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# Muck Crops Research Station IPM 2019

Forecasting/weather information as of 2 July

Standard Growing Degree Day Model (starting 1 April):

MODELS	CUMULATIVE DEGREE DAYS	DEGREE DAYS SINCE LAST REPORT
<b>Growing degree days</b> (DD base 5)	657	64

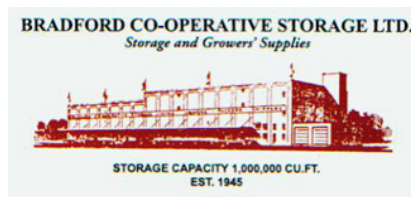
Insect Degree Day Models:

MODELS	CUM DEGREE DAYS	THRESHOLD ONE	THRESHOLD TWO	COMMENTS:
<b>CARROT RUST FLY</b> (DD base 3)	821	Emergence at 329-395 DD (1 <sup>st</sup> gen)	Emergence at 1399-1711 DD (2 <sup>nd</sup> gen)	In between generations
<b>ONION MAGGOT</b> (DD base 4)	737	Emergence at 210 DD (1 <sup>st</sup> gen)	Emergence at 1025 DD (2 <sup>nd</sup> gen)	In between generations
<b>CARROT WEEVIL</b> (DD base 7)	503	Egg laying starts at 138-156 DD	Egg laying 90% complete at 455 DD	Egg laying now complete
<b>ASTER LEAFHOPPER</b> (DD base 9)	371	Nymphs emerge at 128 DD	Adults emerge at 390 DD	Nearing adult emergence
<b>TARNISHED PLANT BUG</b> (DD base 12)	217	Activity can start at 40 DD		Active
<b>CABBAGE MAGGOT</b> (DD base 6)	578	Emergence at 314 DD (1 <sup>st</sup> gen)	Emergence at 847 DD (2 <sup>nd</sup> gen)	In between generations
<b>SEEDCORN MAGGOT</b> (DD base 4)	737	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)	59	+5	While weather supports botrytis, no botrytis has been seen so risk is low-medium
DOWNCAST (Onion downy mildew)	3 sporulation-infection periods in 4 days	Some activity	Sporulation not consistent enough for great risk, watch transplants closely
BSPCast (Stemphylium leaf blight)	2/4 days with ideal conditions	Moderate activity	Stemphylium is developing in fields
White Rot on Onions	46	+3	White rot is present in fields
Sclerotinia (White Mold) on Carrot	0	0	No risk until carrot canopy closes
TOMCAST (General conditions for disease)	35	+6	Weather conducive to disease development
BREMCAST (Lettuce downy mildew)	1 sporulation infection period	Minimal activity	Risk is low

### Daily Temperature and Rain

Date (June/July 2019)	Max temperature	Min temperature	Rain (mm)
28	28.6	13.2	1.4
29	28.6	18.1	0.0
30	23.8	15.5	0.0
1	29.8	10.1	0.0

Soil Temperature (°C): 5cm: 24.1

10cm: 28.4

20 cm: 24.0

