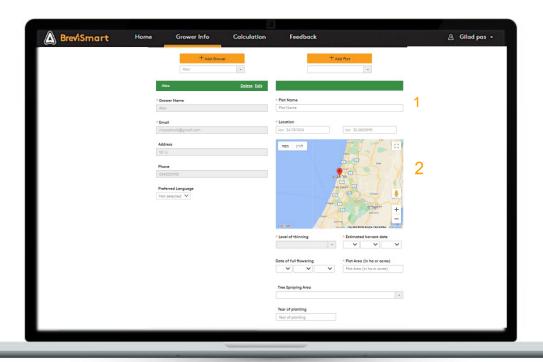
i Click here to download pictures. To help protect your privacy, Outlook prevented automatic download of some pictures in this message

Maya Litzky: The grower Yotam: <a href="mayashach@gmail.com">mayashach@gmail.com</a> has accepted the new privacy policy

- If not received, contact your grower. If for a technical reason the grower can't click consent, they can approve in writing their consent to the privacy policy.
- 6. Once notification is received you can continue with calculation
- 7. If a grower wishes his data to be removed, please update by sending an email to: brevismart@adama.com
- 8. A grower that didn't respond in 6 month please request to remove their details on <a href="mailto:brevismart@adama.com">brevismart@adama.com</a>

#### **Plot info**

Choosing a grower from the list will enable adding 'Plot Info' or choose an existing plot from the list.



- 1. Fields marked with \* are mandatory.
- Use the red marker to choose a location on the map (satellite view is also available).
- 3. After saving it is possible to edit or delete the 'Plot Info'.

Implementing multiple changes in



### Implementing multiple changes in growers and plots data

If you have to implement multiple changes for multiple growers, you have the option to download a CSV file and create changes on that file.

Once changes had been made, you can upload the file back to the BreviSmart® platform.

**Step 1:** Download CSV file directly from the platform, that includes all growers and plots data.

Step 2: Create multiple changes in the CSV file.

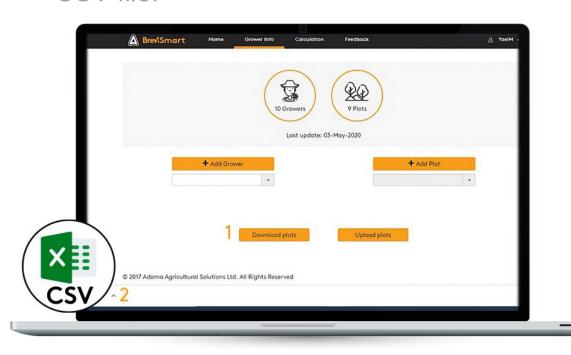
**Step 3:** Upload the CSV file to the platform to implement changes.

#### NOTE FOR USING THE CSV FUNCTION

In order to use this functionality, you must use the CSV template that is downloaded from the platform

# Step 1: Download CSV file directly from the platform, that includes all growers and plots data

if you need to create changes in your growers and plots data, or if you want to review this data, you have the possibility to download a CSV file:



- 1. Click on the **Download** button.
- 2. A CSV file will be downloaded with all your growers and plots data.
- 3. Click on 'save as' in order to save the file on your computer/ mobile device.

### Step 2: Create multiple changes in the CSV file

The saved CSV file is the template on which you can edit your growers and plots data, and later upload it directly to the platform.

 In the CSV file, navigate to the requested grower or plot lines on the Action column (column W). fill in the requested action for this grower/plot: update/create/delete

Update: change details in the growers/plots line

Create: add new grower/plot

**Delete:** delete plots

- 2. Fill in all mandatory fields to create changes in your growers and plots data (page 15). other fields can remain unfilled.
- 3. Save the CSV file under a revised name on your device.

#### **NOTE FOR ADDING NEW GROWERS/ PLOT**

Adding plots to existing grower: you must fill in Grower's ID to add the specific grower his new plots.

Adding a new grower can only be done with at least one plot.



### How to fill the CSV template fields

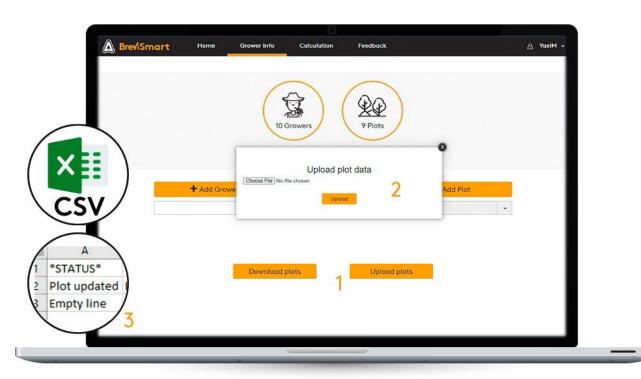
In the CSV file, fill in the mandatory fields for each line you want to create an action in. The mandatory fields are the same as the ones required while adding growers/plots directly from the platform:

	Grower name
	Grower email
	Plot name
	Longitude (numbers only)
	Latitude (numbers only)
	Level of thinning (Easy to thin (i.e., Golden),
	Moderate to thin (i.e., Gala), Hard to thin (i.e.,
	Fuji)
	Harvest-day
	Harvest-month
_	Harvest-month Harvest-year
	Harvest-year

### Step 3: Upload the CSV file to the platform to implement changes

To upload the CSV file, click on the button.

**Upload plot** 



- 2. A pop-up window will open choose the relevant CSV file and click Upload
- After uploading a new CSV file results will be created and downloaded with a new STATUS column. This column represents if each record has been uploaded successfully or if there is an error.

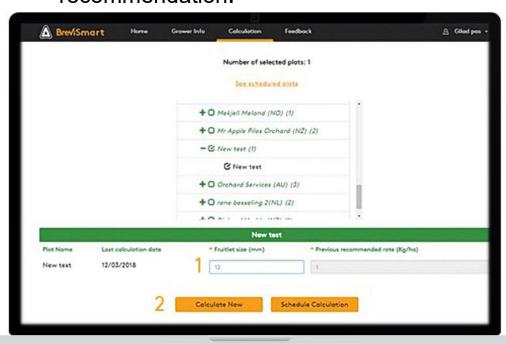


# GENERATE CALCULATION SHARE AND SAVE

#### Calculation screen - calculate now

Choose a grower and plot to generate recommendation. Multiple selection is possible. List is updated according to information added in the 'Grower Info' screen in alphabetical order.

- Insert 'Fruitlet size (mm)' for the selected plot(s).
- 2. Click on **Calculate Now** for immediate recommendation.



#### **IMPORTANT!**

BreviSmart® recommendation refers only to application timing and not application rate.

#### Calculation screen - recommendation

After clicking on a recommendation will be generated and presented for the chosen plot(s).

#### Three types of possible recommendations:

Less than good conditions

Good conditions

Strong conditions

As soon as spraying conditions are suitable apply BREVIS® according to the following recommendation:

Expected thinning conditions are Good.

Recommendations:

Green: Keep your common used dose of BREVIS® (-/+ 5% according green shade)

Diameter of the central "King" fruit in mm

Date | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |

Today Conditions

Today date and fruit ties of 1st conditions

Today conditions

Recommendations:

Green: Keep your common used dose of BREVIS® (-/+ 5% according green shade)

Diameter of the central "King" fruit in mm

Today conditions

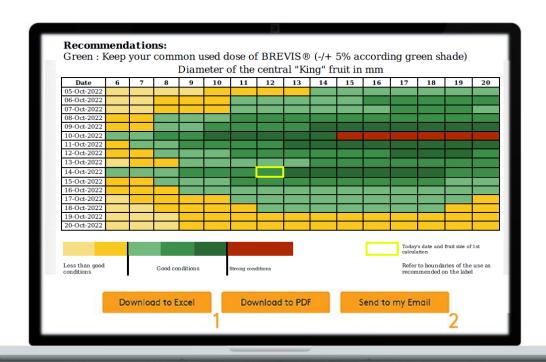
Today conditions

Refer to boundaries of the use as recommended on the label

- A text recommendation will be stated in bold according to the current specific plot's conditions.
- 2. A table showing forecasted and previous results for the plot's specific conditions, for fruitlet size 6-20 mm, will be presented for future planning and trends recognition.
- If more than one plot was chosen, left and right arrows enable navigation between different plots' recommendations.
- 4. A legend for explaining the table will appear below it.

### Calculation screen - download recommendation

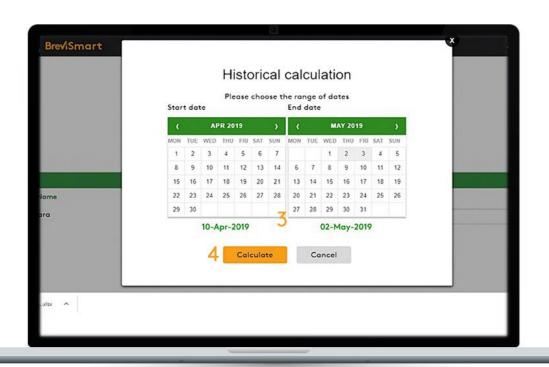
- The recommendation(s) can be downloaded directly to the user's computer in a PDF or excel files.
- Additional option is to send the recommendation to the user's email address (The same address used to login).



### Calculation screen - historical calculation

Enable to Extract historical weather data per chosen Grower's plot and dates.

- Choose a specific grower or growers from your list check box to display.
- 2. Click on the Historical Calculation button.
- Note that you can define the range of calculation dates - 4 weeks MAX.
- 4. Click on the **Calculate** button an Excel output result will be created.



### Calculation screen - historical calculation

Historical calculation output results:

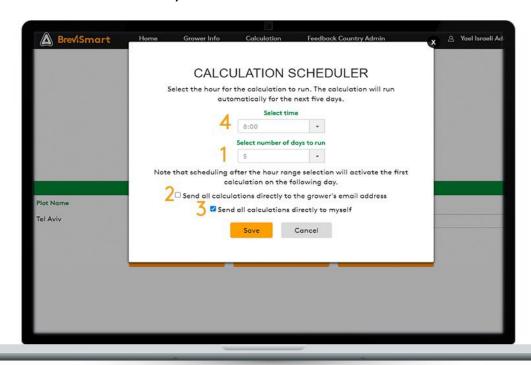


### Calculation screen – schedule calculation

 After choosing a plot(s) and updating 'Fruitlet size(mm)' an automatic calculation can be set for the next 5 OR 10 days by choice. Calculation results in PDF format will be sent directly to the user's email.

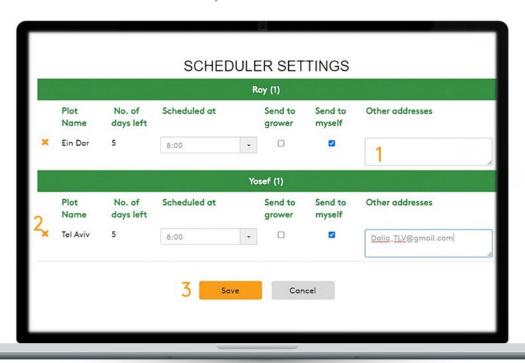
### Adding an option to send both to myself and to grower:

- Option to send all calculations directly to the grower's email address.
- Option to send all calculations directly to myself.
- Calculation time to be set by the user (Calculation time can be set before and after nighttime measurements needed for calculation).



### **Calculation screen – see scheduled plots**

Click on 'See scheduled plots' to view, edit or delete scheduled plots calculation.



- Adding an option to send a copy of the scheduled report to several people. For multiple email addresses, it should be separated by a comma.
- 2. To send directly to grower, click on the 'Send to grower' option.
- 3. Clicking on the Orange 'X' symbol on the left will delete the plot from the scheduler.
- 4. After making changes click on **Save** to update the scheduler.

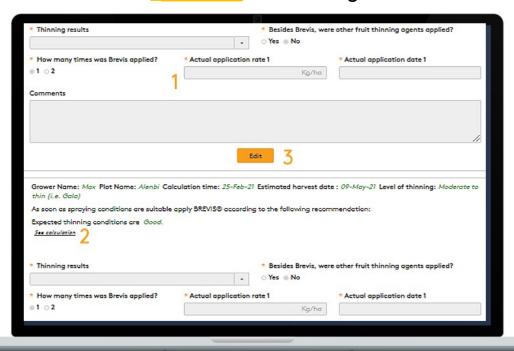


## SEND FEEDBACK TO ADAMA

#### Feedback screen

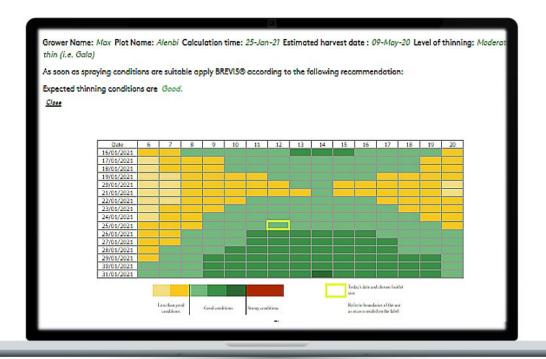
The Feedback screen designed to enable the users to provide feedback to ADAMA following Brevis® application and thinning results.

- After generating calculation for a plot, a feedback section will be opened.
- The last generated recommendation for each plot will be saved and presented in the feedback section under 'see calculation'.
- 3. Click on **Edit** and fill the feedback fields. Click on **Save** after filling.





4. On a new season, updating the field 'Estimated harvest date', in the plot info, will open a new feedback section for the season.



# FREQUENTLY ASKED QUESTIONS

#### Not able to perform calculation

Try calculating in your account on a plot you know should work. If not working, check if Fruitlet size was added in the calculation screen or Variety or Location was added in the plot info screen.

### Cannot see weather data on home screen

Check that Location settings are enabled for BreviSmart on browser.

#### Emails do not arrive to advisor/grower

Check junk / spam mailbox.

If you have tried to renew a password, please make sure you input your email using lowercase.

### How can I add a plot location into the system?

You can add the location manually if you have the coordinates or use the cursor on the google map.



#### How many plots can I add per grower?

The system does not limit the number of plots per grower. However, calculating is limited to 20 plots per grower at the same time. If needed, separate the plots to calculate more then 20.

#### How many growers can I add?

The system does not limit the number of growers per advisor.

### On the feedback page, how can I see the calculation I made without overriding the data of my previous seasons' calculations?

On a new season, updating the field 'Estimated harvest date', in the grower info page --> edit plot info, will open a new feedback section for the season.

# How do I know if a variety belongs to an easy – moderate or difficult to thin group?

This is based on general experience. Golden is perceived as easy, Gala as moderate and Fuji as difficult to thin.

### When and why should I fill in the data on the feedback page?

After harvest. By doing this you will have the data stored which can help you to make the right decision in the following years.

# How important are nighttime temperature and radiation in the model?

These variables are essential as they have a strong impact on the performance.

### Does a flower thinner affect the calculation of the model?

A flower thinner is applied around flowering and the effect is visible already before the model will be used. A flower thinner does not influence the prediction.

### Does the model recommend a dose rate?

The decision about the dose depends on the history of the orchard and the specific fruitset conditions. The model will tell you when to apply this dose rate and can be increased or reduced depending on the predicted conditions.

#### Which fruits do I have to measure?

Only the king fruits from different clusters from different representative trees.





### **ADAMA**

### **BreviSmart**

A web-based system for optimizing Brevis® application timing

**CONTACT**