

Title Effect of broken corn on Indianmeal moth survivability
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Abstract

Survivability of Indianmeal moth, *Plodia interpunctella* (Hübner), larvae fed a standard laboratory diet, whole corn with 0% broken kernels, whole corn with 5 to 7% broken kernels, and 100% broken corn kernels were assessed in our laboratory at 28°C, 65% RH, and 14 h light :10 h dark photoperiod cycle. A conventional low-oil yellow dent corn (about 3.9% oil content) and a highoil corn hybrid (about 7.7% oil content) were tested. Survivability was measured as the percentage emergence of pre-pupae, pupae, and adults at the end of the rearing period. For the standard laboratory diet, a mean \pm SD of 97.5% \pm 2.9 larvae survived. The mean \pm SD percentages of larval survival for the conventional low-oil yellow dent corn were 6.7 \pm 2.9, 63.8 \pm 4.8, and 80.0 \pm 14.7 for 0, 7, and 100% broken kernels, respectively. The mean \pm SD percentages of larval survival for the highoil corn hybrid were 28.3 \pm 12.6, 81.3 \pm 4.8, and 100.0 \pm 0.0 for 0, 5, and 100% broken kernels, respectively. Larval growth rate for high-oil corn was faster than for low-oil corn. Results indicate that cleaning corn before storage could reduce Indianmeal moth problems. Also, Indianmeal moth problems in high-oil corn varieties might be slightly greater than in corn varieties with normal oil levels.