

ON THE CAPTURE OF *TRIBOLIUM CASTANEUM* (HERBST): EFFECTS  
OF ALIVE AND DEAD INSECTS IN TRAP.

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The activity of traps baited or not baited with aggregation pheromone of the red flour beetle, *Tribolium castaneum* (Herbst), 4,8- dimethyldecanal, is influenced by the presence in the traps of accumulated trapped specimens. This fact has been observed both in traps containing live or dead specimens. Interactions among the different substances produced by adult red flour beetles during their communication relationship are involved in this behaviour.

The results obtained in the trials suggest that the presence of live insects in traps is attractive to other free specimens, but under conditions of overcrowding, quinone secreted by the insects regulates population density by counteracting the effect of the aggregation pheromone 4,8-dimethyldecanal, causing the insect to disperse, or suppresses the aggregation behaviour. The presence of dead insects in the traps, whether baited or not baited with 4,8-dimethyldecanal, can be repellent to other free specimens of *T. castaneum*, this being probably related to the presence of a residual alarm pheromone produced by the specimens before death.