**Fruit Maturity**

**2011 McIntosh Starch index, Highmoor Farm, Monmouth ME**

Fruit NOT treated with ReTain or other growth regulators

![Chart showing McIntosh starch index from Saturday, Sept. 24 to Thursday, Sept. 29]

**Starch Index interpretation for McIntosh**

- **6.0 – 8.0:** McIntosh are ripe and should be marketed immediately or stored for less than 2 months.
- **5.0 – 6.0:** McIntosh suitable for short-term CA storage, but may be too ripe for long-term storage.
- **4.0 – 5.0:** Optimum McIntosh maturity for long-term CA storage

**COMMENTS:**

- **Spurtype McIntosh:** 50% with high levels of ethylene, 50% with nondetectable levels.
- **Nonspur McIntosh:** No ethylene detected.
- **Nonspur McIntosh treated with ReTain:** No ethylene detected.

**Cortland:** Starch index 2.5, no ethylene detected.
**Spur-type McIntosh** in most orchards have detectable levels of ethylene in at least 50% of the fruit meaning that they should not be put into storage for longer than one or two months. For these fruit, rapid softening can be expected with storage of any length of time. Fruit drop is evident in spur-type Macs.

**Nonspur McIntosh** ethylene levels can be variable from orchard to orchard, so some orchards may have apples that are no longer suitable for long-term storage. Once fruit become easy to pick or begin to drop, they are too ripe for storage. If you are still picking non-ReTain nonspur Macs for storage, pay close attention to the ripening condition, and adjust storage times accordingly. When apples have no detectable ethylene, they are still suitable for long-term storage.

ReTain appears to have slowed ripening in the few orchards checked. Where ReTain was applied according to recommendations on trees without stress, nonspur McIntosh can be expected to still be OK for storage.

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**Flyspeck and Sooty Blotch**

This has been the worst September weather for flyspeck and sooty blotch risk in many years. The recent stretch of warm wet weather is forecast to end on Tuesday October 4, but not before another series of nighttime temperatures well above average in combination with high humidity and wet fruit skin on September 30 – October 3. These conditions will continue to support growth of flyspeck and sooty blotch fungi on apples.

Fruit that did not receive renewed fungicide application after the Irene rains on August 28 removed previous coverage are at risk of having visible colonies any day now, if they haven’t already. Even fruit that received renewed fungicide between August 29 and September 5 are at risk of showing flyspeck or sooty blotch starting October 2 or shortly thereafter. Flyspeck growing on fruit treated after September 6 should not have enough temperature and wet hours to become visible before October 31 (assuming that flyspeck development was not already far along before Sept. 6 due to gaps in spray coverage earlier in the summer.)

The percentage fruit with flyspeck showing between touching fruit in a block of Macoun and Cortland at Highmoor was quite high on Wednesday, September 28, despite the fact that these trees received consistent fungicide coverage before August 28 and renewed protection after the Irene rain.

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**Scab 2011 and 2012**

There has been a late flush of apple scab on McIntosh foliage at Highmoor Farm. In one block it can blamed on lesions in the tops of tall trees, but there is scab showing up in two other McIntosh blocks where scab counts were near zero during the summer, including one block of ca. 6-10 foot trees on B9 rootstock. The warm wet September weather is conducive to late season scab as aging leaves lose their natural resistance.
Scab was very low in the Macoun and Cortland block.

The leaves in these blocks were still green enough to do a reliable scab check, but leaf senescence is underway and earlier than normal. Once leaves develop numerous discolorations and “age spots” it becomes impossible to do a reliable scab check. You can check to see if there are obvious scab lesions to determine that the scab level is high, but if the scab count is low, you cannot be sure that scab lesions were not hidden by leaf discoloration. It was impossible to do a reliable scab check in Golden Delicious and Honeycrisp trees because their foliage was far too degraded. I did not see any scab, but it could have been there and was just too difficult to see.

The best time to apply post-harvest a 5% urea spray (42 lbs. 46-0-0 per 100 gallons) is to the leaves while they are still on the tree. This allows better coverage and avoids having to wait until leaves fall, which can often be so late that they are covered with snow. Feed grade urea costs more than fertilizer grade urea but dissolves more easily and poses less risk of undissolved material clogging nozzles. The urea supports bacteria and other organisms that break down leaf litter before apple buds open next spring, and in doing so reduces the overwintering scab population.

Closing Words

October is the fallen leaf, but it is also a wider horizon more clearly seen. It is the distant hills once more in sight, and the enduring constellations above them once again.
- Hal Borland

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Orchard Radar weather and pest tracking models at http://pronewengland.org/AllModels/DecisionModels.htm

Glen W. Koehler
Associate Scientist IPM
Email: glen.koehler@maine.edu
Voice: 207-581-3882 (within Maine: 800-287-0279)
Pest Management Office, 491 College Avenue
Orono, ME 04473-1295
http://pmo.umext.maine.edu/apple/

Dr. Renae Moran
Extension Tree Fruit Specialist
Email: rmoran@maine.edu
Voice: 207-933-2100 ext 105
Highmoor Farm Ag. Exp. Station, P.O. Box 179
Monmouth ME 04259-0179
http://extension.umaine.edu/agriculture/programs/tree-fruits/

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