Codling Moth Biology and Management

Degree-Day Totals and Spray Dates (current as of midnight, 7/5/04)

The spray periods in each table are based on the developmental biology of codling moth. The "Projected Larval Emergence" is the period of time in which codling moth larvae (caterpillars) are likely to be hatching from eggs and looking for fruit. Sprays that are targeting the caterpillars will be most effective if applied during this period.

The treatment dates are *predictions* using site-specific weather data, short-term weather forecasts, and 30-year temperature averages. The "Onset" date represents approximately 220 DDs (degree-days) accumulated from the biofix date, which should correspond to 1% egg-hatch (1% of the 1st generation eggs have likely hatched at this point). The "End" date represents approximately 920 DDs from the biofix, which should correspond to 99% egg-hatch. The projected Onset and End dates of the spray period will be updated as current weather data become available.

1st Codling Moth Generation:

Boxelder County	**Degree-Day Totals**			**Larval Emergence**	
Location	DDs since March 1st	**Biofix Date**	**DDs since Biofix**	***Projected* Onset**	***Projected* End**
Perry		**12-Apr**	**1077**	**9-May**	**28-Jun**
Willard		**14-Apr**	**1099**	**9-May**	**27-Jun**

Cache County	**Degree-Day Totals**			**Larval Emergence**	
Location	DDs since March 1st	**Biofix Date**	**DDs since Biofix**	***Projected* Onset**	***Projected* End**
Hyde Park		**28-Apr***	**835**	**21-May**	**10-Jul**
Logan (bench)		**27-Apr**	**843**	**21-May**	**10-Jul**
North Logan		**25-Apr***	**~**	**21-May**	**12-Jul**
River Heights		**27-Apr**	**~**	**21-May**	**10-Jul**

Davis County	**Degree-Day Totals**			**Larval Emergence**	
Location	DDs since March 1st	**Biofix Date**	**DDs since Biofix**	***Projected* Onset**	***Projected* End**
Kaysville		**17-Apr**	**980**	**16-May**	**2-Jul**

Salt Lake County	Degree-Day Totals			Larval Emergence	
Location	DDs since March 1st	Biofix Date	DDs since Biofix	*Projected* Onset	*Projected* End
Salt Lake City		19-Apr**	1169	9-May	25-Jun

Utah County	Degree-Day Totals			Larval Emergence	
Location	DDs since March 1st	Biofix Date	DDs since Biofix	*Projected* Onset	*Projected* End
Alpine		26-Apr*	842	20-May	9-Jul
Genola		15-Apr*	1066	9-May	28-Jun
Lincoln Point		24-Apr	929	17-May	5-Jul
Orem		19-Apr*	1087	14-May	28-Jun
Payson		17-Apr*	1006	11-May	1-Jul
Provo		15-Apr*	~	10-May	26-Jun
Santaquin		15-Apr*	967	14-May	3-Jul
Spanish Fork		16-Apr**	1068	14-May	28-Jun
West Mtn.		17-Apr	906	16-May	6-Jul

Weber County	Degree-Day Totals			Larval Emergence	
Location	DDs since March 1st	Biofix Date	DDs since Biofix	*Projected* Onset	*Projected* End
Pleasant View		14-Apr	1108	9-May	27-Jun

NTR = no trapping reports.

"~" = data currently unavailable.

*Based on pheromone-baited trapping reports from the orchardist(s) in the area.

**Biofix based on degree-day accumulations since March 1st.

Past research has shown that a newly emerged codling moth adult needs approximately 58 DDs before the first eggs are laid, and each egg requires 158 DDs to hatch. This means that the very first eggs are likely to hatch at approximately 216 DDs (= 58 + 158) from the biofix, and a spray applied between 220 and 260 DDs would probably catch the

earliest larvae. Multiple sprays during the larval emergence period may be necessary to provide adequate suppression.

It is critical to time treatments well with codling moth because the larvae of this species are often inaccessible to sprays. Adults lay eggs on or near the fruit, and the larvae tunnel into the fruit as soon as they can. It is very important, therefore, to time your treatments such that the insecticide is present when and where you need it.

For more information, contact:

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