

## Insect monitoring in the UK 2022 – Brassica Alert



Since 2006, Syngenta, along with Allium & Brassica Agronomy who look after infield management have been providing Brassica growers with a pest and disease monitoring service called Brassica alert.

This service operates from the end of June to the end of November and provides registered users with weekly disease risk for Ringspot, Alternaria and White Blister, alongside counts for Diamond back moth, Silver Y moth and a risk level for thrips.

**BRASSICA ALERT 2022**  
 Managed by Allium & Brassica Agronomy  
 Sponsored by Syngenta  
 Issue number 11 wbm 5th September  
 Monitoring period: week ending 2<sup>nd</sup> Sept 2022

	Ringspot	White Blister	Thrip
Spalding	Green	Green	Yellow
Kirton	Green	Green	Yellow
Fishtoft	Green	Yellow	Yellow
Old Leake	Green	Yellow	Yellow

Site	Diamond Back Moth	Silver Y Moth
Spalding	1	13
Surfleet	0	14
Wragg Marsh	0	11
Gosberton	2	12
Kirton	0	2
Kirton Holme	0	12
Fishtoft	0	42
Old Leake	0	16
Wrangle	0	6
Friskney	0	23

**General comments**  
 Pest pressure has decreased since the last monitoring period, with Silver Y moth having the biggest drop. Thrip pressure remains on the Low / moderate threshold. The drier weather has also reduced the risk of leafspots and White blister, although forecasted showers for wbm 2<sup>nd</sup> Sept will increase leaf wetness and possible risk.  
 Crops should always be monitored regularly, by the grower or their agronomist. Information supplied by Brassica Alert is provided in good faith. It is neither intended, nor implied to be providing advice to growers on disease and pest management decisions.

**Key to table**  
 Green = Low risk, Amber = Moderate risk, Red = High risk.  
 Diamond Back & Silver Y moths: Risk is determined by pheromone trap counts. Low risk <10, Moderate risk 11-20, High risk >21.  
 Thrip: Risk determined by sticky trap captures. Low risk <50, Moderate risk 51-150, High Risk >151.

Logos: SL567A, Amistar, Plover, love your greens, Hallmark Zeon, Amistar Top, FubolGold, syngenta, Minecto One, allium & brassica agronomy.

Opposite is the current version of the Brassica Alert output, which is displayed on the Syngenta website in a pdf format.

Risk is indicated by a simple traffic light system, Green being Low risk, Amber medium and Red, High risk.

With moth captures the total amount caught of each species is also recorded at each site.

The sites are listed in order from South to North.

Any observations are also made under general comments.

At the bottom of the sheet, there are several logos of products approved for Brassicas, these also contain hyperlinks to those products for ease of use.

This service currently has approximately 219 registered users, predominately growers and Agronomists from across the UK and some researchers who wish to monitor insect data.

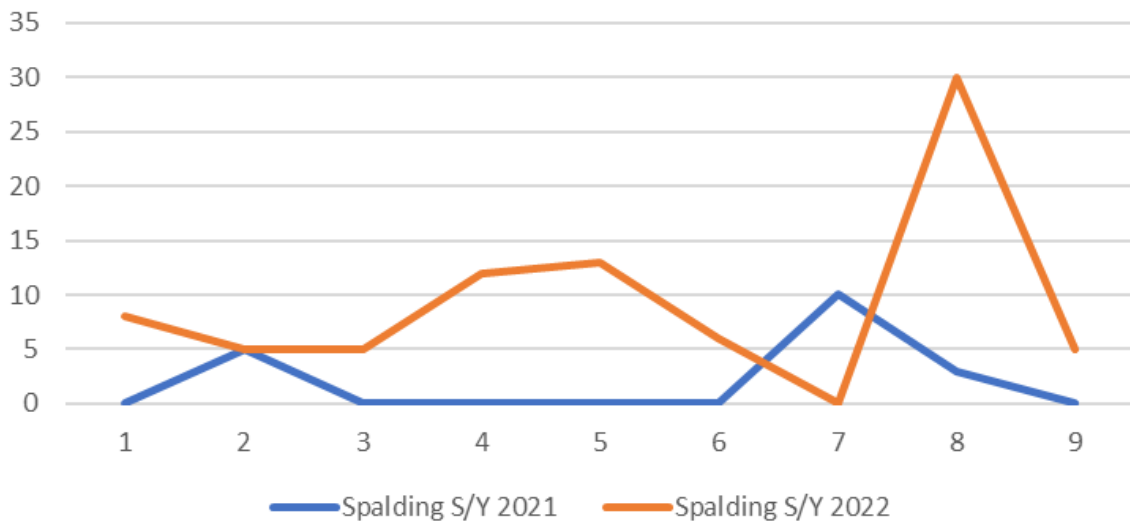
The past 16 years moth data has been by the way of Delta and bucket pheromone traps for Diamond back moth and silver Y respectively, and while these are good and relatively cheap, they do have their limitations, which will be discussed later. This year the remote TrapView traps were to run alongside these traps to determine their accuracy and if they could be a viable replacement.

At each monitoring site (10 in total) both standard pheromone traps and Trapview traps were installed at the edge of planted crop, with each trap species being installed approximately 30-40m apart.

Trap sites were visited weekly, as the delta and bucket traps required changing, and the Trapview traps were looked over purely because we were on site.

We usually catch more Silver Y to Diamond back moth, and in comparison, to 2021 we caught quite a few more.

Autographa gamma (Silver Y Moth) 2021 Vs 2022  
Bucket trap captures - Spalding



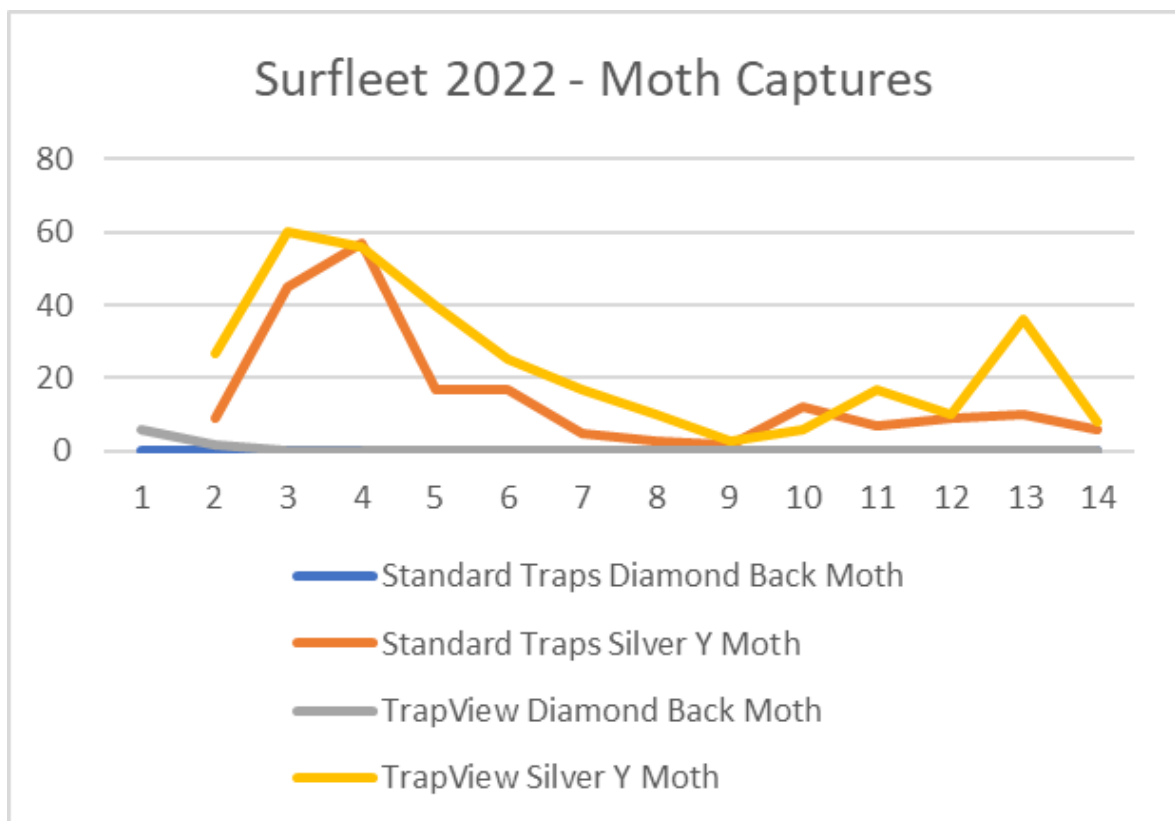
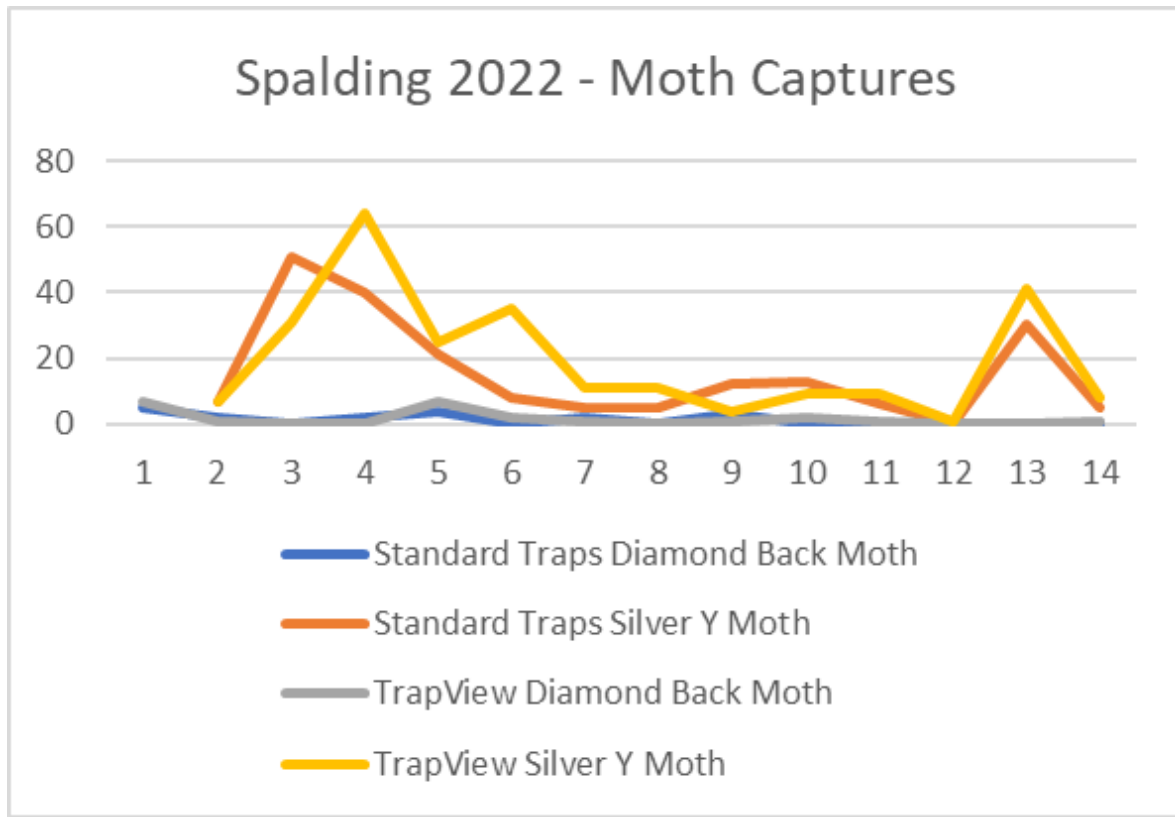
Autographa gamma (Silver Y Moth) 2021 Vs 2022  
Bucket trap captures - Old Leake



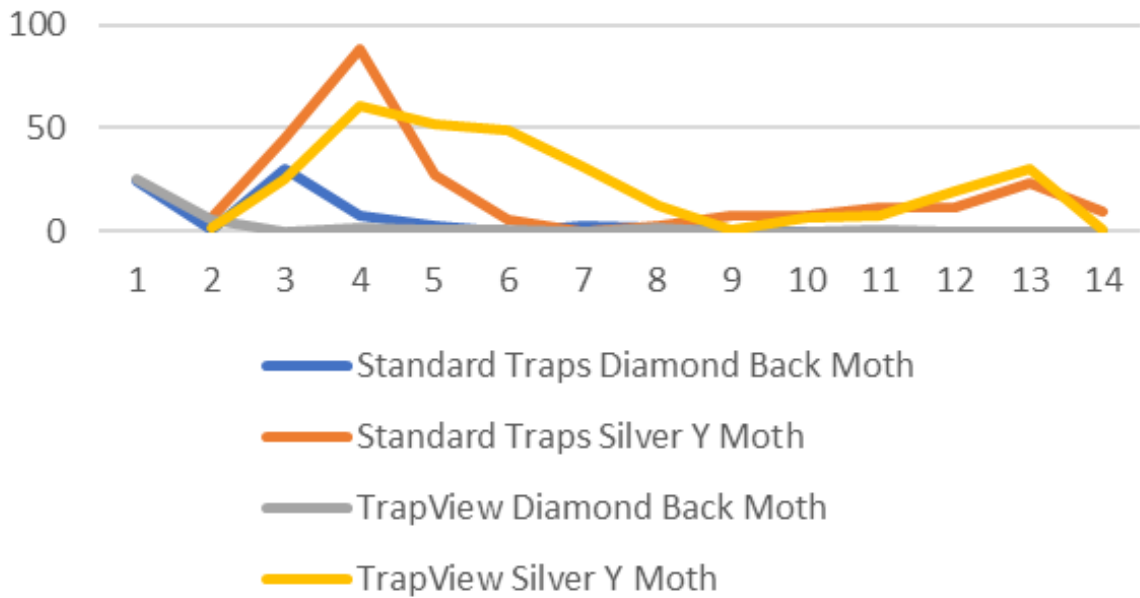
Week	Spalding		Kirton		Old Leake		Spalding		Kirton		Old Leake	
	DBM 2021	DBM 2022	DBM 2021	DBM 2022	DBM 2021	DBM 2022	S/Y 2021	S/Y 2022	S/Y 2021	S/Y 2022	S/Y 2021	S/Y 2022
1	2	0	0	3	11	0	0	8	0	8	0	0
2	1	2	1	0	2	1	5	5	0	3	0	3
3	0	0	0	0	0	0	0	5	0	1	0	5
4	2	3	0	0	0	0	0	12	0	0	0	5
5	0	0	0	0	0	0	0	13	0	0	0	18
6	3	0	0	0	2	0	0	6	0	0	0	8
7	0	0	0	0	0	2	10	0	0	0	8	18
8	0	0	0	0	0	0	3	30	1	5	4	21
9	0	0	0	0	0	0	0	5	0	2	0	12
<b>Totals</b>	<b>8</b>	<b>5</b>	<b>1</b>	<b>3</b>	<b>15</b>	<b>3</b>	<b>18</b>	<b>84</b>	<b>1</b>	<b>19</b>	<b>12</b>	<b>90</b>

During the 2022 season, counts were taken from all traps for comparison.

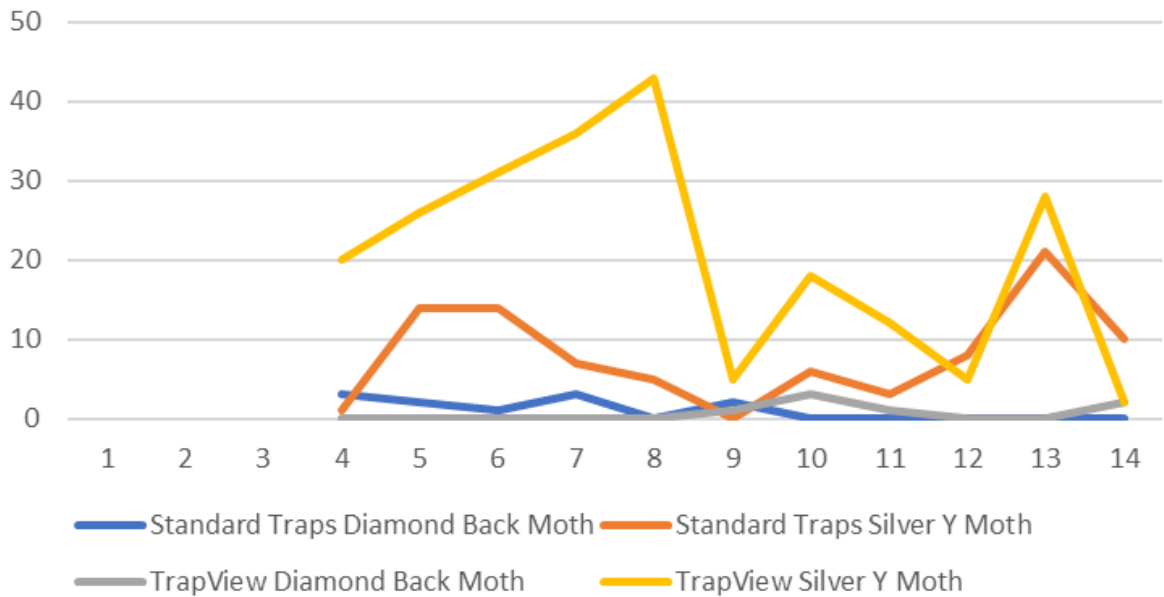
The following graphs are comparisons of the trap types over a 14week capture period.



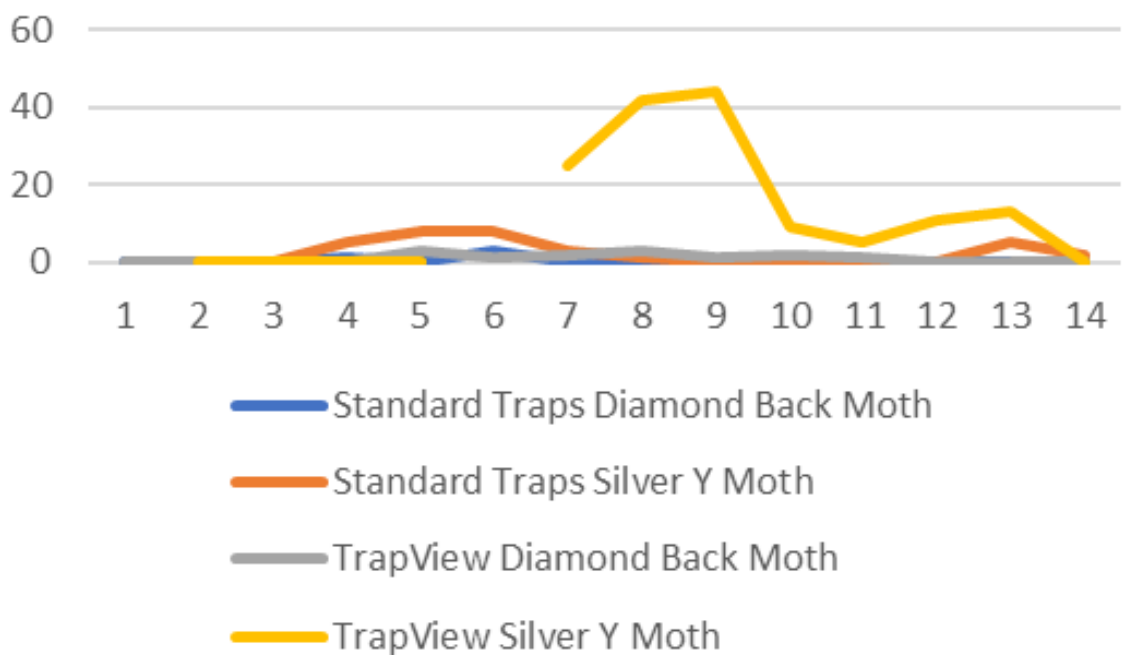
## Wragg Marsh 2022- Moth Captures



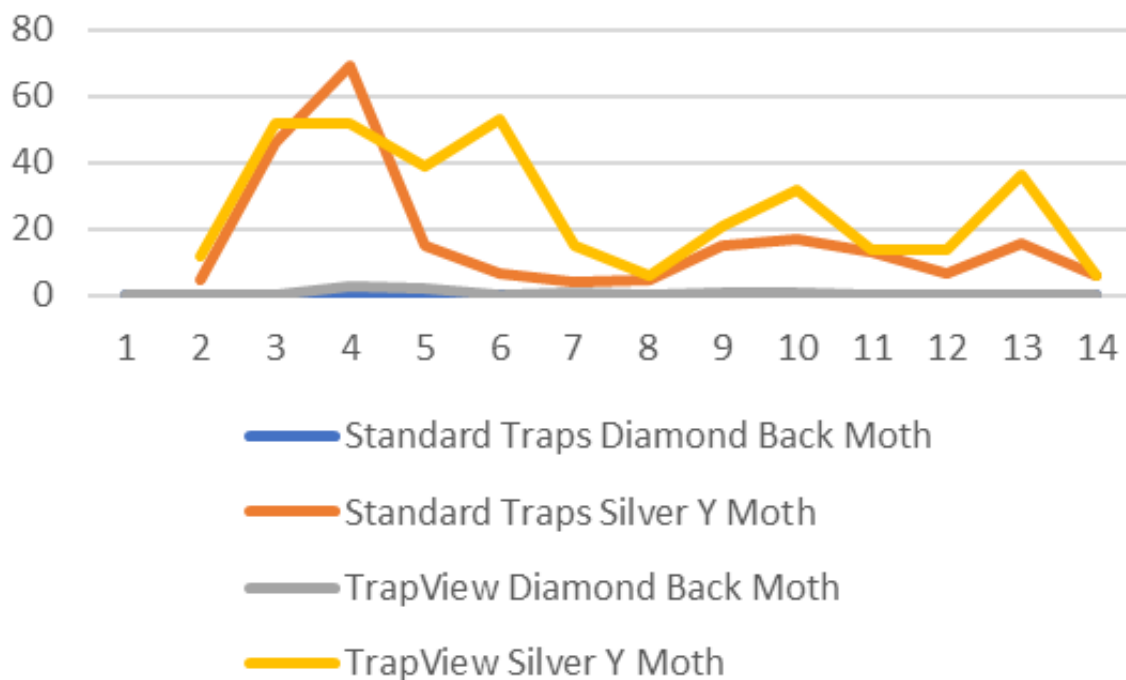
## Gosberton 2022 - Moth Captures



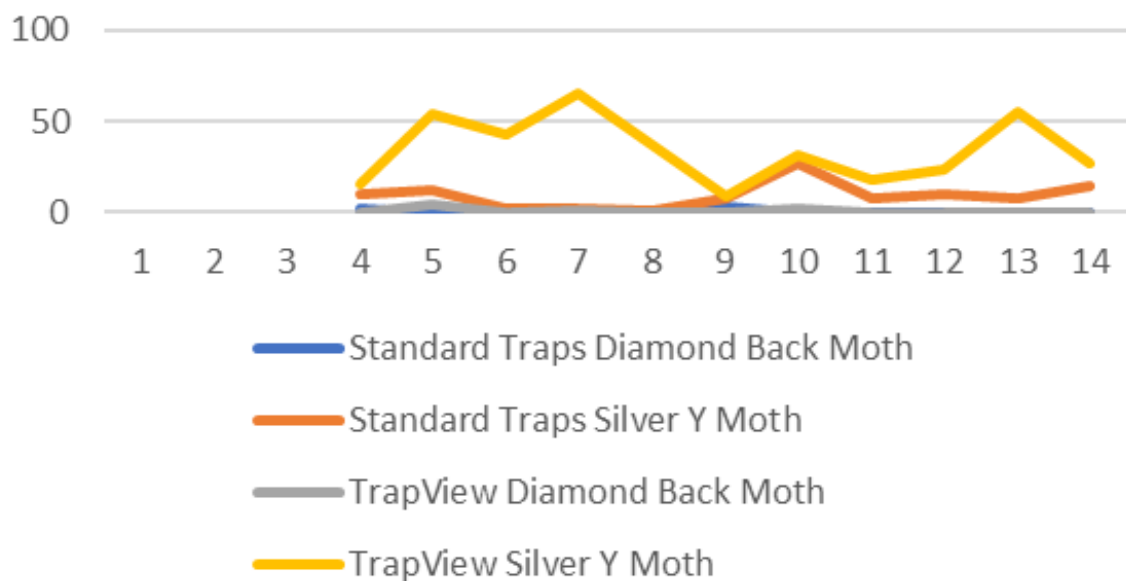
## Kirton 2022 - Moth Captures



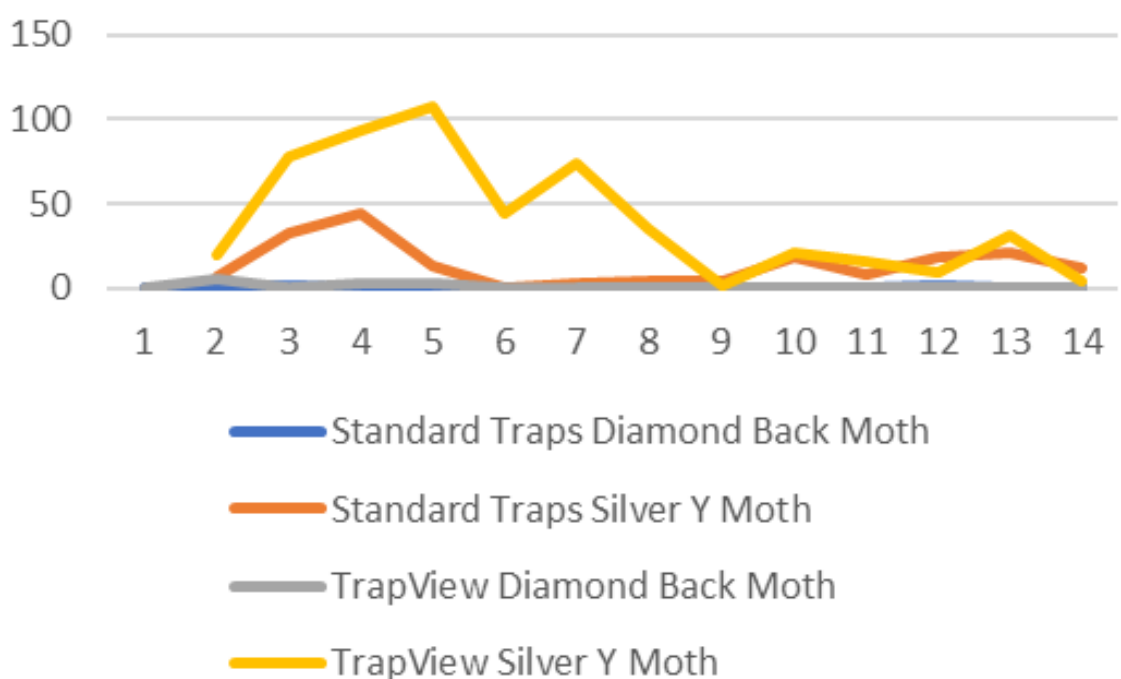
## Kirton Holme 2022 - Moth Captures



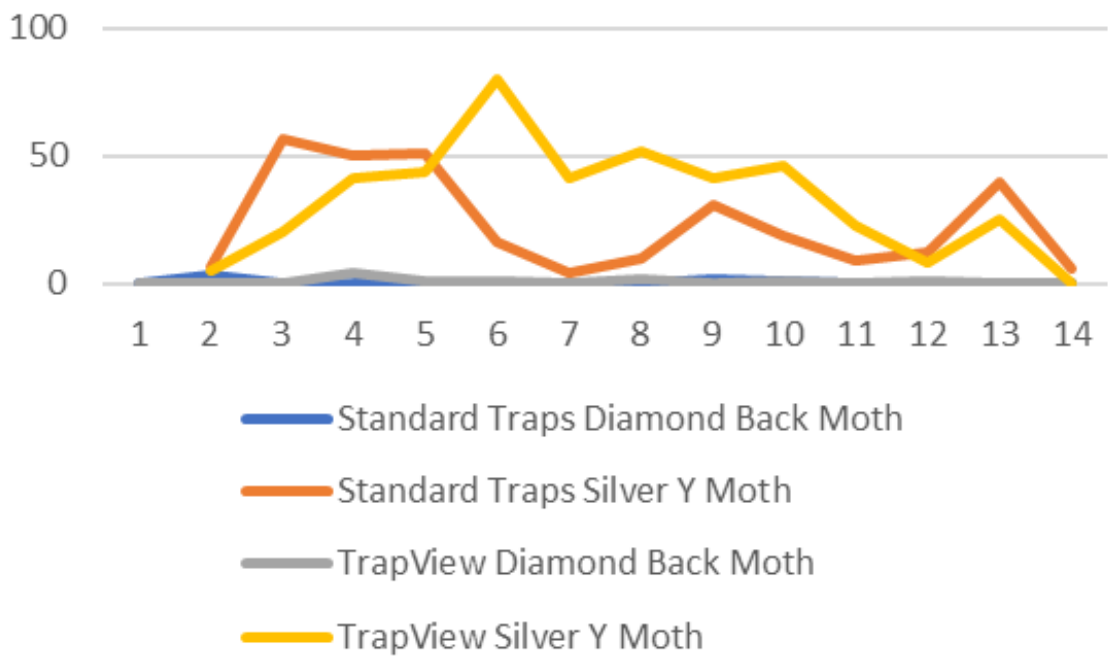
## Fishtoft 2022 - Moth Captures



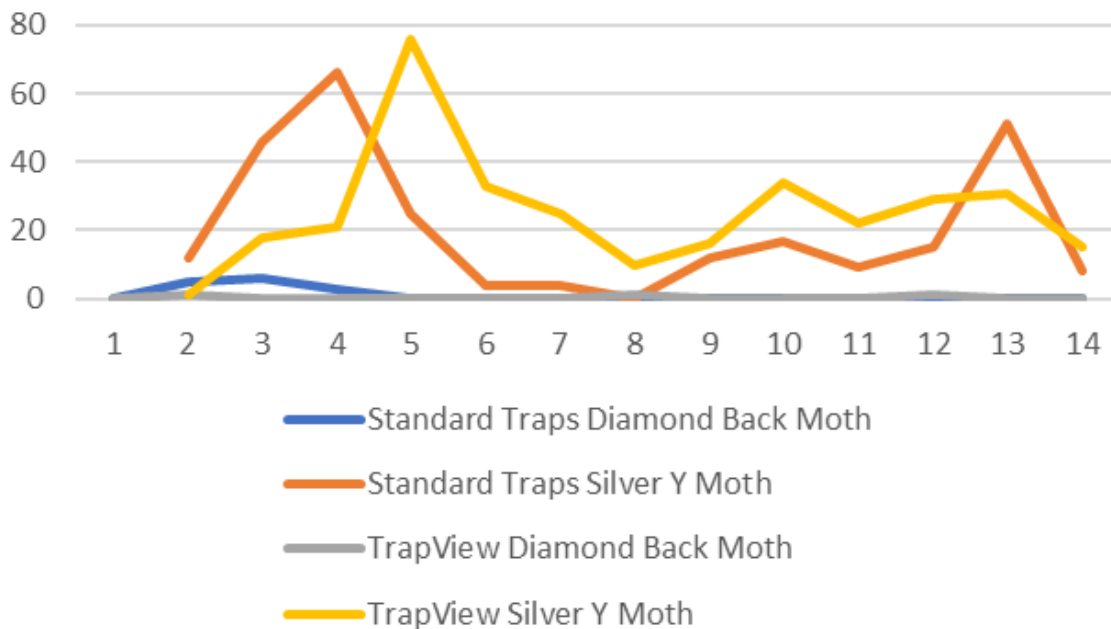
## Old Leake 2022 - Moth Captures





## Wrangle 2022 - Moth Captures



## Friskney 2022 - Moth Captures



Benefits and disadvantages of the system, as it is used in the UK for Brassica Alert.

Benefits		Disadvantages	
<ul style="list-style-type: none"> <li>• Accurate monitoring and identification of target pest [<i>pests caught in water traps can degrade over the week and make identification difficult</i>]</li> <li>• Easy to use once set up.</li> <li>• Wide range of pest identification and monitoring available.</li> <li>• Comprehensive monitoring and maintenance reports emailed daily or weekly.</li> <li>• Easily see numbers of pest caught over any set period of time.</li> <li>• Daily pictures can be viewed online to see any other pests.</li> </ul>		<ul style="list-style-type: none"> <li>• Can be difficult to initially set up each station.</li> <li>• Website can be slow (although this is, and has improved over time).</li> <li>• Sensors are hard wired into the camera unit, so if cables become damaged there is no easy way to replace.</li> <li>• Reports are limited on customisation [<i>e.g. you can't have weekly capture data per pest and weekly maintenance data on separate reports, they have to be combined</i>]</li> <li>• As the units are larger than the bucket and delta traps, they can be damaged by spray operators, especially as the crop grows; up to yet we have only had a couple knocked over, which caused no serious damage.</li> </ul>	

## Conclusion

The Trapview systems offers a lot of benefits such as remote, high quality photographic pest monitoring, with customisation of the data date ranges; along with weather data and forecasting, based upon the life cycle of the pest, climate and the control product used (if you include product efficacy information).

This would no doubt benefit niche growers with speciality crops, were product choice is limited, application timing is key and crop has to be treated more on a field-by-field basis.

For the majority of the UK growers, especially those registered and using Brassica Alert the information required is the total number of pests recorded per week, per general area is the key factor.

With large hectareage to spray, with few spray operators available, the grower will tend to apply either one or two tank mix combinations, dictated by aphid numbers and moths present. In areas where Diamond back moth (DBM) is high, then products containing Spinosad or Cyantraniliprole would be used as DBM has shown resistance to Pyrethroids.

For all uses, an area where Trapview would have a significant benefit over the bucket and delta traps is time management. The bucket and delta traps require manual inspection, changing and reporting

at least weekly, on this 10-trap trial that takes approximately 1 day and around 85miles travelling. On the above 14-week trial, that equates to 14days and 1190miles

Using TrapView, provided there were no serious maintenance issues, we could confidently cut that down to a visit every 3-weeks (just to physically see that everything is ok etc), reducing that time and mileage to 5 days and 425 miles which would be a big saving to a grower