**Bud stage**

Green Tip in Hudson Valley New York arrived several days earlier than the previous earliest date recorded between 1980-2011, and about 16 days earlier than the average date. An historically early GT date is also expected at Belchertown MA.

Weather data and observed Green Tip dates at Highmoor Farm from 1997–2011 were used to evaluate eight different degree day models. Using the most consistent of those models with observed and forecast 2012 temperature data gives an estimate that the 2012 GT date at Highmoor has a 70% chance of being between March 27 and April 11.

The best-guess date for McIntosh Green Tip is April 3, which would be one day earlier than the previous 1997 – 2011 earliest date of April 4 (2010), and 21 days earlier than the long term average date of April 24. Time to catch up on sprayer maintenance and calibration.

If Green Tip really does arrive on April 3, then with a return to seasonal average temperatures, Half Inch Green would be around April 18. And while it is too far ahead to make a meaningful prediction, the McIntosh Full Bloom date in that scenario would be around May 13-14, which would be around 8–9 days before the average McIntosh Full Bloom date at Highmoor Farm. Even with the uncertainties of long term forecasting, it is clear that apple tree development in 2012 will get off to an early start, leading to a good chance for an earlier than normal bloom. So order bee hives soon.

**Frost Risk**

Flower buds slowly loose winter hardiness until full bloom when they reach their greatest level of tenderness. The chance of temperatures below 28F does not fall below 50% until April 14 in the Lewiston area, and April 19 in the Augusta area. The chance of 28F or lower does not reduce to 10% until April 24 at both locations. Earlier and later dates apply for different areas of Maine, but those locations will also have earlier and later bud stage development. The point here is to compare the relative timing of apple bud sensitivity with the probability of harmfully low temperatures. The dates for chance of temperatures below 28F are based on 1971-2000 temperature records. The actual risk of frost depends on highly variable weather events that may not be reflected in statistical values derived from 30-year data sets. It also depends on microclimate conditions unique to each orchard, and the bud stage development in the orchard if and when low temperatures occur.
The chance of a killing frost lasts into May, and the early start to the season raises concern about frost danger this spring, as occurred in some Maine orchards in 2010. In 2009, we had an early bloom date as well, but no frost occurred. An early bloom date is not a guarantee of frost damage. Here are the temperatures that kill flower buds during the different development stages.

Temperature that will kill 90% of flowers at each stage of development.

<table>
<thead>
<tr>
<th>Bud stage</th>
<th>° F</th>
<th>° C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green Tip</td>
<td>4</td>
<td>-15.7</td>
</tr>
<tr>
<td>Half-inch Green</td>
<td>11</td>
<td>-11.7</td>
</tr>
<tr>
<td>Tight Cluster</td>
<td>18</td>
<td>-7.9</td>
</tr>
<tr>
<td>Pink</td>
<td>21</td>
<td>-5.9</td>
</tr>
<tr>
<td>King Bloom</td>
<td>25</td>
<td>-3.9</td>
</tr>
<tr>
<td>Full Bloom</td>
<td>25</td>
<td>-3.9</td>
</tr>
</tbody>
</table>

New England Tree Fruit Management Guide

The New England Tree Fruit Management Guides have arrived and are ready to be mailed or picked up at Highmoor Farm. The price for a Guide is $16 for the first 30 copies and $36 after they are sold. The Risk Management Agency is subsidizing half the publishing costs again, but only 30 copies. Mailing costs are about $5. Please, call or email Pam or Renae at Highmoor Farm to order a copy. This year’s Guide features Highmoor Farm on the cover.

Grower Associations

There are several grower groups that support the apple industry through collective market promotion, advocacy at the state and national level, and research and Extension support. If you would like to know more about any of these organizations, visit their websites or contact Renae at the Highmoor Farm.

Maine State Pomological Society

“The Maine State Pomological Society, a nonprofit organization incorporated in 1873, is comprised of apple orchards throughout the state dedicated to strengthening the sector as well as the agricultural industry in Maine.”

To learn more, visit their website www.maineapples.org. They hold two meetings annually with attendance open to all growers. The next meeting is July 19 for the summer tour at Pie Tree Orchard in Sweden Maine, a catered lunch, and presentations by featured guest Dr. David Rosenberger of the Cornell University Hudson Valley Lab, as well as other speakers.
USApple
“USApple’s mission is to provide the means for all segments of the U.S. apple industry to join in appropriate collective efforts to profitably produce and market apples and apple products.” To learn more, visit their website www.usapple.org.

New England Apple Association
The New England Apple Association is a nonprofit, grower-funded organization charged with education and promotion of New England apples using the brand-name New England Apples. They maintain a popular website for consumers and growers. To learn more, visit their website http://www.newenglandapples.org/

International Fruit Tree Association
“IFTA exists to promote an understanding of the nature and use of Intensive Orchard Systems through dissemination of information, and to expand the knowledge in this industry by encouraging continued research efforts.” The IFTA holds two educational meetings each year, and will meet this summer in Quebec for their study tour and in Massachusetts next winter. To learn more, visit their website www.ifruittree.org.

Meeting

Apple Growing Workshop for Beginners
A one-day workshop on getting started in commercial apple production for people who are new to growing apples and interested in growing apples for sale.
Saturday, April 7, 2012 from 10:00 AM to 4:00 PM at Highmoor Farm, UMaine Agricultural Experiment Station, 52 US Route 202, Monmouth, Maine.
10:00am  Varieties and Rootstocks  Commonly grown apple varieties – their strengths and Weaknesses; Dwarfing and semi-dwarfing rootstocks – how and why they are used
10:30  Pruning Techniques for Modern Training Systems
11:30  Apple Diseases
12:00pm  Lunch Break  Bring your own lunch; beverages provided.
12:30  Pollination and Fruit Thinning
1:00  Apple Insect Pests
1:30  Fertility, Harvest and Storage
2:00  Break (snacks provided)
2:15  Organic and Synthetic Pesticide Safety, Sprayer Calibration
2:45  Making Your Management Calendar
3:00  Pruning Demo in the Orchard (weather permitting)

For more information, contact Renae Moran at (207) 933-2100 or rmoran@maine.edu.
If you are a person with a disability and will need any accommodations to participate in this program, please call Pam St. Peter at (207) 933-2100 to discuss your needs, TDD 1-800-287-8957 (in Maine). Please contact us at least one week prior to this event to assure fullest possible attention to your needs.

Closing Words
“A good head and a good heart are always a formidable combination.”

“I learned that courage was not the absence of fear, but the triumph over it. The brave man is not he who does not feel afraid, but he who conquers that fear.”

“It always seems impossible until it is done.”

~ Nelson Mandela

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