

THE PRESENT AND PROSPECTIVE STATUS OF "TRIPLE-LOW" GRAIN STORAGE TECHNIQUE

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New techniques, suited to Chinese conditions, have been developed rapidly in recent years for the storage of grain. These include ventilated storage, "two-low" or "triple-low". Statistical data shows that about 20 billion kg of grain are stored in China by means of "two-low" or "triple-low" techniques. It has been shown that these methods ensure that, insect infestation is controlled, while the amount of chemicals used is reduced and the cost of storage is reduced.

In winter, natural low temperature air is used for ventilation. After ventilation, the top of grain is covered by the plastic sheet and the average temperature remains below 20°C in the summer. Since the grain is sealed by plastic sheet on top and around the walls, a low oxygen concentration is maintained. Another effect of sealing is that the application of aluminium phosphide as low as 0.5-1 g/m³ grain is effective for insect control. The technique using low temperature, low oxygen concentration and low concentration of fumigant is called "triple-low" in P.R. China. The "triple-low" technique is a composite treatment for grain storage which has been shown to be of great value due to its effectiveness and economics. It appears to be well suited to developing countries.