

A Cockeyed Winter and the Farms of Dummerston

By Roger Turner

I'm a skier, and I can tell you that it was a disappointing winter for me right up until the end of January. It didn't snow, and it wasn't particularly cold, not even cold enough for the ski areas to make much snow. Then it turned quite cold, and we got some nice snow storms. And it stayed cold and snowy late into the spring, when, though the skiing was great, I was hoping it would be starting to warm up so I could do some early planting in the raised beds I shoveled-up in my vegetable garden last summer. For me, it was a winter that started in frustration over a lack of snow and ended with frustration over an inability to plant the garden earlier than usual. These were just minor annoyances for me. How, though, did the weather affect those whose livelihood depends on it – the farmers in town?

Jack Manix of the Walker Farm said that the winter has worked out pretty well for him. "The average frost comes around September 20-21," he said. "But the last couple of years we've been going nearly to Columbus Day before the frost, so we're getting two to three extra weeks of growing season. Then this winter there was open weather after the frost so we had time to clean things up in the fields. Things are late this spring," he continued. "We've usually got more field work done by now. Last year we were out early in April. This year, April has had below average temperatures, so we're taking a bit longer to get going."

Reflecting on changes that he's noticed in the climate, Jack observed, "Agriculture doesn't like extremes. It's better to have things grow consistently and steadily than to grow up and get shocked. Recently the weather peaks have been higher and the valleys lower. Rains have been extreme when they come, then we get extreme dry weather. We've also been getting record-breaking temperatures, high and low. These extremes make it difficult for the crops." Has this affected his plants? "The extreme cold of the winter didn't seem to bother any of our stuff. It stunned things, so it's taking some plants longer to get going. It's still too early to tell about the strawberries. They seem to be fine, but things are late this year."

All of Jack's comments were related with the stoic matter-of-factness of a veteran farmer, used to dealing with the hand dealt to him by mother nature.

I spoke to Vern Grubinger who is the berry and vegetable specialist for the Windham

County branch of the Agricultural Extension of the University of Vermont. Vern has been studying the effects of climate change, and referred me to the "Northeast Indicators" developed by the University of New Hampshire Center for Climate Study, available at <http://inhale.unh.edu/Climate/index.html>. Further informative material about the effects of climate on our agriculture here in Vermont is available on the website www.climateandfarming.org.

"There's a lot more variability in the weather from year to year than we think," Vern stated. "That's why climate is studied over a period of many decades. In fact, it seems to me there's no such thing as a 'normal' year. It's just a matter of when it's going to be weird: too cold, too hot, too wet, too dry. But plants, and farmers, find a way to cope. In the case of this year's late spring, it probably won't be a big deal, since plants don't grow much early in the season until it warms up anyway, and they will catch up fast. The bigger concern is how the temperatures fluctuated over the winter. For example, it was quite warm in January, then got very cold in February. That kind of swing can do damage to fruit buds, for example."

He continued, "Winter injury can happen several ways. It can be due to exposure to extreme cold, say 35 below. Or it can be the result of wide temperature swings. Dry winter winds can also do damage. It's not always apparent early in the season if perennial plants have been hurt by winter weather; you don't always see symptoms until things start to grow rapidly. In this area, there is almost always some winter injury to strawberries and blueberries. In a good year, the damage is only minor. In this weather zone, peaches are marginal and blueberry varieties have to be hardy. We have to wait for them to start growing to see how they were affected by the winter, but so far, the plants I've seen look okay."

Jack Manix spoke of the extremes in rain and dry weather, which Vern confirmed. "According to one hundred years of New England weather data analyzed by the University of New Hampshire, the climate has indeed already changed quite a bit. The average temperature has increased 1.8 degrees Fahrenheit, and precipitation has become more extreme, with an increase in events of more than two inches of rain over a two day period. We may get the same total amount of rain over the course of the year, but it's coming more in fits and starts rather

than more of a uniform distribution. An inch of rain a week would be ideal for farmers and gardeners, but that seems less and less likely to happen. There's also been less snow cover measured in the Northeast which has bad implications for insulating crops. On the up side, the growing season is starting earlier, as evidenced by apples and lilacs which are flowering about a week ahead of when they did in the sixties. The growing season has also been getting longer; over the last hundred years it has increased by nine days from frost to frost."

I also spoke to Zeke Goodband, orchardist at Scott Farm, about the effects of this past winter on his fruit. So far he has seen little effect, and observes that his trees seem to be coming along normally. You can track the development of the fruit by how the buds begin to swell he told me. "Usually the trees bud just about the time you start to hear the peepers. It was a little later than usual this year – maybe five days later. Then we had some hot days where things speeded up, so we're just about where we'd be in a usual year. So, though it was a screwy winter – one step forward, two back - the trees are where they usually would be at this time of the year. The bloom should start at about May 10th – 12th, which is usual for apples."

Regarding the overall trend of the growing season, Zeke observed, "Over the past five years, there have been three blooms which were a week or more earlier than average. I was thinking we might get that again, but unless the weather takes a bizarre twist, we should have a normal bloom." I don't know much about farming, but I do know that bugs (or whatever science teachers call them) can be a problem for farmers, so I asked Zeke if he noticed any effects of the strange winter weather on bugs. He said that some are just emerging, but it's still too early in the ball game to draw any conclusions. Finally I spoke to Dwight Miller who told me he's very interested in climate change. However, he doesn't think the weather this past winter has had much of an impact on the Miller orchard. "I don't think the late snow has screwed up the blossoming. It's been a cockeyed season all over the world," he said.

So, it seems that there should be have been some immediate effect on local agriculture, but from these reports, everybody seems to be doing pretty well. The real story is how the newly-developing weather patterns are indicative of a global change in the weather.