Put the weather in your pocket

By Michael Raine
Saskatoon newsroom

Windy? How windy? What direction, exactly? Barometer falling or rising? What was the dew point?

Those are the kinds of questions that help producers and custom pesticide applicators make their operating decisions. The weather information is also an important risk management component for limiting liability through agricultural record keeping.

The weather station can also be hand held.

Documenting the elements of weather, maintaining a set of standard operating practices and being able to show that these were followed helps farmers decide when to spray.

Site-specific weather was once a complex issue. Producers choosing to make the measurements themselves would often rely on a fixed base station at the home quarter.

As land bases have expanded beyond a five minute drive, and operations for many grain farms have grown to include custom spraying to make better use of machinery assets or add cash flow, the need to know the weather at the neighbours' farms has grown.

A portable weather station from Nielsen-Kellerman can put the power of a fixed base weather analysis system in producers' pockets.

The Kestrel 4500 model from the Boothwyn, Pennsylvania, company has a stack of features built into a durable shell that fits into a pocket. The unit is 12.7 centimetres x 4.5 cm x 2.8 cm.

With the optional, tripod-mounted wind direction finder, which also fits into a compact case, the Kestrel 4500 can measure wind direction and speed, temperature, humidity, barometric pressure and altitude. It also calculates crosswind, headwind, tailwind, wind chill, heat index, dew point, wet bulb measures and density at altitude.

The tool records up to 1,400 measurements of each and provides charts of trends. It can export the stored readings to a computer via an optional USB cable adaptor. The data can be used by software to create a virtual weather station on the farm. However, the greatest uses for the tool may be to assist operators in decision making at the time of spray application and keeping a record of the weather to support the choice.

The setup of the unit is straightforward with the supplied documentation. Learning to use the system requires less than an hour.

Once the Kestrel is calibrated it can be pulled from the pocket and used immediately. If the wind direction tool is added, it can be assembled from its tough storage pouch in less than a minute. Levelling this unit with the built-in bubble level takes another minute and then the system is ready to provide readings. The unit can be left on its own to take regularly timed readings while mounted in the wind direction finder. This data logging function can be used to create a weather picture of the day that can be captured later in a permanent record.


An optional base allows the weather station to accurately track wind direction or act as a data-log for automated collection of weather information. (WP photos by Michael Raine)

For predawn and postsunset use, the Kestrel has backlighting.

The display is easy to read under most lighting conditions. The instrument operates on AA batteries that can be changed without losing stored data.

Retail prices for the unit vary depending on the seller. The suggested list price is about $400, but dealers commonly advertise the 4500 for as low as $300.

Beware of health risks when burning flax straw

By Noel Busse
Saskatoon newsroom

Burning flax may be a traditional way to prepare for spring seeding, but the Lung Association of Saskatchewan says the health risks aren't worth it.

With spring around the corner, some farmers are going to be employing controlled burning to get rid of the straw from last year's harvest. The Saskatchewan Flax Development Commission is urging producers to be mindful of the impact this can have on people with heart and lung conditions.

"We don't want to see any burning going on, basically," said Paul Van Loon, president of the Lung Association of Saskatchewan. "When you burn any kind of plant material you produce a lot of smoke and it's the (particles) in smoke that can be harmful to health."

If farmers have no other choice but to burn, they should take the following things into consideration.

■ Don't burn at night. Moist conditions can create more harmful smoke. Calmer conditions can cause the smoke to stick around longer. Only burn after 11 a.m. and extinguish before dusk.

■ Always have a quick and easy way to extinguish the fire if necessary.

■ Only burn when the wind will allow for a quick upward dispersal of smoke. Farmers can consult Environment Canada regarding wind conditions in their areas. Never allow smoke to drift over neighbouring roads or communities.

■ Do not burn across a whole field. Piling or baling the straw means it will burn faster and hotter, creating fewer emissions.

Although these habits can minimize emissions and the danger for individuals sensitive to smoke, Van Loon urged producers to think of burning as a last resort.

"The majority of people are not burning. It's a minority of people that are burning, so that suggests that other people are dealing with the problem in a better way."