

THE PURGE AND MAINTENANCE RATES OF CARBON DIOXIDE TO
TREAT WHEAT IN A REASONABLY SEALED SILO.

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Two tests were conducted on wheat in a 100 tonne capacity silo using (1) carbon dioxide from 'Minitanks' and (2) burner-gas produced by propane combustion. To establish the efficacy of each treatment, gases were monitored using a HP 5880 gas chromatograph in a mobile laboratory, stationed alongside the silo. Gas sampling lines of 2mm bore special nylon tubing were placed at different depths and these were extended and connected to the gas chromatograph. A clock-table programme was used to monitor gases at specific intervals.

After the initial purge from the bottom, it was noticed that the atmosphere in the silo could be maintained more efficiently by the addition of modified atmosphere to the free-space at the top of the silo. The economics of both gas supply systems were compared.