

# Vegetable News

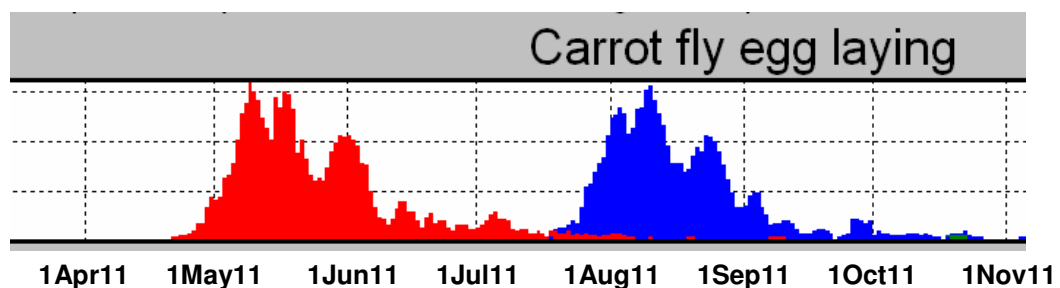
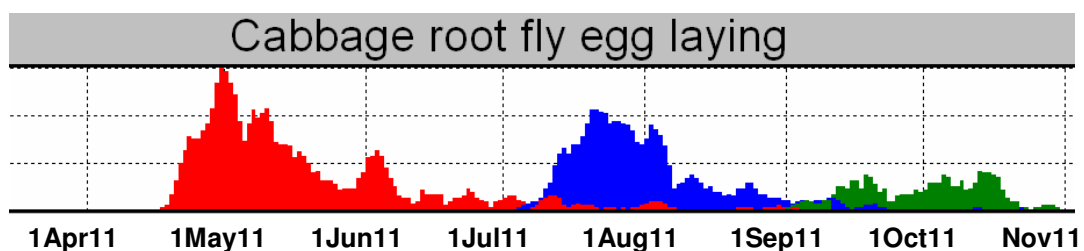
## July 2011

- **Pests, Cabbage Root Fly and Carrot Fly**
  - **Fungicide programmes**
  - **Crop Protection News**

### Pests

Based on up to date CAFRE weather data put into the Warwick forecasting model the predictions for 2<sup>nd</sup> generation pest attacks have been revised. Second generation **carrot fly** is predicted to start laying eggs on **31st July**. A spray of lambda cyhalothrin (e.g. Hallmark) at 150ml/ha should be applied close to that date when weather conditions are suitable. Together with two subsequent applications at three week intervals, the whole danger period will be covered. Looking at the chart below

shows that most egg laying is predicted in August with little in September, so the first two sprays are much more important than the third. The chart shows some egg laying in July, before the 31<sup>st</sup>. This is because the warning date is based on the 10% prediction. Since past trapping experience in N.Ireland suggests that actual carrot fly activity tends to be a week or so later than the prediction, there is unlikely to be any advantage from spraying before the 10% date.



The second generation **cabbage root fly** is predicted to start egg laying on **July 15<sup>th</sup>**. Peak egg laying will be in the last two weeks of July, with smaller numbers throughout August. Garlic sprays on turnip should start immediately. If the soil is not thoroughly moist then use high water volumes and add Silwet or a similar organosilicone wetter to assist the garlic penetrate the soil. Under conditions of high pest pressure, garlic fails as a deterrent. Only mesh effectively protects crops in these conditions. I requested samples of commercially available mesh which have arrived at Greenmount and will be sent on to all turnip growers shortly.

**Diamond backed moth** (DBM) has appeared in small numbers in brassica crops in the Comber area. Monitoring with pheromone traps is being used

and growers will be texted if the numbers being caught cause concern.

#### **Caterpillars wanted.**

A researcher at the University of Reading has sent a request to Stephen Jess of AFBI which he would like forwarded to growers. The researcher is looking at treatments to kill cabbage white caterpillars. Would any grower who has a good number of these pests please telephone Anne Stone before spraying an insecticide, so I can come and collect them in Petri dishes to send off for the trials. Thank you.

#### **Free booklet**

Bayer have re-issued their Pest Spotter guide. To order a copy Google 'Bayer Pest Spotter' and click on the link provided to bring up a request form.

## **Fungicide programmes**

At this time of year, and especially following the recent humid weather, protectant programmes against fungal diseases are starting in all vegetable crops. The tables below give suggested programmes for each of the major crops, assuming strong disease pressure.

Beginners to vegetable production may find it useful to think of a division into 'wet fungi' and 'dry fungi'. The 'wet fungi', which cause downy mildew, white tip, white blister, cavity spot and damping off, are worse in wet, humid, stagnant conditions and wet soils. They are controlled mainly by products containing metalaxyl and

dimethomorph. 'Dry fungi' can thrive in all weather conditions and are mainly controlled by the triazole group of fungicides. The chemicals active against 'wet fungi' are ineffective against 'dry fungi' and vice versa. Crops can be protected against both types of fungal diseases by the strobilurin fungicides.

In order to delay resistance developing to the currently available triazoles and strobilurins, some other active ingredients should be alternated with the programme mainstays, as suggested in the tables below.

## Carrot

*Alternaria* blight is usually the main disease.

Stage/timing	Active ingredient	Product example	Target
60%-80% canopy closure	boscalid + pyraclostrobin	Signum	<i>Alternaria</i> prevention
+ 2/3 weeks	cyprodinil and fludioxonil	Switch	<i>Alternaria</i> prevention
+ 2/3 weeks	azoxystrobin + difenoconazole or tebuconazole + trifloxystrobin	Amistar Top Nativo	<i>Alternaria</i> , powdery mildew and <i>Sclerotinia</i> . prevention and treatment
+ 2/3 weeks	Iprodione+ thiophanate methyl or cyprodinil and fludioxonil	Compass (SOLA 052504) Switch	<i>Alternaria</i> . Compass is for treatment and Switch for prevention
+ 2/3 weeks	prothioconazole	Rudis	<i>Alternaria</i> prevention
+ 3/4 weeks	fenpropimorph	Corbel	Powdery mildew and crown rot

Prothioconazole (Rudis) is a stronger triazole than tebuconazole (Folicur) and can now be used to take its place. Rudis is more expensive so, when disease pressure is low, Folicur could still be the more appropriate.

The programme above is suitable for a crop which is initially free of disease, so starts with Signum which is a good preventative. If there are already

signs of fungal disease in the crop when spraying starts in July, then Signum should be replaced with Amistar Top.

If *Sclerotinia* is suspected, based on the history of the field, then Rudis (prothioconazole) should be the first spray and then be used in alternation with other products through the programme.

## Scallions

Stage/timing	Active ingredient	Product example	Target
2/3 leaf stage	chlorothalonil and azoxystrobin or boscalid +pyraclostrobin	Olympus Signum	Protection against all diseases “
+ two weeks	mancozeb +metalaxyl	Fubol gold (H.I. 28 days)	Downy mildew
+ two weeks	fludioxonil +cyprodinil	Switch (H.I. 14 days)	<i>Botrytis</i> and <i>Cercospora</i> leaf spot
+ two weeks	dimethomorph + mancozeb	Invader (H.I. 14 days)	Downy mildew

Timing depends on the weather and rate of growth, to give protection as close to harvest as the 14 day harvest intervals permit.

If disease appears, this programme can be modified. If leaf spot is seen, then use Rovral or Switch. The most serious disease is usually downy mildew. A severe attack may require a tank mix of SL567 A with Invader, to use the complete armoury of metalaxyl, mancozeb and dimethomorph at once.

### Leek

The main diseases in dry weather are rust, purple blotch and various leaf spots. In wet weather the main diseases are downy mildew and white tip. The wet weather diseases are usually the more serious. Note that tissue affected by downy mildew can be attacked by purple blotch (*Alternaria porii*), confusing the symptoms.

### Leek

Stage/timing	Active ingredient	Trade name, e.g.	Diseases treated
Early August, or late July for semi-mature crop.	Azoxystrobin + difenoconazole <b>or</b> boscalid + pyraclostrobin	AmistarTop or Signum	protectant against all diseases
+ 2/3 weeks	prothioconazole	Rudis	rust
+ 2/3 weeks	chlorothalonil and metalaxyl	Folio Gold	wet moulds, white tip and downy mildew
+ 2/3 weeks	tebuconazole	Folicur	rust

### Brassicas

The main diseases are Ring spot/ dark leaf spot, white blister, downy mildew, powdery mildew and bacterial rot. A little mild ring spot has been seen this year and this is usually the most common disease. If there are any symptoms of spear rot on broccoli or bacterial leaf symptoms in any brassica (V shaped necrosis with a yellow halo) then add copper oxychloride to each fungicide application.

The programmes below should be modified according to disease(s) present. For example, if white blister is the first disease seen then the first

spray will be Folio Gold. If humidity is low with air moving freely through the crop, surrounding crops are not diseased and the crop is not under stress, then programmes can be much reduced.

Pointed cabbages are particularly sensitive to leaf spots and should be treated earlier in crop life than other brassicas. Broccoli seldom receives fungicide sprays since it is a short season crop and the leaves are not sold so some blemish does not matter. A spray of a protectant such as Amistar can help keep it clean and protect adjacent crops.

## Brussels sprouts

Stage/timing	Active ingredient	Product example	Target
Mid July for early crops, to late August	boscalid + pyraclostrobin	Signum	Protectant against all diseases
+ 2/3 weeks	azoxystrobin + difenoconazole or tebuconazole +trifloxystrobin	Amistar Top or Nativo	Protectant and treatment against ring spot
+ 2/3 weeks	chlorothalonil + metalaxyl-M	Folio Gold	Protectant and treatment for white blister and downy mildew.
+ 2/3 weeks	prothioconazole	Rudis	Treatment for ring spot
+ 2/3 weeks	chlorothalonil + metalaxyl-M	Folio Gold	Protectant and treatment for white blister and downy mildew.
November	tebuconazole	Folicur	Treatment for ring spot

## Cabbage and Cauliflower

Stage/timing	Active ingredient	Product example	Target
Mid July for early crops, to late August	boscalid + pyraclostrobin	Signum	Protectant against all diseases
+ 2/4 weeks	azoxystrobin + difenoconazole or tebuconazole +trifloxystrobin	Amistar Top or Nativo	Protectant and treatment against ring spot
+ 2/4 weeks	chlorothalonil + metalaxyl-M and prothioconazole	Folio Gold  Rudis	Protectant and treatment for white blister and downy mildew. Treatment for ring spot

## Crop Protection News

**Rudis for more crops** There are new approvals for Rudis, a Bayer product containing prothioconazole, for carrots, parsnip and turnips. The maximum rate is 0.4 l/ha, with a 21 day harvest interval. The main target is *Sclerotinia*, which causes white rot.

Any grower who suspects, from the history of the ground, that *Sclerotinia* is present, could apply Rudis before canopy closure. This disease is relatively uncommon in N.Ireland. Rudis also gives some protection

against *Alternaria* blight and powdery mildew.

Growers holding stock bought prior to this label extension must obtain the new approval from the CRD website before application to carrots.

### **Wing-P gains approvals**

The new herbicide Simon Townsend of BASF told us about at the meeting on February 15th has now gained approvals for cabbage (1830/11), leek (drilled or transplanted 1828/11) and onion (1831/11).

In trials Wing-P gave very good weed control on scallions at 2l pre-emergence followed by 2 l post emergence, and on leeks at 1.5l/ha pre-emergence followed by 2l/ha post emergence on leeks. But note that the approvals do not permit application both pre and post-emergence. On leeks apply either up to 4l/ha pre-emergence or up to 2.5 l/ha post emergence. Note also the restriction on use to the period 1<sup>st</sup> May to 30<sup>th</sup> September.

**Withdrawal of Aliette.** This systemic fungicide containing fosetyl aluminium will no longer be available for sale after 31<sup>st</sup> October 2011. Growers will have a one year use up period until 31<sup>st</sup> October 2012.

**Dursban restriction** Dow AgroSciences has applied for re-registration of the insecticide Dursban, containing the organo-phosphate, chlorpyrifos. The new registration is expected shortly, and when it comes through there will be a 12 month period use-up period for the old product. The main change in the new label is that drenching of brassica modules will no longer be permitted, due to risks from operator exposure.

### **Extensions of use**

From last month the new system has come into being, by which Extensions of Use have taken over the approvals previously known as SOLAs. Although they can now appear on the label, Ian Stott of Syngenta explains why we will

not be seeing many extensions of use on labels. Each time a label is changed it is costly, and the extension of use may be short lived. He expects that only 5% of the current SOLAs on Syngenta products will eventually be included on labels.

### **Note**

In the interests of factual reporting in this newsletter, reference to commercial companies and products is inevitable. Commonly used products have been used as examples, but no endorsement is intended nor is criticism implied of similar companies and products which are not mentioned.

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