

CURRENT STATUS OF CONTROLLED ATMOSPHERE STORAGE IN THE PHILIPPINES

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Investigations on Controlled Atmosphere (CA) as a storage option for pest and quality control in rice, maize, soybeans and groundnuts, that have been conducted in the Philippines for the last seven years, have been mainly directed towards technology verification. Studies have successfully shown that indoor storage of bag-stacks of rice and maize (approximately 200 t) and of soybeans (approximately 6 t), under sealed plastic enclosures with high carbon dioxide (CO₂) atmospheres can effectively control pest infestation and prevent quality deterioration of grains when correctly done. A number of private processors, farmers' cooperatives and the government through The National Food Authority (NFA) have recently shown strong interest in adopting this technology.

Effective control was observed in CA storage trials for groundnuts using different storage structures. Hermetic storage experiments for rice and maize using Joseph bags have likewise been shown to be successful. The highlights of the CA storage trials and the present direction of this technology in the Philippines are discussed in this paper.

Temporary outdoor storage of bag stacks of rice and maize (approximately 6-17 tonnes) under sealed plastic enclosures with CO₂ enriched atmospheres or hermetic storage are currently being investigated. The objectives and expected benefits from this technology are also discussed.