

# Harvesting of Cereal Crops

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development of rickets. But when additional vitamin D was given in the form of weekly doses of cod liver oil there was no rickets and the hoggets grew very much better than those which did not get the extra vitamin. A later development was the discovery that by giving one large dose of vitamin D in the form of calciferol protection could be given which lasted throughout the winter and did away with the necessity of using cod liver oil at all. For example, in 1944, between April 24 and September 4, the mean weight gain of hoggets kept continuously on greenfeed oats was 12.9lb., while the gain made on the same oats by hoggets given one dose of calciferol when they went on to the oats was 31.9lb. The percentage of rickets in the groups was 88 and 0 respectively.

The dose of calciferol used was 25 milligrams, which was dissolved in a small quantity of olive oil and given by mouth. Its cost is about 1/- a sheep, and although further investigations may show that this dose rate should be altered somewhat, it does mean that there is now available to farmers a relatively cheap, simple method of avoiding rickets and being able to utilise greenfeed oats in the winter for growing sheep.

## Summary

1. Hoggets will grow equally well during the winter on turnips, chou moellier, or good young pasture, and growth is always better than on poor pasture.

2. Giving hay does not increase weight gains, except with very poor pasture, but does save feed.

3. Giving a run-out to pasture overnight always depresses growth rates.

4. Worm infestation of hoggets in Canterbury during winter is generally low, and drenching is not likely to prove of benefit. After a wet summer and autumn, however, trouble may be experienced. If this can be anticipated, hoggets which are to be overwintered should receive a 20-gram dose of phenothiazine at weaning time. They should be weaned on to pasture or feed which has not been grazed by lambs.

5. Lameness and unthriftiness of hoggets on green oats, which is due to rickets, can be entirely prevented by giving one dose of calciferol (25 milligrams) at the beginning of the feeding period.

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CEREAL crops are now nearing maturity, and a constant watch should be kept so that harvesting can be started at the proper time. If crops are cut too early, there will be loss of weight, quality, and germinating powers of the seed, combined with some overheating in the bags; if harvesting is delayed too long, losses will occur through shedding.

THE use of the header harvester has greatly reduced harvesting labour, but more skill is necessary in judging the correct stage at which to harvest.

Of the three main cereal crops, wheat, oats, and barley, oats are least suited to direct heading. They may be cut with a mower when dead ripe and threshed with a header harvester fitted with a pick-up attachment, or the crop may be cut with a binder when the top grains are ripe and the sheaves stooked for about 12 days before threshing. The crop may also be stacked for threshing 6 to 8 weeks later.

For chaff the crop is cut with the binder when slightly greener and the sheaves are made smaller to prevent mould formation.

## Weed Infestation

Cereal crops are sometimes infested with late-maturing weeds such as fat-hen and *Amaranthus*, and their presence makes direct heading impossible because of their high moisture content. Where such weeds are encountered the crop may be cut with the binder and threshed from the stook or stacked, but if the grower has his own header harvester, he can thresh from the windrow.

The crop may be windrowed by using two binders, the first of which discharges directly over the platform canvas while the following machine discharges in the ordinary way but with the knotter disconnected. If only one binder is available, either of these methods may be used for windrowing, but more travelling with the header harvester is needed. Ten to 12 days later the crop is threshed with the pick-up machine.

## Wheat

**Direct Heading:** The crop should be dead ripe, the grain hard, and the moisture content not above 15.5 per cent. Growers should use the moisture-testing service provided by the Wheat Research Institute, and enclose their telephone numbers and telegraphic addresses with the samples for quick reply.

**Harvesting from stook or windrow:** The crop is cut when the top node is still slightly green and when the grain can be marked with a thumbnail. It should be stooked or left in

the windrow for 2 weeks before threshing, or stacked for at least six weeks and then threshed.

## Oats

**For Chaff:** Cut the crop with the binder when it is still slightly green and make the sheaves small.

**For Grain:** Cut the crop when the top grains are dead ripe. Threshing may be carried out from the windrow, from the stook, or from the stack after 6 to 8 weeks.

## Barley

Barley should be dead ripe when harvested, with the nodes free from green coloration and the grain with a hard skin, finely wrinkled. Most crops are direct headed, but may be threshed by the header harvester from the windrow or by the stationary mill from the stook or stack.

For malting barley a premium is paid for grain threshed out of the stack, and mill operators should use care in threshing barley so that the germ is not damaged. Regular inspections of the threshing drum are necessary.

When harvested other than by direct heading the straw of all cereals, if it is to be sold, should be baled as soon as possible and stored.

## Pig Broadcasts

UNDER the auspices of District Pig Councils broadcasts will be delivered in January as follows:—

Auckland—1YA, on January 15, at 7.15 p.m., "The Creep and its Special Purpose" by F. Barwell, Supervisor, Bay of Plenty District Pig Council.

Wellington—2YA, on January 21, at 7.15 p.m., "A New Method of Constructing Floors for Piggeries," by I. H. Owtram, Supervisor, Taranaki District Pig Council.

## SOIL EROSION

No nation can afford to squander its topsoil. In Bulletin No. 263, "Soil Erosion," methods of conserving topsoil and preventing soil erosion are fully discussed. Send for a free copy of this bulletin, which is obtainable from any office of the Department of Agriculture.