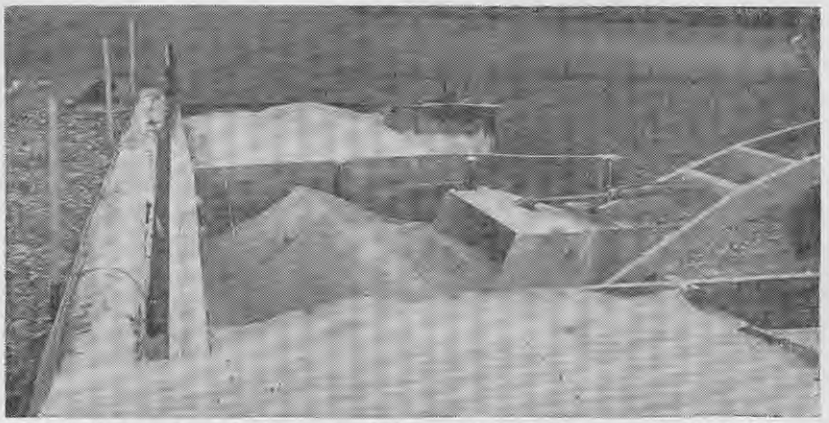
Partitioned Bulk Store for Air Strips

By H. McM. BULL,
Instructor in Agriculture, Department of Agriculture, Auckland

A PRIVATELY owned bulk store that offers a practical solution to a common problem on landing strips used by groups of farmers is described in this article. Between 500 and 1100 tons of lime and fertilisers pass through the store annually and are flown off the strip for some 15 farmers. The installation of partitions in the bulk store ensures that phosphates, lime, and phosphates containing minor elements can be stored separately on the strip at the same time. It also ensures that as each bin is emptied the following farmer can store his supply.



The bulk store bins, showing part of the metalled loading ramp (left), sighting staves, and the fixed guide rail for the sliding roof, shown in the foreground.

EACH bin holds 21 tons of superphosphate or 32 tons of lime. The local lorry capacity is a 7-ton load.

Operations normally begin on this strip at the end of October and continue through to Christmas, as during this time carriers are not fully employed trucking fat and store stock as they are from January onward.

Order of Sowing

In the first year a ballot is held for order of sowing. The farmer who sows first drops back to second place on his next use of the strip and the man who was last previously goes to the top. This system saves any discontent that may arise and avoids the owner of the strip being accused of preference. Individual farmers may exchange places, however, by mutual agreement provided others do not lose their positions on the ladder.

Costs and Maintenance

The owner of the strip is responsible for the care and maintenance of the runway and buildings and levies a sum agreed to by the farmers on every ton flown from the field. A proportion of the levy helps to pay for the laying down and grassing of the strip and the remainder the cost of the bins. It is expected that these will be paid for in 2 years, from when annual charges will be governed by the amount of maintenance required.

Obviously maintenance charges on landing strips will vary considerably according to the levelling required and the difficulties of holding a grass sward. Repair bills on the bins, too, could be heavy, partly owing to carriers' working at night and failing to see that the roof runways are free of fertiliser and to the use of heavy loading machinery in a confined space.

Alternative Designs

Where irregular transport is a difficulty it may be advisable to construct larger bins and risk the material packing down. Experience has shown that a modification of the roof design could be adopted with advantage to avoid extra weight, wear and tear, and the time necessary to push the long, single roof aside. With this roof in two sections running out on separate ramps at each end of the building less obstruction would be caused around the site and bins not in use could remain covered.

When a new building is contemplated the location of the bins in relation to the airstrip should be discussed with a representative of the aviation company operating off the strip, and the store should be built of the most rugged materials that finances will permit. A telephone is essential, preferably in some building equipped with cooking facilities for the pilots. This enables the operator, who of necessity is in full charge, to advise farmers of developments from hour to hour if necessary. He alone knows the number of machines available and the amount of fertiliser be expects to spread if weather conditions are favourable.

"Sheep Shearing Experting": by L. D. Ryan

THE title of this book may not be self-explanatory to all New Zealand sheep and wool men, as it would to their counterparts in Australia, because "experts" and "experting" are words seldom used here. However, this book in its 214 pages contains in compact form a wealth of information for all sheepowners, shearers, and anyone else interested in the machinery contained in the normal wool shed, or shearing shed, to use the Australian term.

This is really the first book of its kind to deal exhaustively with the subject. That it is thoroughly up-to-date is evidenced by the inclusion of an informative and well-illustrated chapter on shearing tables, which have only recently come on the market. The evolution of the plant is followed from the early development of sheep shearing machinery in Australia—its home—through to its present highly efficient state.

There are chapters on the various types of overhead gear and their installation, maintenance, and use; on the shearing handpiece, its principles of operation, and the necessary care and maintenance to get the best performance; and on grinders and grinding. Each chapter goes into considerable detail, and what is even more important, is excellently illustrated, which makes all instructions and explanations easy to follow.

Belts and belt drives, lubrication, power units, and preparations for shearing are also dealt with. This book shows that Mr. Ryan has a thorough understanding of his subject and must have had considerable practical experience to be able to give the numerous small but valuable tips that he includes among the main subject matter. The inclusion of a good glossary rounds out a well-balanced and attractively printed and illustrated book.

—J.E.D.

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