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THE ECONOMIC IMPORTANCE OF DISEASE LOSSES IN PIGS

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H. H. PEIRSON, SUPERINTENDENT OF THE PIG INDUSTRY.

The pig-raiser, while usually attributing his failure to all sorts of circumstances over which he has no control, seldom gets much sympathy when he blames his stock, with the result that he does his best to improve them and is always on the lookout for good animals.

Unfortunately, some attempt to improve stock under conditions of inferior management, but others, appreciating the necessity of giving better animals a greater chance of showing their worth, improve their conditions, and reap a rich reward. This is the greatest benefit that accrues from better conditions of management, and since there are few occupations in which skill and attention on the part of the owner count for success more than in farming, increased emphasis has been placed on disease control by way of housing and management improvement.

Under the conditions prevailing prior to pig recording, little information was available to the average pig-producer about the circumstances under which maximum production was achieved, and this, coupled with the desire on the part of the trade for better quality pigs, resulted in the introduction of pig recording. Many who have not made use of pig recording, or associated schemes, fail to appreciate that one of the main purposes of all instructional work has been to control disease by improved management, and so, to a very large extent, increase the earnings associated with pig production.

The information supplied about the ability of pigs to grow and utilise a feed-supply constitutes a challenge to any producer to give the pigs he owns a try-out under improved conditions before looking for improvement in better stock. Economic production, then, involves three objectives - first, the finding of better animals, second, the setting-up of standards for measuring up the performance of stock, and, third, the supply of information about management conditions which will reduce disease losses. The first and second are achieved only when the third is understood and practised.

The economic importance of disease control is recognised by all, but the losses sustained by both the producers and the trade are not confined to the comparative few pigs that are condemned and graded down when these arrive at the Works for slaughter. While these, of course, are considerable, by far the greatest loss occurs on the farm, particularly prior to and just after jarrowing. It might be said that this has little to do with disease control, but the returns that are obtained from pig-keeping are very closely associated with the nutritional care given to sows. Where this is good, it offsets the possibility of disease in the offspring. All animals at birth have a decided inclination to grow. If this is destroyed, they lose their ability to resist infection, which is present everywhere, but it does not appear to affect the thrifty pig, because of its higher powers of resistance.

It is generally believed that on the average approximately one-third of the pigs born alive die during suckling and fattening. There are, of course, considerable variations in individual herds. The records of pig recording schemes show that in different herds the percentage survival at slaughter weights, ranges from 50 to 90 per cent. of the pigs born. This is still the major tragedy of present-day pig-production, and is, therefore, of considerable consequence to the industry.

Particulars of the incidence and cause of pre-weaning mortality have been recorded by pig recording clubs from herds where the standard of management at that time was considered above that of New Zealand as a whole. These cover the records of 467 litters collected in 1936.

Production of Sows

Average of:	Numbers born	9.3%	4,414 pigs
	Numbers weaned	7.3%	3,440 "
	Percentage of mortality	21.5%	974 "

This table shows what the average sow is capable of producing. The loss of 974 pigs is most striking, and was made up as follows:-

Overlain	..	..	422
Born dead	..	..	312
Died at birth	..	..	120
Bad-doers	..	..	78
Died of other causes			42

It is probable that many of these losses could have been avoided, as they were largely the result of inadequate housing and bad feeding arrangements.

In the case of post-weaning mortality, the largest group can be described as bad-doers, and no precise reason can be given for the cause of death, or the numbers that die, but pneumonia, worms, tuberculosis, and bacterial infection are probably the chief causes of loss, while the incidence of disease is increased by insufficient trough-space, unsuitable feeding, and inadequate housing. Other causes are due to such things as physical defects, gastric disorders, hernia, etc.

So far a brief consideration has been given to the extent and cause of loss by death during the suckling and fattening period. While the losses are substantial, they do not by any means give a true picture of the monetary losses incurred by the presence of disease in the herd. The loss of condition and capacity for growth in pigs that survive a set-back caused by disease represents a greater financial loss than that caused by those that have actually died. The after-effects of an attack of white scour during the suckling period, for instance, may extend the time taken for pigs to reach killing weights by four or five weeks, and represent a direct cost in labour and feed. If pigs die during suckling, or shortly after weaning, the loss is naturally less than it would have been if they had nearly reached bacon weight. In fact, it is often cheaper in the long run to kill unthrifty pigs at weaning than to try to fatten them. These pigs, for the most part, act only as incubators for bacterial infection, and become a source of danger to the rest of the herd. The number of deaths alone, therefore, gives little indication of the extent of economic loss due to disease on the farm. 50 per cent. of the deaths from over-laying is probably less serious than 10 per cent. of deaths from scours or pneumonia, as in the latter case the pigs which die represent only a small fraction of those which have been affected and which would, consequently, make poor live weight gains in later life.

The annual loss by disease in any herd should give an indication of the success or failure of existing methods of management, and should at the same time suggest possible lines for improvement.

It is not possible to obtain information relative to the losses on the farm between weaning and slaughter, nor does the number of pigs slaughtered per sow give any indication of this loss, since it is not known how many sows produce two litters per sow. From 1921 to 1927 there was an increase of from 5.12 to