

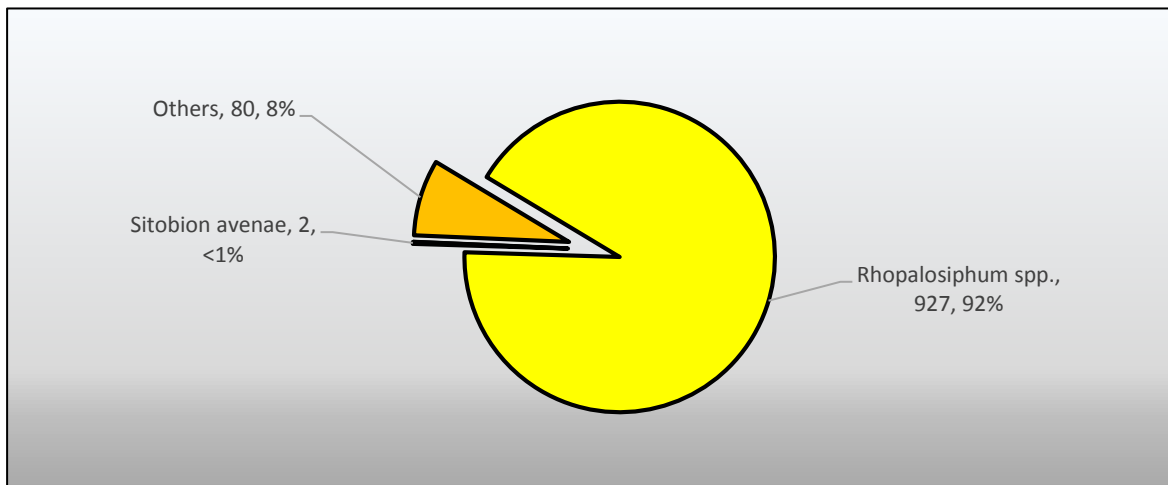


Department of  
Agriculture, Environment  
and Rural Affairs



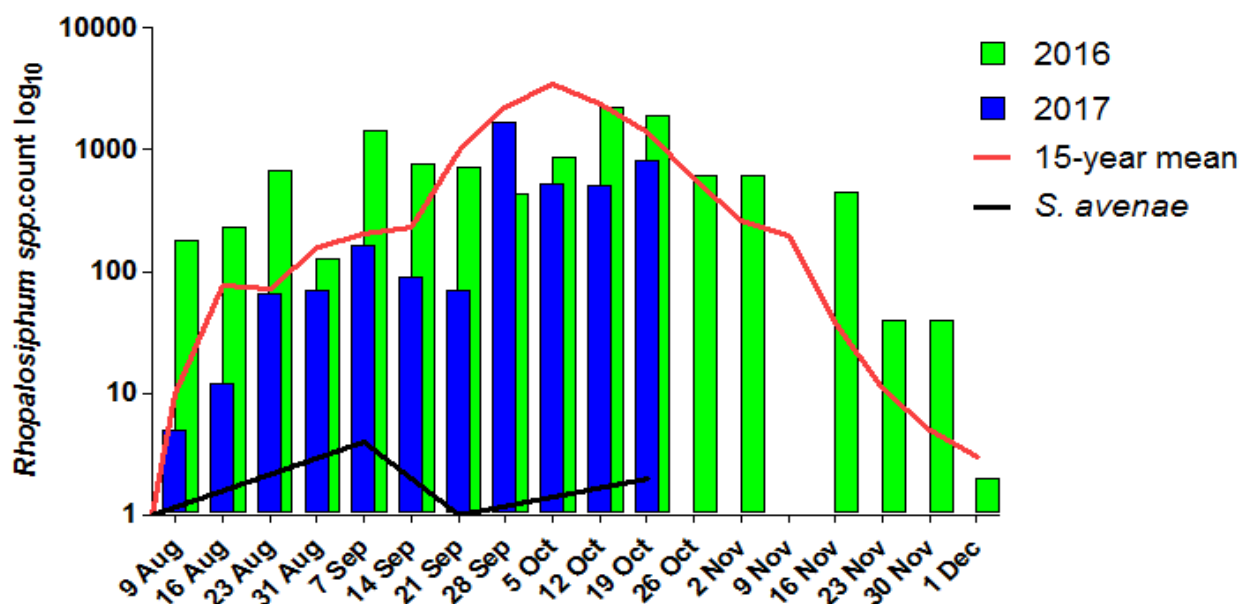
## Newforge Suction Trap 2017

W/E 20/10/17		Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Total
<i>Brachycaudus helichrysi</i>	(Leaf-curling plum aphid)								
<i>Macrosiphum euphorbiae</i>	(Potato aphid)								
<i>Metopolohium dirhodum</i>	(Rose-grain aphid)								
<i>Rhopalosiphum spp.</i>		219	371	95	9	54	154	25	927
<i>Sitobion avenae</i>	(Grain aphid)		1			1			2
Others		10	49	11	1	1	6	2	80
<b>Total</b>		<b>229</b>	<b>421</b>	<b>106</b>	<b>10</b>	<b>56</b>	<b>160</b>	<b>27</b>	<b>1009</b>
<b>Notes</b>		Increase in <i>Rhopalosiphum</i> activity. 2 <i>Sitobion avenae</i> (grain aphid) recorded during this trapping period. Mild warm weather beginning of the week turning stormy and unsettled..							



# Weekly Cereal Aphid Monitor 2017

Aphid counts week ending 20<sup>th</sup> October 2017



## Headlines

- *N.B.* log<sub>10</sub> for aphid numbers on y-axis
- *Rhopalosiphum* spp. numbers recorded in suction trap increased significantly from previous week
- **Current number of aphids significantly lower than that recorded in 2016**
- **Current number of aphids are significantly lower than 15-year mean for Northern Ireland**
- Grain aphid (*Sitobion avenae*) activity increasing slightly

## **How is BYDV transmitted?**

The aphids transmit BYDV into winter cereals by two ways:

1. Cereal volunteers, or grass weeds within a field can act as hosts for aphids after stubble destruction. This type of infection typically causes large discrete patches of severely infected plants.
2. Winged aphids flying from grass or cereal volunteers elsewhere can also introduce the virus into the newly emerged crops during the autumn. In some regions, this is the most common route for BYDV infection.

## **Risk forecasting**

The Aphid Migration graph provides an indication of aphid numbers in Northern Ireland and consequently the relative risk of BYDV. This data is collected and updated weekly by AFBI, Newforge Lane during the high-risk autumn period. The current situation is displayed against a reference “15- year average” to indicate whether the aphid numbers are significantly higher than usual. This is used to assess the degree of risk of BYDV infection in conjunction with the emergence dates of winter cereal crops. The advice based on this assessment could be:

### **High risk**

A large early migration of aphid vectors in conjunction with the coincidence of early emergence of crops.

*Action: Application of insecticidal spray to crops which have reached the 2-leaf stage of growth. This should be followed up after 2 weeks with a crop inspection for further aphid arrivals.*

## **Moderate risk**

Migration at or slightly higher than the 15- year average and crops emerging later.

*Action: Application of insecticidal spray to crops (2-leaf stage) emerged before the end of the aphid migration (usually early November).*

## **Low risk**

Migration below the 15-year average.

*Action: Monitor crops regularly for presence of aphid vectors. Application of insecticidal spray only to those crops where aphids are found.*

Aerial introduction of BYDV by migrating aphids results in point infections scattered throughout the crop. The real damage is caused when these initial aphids give rise to colonies which disperse and carry the infection to surrounding plants. Insecticidal sprays are used to limit this spread of BYDV so that the overall level of infection is insignificant when the crop matures.

## **BYDV control**

Cereal aphid monitoring for autumn 2017 has commenced. The Aphid Migration graph provides an indication of aphid numbers in Northern Ireland and consequently the risk of BYDV, although this may vary regionally. During the high-risk autumn period this data is collected and updated weekly by AFBI, Newforge Lane. To view the updated reports and for more information click the link to weekly reports.

In situations where there is a weedy stubble or a large number of volunteers cereal plants, this "green bridge" should be destroyed by desiccation with

herbicide, 7-10 days before ploughing and in an interval of a least 14 days allowed before sowing.

For drilled crops, an aphicide approved for BYDV vector control can be applied at the 2-3 leaf growth stage. Seed treatment containing clothianidin can provide protection from BYDV in the weeks immediately after sowing. If low seed rates are used or the crop is early sown, an additional aphicide application may be required.

Growers should check the product label for full details.