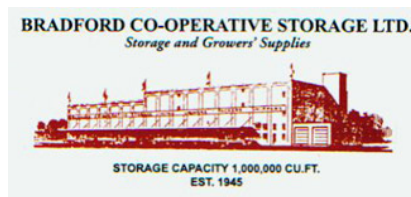




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# Muck Crops Research Station IPM 2019

Forecasting/weather information as of 28 June

Standard Growing Degree Day Model (starting 1 April):

MODELS	CUMULATIVE DEGREE DAYS	DEGREE DAYS SINCE LAST REPORT
Growing degree days (DD base 5)	593	52

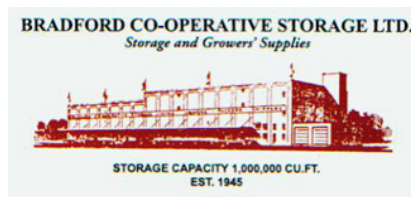
Insect Degree Day Models:

MODELS	CUM DEGREE DAYS	THRESHOLD ONE	THRESHOLD TWO	COMMENTS:
<b>CARROT RUST FLY</b> (DD base 3)	749	Emergence at 329-395 DD (1 <sup>st</sup> gen)	Emergence at 1399-1711 DD (2 <sup>nd</sup> gen)	Past peak emergence of first generation
<b>ONION MAGGOT</b> (DD base 4)	669	Emergence at 210 DD (1 <sup>st</sup> gen)	Emergence at 1025 DD (2 <sup>nd</sup> gen)	In between 1 <sup>st</sup> and 2 <sup>nd</sup> generation
<b>CARROT WEEVIL</b> (DD base 7)	447	Egg laying starts at 138-156 DD	Egg laying 90% complete at 455 DD	Nearing 90% egg laying threshold
<b>ASTER LEAFHOPPER</b> (DD base 9)	324	Nymphs emerge at 128 DD	Adults emerge at 390 DD	Nearing adult emergence
<b>TARNISHED PLANT BUG</b> (DD base 12)	181	Activity can start at 40 DD		Active
<b>CABBAGE MAGGOT</b> (DD base 6)	519	Emergence at 314 DD (1 <sup>st</sup> gen)	Emergence at 847 DD (2 <sup>nd</sup> gen)	Between 1 <sup>st</sup> and 2 <sup>nd</sup> generation
<b>SEEDCORN MAGGOT</b> (DD base 4)	669	Emergence at 200 DD (1 <sup>st</sup> gen)	Emergence at 600 DD (2 <sup>nd</sup> gen)	2 <sup>nd</sup> generation





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### Disease Forecasting Models:

Disease model	Cumulative DSI	Change since last report	Comments
BOTCAST (Botrytis leaf blight)	54	+3	While weather supports botrytis, no botrytis has been seen so risk is low-medium
DOWNCAST (Onion downy mildew)	No sporulation infection periods	Minimal activity	Low risk
BSPCast (Stemphylium leaf blight)	Weather slightly favourable	Low-moderate risk	Stemphylium likely can develop, but weather is not yet optimal
White Rot on Onions	43	+4	Soil temps nearing the point to stop white rot, but can currently develop
Sclerotinia (White Mold) on Carrot	0	0	No risk until carrot canopy closes
TOMCAST (General conditions for disease)	29	+4	Weather slightly conducive to disease
BREMCAS (Lettuce downy mildew)	1 sporulation infection period	Low activity	Risk is low

### Daily Temperature and Rain

Date (June 2019)	Max temperature	Min temperature	Rain (mm)
25	25.2	16.8	16.6
26	28.3	17.4	0.0
27	31.1	14.0	0.0

Soil Temperature (°C): 5cm: 24.4

10cm: 28.72

20 cm: 24.43

