Disease control in Fodder Beet

Fungicide treatment of fodder beet crops is becoming a topical issue. There are several factors that lead to disease pressure building up in a new crop to the point where control is required these include:

1. The growth in area of fodder beet has been nothing short of spectacular over the last 5 years, with no one really knowing how much there really is in the ground, however that said it must be + 60,000 hectares.

2. Fodder beet is grown in all the major pastural farming regions throughout New Zealand… it's everywhere.

3. New Zealand is an Island nation with a temperate climate.

4. Most diseases are wind borne ones.

So, taking all the above information into account it's not unexpected that diseases will become more of an issue for fodder beet growers, so what to do?

What to spray?

The five main fodder beet diseases commonly occurring currently in New Zealand:

1/ **Rust** with the orange spores covering the leaf surface.

Life cycle: to overwinter, beet rust must have living beet material (i.e. fodder beet or sugar beet) to survive. From early spring the beet plant is susceptible to attack by beet rust but it is the late season attack that has the greatest effect. In the late summer or early autumn beet rust can increase very quickly causing older leaves to wilt and die.

2/ **Powdery Mildew** with a white powdery substance covering the leaf surface.

Life cycle: to overwinter, powdery mildew must have living beet material (i.e. Fodder beet or sugar beet) to survive. In the spring, wind borne spores are responsible for the infection of new crops with periods of humidity and temperatures of around 25ºC being ideal conditions for powdery mildew to thrive.

3/ **Rhizoctonia** commonly known as **Root Rot** and is caused by a soil borne fungi with leaf's wilting and collapsing and a brown rot appears on the roots.

Life cycle: Rhizoctonia survives in the soil and on plant debris. Therefore 2nd year crops onwards are prime suspects for this disease. Excellent crop rotation practices and adopting good husbandry practices, especially ensuring good, free draining seedbeds will help control this disease.

4/ **Cercospora Leaf Spot**

Life cycle: Cercospora leaf spot survives on plant debris, volunteer plants and in seed. So once again good crop husbandry practices are essential to stop the spread of this disease.

Spores are produced in the spring and these are distributed by wind and rain splash.

5/ **Ramularia Leaf Spot**

Life cycle: Once again this disease survives on infected crop residues. Spores are spread by both wind and splash dispersal. Infections occur at high humidity and mild temperatures (17-20ºC).

When to spray?

Most disease issues in fodder beet occur from the 6-8 true leaf stage on and as you can see from the above information tend to occur as the day temperature starts to rise from 20 degrees on. This means it's from about February on most of these diseases start to show up.

As with all diseases early identification is important as by the time you see the physical signs of any disease, it's most properly been in the plant for several days.

What to spray it with?

To the best of my knowledge there are currently three chemicals registered in New Zealand for

disease control in fodder beet. I've mentioned them below and links for your so you can get more information on them.

When looking at this information please take notice of the withholding dates.

1. Escolta from Bayer

   http://www.specseed.co.nz/downloads/escolta-informationlabel.pdf

2. Mondo from Zelam

    http://www.specseed.co.nz/downloads/mondo-informationlabel.pdf

3. Rivera from Adria

4. http://www.specseed.co.nz/downloads/rivera-informationlabel.pdf

Please feel free to contact Specialty Seeds at any time should you need more information.

specialtyseeds
NZ's INDEPENDENT SEED SUPPLIER
For more detailed product information please ring
0800 727 - 8873 or go to www.specseed.co.nz