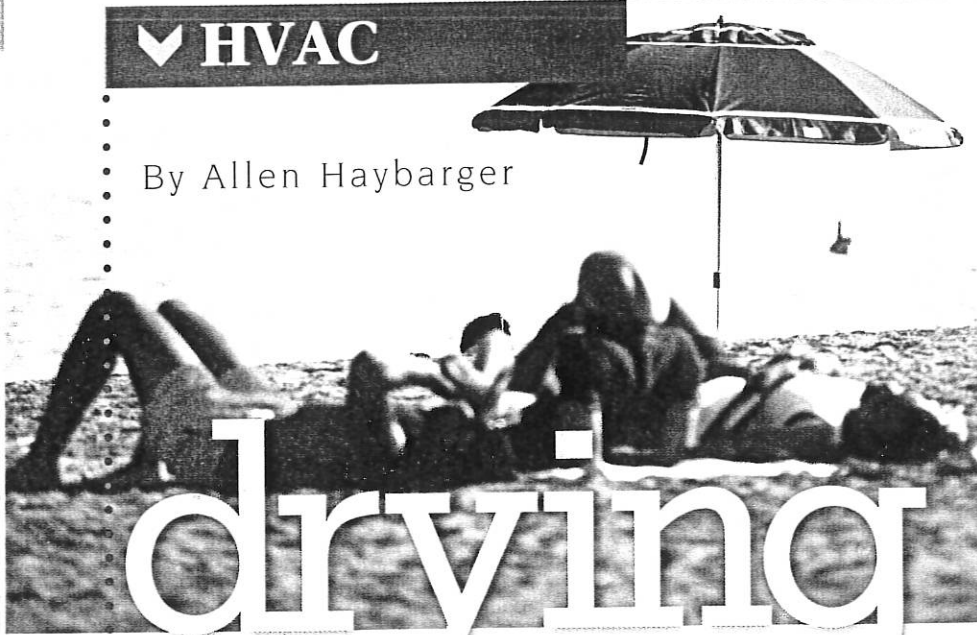


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By Allen Haybarger



# dryino FOR COMFORT

## THE COMFORT COMBINATION

From a human comfort perspective, the worst combination of humidity and dew point is a dew point above 18°C combined with a high RH of 70 per cent or more. The most comfortable combination is reported to be a dew point of around 15 and an RH of between 50 to 70 per cent.

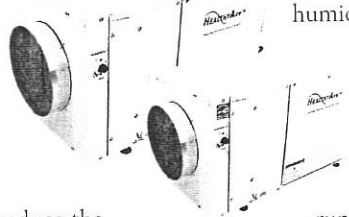
With summer months not far off, and the steamy summer climate most Canadians will experience, it's not too early to think about dehumidification. The annual pre-season maintenance check of your customer's air conditioning unit is actually an ideal time to discuss reducing relative humidity (RH) in their homes – and no, the air conditioner is not the ideal humidity-reducing solution.

Warmer summer air is able to hold more moisture, indicated by dew point. High summer temperatures combined with a higher dew point reduce the atmosphere's ability to evaporate perspiration from the skin (necessary for cooling the body). This correlates to a higher level of discomfort for your clients.

Clothes and bedding will feel moist and sticky. Allergy and asthma triggers may intensify. Mould and mildew growth will be accelerated. And increased moisture attracts moisture-loving spiders, ants and other pests.

Although a home's air conditioning system removes moisture while reducing the temperature, the system stops when the

desired temperature is met. Humidity often remains high in the cooled space, and your client's discomfort stays relatively unchanged. Only a system dedicated to moisture removal, like a whole-house dehumidifier, can solve humidity problems.



In addition to offering increased comfort, the use of a whole-house dehumidifier can also help reduce your client's monthly energy bills. By reducing the moisture in the air in their home, they will feel cooler at a higher temperature, reducing the amount of run time for their air conditioning system.

Any region experiencing a summer dew point average above 12.8°C (55°F) could benefit from a whole-house dehumidification system; essentially all areas of Canada.

For example, over the course of a year the dew point in Toronto typically varies from -11°C to 20°C, but will reach as high as 23°C from time to time. Summertime in Montreal can easily see dew points of 18°C, and occasional spikes to 22°C. Even drier parts of the country like Edmonton can see the dew point reach 14°C and higher.

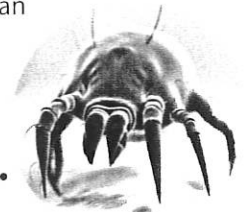
## DEW POINT

Dew point is the atmospheric temperature below which water droplets begin to condense. It varies according to pressure and humidity. The relative humidity is the amount of water vapour present in the air, expressed as a ratio compared to saturation at the same temperature.

## FINDING THE RIGHT RH

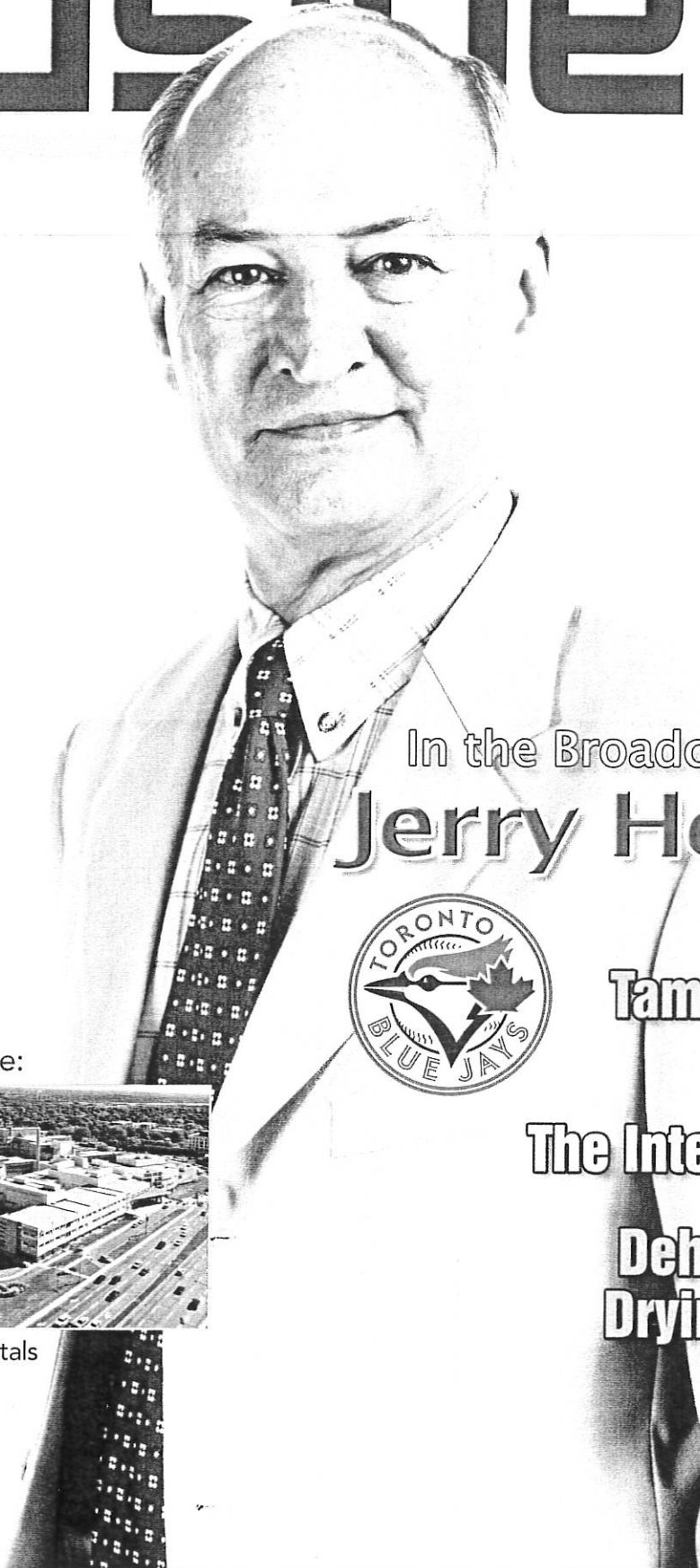
For ideal health and comfort, ASHRAE recommends an indoor relative humidity range of 40 to 60 per cent. Outside that range (above or below), conditions can be adversely affected.

Leading literature on allergens recommends keeping RH to less than 51 per cent to deter dust mites, since they can thrive at temperatures between 59 to 95°F with an RH between 55 and 85 per cent.



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