Title	Assessment of a relative-humidity sensor for the monitoring of moisture-content changes in stored malting barley through sorption equilibrium models.
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Abstract

We have assessed a relative humidity sensor in five storage bins equipped with temperature sensors and filled with malting barley. Three bins were aerated with ambient air and two were not aerated. The moisture content (m.c.) of grain was measured and also calculated from automatically measured relative humidity and temperature, using the modified Chung-Pfost equation and a new one, the Jacobsen equation. The Jacobsen equation gives better results than the modified Chung-Pfost equation. The greatest discrepancy was under adsorption (cooling aeration) conditions. The difference from the measured moisture content is +2.3% m.c. to the calculated moisture content using the modified Chung-Pfost equation and +1% m.c. using the Jacobsen equation; a gap of 1.3% m.c.