

## Waikato Bowls Field Day – Waitoa & Morrinsville Clubs

### 1. Nematode control

- Vydate is no longer available and has been withdrawn from the NZ market – maybe some limited stock
- For **controlling nematodes** now use fenamiphos (400gai) such as Nemacur.
- Maximum 2.7L/green/year
- Minimum 2 and preferably 5 day closure of greens following application
- Systemic
- Controls nematodes only
- Works best under hotter conditions, hence spring applications may give a poorer result.
- More residual than Vydate – lasts approximately 12 weeks after application
- More susceptible to adsorption (lock-up) onto organic matter = poorer control

#### **Recommended procedure**

- Notify neighbours at least 2 days prior to spraying
- ‘Pepper’ affected areas with holes to 25 – 30mm. Don’t go too deep.
- Apply penetrant wetting agent (e.g. Break Thru Gold, Aqueduct) the day prior to spraying and heavily water green so uniformly moist to 50mm
- When spraying, heavily water, shortly before spraying, ie chemical needs to travel within a film of water to minimise adsorption and hence get deep enough into profile
- Water in with 10mm of water applied as short pulses, such that ponding is avoided

### 2. Organophosphate, carbamate insecticides

#### **The new controls and their implications for the turf industry:**

1. *Application Parameters:* To manage the exposure to people or the environment, the person applying the substance must follow strict guidelines on the application rates and frequencies. Table 1 shows the maximum application rate/area, application frequency (number of times/year) for the OPC insecticides used in turf.
2. *Restricted Entry Interval (REI):* This is the time required after spraying before someone can re-enter the area without wearing Personal Protective Equipment (PPE) and Respiratory Protective Equipment (RPE). Table 1 shows the REI for each OPC insecticide.

Closing a venue for 24 or 48 hours could restrict use of the facility or have a significant impact on income generated, therefore it is recommended that those not wanting to abide by this requirement dispose of/use up their existing OPC insecticides and then use alternative products.

Table 1: Application parameters and restricted entry intervals for OPCs

OPC insecticide		Maximum rate		Max application frequency/ year	Restricted entry interval (REI)
Active ingredient	Trade name	/ha	/1340m <sup>2</sup> (36.6m.x36.6m) bowling green		
Carbaryl 500g/L	Sevin Flo	5.4L	724ml	3	12 hours
Chlorpyrifos 50g/kg	Pyrifos G	30kg	4kg	1	N/A
Chlorpyrifos 100g/kg	Suscon Green	15kg	2kg	1	N/A
Chlorpyrifos 480g/L	Chlor-P 480EC Chlorfos 480 Donaghys Insec 480 Hortcare Chlorpyrifos Pychlorex Pyrinex Toppel	3.12L	420ml	N/A	24 hours
Chlorpyrifos 500g/L	Chlorpyrifos 500EC Hortcare Chlorpyrifos Lorsban 50EC Toppel 500	3L	402ml	N/A	24 hours
Diazinon 200g/kg	Diazinon 20G Gesapon 20G	15kg	2kg	2	N/A
Diazinon 500g/L	Diazol	4.8L	643ml	2	24 hours
Diazinon 600g/L	Dew 600 Zagro Diazinon 600	4L	536ml	2	24 hours
Diazinon 800g/L	Diazinon 800EC Digrub	3/L	402ml	2	24 hours
Fenamiphos 400g/L	Canyon Nemacur	20L	2.7L	1	48 hours
Oxamyl 240g/L	Vydate L	28L	3.78L	N/A	24 hours
<p>Notes:</p> <ol style="list-style-type: none"> <li>1. N/A = Not Applicable</li> <li>2. After July 2015, the turf industry will no longer be able to use Carbaryl for controlling earthworms, as the rate allowed to apply the product is too low. Recommendation . use up all stocks of carbaryl prior to July 2015.</li> <li>3. This control is being amended by the EPA as the control currently states per crop cycle which cannot be practically complied with in turf, so this has been adjusted to per year for turf areas.</li> </ol>					

3. *Spray drift management:* All practicable steps to ensure there are no adverse effects beyond the boundary of the turf venue. The measures used to manage spray drift must be recorded in the application records (spray diary), for example: nozzles producing coarse droplets were used; shelter belts on boundary; application made outside school hours.
4. *Covering granules after application:* Where a granular formulation (such as Diazinon 20G) is broadcast over the surface, the granules must be covered (e.g. with soil or sand) immediately following the application to prevent birds from ingesting them. This will add significant cost.
5. *Label identification:* New product labels will identify that the substance is an organophosphate or carbamate, to alert the user to the risks of using it. There will also be statement highlighting the risk to bees.

6. *Notification:* Turf venues will be required to give written notification to any person likely to be affected by the application, including owners and occupiers of land, buildings or property that share a boundary with the turf venue. Notification must be given at least 2 working days prior, but not more than 4 weeks in advance. Notification must specify:
- The location of the application.
  - The date and approximate duration of the application.
  - Steps that can be taken to avoid exposure.
  - Name and contact details of those making the application.

### 3. General issues for the coming 3 months

#### a. Pests (cotula weevil, cut worm, nematodes)

Cotula weevil – you should be actively monitoring for this pest. Take special care on mixed starweed greens as weevil will eat out all plants other than starweed leaving an ‘open starweed surface’.

- Cyhella, Bestseller or equivalent insecticides (see NZSTI Bowls Chemical Guide)
- Generally evening sprayings are most effective. Don’t irrigate that night. Don’t mow for at least a day after application.
- Too late for Acelepryn now i.e. Acelepryn gets larvae, so you will need to apply a knockdown insecticide first, to control the adult weevil which will now be present.

#### b. Disease

Sclerotinia – still an issue on starweed and new maniototo greens (areas). Be vigilant as can’t afford to lose cover at this stage.

Brown patch – maniototo greens/mixed maniototo greens. Be vigilant during November and start preventative spray programmes in December. Generally Taratek, Amistar (azoxystrobin) are preferred options.

Rolfs disease – mainly starweed greens. Be vigilant from December onwards. Mainly occurs around ends/dry areas. Look for mycelium, white staining on soil surface, once disease starts and the brown radish seed like sclerotes. Best managed preventatively – by applying azoxystrobin (Amistar, Tazer etc) during January and February.

#### c. Irrigation

- Check sprinkler arcs and operation regularly over summer (every fortnight).
- Sample greens regularly (particularly centre and around ends) to monitor soil moisture
- From December on make sure you are putting out a centre sprinkler.

#### d. Fertiliser

Unless otherwise stated on your fertiliser programme:

- You may still have a magnesium sulphate application to apply during October/early November
- From December onwards start your potassium programme – generally monthly applications of Liquid potash from December until March.

### 4. Questions

#### a. When should you irrigate?

Generally only syringing should be completed during the heat of the day. The main irrigation should be completed at night. Start irrigation as late as possible, such that the full irrigation programme can be completed by 4 – 4-30am approx.

If you need to hand water, try and complete this first thing in the morning or late afternoon to prevent scalding the plant.

b. **How do we control ants?**

Ants don't damage Cotula. Their castings are a nuisance when preparing the green and their burrowing activity can cause low areas. Normally ants are localised and you can:

- Spike the affected area
- Wet up the patch
- Make up a drench of Bestseller (or equivalent) in a watering can (3 - 5 mls/10L watering can)
- In overcast conditions, drench the area with the spray mixture and wash into the soil profile.

For larger areas:

- Irrigate the green immediately prior to spraying
- Apply Bestseller or equivalent and wash in with 5 – 10mls of water.

c. **White patch**

*White patch attacking dioica and maniototo*



The exact cause is unknown. Normally this is a problem in autumn. It is brought on when green is lushed by nitrogen fertiliser or soiling. Unfortunately the white leaves will die. However the new emerging leaves will be green and quickly re-establish a dense cover. To avoid problem you can apply an application of magnesium sulphate, prior to renovation. Disease doesn't respond to fungicides.

d. **Closure requirements following spraying**

The rules aren't clear. Our interpretation is that given the legislation is trying to protect club members/guests etc coming into contact with the insecticide (agri-chemical) then the closure applies to the entire facility. The basis for this is there is a risk when walking past a treated green to play on another green and/or in many cases entering the club house that you could come into contact with the agri-chemical.

e. **Moss control**

Moss can still be controlled. You need overcast weather so as to not damage (burn) the cotula or starweed. Most importantly the moss needs to be wet. This will require steady rainfall for ½ a day or more so the moss is saturated and 'opens up' to adsorb the chemical. When lightly touched water should ooze out of the moss. **Sprinklers will not adequately wet up the moss.**