

**Title** Onion storage data from Zimbabwe: a statistical method to demonstrate end of dormancy and the onset of sprouting

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#### **Abstract**

Onions in the tropics and subtropics are often stored under ambient conditions. In 1990-1991, onions grown at Marondera, Zimbabwe under drought conditions were stored under cover on wire shelving in a naturally ventilated store and the change of weight loss was measured in a replicated trial until all the onions were sprouted or decayed. Data sets from 27 cultivars in the Zimbabwe trials were studied in a statistics dissertation in the UK and indicated that there was a distinct change in the slope of the line indicating percentage weight loss during the trial. An early, shallow slope indicated normal physiological weight loss of about 1 to 4% per week, and then there was a distinct change to a second, steeper slope showing a more rapid weight loss after the bulbs emerged from dormancy and started to re-sprout internally. The second rate ranged between 4 and 10% decline per week. The date of the point of change of the slope can be used to compare cultivars for their storage potential and to group them for storage quality. In other years that were less dry, there was more interference from storage diseases and the same clear pattern did not occur.