

# VEGETABLE NEWS

June 2010

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## **Pest and disease monitoring**

Carrot/willow aphid numbers are now high in Northern England with some found on carrot crops in Co Armagh. Growers are advised to crop walk and apply Decis or Aphox if seen.

The first generation carrot fly is now largely finished laying eggs. No further sprays of lambda cyhalothrin (Hallmark) will be required until late July. Small numbers of carrot fly may lay eggs outside the main period, but this is rare and they are likely to be killed by Decis used for aphid control.

Diamond backed moths have been caught in small numbers in SW England. They are unlikely to be found in NI until July. Pheromone traps will be installed shortly Brassica fields in the Comber area and growers informed if moths are found.

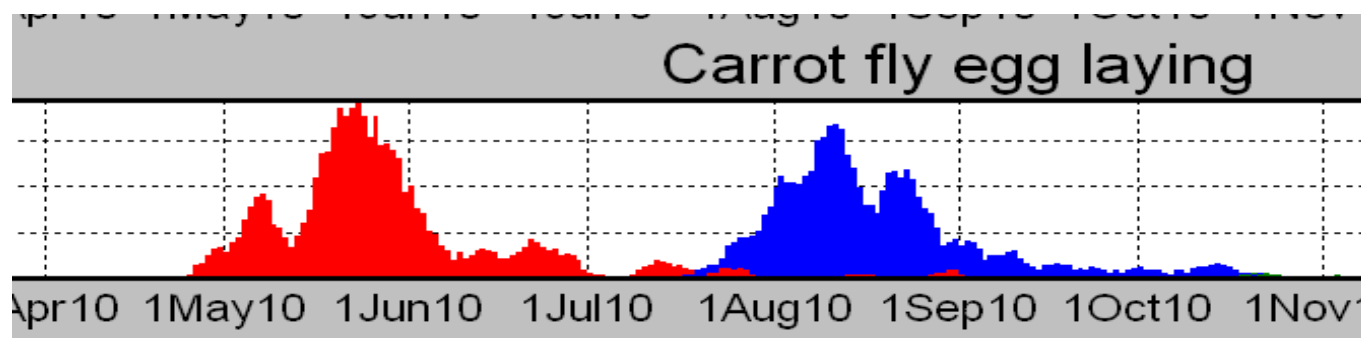
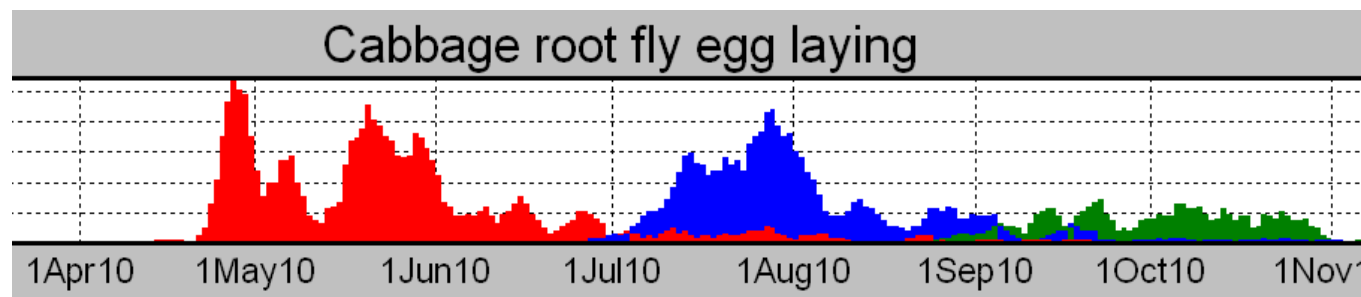
Overwintered broad beans may soon be showing the first signs of rust, and if this is seen, apply tebuconazole (Folicur). All beans should receive preventative fungicides against chocolate spot when in bloom.

## **Pest predictions**

The graphs below are based on data from the CAFRE weather station at Moyallen. They will be updated over the summer. The graphs give the impression that the first generation is as big as the second, however the second generation is usually much bigger and more damaging. This is because the graph shows fly numbers as percentages of the total in each generation.

Cabbage root fly greatest risk is from mid July to early August. All turnip crops should be protected during this period with garlic sprays every ten days, preferably when the soil is moist. There may be an advantage from starting close to the first of July, to build up the garlic in the plants.

The main carrot fly risk is from late July to early September. Apply one spray of Hallmark to susceptible crops about 24<sup>th</sup> July, followed by one about 7<sup>th</sup> August and the last about 21<sup>st</sup> August.



## Control of Fumitory

Fumitory used to be an insignificant weed. It has become a problem because of poor control by most herbicides approved in vegetable crops, and by those commonly used in cereals. It can be partially controlled by use of stale seed beds, but only partially because it tends to germinate late. In a Brassica crop it can be killed by use of clomazone (Gamit 36 CS) at the cotyledon stage. Totril + Defy give effective post-emergence control in onions and leeks.

Fumitory is best tackled within the cereal crop, if this is part of the rotation, using either a bromoxynil product such as Oxytril or a product with a hormone component, such as Relay-P. Either of these must be applied before growth stage 31, so it is too late for control in most cereal crops this season.

## Richard Moynan Brassica Agronomist Visit June '10

Below is a summary of the discussion Richard had with growers who attended the workshops in early June. Richard is an agent for Perlka and Boot, but he spoke about all aspects of agronomy.

### Early weed control

Metazachlor (Butisan) plus clomazone (Gamit 36 CS) was recommended, for both turnip and transplanted brassicas. These two chemicals are no 'hotter' if applied together than separately. It is the clomazone which can cause crop bleaching, not the mixture. But clomazone is valuable, giving better control of redshank, meadow grass and knotgrass than Butisan alone.

In normal conditions when reasonable growth can be expected use 100ml/ha Gamit on a drilled crop such as turnips and 150ml/ha on a transplanted crop. Early in the

season, when it is cold with night frosts, clomazone is more likely to cause damage. In these conditions use Butisan alone. As the weeds emerge then apply Gamit, again at low rates of up to 100ml/ha in poor growing conditions, or up to 200ml/ha if conditions have improved.

### **Value of Perlka** (calcium cyanamide)

In the 1930s this was the main form of nitrogen fertiliser worldwide. When cheaper nitrogen fertiliser became possible following WW2 developments Perlka was neglected for a time, but has come back due to its particular advantages. Used correctly it can give a reduction of club root, slugs and weeds. It provides a slow release form of N which is useful in many crops and particularly suited to turnips which tend to split when top dressed with nitrogen. .

### **Use of Perlka**

Remember to deduct the nitrogen contribution from Perlka when calculating fertiliser requirement. Perlka contains 20% N so 100kg/acre provides 40 units of N or 250kg per hectare provides 50kg/ha of N.

In England Perlka is usually applied to Brassicas grown on the flat or on beds. In our climate, transplanting or sowing onto drills is more common, so the method of application has to be adapted. Hugh Chambers of Comber described using Perlka at 3cwt per acre with a band applicator, before making up the drills. In the past this buried the Perlka too deeply and all together. Now he puts together a Perlka applicator and three triple K tines on the drill plough. This does the whole job in one pass, spreading the Perlka evenly throughout the drill. (see photographs on next page). Perlka should normally be incorporated at a rate of at least 375kg/ha, (3 cwt per acre). More may be top dressed later. As it comes in contact with soil moisture a flush of





### **Drill plough modified by Hugh Chambers to apply Perlka.**

Above: front view showing spikes on 'shovels' to spread the Perlka.

Below: side view showing land wheel and tank for Perlka

cyanamide is released which reduces the effect of the club root fungus and germinating weeds. There is potential risk to the crop, so after application leave one day for every 100kg Perlka per hectare, before sowing or transplanting a crop. If the crop is sown or dibbled too soon it can suffer bleaching, although there is usually full recovery.

### **Cabbage root fly and aphids**

In England and Scotland nearly all crops of turnip are protected shortly after sowing by woven mesh.

Mr Moynan was surprised that experiences in N.Ireland with such mesh have been disappointing. It may be that light levels here are only just sufficient for the crop so in a dull season the 10% reduction in light levels under mesh allows too little light to reach the plants. Nevertheless Mr Moynan suggested that growers could try mesh on a small scale, since it has many benefits. It excludes most pests and gives wind protection. Aphids still require treatment, which is possible through the mesh adding a silicon wetter to the insecticide at 300-400ml/ha.

### **Minor nutrients**

Boron, sulphur and calcium are deficient in many crops. A crop of turnip takes up approximately 12 kg/ha of boron, and most soils are low in boron, so at least 12kg/ha

of a soluble boron foliar feed such as Solubor should be applied over crop life, in several sprays.

Sulphur has been a neglected nutrient. It can be applied by using sulphate of ammonia or Sulphan (24% n, 15% S), or the new product, Potassic Lime. 1 tonne is equivalent to 0.6 tonnes ground limestone in liming value, and it contains significant amounts of sulphur and potassium as well. Perlka stockists may carry this product.

Magnesian limestone is sometimes used to provide magnesium as well as lime, but this is a hard form of limestone which needs an initial pH of less than 6.4 for the material to be broken down in the soil.

## Turnip mildew

Give a preventative spray of Amistar against all foliar diseases. At the first sign of mildew apply a mixed spray of sulphur and potassium bicarbonate. Mildew and other fungal diseases are worse under mesh covers.

## Boot (contains didecyl dimethyl ammonium chloride)

Last year Boot was registered in the UK as an agricultural disinfectant which is biodegradable and leaves no residues. It is particularly effective against all human pathogens. Crops can be dipped post-harvest in Boot to prolong the shelf life, for example carrots, parsnips, strawberries and broccoli. It will be tested on turnips this year. The dilution is 100ml in 100l water.

## Pesticides under threat

The two lists below give a more complete picture than that given in the last *Vegetable News*. None has yet been confirmed.

With the EU change of emphasis from risk to hazard, the following chemicals may lose approval, either in 2013, or in some cases at earlier dates.

Active ingredient	Product examples	Some affected crops
linuron	Afalon, Linurex	Carrot, parsnip, parsley, celery
pendimethalin	Stomp	Carrot, parsnip, leek, lettuce, scallion
ioxinil	Totril	Scallions, leek
mancozeb	Dithane	Lettuce, parsley, leek
flusilazole	Nustar 25	Brussels sprout, turnip
flumioxazine	Guillotine	Onion, carrot, parsnip, pea
glufosinate	Harvest	
tebuconazole	Folicur	Brassicas, beans

Under the assessment of impact of water quality legislation the following chemicals may lose approval.

Active ingredient	Product examples	Some affected crops
glyphosate	Roundup	Many
chlorpyrifos	Dursban, Cyren	Many
cypermethrin	Toppel	Many
iprodione	Rovral	Onion, scallion
propyzamide	Kerb Flo	Lettuce, soft fruit,
metaldehyde		Many
linuron	Luas, Afalon	Carrot, parsnip, celery, parsley, leek
bentazone	Basagran	Bean, pea