

Title Effect of fumigation temperature on the efficacy of phosphine against strongly resistant psocids
Liposcelis bostrychophila (Psocoptera: Liposcelididae).

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Abstract

Four concentrations of phosphine (0.1, 0.17, 0.3 and 1 mg/litre) were evaluated for their effectiveness against the strongly resistant *L. bostrychophila* at fumigation temperatures of 20, 25, 30 and 35 deg C. The lowest number of days required to achieve population extinction was evaluated. At any fixed concentration of phosphine, the number of days to population extinction decreased as the fumigation temperature increased from 20 to 30 deg C. At 0.1 mg/litre and 20 deg C, more than 14 days were required to completely control the insects; at 30 deg C, only 7 days were required. The increase in the fumigation temperature from 25 to 30 deg C substantially reduced the exposure period needed to achieve population extinction of resistant psocids.