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**Introduction.** There is little published on methods of gilt selection by breeding companies in the UK, the rates of selection and reasons for rejection, apart from the work of Muirhead (1978). He reported a mean selection rate of 67.6 per cent in 6002 gilts from 8 herds, with a range of 54.0 per cent to 73.3 per cent.

Of the 32.4 per cent of gilts rejected the main reasons were general conformation 0.2 per cent, ear and vulval defects 0.78 per cent each, leg/feet defects 3.4 per cent, teat conformation 24.0 per cent, ruptures 0.4 per cent and miscellaneous 3.0 per cent. The main reasons for rejection varied between herds and for teat conformation the range was from 0.27 to 25.6 per cent of gilts submitted for selection. Within a breeding pyramid of pigs of similar origin this must indicate that environmental factors play a greater part than heredity in the aetiology of these lesions.

The application of "Bonocin" (a resin-reinforced plastic skin dressing) to the teats of female piglets immediately after birth cut the rejection rate for teat conformation by almost a third.

This paper describes the selection rates for eight multiplication herds in a conventional health pyramid of a major breeding company over a 10-month period.

**The Pyramid and Selection Methods.** Herd size varied from 80-220 sows and management methods differed on each farm. Gilts were put on test at about 24 kg and selected at 82 kg liveweight on the following ten points. Is its weight for age satisfactory, has it 12 good teats, four sound legs, even digits and a normal vulva and anus? Is cough absent and does it breathe normally, is its head shape normal and is its tear staining absent? If the answers are all in the affirmative then the gilt is selected.

**Results.** Table 1 shows the number of gilts presented and the selection rates. 70.4 per cent were selected during the period analysed.

Table 1 Gilt Selection Rates

	No.	%
Selected	5174	70.4
Rejected	2178	29.6
TOTAL	7352	

The main reasons for rejection are shown in Table 2 and it can be seen that, apart from weight for age, teat abnormalities and legs/feet were the main problems.

Table 2 Gilt Selection Rates

## The Main Reasons for Rejection

	No.	as a % of gilts examined
Teats	630	8.6
Weight for age	592	8.1
Legs/feet	512	7.0
Conformation	260	3.5
Congenital defects	53	0.7
Miscellaneous	131	1.8
TOTAL	2178	29.6

Rejections for teats were mainly due to a poor udder line, inverted and false-inverted teats and deficiencies in teats, probably associated with teat necrosis.

With regard to legs/feet, Table 3 shows a breakdown of the reasons for rejection.

Table 3 Gilt Selection Rates

## Rejections for Legs/Feet

	No.	as a % of gilts examined
Bad legs - general	248	3.4
Bursitis of hocks	164	2.2
Lameness	42	0.6
Uneven claws	32	0.4
Bad feet - general	22	0.3
Miscellaneous	4	0.05
TOTAL	512	7.0

Poor leg conformation was the main cause at 3.4 per cent but bursitis of the hocks came next with 2.2 per cent. This is a commonly observed condition in UK abattoirs (73.4 per cent in one survey, Penny & Hill, 1974) so it should cause little surprise. The lesions rarely lead to lameness, but they are a blemish not popular with purchasers. A hereditary predisposition has been suggested (Bäckström & Henricson, 1966; Orsi, 1967).

Gilt rejections on grounds of conformation were general conformation 22.3, small vulva 1.8, ears 1.6 and head shape 3. As a percentage of pigs examined the rates were 3.0, 0.2, 0.2 and 0.4 respectively. The list emphasises that small vulvas, for instance, must not be allowed to slip through the selection net. This condition can be associated with other forms of skin necrosis (Penny and others, 1971).

Congenital defects were responsible for only 53 rejections (Table 4) but some cases would obviously have been filtered out during the suckling and growing periods.

Table 4 Gilt Selection Rates

## Rejections for Congenital Abnormalities

	No.	as a % of gilts examined
Hernias	28	0.38
Kinky tail	12	0.16
Congenital tremor	10	0.14
Atresia ani	3	0.04
TOTAL	53	0.7

The rejection rates for miscellaneous conditions were low apart from tail-biting (89 cases or 1.2 per cent) and abscess (30 or 0.4 per cent). Respiratory conditions, prolapse and black spot accounted for 7 (0.1), 3 (0.04), and 2 (0.03 per cent) respectively.

**Summary.** In any breeding company quality control in the form of monitoring selection procedures and rates, is an essential management tool, and it can be concluded from this study that disease and environmental factors may be nearly as important as hereditary ones as a cause of gilt rejection.

## References

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