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The Farms : Woburn

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lambing, and was gradually increased until the ewes were getting 1 lb. per head per day at the start of lambing. The ewes were in excellent fettle at lambing, when weather was good. There was a very good fall of 228 lambs, which gave a lambing percentage of 187. Two ewes died in the lambing field, and 3 lambs died from Pulpy Kidney disease, which made it advisable to inoculate all the lambs. The sale of fat lambs started early in June; 88 lambs needed for grazing experiments were sent to Woburn for over-wintering, and the balance was sold before the end of the year.

After drafting, 111 ewes remained in the flock, and to these 27 gimmers of our own breeding were added; these were flushed in autumn 1961 on undersown seeds. The feeding of hay started during the hard frosts about Christmas.

In the autumn the ewes were injected with one of the new combined vaccines to give immunity to a wide range of diseases, and they will be vaccinated again shortly before lambing. They were also dosed with a nematicide.

EQUIPMENT

New cattle- and sheep-handling pens include a cattle crush and weighbridge, a sheep spray race, dosing and drafting races, and footbath pens.

BUILDINGS AND ROADS

About 1,400 yards of uneven tracks leading from the farmstead were made into gravel roads, and the area of concrete at the farmstead for parking cars was extended.

STAFF

Mark J. Hill left in May on appointment as farm manager to Lord Belper. Roger Moffitt replaced him in July.

Woburn

Woburn also had a mild, wet autumn and winter, but with less rain than at Harpenden field work was less disrupted. However, no winter corn was sown and little land was ploughed by the beginning of the year. During the fine spell in February the ploughing was completed and spring beans sown. With only 4 rainy days in March, spring-corn sowing was finished by the end of the month. Seedbeds for all crops had to be forced, as the early ploughed land was badly lashed by rain and the late-ploughed dried rapidly into rock-hard clods, and the rotovator was invaluable for the purpose. By the end of March field work had got as far as was possible with the existing soil conditions; the early, and some of the maincrop, potatoes were planted, and some sugar beet was sown.

The welcome rain early in April softened the clods, which worked down into good seedbeds for sugar beet and carrots. The rotovator was needed again to prepare some heavy ground for potatoes, but planting was finished by the middle of the month. May was dry, but all crops grew well. Two wind frosts on 27 and 28 May severely

damaged the potatoes, and in the dry weather many of the earlies did not recover. Despite the dry weather through June and July, most crops made satisfactory growth, except that beans and sugar beet were checked in July.

The cereal harvest was interrupted by rain, but was finished by the end of August, and very little of the corn needed drying.

In a dry, mild spell at the end of September and most of October the potatoes and sugar-beet experiments were lifted in excellent condition. The heavy land was in such good condition that after surface cultivations it was drilled with winter wheat. November was rather stormy, but the sugar beet was all cleared before the end of the month, and the ground was later cultivated with a chisel plough. About 30 acres of light land were subsoiled before ploughing to break a pan about 15 inches below the surface. Ploughing was well forward by the end of the year, and would have been finished but for the spell of hard frost towards the end of December. However, during this spell all the dung was carted out and now awaits spreading.

Potatoes

The early varieties were planted about mid-March and grew rapidly, but they were severely damaged by two frosts in late May. Those on the two Green Manuring experiments in Stackyard Field were hardest hit and failed to recover, but other experiments made a partial recovery. The early-planted King Edwards and the Majestics recovered and grew well in the latter part of the season. A precautionary spraying against late blight (*Phytophthora infestans*) was given to the King Edwards. The haulm was burned off in mid-September, and lifting started before the end of the month. The average yield of maincrop was 12 tons/acre with tubers of good size and shape; however, common scab (*Actinomyces scabies*) was so widespread on some areas as to make much of the crop unsaleable.

Sugar beet

Most of the beet was drilled early and germinated rapidly. It was sprayed with DDT against leaf miner (*Pegomyia betae*) and with "Metasystox" against sugar-beet yellows. Some experimental areas were badly damaged by hares after singling. In July the crop wilted in the hot weather, but continued to grow well into the autumn. There was a late attack of sugar-beet yellows, which, though widespread, was not severe. The roots cleaned easily and the yield averaged about 14 tons/acre of washed beet with a sugar content of 15.6%.

Market-garden crops

The leeks grew well in the autumn, and lifting started in mid-February, some weeks earlier than usual. Yields were about average. The crop planted in 1961 grew well, and lifting would have started before the end of the year had the ground not been frozen.

The red beet germinated very irregularly, and some plants appeared through the ground only at the end of June, when others

were about 4 inches high. At both times of harvesting plant numbers differed greatly, even on duplicate plots of the same treatment.

CROPPING

Of the 127 acres farmed, 18 carried wheat, 38 barley, 4 beans, 23 potatoes and 7 sugar beet. There were small areas of rye, lucerne, carrots and market-garden crops. Temporary grass occupied 16 acres and permanent grass 4 acres.

CROPS

Cereals

The only winter wheat was sown on the Classical wheat and barley experiment in Stackyard field in mid-January. It was so badly damaged by birds and lashed by rain that it was cultivated up and spring wheat sown. July I was the only spring wheat, and Proctor the main barley variety, but some Herta and Plumage Archer was grown on long-term experiments. All crops were sown early but in rather unkind, forced seedbeds. "Avadex" successfully controlled wild oats (*Avena* spp.) in barley in Broad Mead I, and all crops were sprayed with herbicides. The barley was a little patchy in growth and colour in May, but by June all crops looked remarkably well. The nitrogen given suited the season, and no crops lodged. A spring wheat experiment was attacked by *Fusarium*, but elsewhere yields of spring wheat and barley averaged about 26 cwt./acre.

Beans

Beans, sown on light land early in spring, grew well in early summer, but by July were suffering from the drought; the plants lost vigour and turned yellowish, and the lower leaves dropped off. On the Irrigation experiment the vigour of the plants increased with the amount of water given, and this is reflected in the yields, which ranged from 13.3 cwt./acre on the non-irrigated plots to 28.8 cwt./acre on those fully irrigated. A light attack by bean aphids was controlled by one early spraying with "Metasystox".

The carrots in the Ley-Arable experiment were disappointing; they suffered from drought and virus disease, though sprayed twice with "Metasystox".

Grassland

The 20 acres of grass carried the overwintering tegs until mid-April, when it was manured and shut for hay. It was cut in early June, and although it took 10 days to make because of dull weather, the quality and yield of hay were good. Nitrogen was applied three times to encourage the aftermath, which was grazed by bullocks and sheep from Rothamsted. At no time was the grassland very productive. The grazed ley on the Ley-Arable experiment was also less productive than usual, and on the Irrigation experiment only six cuts were taken.

LIVESTOCK

Cattle and sheep

The tegs for the 1961 grazing experiments at Rothamsted and Woburn were overwintered at Woburn. Sugar-beet tops were fed in early winter and hay in late winter. In July more lambs were transferred to Woburn for overwintering.

Fifteen Hereford bullocks from Rothamsted grazed for 3½ months in the summer, but no cattle were bought until the autumn. The 14 then bought were fed on beet tops, brock potatoes and straw, but when they were brought in to covered yards just before the end of the year they were given hay and a cereal-beet pulp concentrate ration.

Pigs

The herd of pigs was brought down to 12 of the Large White sows plus 14 home-bred gilts. Fewer pigs than usual were sold. The litter size at weaning improved, and should improve further with the use of farrowing crates.