

Abstract:

Approximately one-half of the low pungency, sweet onions produced in the Vidalia onion growing area of Georgia, USA, are stored in CA (3% O₂ + 5% CO₂) to extend the marketing period. In some years, losses during storage caused by *Botrytis allii* are large. To determine if *B. allii* spreads in storage, sound onions, bruised onions and onions with open cuts were stored in air and CA along with onions which had been inoculated externally with *B. allii*. *B. allii* grew in the inoculated onions during storage at 1 °C in air and CA. *B. allii* also spread from externally infected onions to bruised onions and onions with open cuts in contact with them, but did not spread to sound onions. Pure cultures of *B. allii* and *B. cinerea* grew on potato dextrose agar (PDA) more slowly in CA than in air at 0 °C. *B. allii* growing on PDA did not produce spores at 0 °C, but did produce spores at 10 °C and 20 °C in air but not in CA. *B. cinerea* produced spores in both air and CA storage. Since spread of *B. allii* through the air is by spores, it is unlikely that the fungus spreads to sound onions in CA storage except by direct contact with infected onions.