



**bitwise**  
Agronomy



# Global Problems



## **Visibility**

of farms is distributed and complex



## **Operations**

are inefficient and costly



## **Management**

lacks insight and overview



## **Unpredictable**

yield loss & human error



## **Logistics**

lack real-time information and forward planning

**High Production Costs**

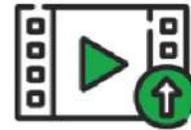
# Bitwise Approach - How it works

**SIMPLE | POWERFUL | SCALABLE**



## **GoPro**

Use a GoPro camera to capture side-on, plant-by-plant video footage of your crops



## **Upload**

Upload the video footage to the Bitwise GreenView portal



## **AI**

GreenView will analyse the video, count and measure the growth stages of your vines and berries, and generate tailored insights reports about your crop health.



## **Decisions**

Make data-driven decisions to improve the yield and profitability of your crops.

# Data and AI

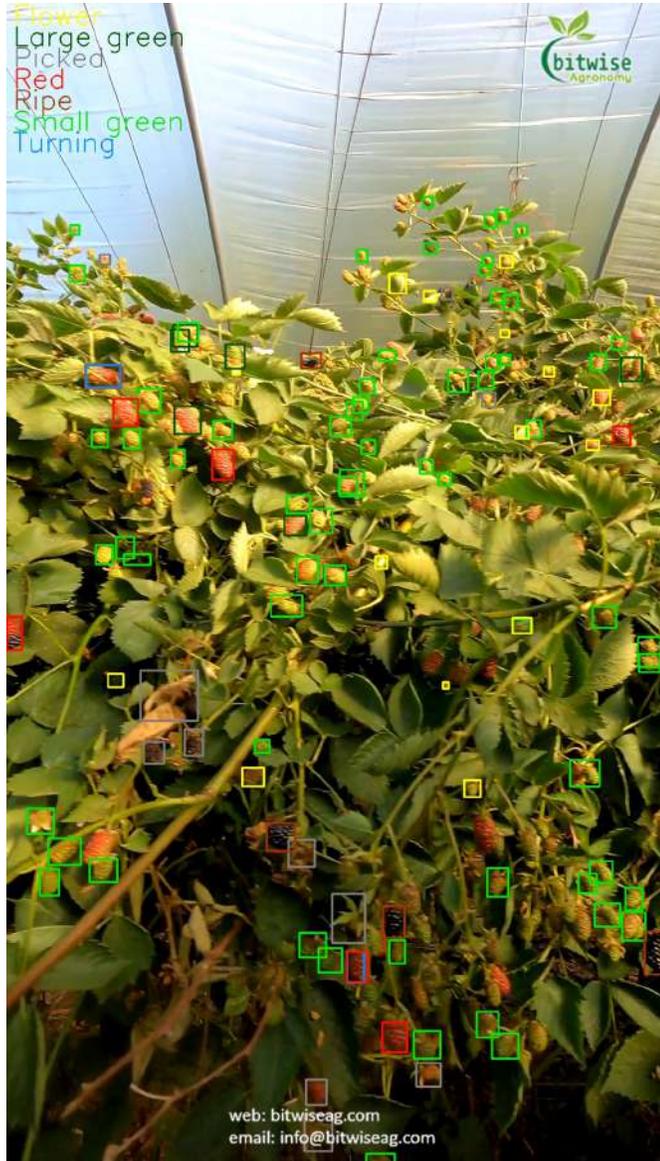




# Berry Collection

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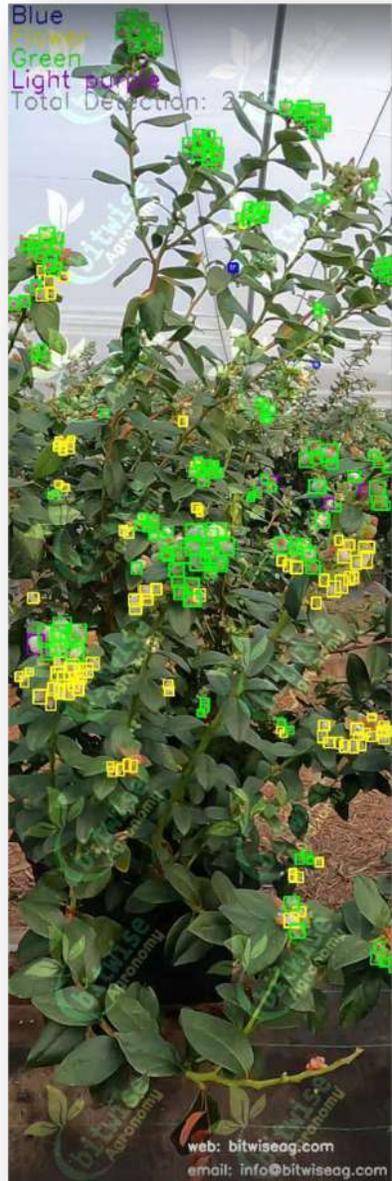
# Blackberries and Strawberries



# Blueberries



# Greenview in Action

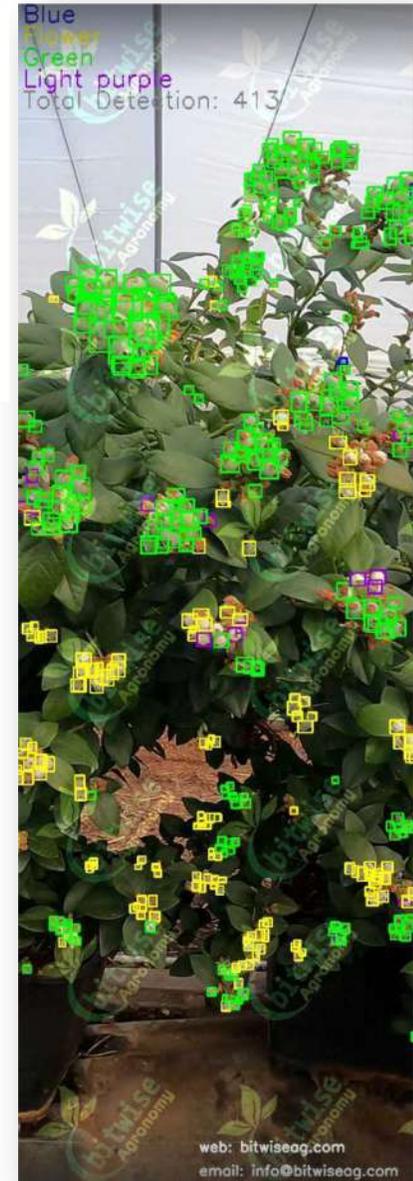
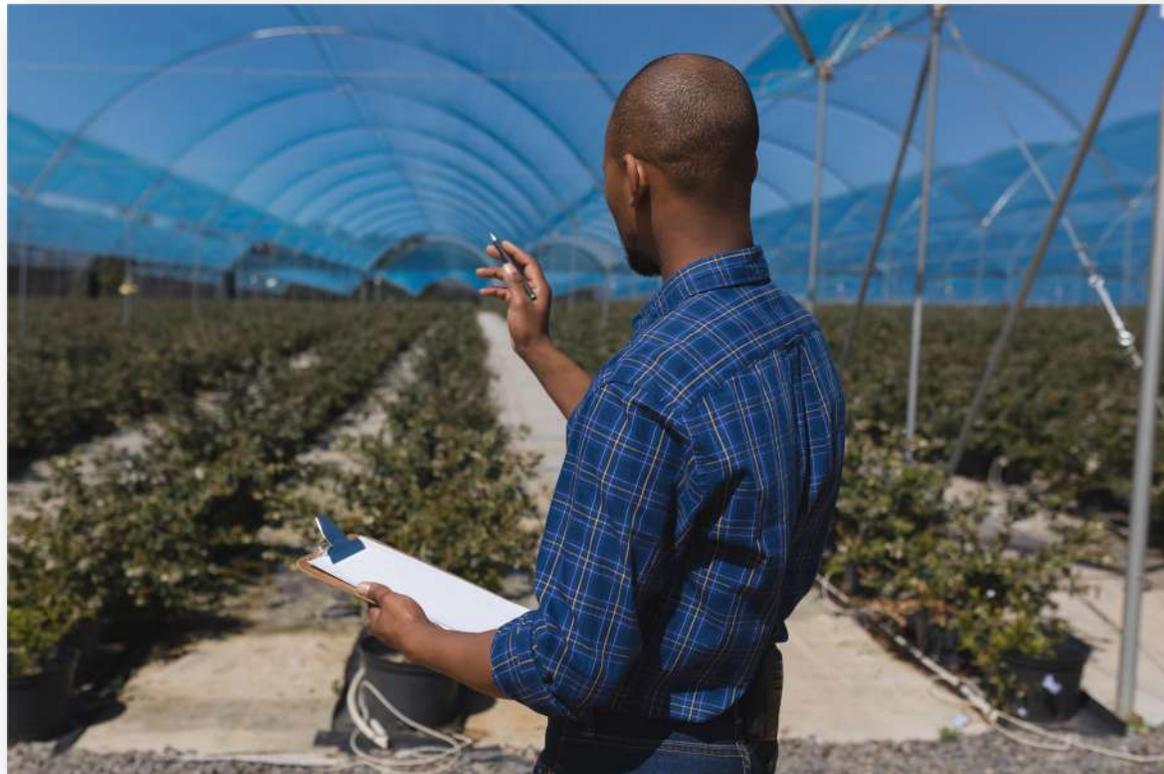


Our customers tell us that the best blueberry counter/scouts can only count 4-6 plants per day... and human error is still there as there's often 2000+ berries on each plant.

The cost of this activity is large even in countries where labour is cheap.

At the same time as a human can count 6 plants,  
GreenView can count thousands of plants.

Our AI will count more, be more consistent in approach and much faster - making the return on investment in using this system a no brainer for berry growers.

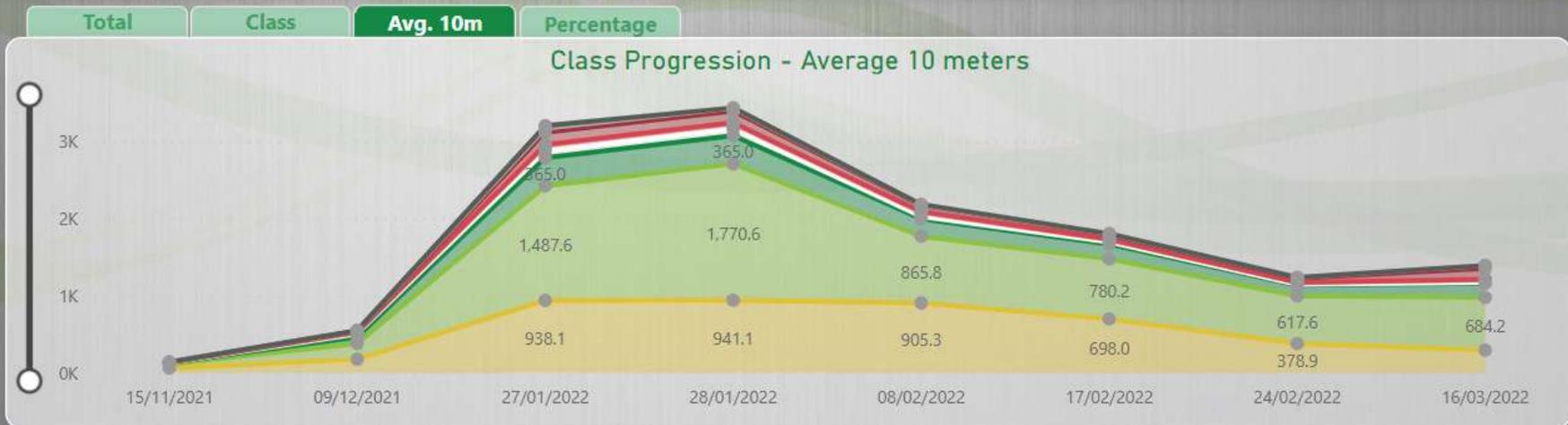
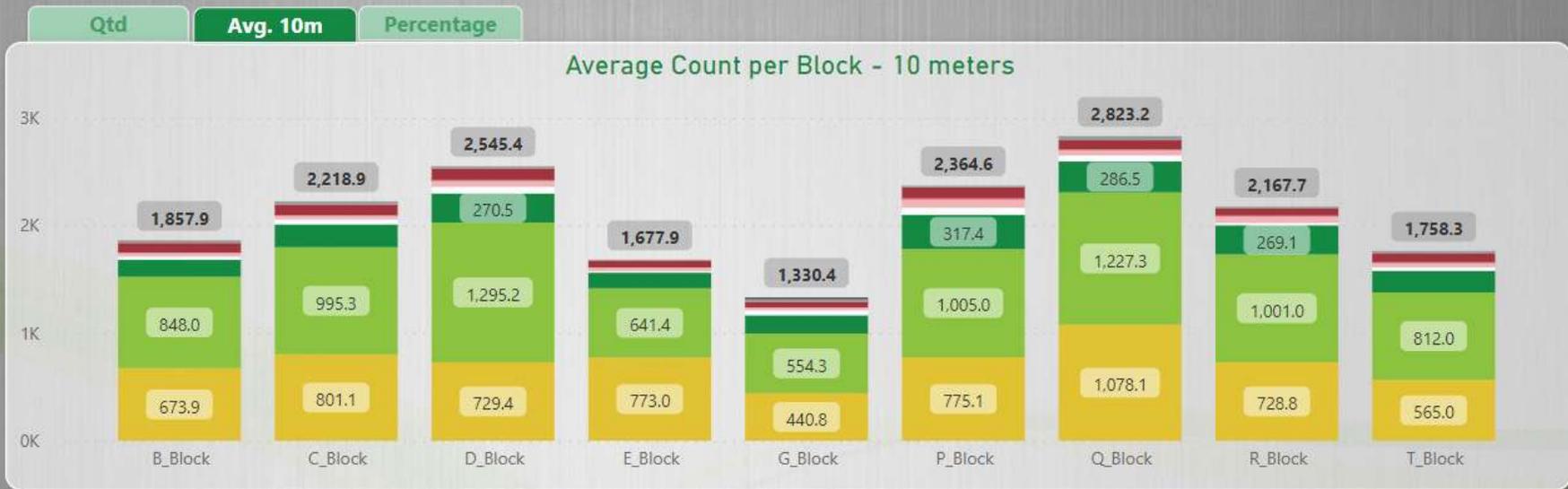


# Strawberries Count



- Block & Date**
- Select all
  - B\_Block
  - C\_Block
  - D\_Block
  - E\_Block
  - 15/11/2021
  - 08/02/2022
  - 17/02/2022
  - G\_Block
  - P\_Block
  - Q\_Block

- Class**
- Select all
  - Flower
  - Immature Green
  - Mature Green
  - White
  - 0\_25\_Coloured
  - 25\_50\_Coloured
  - 50\_75\_Coloured
  - 75\_100\_Coloured
  - Override
  - Runner



# Strawberries Map

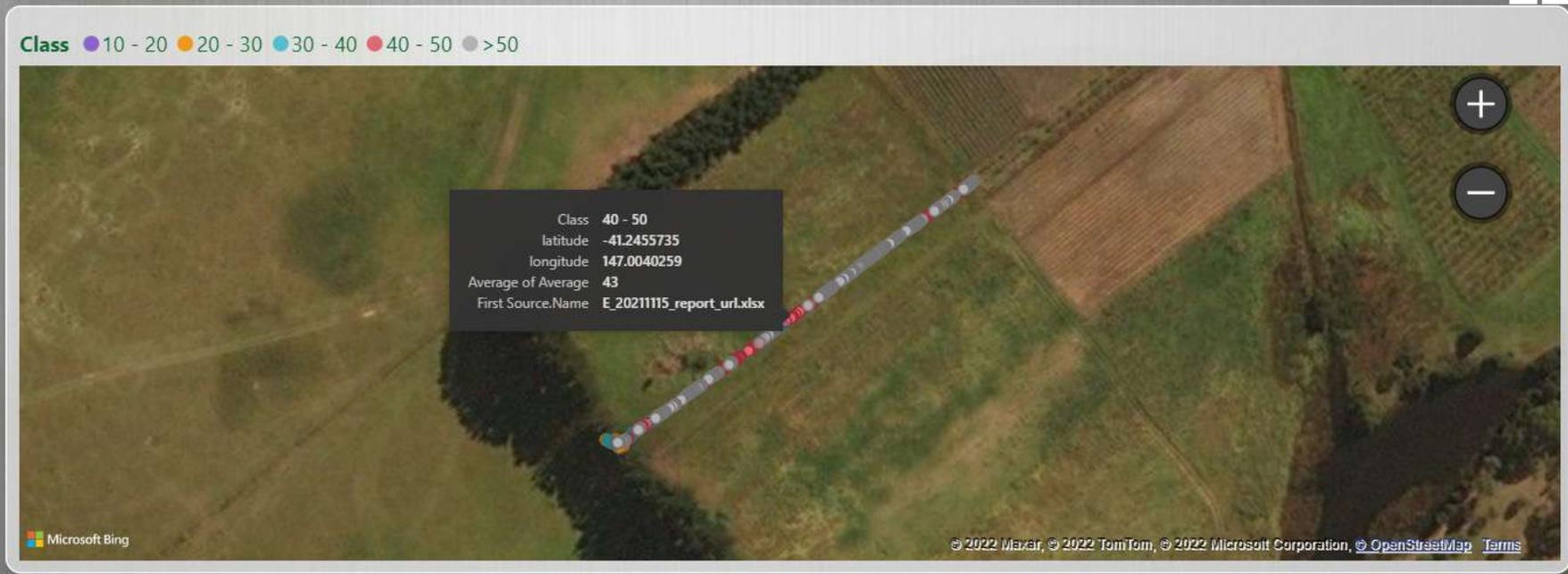
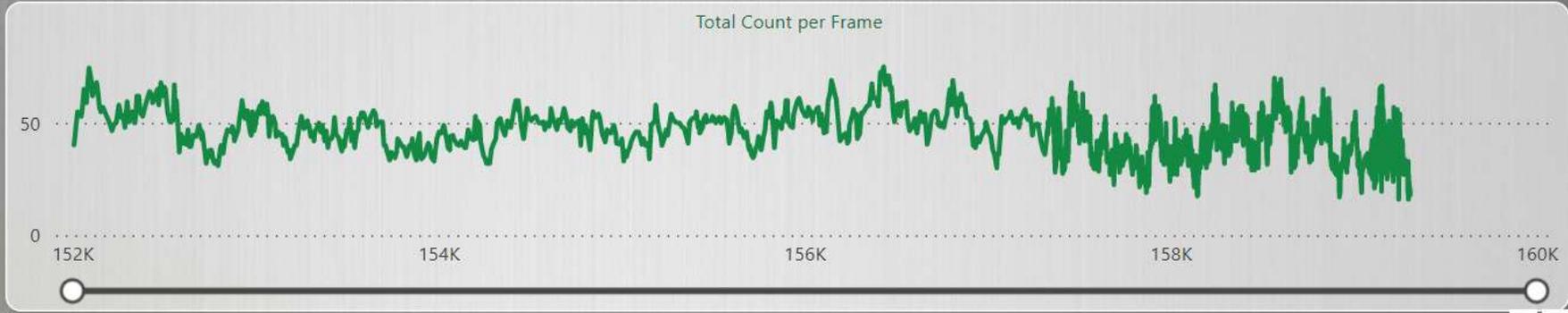


- Block & Date**
- B\_Block
  - C\_Block
  - D\_Block
  - E\_Block
    - 15/11/2021
    - 08/02/2022
    - 17/02/2022
  - G\_Block
  - P\_Block
  - Q\_Block
  - R\_Block
  - T\_Block
    - 09/12/2021
    - 08/02/2022
    - 17/02/2022
    - 24/02/2022

**Link**

Web Image

**Total**





# Greenview in Action

One of our customers showed us a great example of how the GreenView map can really show variability in their blueberry crop.

**bitwise Agronomy**

**Berry Blueber**

**Block & Date**

- Block 14
- Block 8
- 04/08/2022
- 09/08/2022

**Class**

- <10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- >50

**Younger plants**

**Older plants**

On the left you can see lower levels of total yield where the plants are only 1 year old.

On the right the plants are a couple of years older and producing more yield. You can see the grey and the area more uniform in colour showing more and consistent yield.

# Greenview in Action

**Variability affects all growers!  
The real difference is whether you understand  
the variability in your crop - or you don't.**

We often hear growers say they have no way of understanding the variability in their crop  
..... so therefore don't believe there is any.

Here is an example of a high fruiting area and no fruiting area right next to each other in a row!

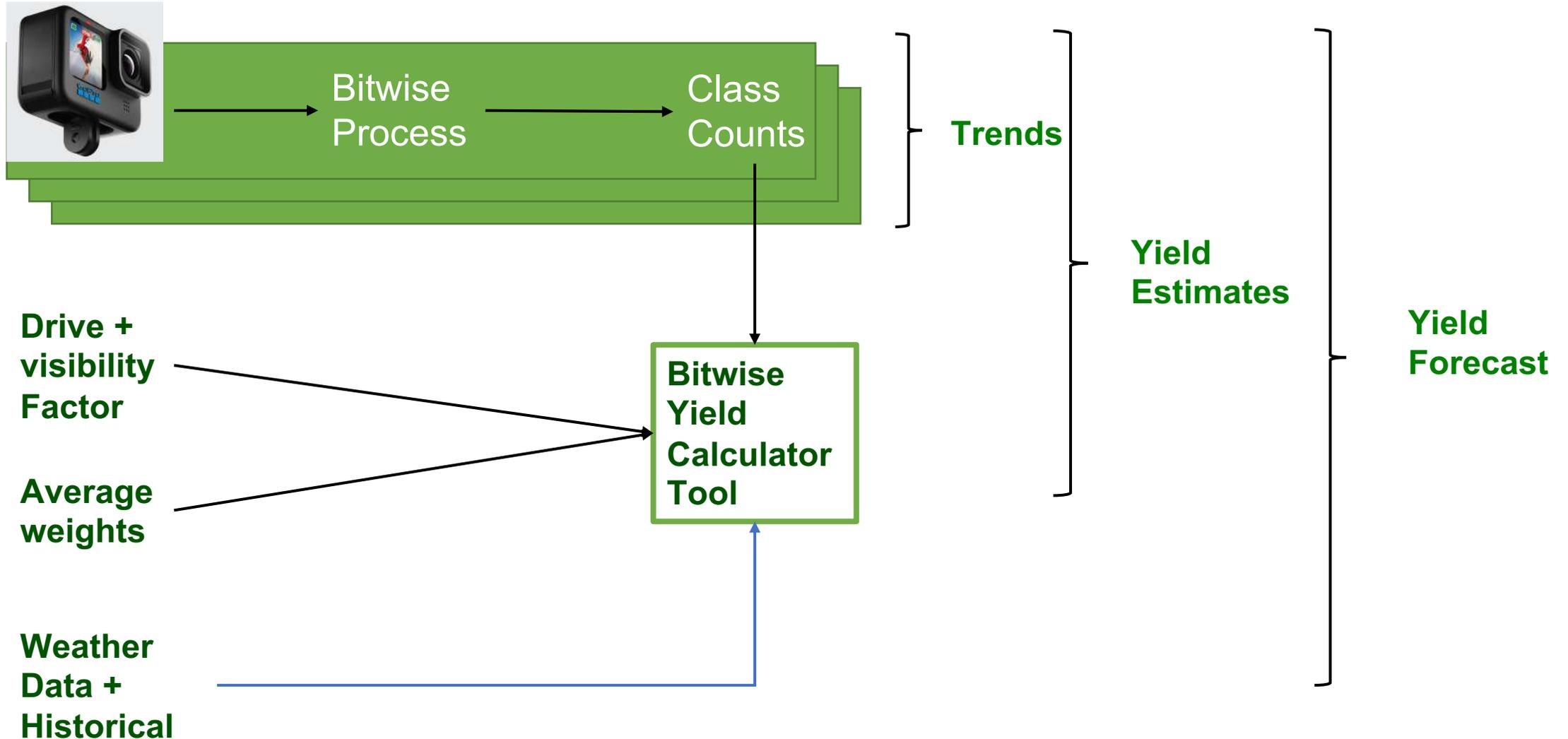
How many plants not performing does it take to affect your bottom line?

All\_stage\_combined\_density\_index

- HIGH
- NORMAL
- LOW



# Inputs into calculator





Report

# (Customer's name) Strawberries Calculator



**Block & Date**

- Select all
- Block 01
  - 18/11/2021
  - 23/11/2021
  - 30/11/2021
  - 02/12/2021
  - 09/12/2021
  - 16/12/2021
- Block 02
- Block 03

**Class**

- Select all
- Flower
- Immature Green
- Mature Green
- White
- 0\_25\_Coloured
- 25\_50\_Coloured
- 50\_75\_Coloured
- 75\_100\_Coloured
- Overripe
- Runner

8  
Drive Factor %

75  
Visibility Factor %

**6%**  
Calculated Factor

**3,083**  
Actual Quantity

**51,383**  
Calculated Amount

20.0  
Min. Fruit Size (g)

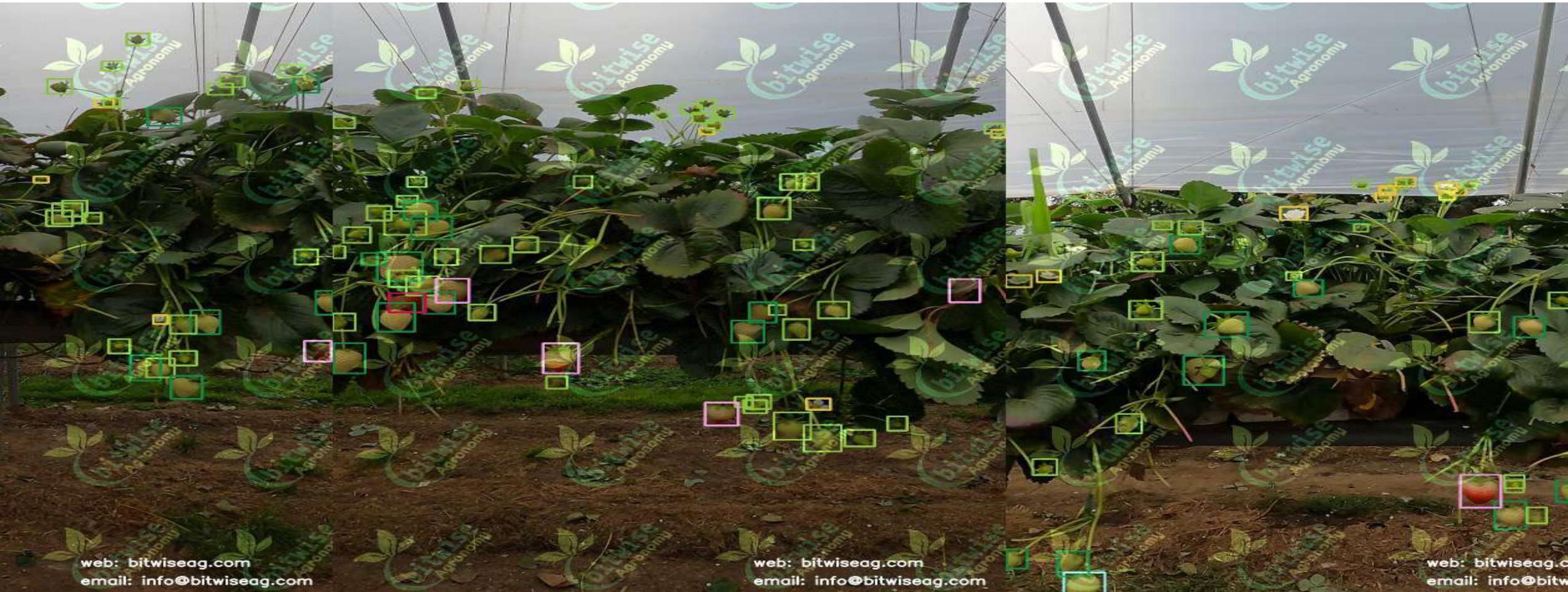
22.0  
Max. Fruit Size (g)

**1,028**  
Min. Weight (kg)

**1,130**  
Max. Weight (kg)

	Clear All	W1	W2	W3	W4	W5	W6	W7	W8
<b>Flower</b> CA 6,850 100%		0	0	0	25	75			
<b>Immature Green</b> CA 22,250 100%		0	0	75	25	0			
<b>Mature Green</b> CA 10,817 100%		0	50	50	0	0			
<b>White</b> CA 167 100%		100	0	0	0	0			
<b>0_25</b> CA 1,867 100%		100	0	0	0	0			
<b>25_50</b> CA 1,567 100%		100	0	0	0	0			
<b>50_75</b> CA 1,750 100%		100	0	0	0	0			
<b>75_100</b> CA 6,117 100%		100	0	0	0	0			
<b>Overripe</b> CA 0 0%		0	0	0	0	0			
<b>MIN Weight (kg)</b>		229.33	108.17	441.92	145.50	102.75			
<b>MAX Weight (kg)</b>		252.27	118.98	486.11	160.05	113.03			

# What's Next

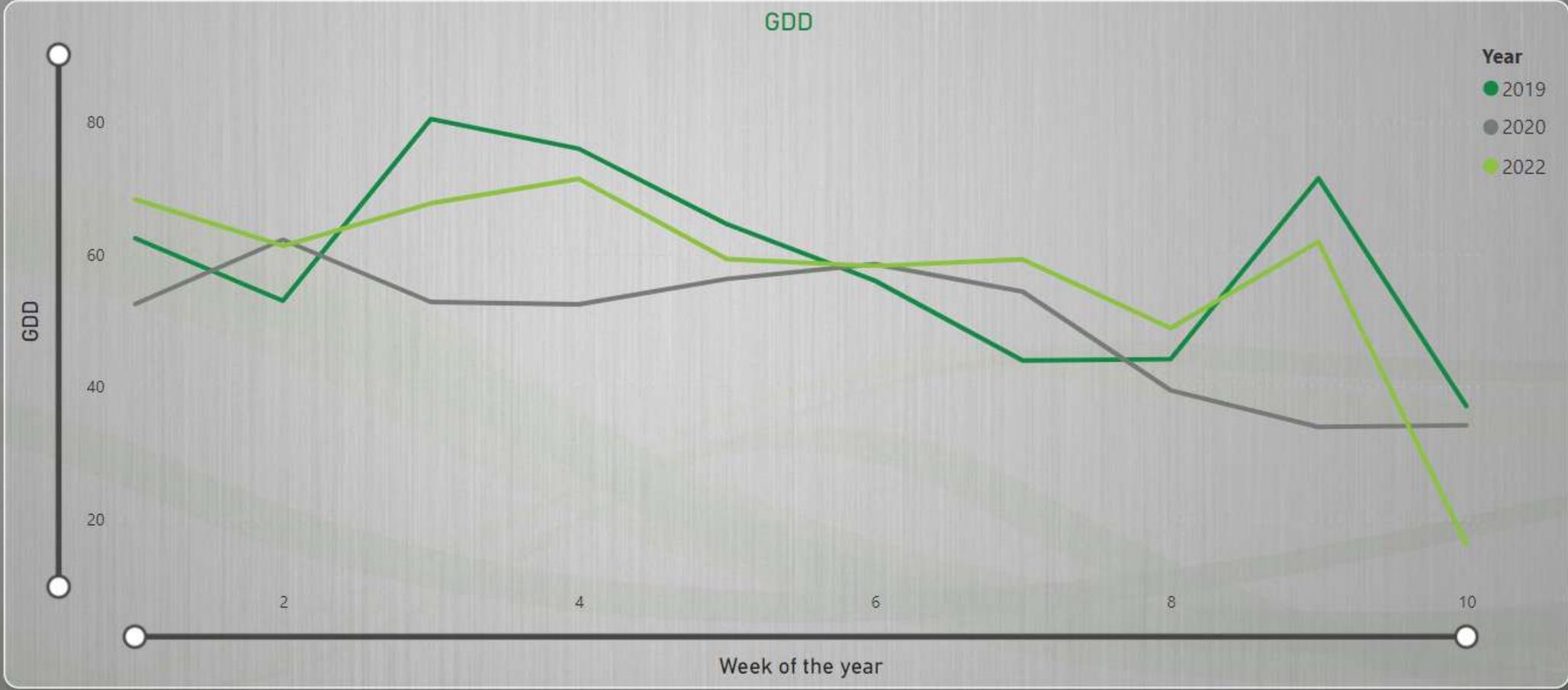


GDD

- Block & Date
- Block 1
    - 30/09/2021
  - Block A
    - 09/11/2021
    - 11/11/2021
    - 13/12/2021
    - 10/01/2022
    - 24/01/2022
    - 07/02/2022
    - 22/02/2022
    - 08/03/2022
  - Block A&B
    - 18/10/2021
    - 24/10/2021
    - 19/11/2021

**2**  
 Week of the Year

Week of Year



Year

Select all 2018 2019 2020 2021 2022



GDD

Report

(Customer's name)  
**Strawberries Calculator & GDD**



- Block & Date**
- Block 1
  - Block A
    - 09/11/2021
    - 11/11/2021
    - 13/12/2021
    - 10/01/2022
    - 24/01/2022
    - 07/02/2022
    - 22/02/2022
    - 08/03/2022

**8**  
 Week of the Year

- Class**
- Flower
  - Immature Green
  - Mature Green
  - White
  - 0\_25\_Coloured
  - 25\_50\_Coloured
  - 50\_75\_Coloured
  - 75\_100\_Coloured

Drive Factor %

Visibility Factor %

**310,369**  
Actual Quantity

**1,293,204**  
Calculated Amount

Weight 1 (g)

Weight 2 (g)

**25,864**  
Total Weight 1 (kg)

**32,330**  
Total Weight 2 (kg)

Clear All

- W1
- W2
- W3
- W4
- W5
- W6
- W7
- W8

**Flower**  
CA261,275 100%

**Immature Green**  
CA666,100 100%

**Mature Green**  
CA162,538 100%

**White**  
CA41,792 100%

**0\_25**  
CA65,096 100%

**25\_50**  
CA5,483 100%

**50\_75**  
CA5,467 100%

**75\_100**  
CA85,454 100%

**Weight 1 (kg)**

**Weight 2 (kg)**

**Week of Year**

	W1	W2	W3	W4	W5	W6
Flower	0	0	0	0	25	75
Immature Green	0	0	0	50	50	0
Mature Green	0	25	75	0	0	0
White	75	25	0	0	0	0
0_25	100	0	0	0	0	0
25_50	100	0	0	0	0	0
50_75	100	0	0	0	0	0
75_100	100	0	0	0	0	0

<b>Weight 1 (kg)</b>	3,856.88	1,021.65	2,438.06	6,661.00	7,967.38	3,919.13
<b>Weight 2 (kg)</b>	4,821.09	1,277.06	3,047.58	8,326.25	9,959.22	4,898.91

**Actual Year**

**Trend Year**

**Actual GDD**

Year	8	9	10	Total
2022	48.85	61.95	16.20	127.00

**Reference GDD**

Year	8	9	10	11	12	13	Total
2019	44.15	71.55	37.05	32.05	56.15	16.20	257.15

**GDD Target**

**GDD Remaining**  
**73.00**

## The Ask .....

- Industry support
- Feedback on likes and dislikes



Interest in our products .... Come and see us or email [fiona@bitwiseag.com](mailto:fiona@bitwiseag.com)



# Questions?



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