

Title Using ozone to control fungi in high moisture corn

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Abstract

Ozone was looked at as a possible way to control fungi growth in high moisture (HM) corn. Experiment I stored 22% mc corn at 32C for 9d. Corn was treated for 24h, 5h, or every 3d. Ozone had little impact on dry matter loss (dml) or damage kernel total (dkt) of the HM corn. Experiment II stored 26% mc corn at 15.5C for 30d. Ozone was applied over the initial 24h or every 3, 6, or 12d. Ozone did have a effect on dml, but not on the dkt.

The effectiveness of ozone on fungi in HM corn was studied by enumeration. Moisture contents of 18, 22, and 26% were treated with five ozone concentrations for 1h. Results showed that increasing ozone increased the uninfected kernels. Ozone appeared to have an inhibiting effect on genera in the following order (highest to lowest): *Penicillium*, *Mucor*, other genera, *Aspergillus*, *Fusarium*, and *Rhizopus*.