



Healthy Fruit

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Prepared by the University of Massachusetts Fruit Program

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<http://www.umass.edu/fruitadvisor/>

Current DD accumulations

	Base 32F	Base 43F	Base 50F
Belchertown, UMass CSO observed (01/01/06 – 05/22/06)		541	244
Belchertown, UMass CSO SkyBit (01/01/06 – 05/22/06)		541	
Belchertown, UMass CSO observed (04/10/06 [GT] – 05/22/06)	871 [99]*		

*[99] = % mature apple scab spores; primary spore release done

Upcoming meetings/events

Date	Meeting/ event	Location	Time	Information
June 6 - 8	Fruit Team Twilight Meetings	TBA	5:30 PM	Jon Clements 413-478-7219

Hail observed in some Massachusetts orchards

It's been a roller coaster week weather-wise, culminated by reports of hail from the squall line that moved through the state afternoon. Fortunately, no serious damage has been observed, as fruitlets are small and somewhat resistant to injury. In at least one orchard foliage was torn, and this may have an impact on fruit set -- the grower was advised to observe fruit set/growth and thin carefully. And the season has just started...

Shuck split entomology on peaches and nectarines -- J Clements

Shuck split on peaches and nectarines combined with upcoming warm temperatures spells trouble for unprotected fruit. Plum curculio (PC) and tarnished plant bug (TPB) are the big threats. Application of a synthetic pyrethroid (SP) -- Asana, Pounce, Ambush -- will cover both insects. Guthion and Imidan, although very good on PC, are not as effective against TPB. If you are concerned about using an SP, Actara also gives excellent control of both pests. TPB is particularly problematic when broadleaf weeds are in or near the orchard -- efforts should be made over time to rid your stone fruit blocks of broadleaf weeds, both within and outside the orchard.

Plum curculio likely to become very active in apples -- J Clements

Based on the weather forecast (80's possible by the weekend) and fruitlet size (predicted to approach 10 mm by the weekend on McIntosh) plum curculio (PC) will be a real threat. Your petal fall spray of carbaryl is likely to be wearing off by now, and a fresh batch of PC will be moving into the orchard from surrounding woods and fields. A whole orchard spray or perimeter spray with a PC-effective insecticide -- including Imidan, Guthion, Avaunt, Actara, Assail, and Calypso -- is recommended before the weekend in most apple orchards. I will be running the DD model to predict when the end of PC immigration has occurred, and will keep you posted on when that has happened.

Good article on 'new chemistry' insecticides -- J Clements

The most recent issue of Maine's 'Apple Pest Report' by Glen Koehler mentioned an excellent article by our own Bob Childs titled 'New Products and How they Work.' Products being insecticides (mostly). Although Childs deals with the nursery and landscape industry, as Glen points out "The article is written for ornamental plant pest managers, so some of the brand names are unique to that market. But the same materials are registered for apples: e.g. acetamiprid = Assail, thiamethoxam = Actara." It's good reading if you have a chance and will help you better understand your insecticide options. The article is here:

- http://www.umassgreeninfo.org/fact_sheets/ipmtools/insect_products_05.pdf

Chemical thinning, the week ahead -- D Greene

We have just gone through a prolonged period of rain and cool weather. Generally cool weather during and following bloom results in a fairly strong set of flowers that were pollinated. Therefore, if initial set is judged to be even moderate, your thinning program probably should include more than just carbaryl.

Fruit are starting to size. At the UMass Cold Spring Orchard many king fruit are 7 mm, although the majority of fruit on early to midseason blooming varieties are between 5.0 to 6.5 mm. We know that there is adequate set, but we will not know yet for a couple of days how many fruit will continue to size so that we can make a more accurate assessment of initial set. It is when fruit reach the 5 to 6 mm size that growth starts to accelerate and on some warm days fruit can grow 1 mm or more in a day.

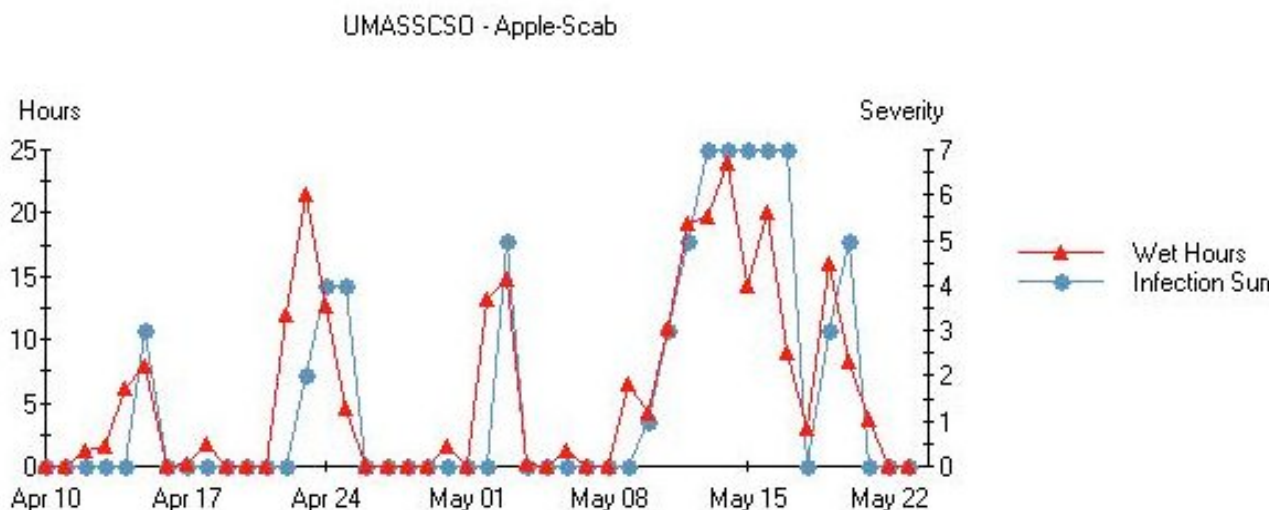
The temperature/weather forecast for the next 7 days favors thinning; generally ranging from 70 F° to 80 F°. There are some cloudy periods and some rain events forecast but neither condition is supposed to last for more than a day or two. Given the stage of growth of the fruit and given that the weather forecast does not change (a very big given) the next week should provide adequate opportunity to apply thinners in a timely manner. Since clouds and rain are forecast to be interspersed, an opportunity to effectively thin may extend well into next week.

All chemical thinners are effective at this stage of fruit development. Carbaryl is the mildest and it rarely overthins. If more aggressive thinning is deemed necessary I would recommend a combination spray of carbaryl with either NAA or MaxCel used at a rate less than what they would be used alone. It has been my experience that combination sprays generally give more reliable and consistent results.

MaxCel is a relatively new thinner, and many are still learning how to use it. In order to get effective thinning, MaxCel should always be combined with carbaryl. MaxCel increases fruit size independent of its thinning effect. If fruit size increase is the primary response desired then MaxCel should be applied alone.

Healthy Fruit Disease Elements -- J Clements

Apple scab: Needless to say, there was a major apple scab infection period lasting over a week. (See graph.) Be advised that this wetting period provided plenty of opportunity for primary scab spores to be splashed-around, so, we assume most growers had good protectant fungicide coverage going into the week of wetting, and may have re-applied during the week too. I have heard a report from the Hudson Valley that primary scab lesions are more numerous than one would like to see, indicating either it has been tough to maintain good coverage because of weather, or where SI's (sterol-inhibiting fungicides, Nova, Rubigan) were used, resistance is a problem. Massachusetts growers are likely in the same boat. You should be scouting for scab lesions on spur leaves now! Even though the primary release of over-wintering ascospores is pretty well done, primary lesions appearing in the orchard now will spread unless adequate fungicide coverage is maintained during upcoming wetting periods. I would tread on the very cautious side this year, and include fungicides in the next couple cover sprays, particularly on very susceptible cultivars such as McIntosh, until you are sure you are out of the woods. Rotating your fungicide 'classes' is always recommended, as well as tank mixes that include both protectant and kick-back fungicides. More when Dan Cooley returns next week to Healthy Fruit.



Apple scab lesion on McIntosh leaf

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