

This is the Muck Station Report and IPM Information for Thursday July 10, 2008.

The Pest Management Regulatory Agency (PMRA) recently announced the approval of the minor use label expansions for Ranman 400 SC Agricultural Fungicide for management of cavity spot, root dieback or forking on carrots. Ranman only suppresses the development of the diseases. A maximum of one application of Ranman per season is allowed, either as a post-plant, pre-emergent application within 3 days after seeding or as a soil-directed spray 14 days after planting (seeding). Since most carrots have been seeded already for more than 30 days, the application will not be applicable for the 2008 season. The use of Ranman would be useful for the 2009 growing season especially for fields with a history of cavity spot, root dieback or forking.

The weather forecast for this week end is warm with thunder storms predicted for Friday. The risk of blights on all crops is moderate. Taking into account that the canopies in most crops are getting larger the risk of leaf disease symptoms appearing in your crops will increase. Damage from heavy rains may also increase the risk of bacterial disease. Bruise resulted from rain damage are also portals for an easy entry of pathogens.

A total of 11.6 mm rain has been accumulated between July 7 and 9.

DOWNCAST has predicted onion downy mildew sporulation infection periods occurred once during the last three days. Risk of downy mildew developing in transplanted onions is moderate. If growers are having onions on onions and the field has a history of onion downy mildew, the risk of developing downy mildew will increase. The risk of downy mildew around on seeded onions is low to moderate.

BOTCAST The cumulative disease severity index (CDSI) for BOTCAST on onions is currently 22. Thus, we have reached the first spray threshold for botrytis leaf blight of onions. CDSI for the first fungicide spray is between 20 and 30 and when we have a count of 1 active lesion per leaf. Begin your spray program with Dithane or another mancozeb product. If your lesion counts stay below the threshold of 1 lesion per leaf you can use Dithane and it can be used twice in a row since there is no documented disease resistance development. As the risk increases add Bravo and then the systemic fungicide Rovral into the rotation with Dithane. In any case, if you have sprayed a protectant fungicide such as Dithane or Bravo and receive rain or irrigation of at least 20mm within 7 days after applying either of the fungicides, then enough of the fungicide will be washed off which means you need to reapply. Therefore if you plan on irrigating or if rain is expected, use a systemic fungicide such as Rovral, Lance or Switch. Recommendations for fungicide use are listed on page 136 of the publication 363 (OMAFRA vegetable production recommendations, 2008-2009 edition).

BREMCAST predicted one sporulation infection periods of downy mildew of lettuce. Considering the high potential of leaf wetness and the canopy size, risk of disease development is moderate to high. Downy mildew has been found on lettuce at our research station. To control downy mildew, spray alternately between Ridomil Gold and Aliette. The fungicides Ridomil Gold, Zineb, Aliette and the biological control agent Serenade Max are registered. Begin with Ridomil Gold or Aliette since risk is high and they are both systemic fungicides, and then rotate in Zineb.

Onion thrips counts are slowly increasing. On both of our research sites the counts are 0.2 thrips per leaf. The threshold for pesticide application is 1 thrip per leaf. When scouting your fields for thrips be sure to pull apart the leaves and count both adults which are brownish in colour and nymphs which are yellowy orange in colour. Counts of 0.6 and greater thrips per leaf can rapidly reach the threshold in hot weather

Onion maggot fly counts are moderate and are dropping slowly as first generation peak had passed.

Once celery is one third grown it is time to apply magnesium and boron. Use Epson salt or other forms of magnesium and spray every 10-14 days. Foliar application of calcium in the form of calcium chloride or calcium nitrate may also reduce development of black heart especially if celery is under heat and moisture stress. Application rates are listed in Table 1-13 of Publication 363 of the year 2008-2009.

Rust fly counts at both our research sites are 0 flies per trap per day, which is below the threshold of 0.1 and 0.2 flies per trap per day. Carrot rust fly counts are below threshold in most parts of the Holland Marsh.

Tarnished plant bugs are out and about in celery and lettuce fields and are being caught on orange sticky traps. Tarnished plant bug damage on lettuce and celery has been seen. Check your crops carefully for tarnished plant bug. The spray thresholds are 0.1 and 0.2 TPB per plant for fresh and processing celery and or 6% of the plants showing damage.

Aster leafhopper counts are low to moderate in most areas around the Holland marsh. The maximum number we found at our station on July 10th was 4 aster leafhoppers per trap. The counts are too low to warrant a pesticide application.

A complete list of herbicides for weed control in carrots is listed on page 219-221 in publication 75. A list for onions can also be found on page 230-230 in publication 75.