

CONTROLLED ATMOSPHERE AND FUMIGATION IN WESTERN
AUSTRALIA - A DECADE OF PROGRESS -

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The late 1970s saw the long term future of conventional grain protectants in Australia being seriously challenged by escalating insect resistance to these compounds and markets indicating increased sensitivity to pesticide residues on grain. Following successful evaluation trials conducted in three 23,000-tonne horizontal storages during 1980, Co-operative Bulk Handling Limited adopted Controlled Atmosphere (CA) and fumigation as the principal insect control technique for the future. This policy required progressive and extensive structural modification to hundreds of existing grain storages, none of which had been designed for the purpose, and the development of a range of technology to both achieve a sufficient degree of air-tightness and enable controlled use of gases. A decade on, the Company has modified some 68% (4.9 million tonnes) of permanent storage and is now the world's largest single user of CA storage. These storages range from vertical to horizontal and have individual capacities of from 500 to 300,000 tonnes. The 1980 decision was right, and the Company is now in a pre-eminent position to provide Australian and international markets with insect-free and nil/low pesticide residue grain.