**Sprint 1 Report**

**Product Name:** Greens Only  
**Date:** April 21, 2018

**Actions to Stop Doing**

The team's performance has not been satisfactory.

* Leave work for last minute.
* Going off topic during work sessions or meetings.

**Actions to Start Doing**

Few small practices can be implemented by the team to fully adopt the SCRUM process:

* Every team member should make an effort to attend “Daily Scrums”.
* The team should estimate hours per task better, as well as keep track of hours completed more regularly and update “Burnup Chart” accordingly
* Every team member should make a stronger effort to report back to the team for accountability reasons.
* Everyone should add their code to Github regularly, using an appropriately named branch

**Actions to Keep Doing**

* The team should continue holding SCRUM Meetings
* The team should continue working towards completing the tasks by their scheduled date
* The team should continue keeping the SCRUM board updated
* The team should continue having broader user story that can be divided into smaller tasks that can be more equally divided among the team

**Work Completed**

As a developer, I would like to determine the effectiveness of color detection software in terms of differentiating between produce and contaminants.

1. Search online for different color detection software. (13 hours)
2. Create a script that extract a set of images from a video (4 hours)
3. Create a script that processes an image and interprets it as a matrix of RGB values for each pixel (2 hours)
4. Come up with a function that evaluates the greenness of a pixel (3 hours)

As a developer, I would like to determine the effectiveness of edge detection software in terms of differentiating between produce and contaminants.

1. Search online for different edge detection software. (13 hours)
2. Test OpenCV’s Canny Edge Detection Library (4 Hours)
3. Test Matlab Edge Function (4 Hours)

As a developer, I would like to determine the effectiveness of comparing images against each other in order to help find contaminants in the produce.

1. Search online for methods to compare images (13 hours)
2. Be able to compare two images with each other pixel by pixel to determine a percent similarity (4-5 hours)
3. Modify code to identify the location of the differences between two images. (5 hours)

**Work Not Completed**

As a developer, I would like to determine the effectiveness of color detection software in terms of differentiating between produce and contaminants.

1. Run the color detecting software on many different images. (4-5 hours)
2. Explore potential for masking unnecessary pixels in an image (6 hours)

As a developer, I would like to determine the effectiveness of edge detection software in terms of differentiating between produce and contaminants.

1. Attempt edge detection through Canny Method in Matlab (3 Hours)
2. Attempt edge detection through Sobel Method in Matlab (3 Hours)
3. Attempt edge detection through Fuzzy Logic Method in Matlab (3 Hours)

As a developer, I would like to determine the effectiveness of comparing images against each other in order to help find contaminants in the produce.

1. Modify code to alter the images so there will be less unneeded information for better comparisons. (5 hours)

**Work Completion Rate**

Totals

Total number of user stories completed during the prior sprint: 3 user stories completed \*

Total number of estimated ideal work hours completed: 66 estimated hours

Total number of days during the prior sprint: 13 days

\* 2 user stories are considered complete, however all tasks were not finished.

Rates of completion

User stories/day 0.21 stories per day

Ideal work hours/day 5.7 work hours per day

Burnup Chart

In Team Drive (Excel)