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# Orchard Outlook Newsletter

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*The technical information contained in this Orchard Outlook publication is the result of the combined professional opinions of personnel from AFHRC, AgraPoint and industry.*

## Weather for the Month of July

The warm and wet weather trend for 2006 continued for the month of July with a mean temperature of 21.5 °C which compares to the 2005 and 45-year average mean of 19.4 °C. Base 5 °C heat units for July were 512, also above the 45-year average of 444. Rain accumulation for July was 129 mm, almost double the 45-average of 69mm. Since April 1<sup>st</sup> Kentville has recorded 565 mm of rain, which compares to the 45-year average of 386.

## Apple Scab Infection Periods for 2006

The 2006 growing season has been one of the worst in recent history for apple scab infections on the fruit and leaves. Reviewing this year's issues of the *Orchard Outlook*, apple scab infection periods were reported for the following dates:

April 24 - 25	May 1 - 2	May 16	May 18 - 19
May 19 - 20	June 1 - 6	June 7 - 9	June 9 - 12
June 15 - 16	June 23 - 25	July 11	July 13 - 14

The number of infection periods is not out of the norm and should not present a problem when it comes to controlling apple scab. The problem this year was more related to the length of the infection period, amount of rainfall and the ability to apply fungicides at the critical time. Most of the problems with apple scab likely stem from the May 18-19, May 19-20 and June 1-6 infection periods. At that point in the growing season there would have been heavy spore discharges and lots of new tissue growth that is very susceptible to infection. Length of spray intervals and coverage would have had a big influence on your ability to control scab. I think if we ask growers who have no scab what their spray interval was during these periods, it would have been no more than 5 days.

## **Pin-Point and Storage Scab**

Pin-point scab results from infections that occur late in the growing season. It appears as small black dots on the skin of the apple. In some cases, the fruit infections do not appear until after the fruit has been placed in storage, however, the infections do occur prior to harvest. A fungicide application in late August or early September can help to prevent these late season scab infections and provide some protection against storage rots. A fungicide treatment at this time of the growing season would be highly recommended in blocks that have leaf and/or fruit scab. Scab lesions that appear to be inactive at this time of the year can become active again in the Fall under cool, wet weather conditions. When selecting a fungicide, days to harvest must be taken into consideration. Likely the best option for a fungicide is Maestro/Captan which has a 7 day pre-harvest interval and has some activity against storage rot.

## **Summer Pruning**

This has been another good growing season for vegetative shoot growth in orchards which could present a fruit shading problem in some orchard blocks. Summer pruning can be used to expose the fruit to more sunlight thereby improving fruit colour. Summer pruning should be a very simple process restricting the majority of pruning cuts to one and two-year-old wood. Concentrate on the upright shoot growth, particularly in the shoulder area of the tree and on the bottom scaffold limbs. Leave the weaker side lateral to supply the fruit with carbohydrates. If you over-prune, you could end up reducing fruit size. The removal of strong vegetative shoot growth will also help to reduce the movement of calcium from the fruit to the vegetative growing points.

## **ReTain®**

ReTain® is a naturally occurring growth regulator that inhibits the production of ethylene which influences fruit maturity, ripening and fruit drop. ReTain® is best noted for its ability to reduce fruit drop and extending the harvest window. It can also provide the benefit of fruit entering and leaving storage with better firmness. The recommended treatment period for ReTain® is four weeks prior to the anticipated harvest time. In the case of McIntosh this would mean that ReTain® should be applied during the last week of August to the first of September, depending on the strain and orchard location, which determines the harvest period. The application rate for ReTain® on McIntosh is one 333 gram water-soluble bag per acre with the surfactant Sylgard 309. Use the surfactant at a concentration of 0.5 to 1.0% (v/v) (i.e. 500 to 1,000 ml per 1,000 litres of water). Apply with enough water to ensure thorough wetting of the fruit and leaves while avoiding spray run-off. ReTain® should only be applied to healthy trees in order to obtain the full response of this growth regulator. In the case of Cortland and Jonagold the reduction or delay in ripening can lead to firmer apples and reduced greasiness. If Retain® is applied to either of these two cultivars the rate should be reduced by one third of that recommended for McIntosh. The one advantage of applying a stop drop at this time of year is that temperature does not play a role as it does with NAA when applied in late September.

## Soil Fumigation

Sites that will be fumigated early this Fall need to have the soil prepared to where it is in a seed bed condition. A poorly prepared site could result in the fumigant being ineffective. This means that there should be no large clumps of soil or vegetative matter that will hinder the sealing of the soil surface. Preferably fumigation strips should also be deep ripped to bring up roots or stones that may damage the fumigator. Scotian Gold Co-op will be providing fumigation services this Fall with fumigation taking place by mid September. If you require this service, call Larry Lutz at 679-6790 and leave a message if he is not in. Growers who will be taking part in the Honeycrisp™ Orchard Renewal Program next Spring will need to fumigate old apple orchard sites.

## Apple Crop Estimate

Estimating the size of the apple crop in mid Summer can be a bit tricky as the weather during September and August can have a big impact on fruit size and total yield. This was what happened in 2005 when it was felt that the crop was average to below average but a warm Fall and long frost-free period plus adequate moisture allowed the fruit to size and resulted in an above average yield. The following estimate is based on July orchard observations and conversation with industry representatives.

<b>CULTIVAR</b>	<b>2006 Bushels</b>	<b>2005 Bushels</b>
Gravenstein	110,000	130,000
McIntosh	950,000	960,000
Cortland	300,000	350,000
Red Delicious	90,000	100,000
Spy	225,000	300,000
Spartan	50,000	60,000
Idared	175,000	200,000
Others	350,000	400,000
<b>Total</b>	<b>2,250,000</b>	<b>2,500,000</b>

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