



WHETHER TO BELIEVE THE *Weatherman*

Who has the best method of forecasting the weather — a farmer observing a pig's entrails, a year-in-advance magazine with secret formulas or a meteorologist with sophisticated gadgets?

by Sharon Bird Anderson

The 1997 Canadian edition of *The Old Farmer's Almanac* predicted a blizzard for the Atlantic Provinces for February 1 to 3; the storm didn't materialize. On the 5th of March that year the local forecast was for a dusting of snow. Starting out for a visit with my sister two hours away, I didn't know I'd be there three days. *The Farmer's Almanac* was a month early but the blizzard came—the only time I've seen the word blizzard in the journal.

Atlantic Canadians love to talk about the weather. Whether it's chit-chat in the grocery aisle; jawing around the water cooler at work, or chatting with a neighbour over coffee, weather is a common topic of conversation. It ranges from thoughts on global warming to a simple rhetorical question—Is it cold enough for ya?—and perhaps the most significant question for Atlantic Canadians of all: What are they calling for? As a people who have a strong tradition of carving out a livelihood in our woods, waters and fields, our ancestors' lives depended on the elements, and what was brewing on the horizon.

Before the invention of radar, satellites and other scientific instrumentation, people had their own theories and methods for predicting the weather. The farmer with a field of hay to cut planned his harvest around the signs: cirrus clouds appearing in the west meant he had to move fast before rain soaked his hay, usually within 48 hours. The fisherman prepared his boat knowing that westerly winds were a sign of safe sailing. Lumbermen quit cutting when high winds struck in order to avoid "widow-makers," dead branches or treetops. Predicting the weather was a matter of survival, and if there's such a thing as genetic memory, wondering about the weather—if not predicting it—is in our blood.

Today many people work in controlled environments with air conditioning and heat to keep them comfortable, but accurate weather forecasts are as important as they ever were for people involved with fishing, farming and logging—and for anyone plan-

ning an outing. But where do you turn for accurate weather info?

Goaded by Groundhog Day

Some people heed signs observed in animals. My husband used to assist with the fall slaughter of pigs on his uncle's farm near Perth-Andover, NB, and remembers that a knot in the spleen predicted a large storm. If the knot was halfway across the organ the storm was before Christmas; if the knot appeared on the other end, you could expect a late winter storm.

Harold Love of Mactaquac, NB, has worked all his life as a pig farmer. In the past when he slaughtered, Harold checked the pigs' "melt" or spleen to predict the coming winter weather. "If the spleen was long and flat it foretold a mild winter; short and thick indicated a cold hard winter."

Now that many farms have weather protection for animals he says their natural adaptations of thicker hair, fat, etc—as well as internal changes—are less significant. If you check with a pig for answers, it's best to make sure it's outside year round.



The Storm Glass, the oldest barometer in the world, forecasts changes in weather hours in advance. During high pressure systems (fine weather) the water/food colouring liquid in the glass sits low in the spout; during low pressure systems (storms) the liquid rises, and sometimes spurts out of the spout.

Debbie Gamble-Arsenault of Alexander PEI, says she knew it was going to be a long hard winter when the horses, especially the pony, grew thick winter coats. "The earlier in the fall and the thicker the coats, the colder I knew it would be."

Bernell MacDonald, who grew up in PEI and New Brunswick, among other places gets his rain forecasts from frogs—the external eardrums are sensitive to barometric pressure, and they tend to sing prior to rain. Julie Watson from Charlottetown could not recall the fellow's name from Summerside who predicted the winter weather using a chicken bone, but he was so accurate that the local newspaper contacted him annually for his forecasts. One might wonder, but this same method appears in a book by Gary Saunders called *So Much Weather! Facts, Phenomena and Weather Lore from Atlantic Canada*: "If the breast bone of a cooked turkey is half brown and half white, then winter will be cold at first, then mild."

And then there are other signs found in nature. Lowell Huntley's family in Scott's Bay, NS, have made accurate weather predictions when the seasons change for as far back as he can remember. "You stand on the shore at the exact moment, taking stock of the water, sky and wind to make a prediction for the coming season." If the sea is calm, the sky is clear and the wind is still, fine weather will prevail over the next season, he says.

Fuelled by Folklore

"Red sky at night, sailor's delight; red sky in morning, sailors take warning." Gary Smith, a Clarendville, NL, fisherman who has fished for 34 years, 12 on the Grand Banks, has great faith in this saying. He says that although fishermen pay close attention to marine weather forecasts issued by Environment Canada, they also need to be able to recognize weather signs, given the weather can change quickly.

"When you head out to sea for four to five days, you need to know the coming weather," he says. "A change in atmospheric pressure alters the focus of the land from

the sea. When things look larger, the wind is switching to the southeast and will bring rain soon. Sometimes you struggle to see land 40 miles from shore; occasionally you can see as far as 80 miles. Sounds are also more distinct with changes in atmospheric pressure." This sailor knows his clouds—

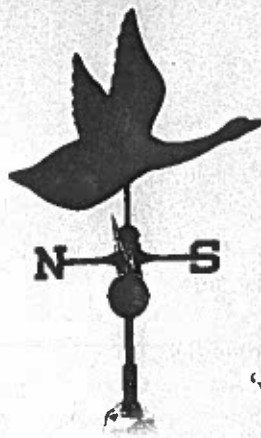
when he sees fast-moving stratus clouds, he prepares for a storm. And if there's thick, black fog, a heavy storm is on its way.

Some old wives' tales, while related to the weather, are simple cautions. "Weather was the only certain uncertain thing in our lives in Newfoundland," says Jean Dohaney, who lived in Placentia on the Avalon Peninsula for many years before moving to New Brunswick. "So much depended on good weather." She says that during lightning storms they covered the steel bedsteads with quilts, and her mother sprinkled holy water throughout the house using a spruce bough. Perhaps if my pregnant grandmother had done this before lightning hit her house while she was resting on a steel bed, she wouldn't have been jolted onto the floor. (No injuries ensued.)

Sold on Science

Some people rely on *The Old Farmer's Almanac* for their forecasts. Janice Stillman, editor of the Canadian edition, reveals that a secret formula devised in 1792 by its founder, Robert B. Thomas, is still used

CLARENCE HOWLAW
WWW.PHOTOATLANTIC.COM



"Lumbermen quit cutting when high winds strike in order to avoid 'widow-makers,' dead branches or treetops"

today. Although it's refined with the use of modern technology, meteorologist Michael Steinberg employs three scientific disciplines to make long-range predictions: solar science, the study of sunspots and other solar activity; climatology, the study of prevailing weather patterns; and meteorology, the study of the atmosphere. "[Our] predictions use weather trends and solar patterns based on 30 year statistical averages, and the results are 80 per cent accurate," Janice says. Canadians obviously trust this journal—300,000 copies are sold across Canada annually.

But probably most common these days, people get their weather information from Environment Canada, online or through radio or TV. To do some on-the-ground research I recently met with Claude Côté at Fredericton's Environment Canada office on a stormy day. Claude is a weather-preparedness and outreach meteorologist, keeping school districts and agencies like Emergency Measures Organization up to speed on local weather-related hazards and warnings.

Claude used to issue predictions from the Fredericton Forecast Centre, just as meteorologists did from other centres around the Atlantic Provinces. But over time Environment Canada has refined its process to the point where all forecasts for the region—from the tip of Labrador to Yarmouth, NS, New Brunswick, PEI and the Magdalen Islands—come from the Atlantic Storm Prediction Centre (ASPC), in Dartmouth, NS.

The information starts out as raw data gathered from various unmanned instrument centres throughout the region, along with observations from manned stations in large centres. These readings—things like wind direction and speed, cloud cover and type, humidity, sea level pressure and temperature—are forwarded to a central server at the Canadian Meteorological Centre in Montreal. From there the data is forwarded to the ASPC office in Dartmouth, which issues all forecasts for the Atlantic Provinces—including those that Claude passes along.

Because weather in North America travels west to east, forecasters also check what's happening in western parts of Canada and the US to assist with Atlantic Canadian forecasts.

"Everyone on the planet reports weather using the same methods," Claude says. "This allows Canada to exchange weather information with the United States as well as countries in other continents." Claude agrees that there is accurate weather "lore," which has scientific backup. For example wood smoke that blows toward the ground suggests a storm brewing. "Downdrafts associated with incoming storms are caused by cool air that pushes itself under the warm air," he says. "The expression 'when the woods howl and the wind roars...' is



"Red sky at night, sailor's delight; red sky in morning, sailor's take warning." Fishermen have long relied on this saying—just as they also now heed information from Environment Canada.

LAWRENCE MICOLE

based on these downdrafts, which blow through the trees rather than above them.

"Rain drops left on the clothesline after rain suggests that there's no change in wind to blow the drops off the line, and the humidity is still high." Meaning, it's not a good day to do laundry. Generations of women knew this from experience.

Of course, weather prediction is complicated by the fact that our terrain is varied. In a 10-mile stretch along New Brunswick's St. John River, for example, there are steep grades and low-lying areas, and temperature readings along the river don't provide accurate information for the elevated ridges on each side. But people generally have some sense of the microclimates where they live. Forecasts act as general guidelines: higher elevations and by the coast may be degrees cooler; within a city, with heat bouncing off buildings, the temperature will be warmer.

Low pressure systems—storms—have greater potential to intensify if they travel across water before they hit land, so storms coming from the US to NB may be different from those travelling the Atlantic Seaboard to NS. Environment Canada meteorologists say that in winter, when the water is frozen, PEI weather is similar to New Brunswick's. But otherwise, Charlottetown's Julie Watson says, "we never know which storms will hit us, ones from NB or NS, and storms from each place can be very different." For residents of NL, all of their storms travel across water, often strengthening as they approach the island.

All of which adds up to a complicated business, with myriad factors and technical wizardry. And so it would seem that weather prediction is both an art and a science. Weather is variable; we need the scientific forecasts just as we need to have some smarts about assessing what's going on around us, but neither is fail-safe. "Weather is not a perfect science," says Claude Côté.

And even if the forecast is wrong, you know what you can do.... Just wait 10 minutes. ☁



In addition to offering dreamy musings on a sunny day, clouds can help you plan sundry events for rainy days—if you know how to read them. Photos above and lower left are taken in the Parrsboro, NS, area.

9 Weather Watching TIPS

Try some forecasting techniques of your own to predict the weather. If you're in any doubt about your safety, you can always tell that old groundhog to burrow deeper—'cause you're coming in.

1. Take your compass outside and learn directions in relation to your property. Pay attention to wind directions—"When the winds blow from the east, 'tis not fit for man, nor beast."
2. Large ring around the moon, small storm; small ring, big storm. Count the stars inside the ring—tells how many days until the storm.
3. When snowstorms start, big flakes indicate a small storm; small (fine) flakes indicate a big storm.
4. Green Christmas; White Easter.

5. Rain: If it starts before 7 a.m., it's done by 11.
6. Rain on first Sunday of the month, rain for three of four Sundays; fine first Sunday, fine for three Sundays. (I've watched this one for 20 years and it has only failed twice.)
7. If the Big Dipper constellation is sitting so water will drain out, expect precipitation. Quarter moon on its end, same rule.
8. Count the number of chirps from a black field cricket during a 15 second duration, add 37 to that number and you've got the temperature in Fahrenheit.
9. Watch the birds at your feeder. Lots of birds, lots of weather.

See for yourself

Here are a few places to test our tips against the pros—and learn more lore.

- Its claim of 80 per cent accuracy and a history stretching back to 1792 make *The Old Farmer's Almanac* a favourite when it comes to early forecasting. Pick up the Canadian edition (Yankee Publishing Inc.) or check out the website at www.almanac.com.
- Environment Canada is best known for its current and five-day forecasts; the government-funded weather agency provides statistics on everything from wind speeds to wave heights. Go to weatheroffice.ec.gc.ca/canada_e.html.
- The Weather Network, a Canadian cable TV channel and website, makes sense of what's going on out-

side to keep you suitably in step—in shoes or galoshes. Find more than 3,000 Canadian hometowns and vacation favourites online, from Arichat, NS, to Gape Broyle, NL, and Rothesay, NB. Browse online at weathernet-work.com/weather.

- In *So Much Weather! Facts, Phenomena and Weather Lore from Atlantic Canada* (Nimbus Publishing), Gary Saunders covers everything from global warming to dressing warmly.
- Albert Lee delves into the fact and fiction of weather prediction in *Weather Wisdom: Facts and Folklore of Weather Forecasting* (Doubleday). Find out how cloud formations, moon phases and proverbs tell us more than we realize.