

MUCK CROPS RESEARCH STATION IPM 2013

Forecasting / weather information as of July 22, 2013

| MODELS | CUM DEGREE DAYS (DD) | THRESHOLDS | | COMMENTS: |
|--|----------------------------|-------------------------------|--------------------------------|---|
| | | ONE | TWO | |
| Standard Growing Degree Day Model: | | | | |
| GROWING DEGREE DAYS (DD base 5) | 1165.4 | not applicable | not applicable | |
| Insect Degree Day Models: | | | | |
| CARROT RUST FLY (DD base 3) | 1366.4 | 329-395 DD | 1399-1711 DD | Closer to DD threshold for the 2nd generation emergence |
| ONION MAGGOT (DD base 4) | 1264.1 | 210 DD 1 st Gen | 1025 DD 2 nd Gen | Reached DD threshold for the 2nd generation emergence |
| ASTER LEAFHOPPER (DD base 9) | 799.1 | 128 DD | 390 DD adult emerge | Reached DD threshold for local adult emergence |
| TARNISHED PLANT BUG (DD base 12) | 556.9 | 40 DD | | Reached DD threshold for emergence |

Disease forecast

BOTCAST: The cumulative disease severity index (CDSI) for botrytis leaf blight is 26. Risk of botrytis leaf blight at this time is moderate to high.

DOWNCAST predicted sporulation infection periods in the last 4 days. Taking into account the weather forecast and crop canopy size, risk of downy mildew on onions is moderate to high.

BREMCAST predicted sporulation infection periods in the last 3 days. Risk of downy mildew of lettuce is moderate to high.

| DATE (July, 2013) | TEMPERATURE (°C) | | ACCUMULATED RAINFALL (mm) |
|-------------------|------------------|------|------------------------------|
| | MAX | MIN | |
| 18 | 32.7 | 21.6 | 0.8 |
| 19 | 34.8 | 20.9 | 9.8 |
| 20 | 28.7 | 16.2 | 0 |
| 21 | 25.7 | 11.0 | 0 |

Soil Temperatures

July 21: 5 cm = 21.8°C; 10 cm = 22.0°C; 20 cm = 21.7°C