

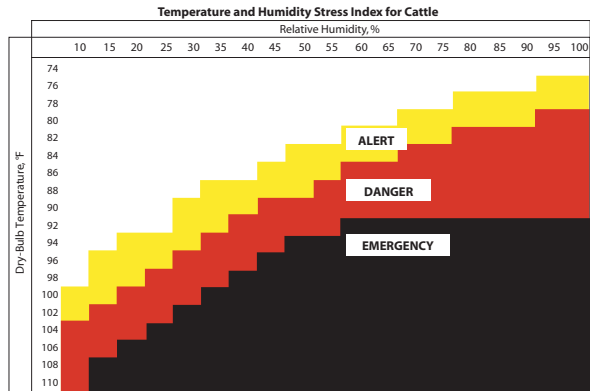
## FAQ's

### What is Delta T?

Delta T is the spread between the wet bulb temperature and the dry bulb temperature. Delta T offers a quick guide to determining acceptable spraying conditions. For example, it is not recommended to apply pesticides when Delta T is above 10 - a range of 2 to 8 is ideal. With the new Kestrel 3500 Delta T, the calculation is done for you, accurately and simply. The Kestrel 3500 Delta T incorporates barometric pressure correction in its wet bulb temperature calculation, ensuring accuracy even on low pressure days, at high altitudes, and in the very dry weather when Delta-T monitoring is important. No other hand-held weather meter offers this feature with this level of accuracy.

### Does Heat Stress affect livestock differently than people?

Actually, it does. The chart below from Iowa State University Department of Agriculture and Biosystems Engineering outlines the levels at which heat stress can threaten cattle. Charts for other animals can be found on their website: [http://www3.abe.iastate.edu/livestock/heat\\_stress.asp](http://www3.abe.iastate.edu/livestock/heat_stress.asp).



### What's so great about the Kestrel impeller?

The Kestrel impeller measures 1 inch across, and turns on a Swiss precision pivot mounted on sapphire bearings. Its large size ensures accurate readings even if pointed off-angle from the wind, and its very low start-up speed allows measurement of the lightest puffs of wind. If damaged, a new calibrated impeller can be purchased for \$19 and popped in without tools, restoring like-new performance.

### How does the Kestrel measure humidity so accurately?

The Kestrel features a patented dual temperature sensor configuration for rapid response and accurate measurement. Every Kestrel is calibrated against NIST-traceable standards, and can be recalibrated in the field with the Kestrel RH kit.

### What's that curly looking thing?

That's the patented Kestrel temperature sensor. Unlike most watches and other products with temperature measurement, the Kestrel sensor is outside the case to ensure it measures the air, not your hand or pocket. The "curls" serve to further isolate the temperature sensor from the effects of the case temperature.

### How does the Kestrel measure altitude?

The Kestrel uses an atmospheric pressure sensor and calculates altitude based on a standard atmosphere. This is just like the altimeter in an airplane, or an altimeter watch. It's more accurate than a GPS altimeter, but does require periodic reset of the reference pressure to eliminate weather effects.

### Does the Kestrel have a GPS in it?

No, not yet. We may add basic GPS location to a future Kestrel model, but we'll leave the full-blown mapping and navigation to the companies that specialize in GPS as much as we specialize in weather.

### Do you really mean MADE in the USA?

Yes. The entire Kestrel line is designed and built in the USA. Some electronic components have to be sourced overseas these days, but we buy American wherever we can.

### Who do I call if I have a problem?

You call us! From our Customer Service Representatives to the President of the company, we all answer the phone and know these products inside and out. If you have a problem, we'll fix it. Kestrels hardly ever break, but if they do, they're covered by a five-year warranty.

## Kestrel® Pocket Weather® Meters



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# Kestrel® has been trusted for over 10 years by Agriculture Professionals around the world.



## Spraying

Relative humidity, wind speed and wind direction are all critical measurements for ensuring safety and effectiveness when spraying. Many locales have regulations specifying maximum permitted wind speed when spraying to minimize spray drift. Every single Kestrel model offers fast and certified-accurate wind speed measurements in a unit that fits conveniently into your pocket, making it easy to be in full regulatory compliance. In hot, dry conditions, evaporation can send your expensive chemicals uselessly into the air rather than onto your crops. In these conditions, selecting an appropriate nozzle and increasing the spray droplet size can minimize costly evaporation. Kestrel models are available to measure dry bulb temperature, wet bulb temperature, Delta T, relative humidity and dew point temperature. Every Kestrel humidity measurement uses our patented fast-acting humidity sensor with accuracy guaranteed through a two-point calibration. Wet bulb temperature is pressure-corrected to ensure accuracy even at high altitudes and low humidity. If your application requires documentation of the weather conditions, use the Kestrel 4000's 2000-point memory to conveniently store all environmental information with the single press of a button, and later upload your stored data to a computer to create a log of spraying conditions (requires optional interface).

## Barn Ventilation

Proper ventilation and temperature and humidity control of livestock facilities can reduce disease and prevent stock loss, as well as improve your rate of gain and feed-conversion efficiency. A Kestrel 3000 Pocket Weather Meter lets you measure the conditions that matter most - air velocity, temperature, and relative humidity - right where your stock are experiencing them. The Kestrel 4100 even includes a built-in volume airflow ("CFM") calculator so you can monitor the performance of your ventilation equipment. Add a sturdy belt carry case to ensure you have your Kestrel with you to spot check conditions at any time, helping you ensure your stock's safety and health.



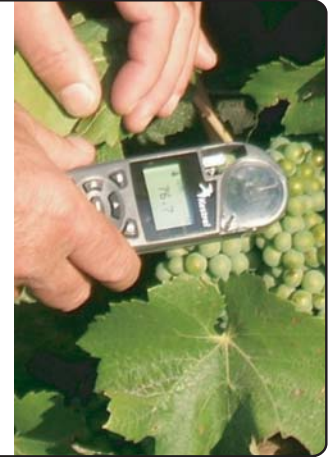
## Irrigation Audits

Inefficient irrigation systems are costly: they waste water, wash off fertilizers and lawn chemicals, and degrade sidewalks and roads prematurely. When conducting audits of an irrigation system's efficiency, it is critical that the Irrigation Technician monitor wind speed and direction, temperature and relative humidity during all phases of the audit. There's no easier way to do this than with a Kestrel Pocket Weather Meter. The ultimate tool for this job is the new Kestrel 4500 together with a tripod and Kestrel Vane Mount. The data log is ideal for use in the field, and the computer interface makes log entries and report development a snap back in the office.

**Kestrel® Meters are portable, accurate, affordable and GUARANTEED for five years.**

## Viticulture

Vineyard managers can monitor the weather - right at the individual vine - with a Kestrel Pocket Weather Meter. Wind speed, air temperature, relative humidity and dew point are all important measurements in the vineyard. In the spring and fall, knowing the temperature trends and dew point is critical to determining the need for frost protection. If the air is dry (low dew point) heat loss will be greater than when the air is moist, and the threat of a radiation freeze goes up. Dew point and temperature also affect leaf wetness, which influences the development of downy mildew. The Kestrel's wind speed readings ensure that spraying is done safely and effectively during appropriate environmental conditions. A Kestrel Pocket Weather Meter is also a valuable tool when planning your vineyard. Tracking conditions at potential vine locations can help you develop an accurate understanding of your property's microclimates and select the varieties and growing sites that will ensure success.

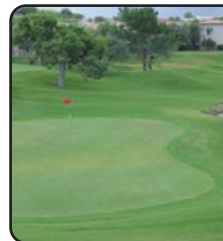
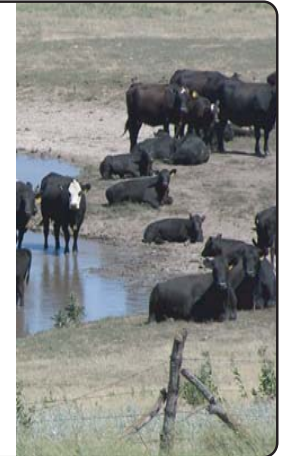


## Crop Harvesting

Keeping an eye on the current and developing environmental conditions can help farmers determine the best time to harvest crops. Whether you grow corn, soybeans, hay or grain, a Kestrel Pocket Weather Meter makes it easy to monitor field conditions real-time to ensure selection of the ideal conditions for maximizing your harvest and crop quality. Rugged and portable, it fits perfectly in a pocket, and is so affordable that it won't break the bank.

## Livestock Heat & Cold Monitoring

Heat stress can cause reduced productivity and even death in livestock. The effects of severe heat stress are often seen in the form of reduced reproductive performance, reduced daily weight gain and reduced milk production. By using a Kestrel to monitor temperature and humidity, and referring to the heat index appropriate for your livestock (indices exist for cattle, swine, turkeys and laying hens), a farmer can take necessary cooling measures in time. Cooling measures include increasing ventilation, making plenty of drinking water available, misting the animals, avoiding transport and movement, and withdrawing feed. Wind chill is equally important in the winter. A cow's energy requirements are estimated to increase 1% for each degree the wind chill is below 32°F, and the effect is even more severe for a wet cow. These increased energy requirements have to be made up in additional feed or the animals will fail to thrive. Every Kestrel model from the 2000 on up includes wind chill measurement, letting you know when it is critical to provide additional feed energy and/or wind protection.



## Golf Course Management & Landscaping

The Kestrel is the perfect tool to get an accurate assessment of air movement, which is vital for healthy turf in areas where surface cooling is needed. Proper air movement reduces leaf wetness, which prolonged periods of time increase the likelihood of fungal diseases. A constant air movement of just 3 mph coupled with adequate soil moisture can reduce the need for pesticide use and keep turfs up to par. The new Kestrel 4500 and Portable Vane Mount can be set up to log the wind speed and direction, along with all other environmental data, making it ideal for audits.