

pigs must be weighed at least every fortnight. The optimum growth-rate to aim at is a gain of between 1lb. and 1½lb. liveweight per day. An example of restricted feeding for the intermediate type pig is given in Table 3.

**Trial Results**

Trials conducted before the war by C. E. Ballinger at Ruakura showed that restricting the ration of pigs after they had reached 120lb. liveweight resulted in substantial food savings and a marked improvement in carcass quality compared with that of pigs fed on a full diet, though it meant holding the pigs a week or fortnight longer to reach market weight.

**Influence of Diet on Fat Quality**

A good-quality bacon fat of the right texture is firm and free from taint and discoloration (white). An inferior fat is soft and greasy and is objectionable to the sight, taste, and smell on being cooked.

Tainted pig meats may be the result of faulty curing and treatment before purchase by the consumer or to the type of food the pig eats. Certain foods produce soft fat and others taint or discolour the carcass. Fortunately most New Zealand pig foods produce an excellent-quality carcass. The

foods which produce a firm fat include milk products, most grains, seeds and meals, and practically all crops grown for winter use.

The following foods are likely to produce a soft fat when fed in excess: Cod liver oil, whale oil, yellow maize, and linseed products high in oil. The fish oils are used mainly as sources of vitamins A and D, particularly in the rations of housed pigs.

**The daily dose should be limited to 2 tablespoons for large pigs and should be discontinued a month before slaughter.**

Maize, despite the fact that it gives excellent fattening results, should not form more than 20 per cent. of the ration. Linseed products are noted for their high food value and for their tonic effects. Excess of high oil content linseed by-products in the feed will produce soft fat.

Foods which taint the flesh include excess of fish oils, fish meal, low grade tallow, unripe turnips, and immature kales and rape.

Though fish meals have not been used extensively in New Zealand, there are several proprietary pig meals being sold at present which contain a proportion of fish meal, ranging between 2 and 8 per cent. The oil content of the fish meal is about 15

TABLE 3—PRACTICAL FEEDING GUIDE FOR RESTRICTED FINISHING OF INTERMEDIATE TYPE OF PIG

Liveweight	Food units daily	Daily Ration			
		Using skimmed milk (gals.)	fodder beet (lb.)	Using skimmed milk (gals.)	mangolds (or grass) Mangolds* (lb.)
120	4½	2½	12	3	12
140	4½	2½	15	3	15
160	4½	2	20	3	18
180	5	2	20	3	20
200	5	2	20	3	20
220	5	2	20	3	20

\* If the roots are fed to appetite with the amounts of skimmed milk shown, the quantities stated will be roughly what would be consumed. If on these rations the rate of gain falls below 1lb. liveweight per day, the milk (or meal) should be increased to achieve this rate of gain; for example, pigs feeding on grass or low-dry-matter types of root crop use energy in consuming and digesting these fodders, which reduces their practical value in a fattening ration and the quantity of milk or meal may have to be increased.

**Prolificacy and Performance in a Breeding Sow**

THE grade Berkshire sow illustrated with her litter at right is an excellent example of the type of breeding sow that is required for profitable pig production. She is the property of Mr. A. L. Skilton of Tayforth Road, Wanganui, and at her sixth litter farrowed 17 pigs, of which she reared 10 to the exceptionally good weight of 49½lb. at 56 days old, an average of nearly 49½lb. The sire of the litter was a Large White boar.

THIS result was achieved without any special attention or equipment. The sow farrowed in a wooden house 8ft. x 8ft. with farrowing rails but with no other amenities such as brooders or artificial heat. If an infra-red brooder had been available and if it had been possible to attend the sow when she was farrowing, a larger number of pigs would probably have been reared. Before farrowing the sow had virtually free range on good pasture and was given 6 gallons of whey and 1lb. of meat meal per day in two feeds.

After the sow had farrowed her rations were increased until she was getting 18 gallons of whey per day plus 4lb. of broken ice cream cones and 2lb. of meat meal. No creep was available for the piglets, but at 10 days old they began to eat out of the sow's trough and were then given a separate trough in which they were fed 4 times daily a mixture of whey, broken cones, and meat meal similar to that of the sow. At weaning the amount fed had reached 8 gallons per feed, or just over 3 gallons per piglet per day. The sow and litter did not have access to grazing after farrowing, but were given as much fresh lawn clippings as they would eat daily.



This litter is the sow's sixth and her record is as follows:—

Litter	No. of pigs farrowed	No. of pigs reared
1	9	9
2	9	8
3	9	8
4	15	12
5	10	8
6	17	10

The over-all performance of this sow is remarkably good, with an average of just over 11 pigs born and 9 reared

per litter. It is a result such as this based on performance over a number of litters which proves the quality of a sow. This sow illustrates clearly the prolificacy and mothering ability that should be looked for in the strain when young sows are selected for breeding stock. Records of performance kept by breeders are the answer to the questions of prospective purchasers.

—I. H. OWTRAM, Extension Officer in Pig Husbandry, Department of Agriculture, Wellington