Abstract

The essential oils extracted from *Eucalyptus saligna* and *Cupressus sempervirens* leaves were analysed by GC-MS and evaluated along with cymol, one of their main constituents for their repellent and toxic effects on *Sitophilus zeamais* and *Tribolium confusum*. Contact toxicity assayed by impregnation on filter paper discs or coating onto maize grains showed that these chemicals caused significant mortality of the test insects. *Eucalyptus* oil was more toxic than *Cupressus* oil to both insect species (LD_{50}=0.36 µl/cm2 for *S. zeamais* and 0.48 µl/cm2 for T. confusum) on filter paper discs, and was more toxic to *S. zeamais* on maize (LD_{50}=38.05 µl/40 g grain). Both oils considerably reduced the F1 progeny production and grain weight loss. Moreover, both crude oil extracts produced a stronger repellent activity against the test insects than did cymol. These results suggest that the essential oils *from E. saligna* and *C. sempervirens* may be used in grain storage against insect pests.