

THERE IS NO RESISTANCE OF STORED PRODUCT MOTHS  
AGAINST TREATMENT WITH CARBON DIOXIDE UNDER HIGH  
PRESSURE!

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Several moth species of the pyralid family, such as *Ephestia* spp. and *Plodia interpunctella* regularly infest various stored products. World wide, warehouse keepers and food factories suffer from high losses ranging in the billions of DM annually. Apart from the direct losses, consumers', retailers', and importers' claims lead to these financial losses for replacement and disposal. To overcome the problem, the present day strategy includes intensive hygienic measures and treatment of all raw products on entering the storage structure. The high turnover of trade and production, and in some cases - such as herbs and spices - the high value of the products, requires quick disinfestation procedures without any damage of the goods. A recent new approach is treatment with carbon dioxide under high pressure of about 20 bars at an exposure period of one to three hours. Nearly all developing stages of insect pests and mites do not survive such a treatment.

Official authorization exists in Germany for the use of carbon dioxide in this field of application according to the plant protection law. The presented results deal with the possibility of build-up of resistance in eggs of *Plodia interpunctella*. Eggs of the surviving adults were exposed to an LD<sub>50</sub> high pressure CO<sub>2</sub> treatment for 10 subsequent treatments of following generations. No significant change in mortality occurred throughout the 5 fold replicated series of experiments.