

Title            The use of 1-MCP as an inhibitor of ethylene action in tulip bulbs under laboratory and practical conditions

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#### Abstract

*Fusarium* infected tulip bulbs produce large amounts of ethylene. During storage and shipping this ethylene causes severe damage in tulip bulbs: an increase in respiration, gummosis, flower abortion (saleable sizes) and excessive splitting (planting stock). The gas 1-methylcyclopropene (1-MCP) is an effective inhibitor of ethylene action in plants by binding to the ethylene receptor.

The efficacy of 1-MCP in preventing ethylene effects in tulip bulbs was tested under laboratory and practical conditions. In all experiments, both on a laboratory scale and on a practical scale, the bulbs were fully protected from ethylene by treating them every 12 days for 24 h with 0.2 ppm 1-MCP.