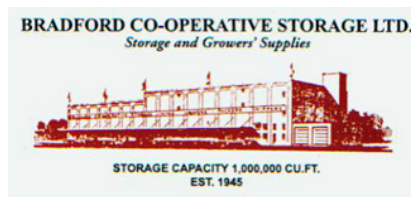




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# Muck Crops Research Station IPM 2019

Forecasting/weather information as of 13 September

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)	1756	71

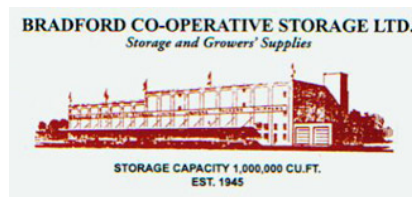
Insect Degree Day Models:

MODELS	CUM DEGREE DAYS	THRESHOLD ONE	THRESHOLD TWO	COMMENTS:
<b>CARROT RUST FLY</b> (DD base 3)	2066	Emergence at 329-395 DD (1 <sup>st</sup> gen)	Emergence at 1399-1711 DD (2 <sup>nd</sup> gen)	2 <sup>nd</sup> generation complete, in field activity
<b>ONION MAGGOT</b> (DD base 4)	1909	Emergence at 210 DD (1 <sup>st</sup> gen)	Emergence at 1025 DD (2 <sup>nd</sup> gen)	2 <sup>nd</sup> generation complete
<b>CARROT WEEVIL</b> (DD base 7)	1456	Egg laying starts at 138-156 DD	Egg laying 90% complete at 455 DD	2 <sup>nd</sup> generation activity possible
<b>ASTER LEAFHOPPER</b> (DD base 9)	1179	Nymphs emerge at 128 DD	Adults emerge at 390 DD	Active
<b>TARNISHED PLANT BUG</b> (DD base 12)	806	Activity can start at 40 DD		Active
<b>CABBAGE MAGGOT</b> (DD base 6)	1605	Emergence at 314 DD (1 <sup>st</sup> gen)	Emergence at 847 DD (2 <sup>nd</sup> gen)	Well past 2 <sup>nd</sup> generation
<b>SEEDCORN MAGGOT</b> (DD base 4)	1909	Emergence at 200 DD (1 <sup>st</sup> gen)	Emergence at 600 DD (2 <sup>nd</sup> gen)	Well past 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)	137	+15	Low risk, no inoculum
DOWNCAST (Onion downy mildew)	4 sporulation-infection periods	Possible activity	Moderate risk, 3 sporulation-infection periods needed in a row to be of high concern
BSPCast (Stemphylium leaf blight)	Favourable conditions on past 6/7 days	Increased activity	High risk, but most onions are lodging or are being harvested
White Rot on Onions	21	+14	Low risk
Sclerotinia (White Mold) on Carrot	0	No activity	Soils still too dry for white mold
TOMCAST (General conditions for disease)	159	+14	Moderate risk, carrot leaf blights could develop
BREMCAST (Lettuce downy mildew)	6 sporulation-infection periods	Continued activity	High risk, ideal conditions

### Daily Temperature and Rain

Date (September, 2019)	Max temperature	Min temperature	Rain (mm)
6	20.9	8.2	2.0
7	22.3	8.6	1.6
8	17.6	6.9	0.2
9	21.0	1.7	0.0
10	23.6	5.8	18.4
11	27.2	15.8	4.6
12	21.5	10.1	7.0

Soil Temperature (°C): 5cm: 18.1

10cm: 18.4

20cm: 18.4

