STUDY OF MECHANISM OF CONTROLLING STORED GRAIN INSECTS AND KEEPING FRESHNESS OF GRAIN BY LOW DOSAGE PHOSPHINE

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This paper reports research on stored grain by low dosage phosphine (2g.ALP/m³) in Jiangsu Province by other investigators and ourselves in the past ten years (1981-1990). In our area, over fifty million tons of grain is stored by low dosage phosphine for controlling insects in warehouse. This insecticidal method decreases the loss of stored grain. The grain, after being processed, keeps a high degree of freshness. This technique can restrain and reduce respiration by 53.5% -66.1% and maintain grain texture. Insects can not endure the environmental changes so they die slowly. The grain keeps fine quality under dormant conditions with respiration restraint. This storage technique adopts plastic film to simply seal cereal stacks for a long period. Therefore, it doesn't cost too much.