of the results described here. The optimum dose of 30 mg of hexoestrol has already been mentioned. Dangers of overdosing can be emphasised again. With excessive doses of hexoestrol growth-rate may be depressed, side effects will appear with consequent deleterious effects on carcass quality, and, in severe cases, there may be blockage of the intestinal and reproductive systems.

Present knowledge allows us to recommend this treatment for steers only; the value of the use of hexoestrol in fattening heifers is problematical and requires more research. Breeding stock of any class is definitely not suitable for hexoestrol implantation.

The age, weight, and condition at which the steers are implanted are important. Firstly, the animal should be in the final fattening stage of growth. For aberdeen Angus steers this means that they will probably be not less than two years old and that they will weigh about 8 cwt live weight or 450 to 500 lb carcass weight. Treatment of relatively young and immature cattle will cause the development of very large bones and little else.

There is only one place to implant the hormone pellets: beneath the loose skin at the back of the ear. To do this simple operation efficiently a good head-bail is essential. Placing the drug in any other part of the animal but the ear is potentially extremely dangerous to the consumer.

Cattle must be well fed from the time of implantation to the time of slaughter; otherwise the effect may not be apparent. The treatment period should last approximately 100 days. We do not know precisely what happens if these two rules are not observed, but probably there would be little or no useful effect from the treatment; trials have been started recently to investigate these two points.

Finally, cattle treated with sex hormones must be handled much more efficiently and quietly than normal stock. The treatment makes the animal more susceptible to stress and excitement of any description. An excited animal will not make efficient weight gains and there may be detrimental effects on carcass quality.

An important question not yet adequately answered is whether the treatment has any effect on subsequent grazing stock through hormonal activity in the excrement, though recent work in Britain indicates that any residual hormone in the excreta is fairly quickly made inactive by certain soil micro-organisms. This danger, of course, is more real when animals are given hormones by mouth. Research work will continue on this problem.

At the beginning of this article it was emphasised that this treatment is a scientific attempt to restore the sex hormone balance of the castrated animal to a prescribed level, and the treatment should be considered in this light. It cannot replace, in any way, good animal husbandry.

Results have shown that intelligent use of hexoestrol can prove most valuable for increasing the efficiency of beef production. But because very little is known of the precise mode of action of the treatment and because of the long list of possible dangers the treatment is obviously open to the widest abuse.

For these reasons it is my personal, strong recommendation that this drug and others like it should not be readily available to farmers, but rather that they should have access to it through their veterinarians. This recommendation is not made lightly, but I consider that placing this restriction on the drug's commercial use will at least help to ensure that New Zealand's pre-eminent position as a meat-exporting country is guarded.

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Pedigree Pig Improvement Scheme: Qualified Litters

Contributed by the Animal Industry Division

 $\mathbf{T}^{ ext{HE}}$ following table sets out particulars of litter performance, growth-rate, and carcass quality points for those litters which have

qualified in the Pedigree Pig Improvement Scheme for publication since those appearing in the June issue of the "Journal".

	Breeding of litter		Date	Litter	Dead	ad Growt		Carcass test Back fat		results (average)		erage)	points			Total
Owner	Sire	Dam	born	3 weeks				Shoulder (10)		Bal. (5)	Ham (15)	Sh. (10)	L. (10)	B. (5)	M. (5)	points (125)
				C	lass A	Bacon	ers									
Graham Whatmough G. E. Heppenstall	WS 163 LW 13947		27/9/58 12/5/58	148 125	131 125	$\begin{array}{c} 14\frac{1}{2} \\ 22 \end{array}$	14 <u>1</u> 17	7½+ 8½+	18½— 17+	1 <u>3</u> 5	8 11½	6 5½	7 6½	5 41	5 5	87½ 102½
					Class A	Porke	rs									
S. E. Milnes	LW 14663 LW 15462 LW 15462 LW 15462 LW 15462 LW 15462 LW 15220 B 30626 B 32628	LW 14159 LW 15452 LW 15250 LW 15773 LW 15772 LW 15771 LW 14566 B 29538 B 31371	10/12/58 24/1/59 12/12/58 9/12/58 3/12/58 3/12/58 19/2/59 2/12/58 1/12/58 4/1/59	125 134 133 108 125 123 138 139 107	95 91 93 93 107 88 71 81 65	18½ 23 20½ 19 23 23½ 4 23 15½	Iaximum 12½ 18½ 17 17 16½ 15 17½ 17 18½	points 9½+ 8½+ 10 10 5½+ 9½+ 9½+ 9½+ 9½+	$\begin{array}{c} (15) \\ 11 - \\ 12 + \\ 14 - \\ 14 + \\ 13 - \\ 10 + \\ 13 - \\ 10 + \\ 13 - \\ \end{array}$	25555513 45	8½ 11½ 9 10½ 11 11½ 10 10½ 9	6 15 6 15 7 15 8 8 5 6	566777887878	5 3 3 4 4 3 5 5 5 5	(10) 10 10 10 10 10 10 10 10 10 4	88½ 106 101 103½ 103½ 100½ 88½ 101 91½
					Cla	ss B										
B. G. Potts	В 32628	B 31370	20/12/58	101	66	11	18	9+	12-	5	7	7	61	31	31	824
					CI	ass C										
Victor Hinton	LW 14779	LW 14792	8/12/58	88	78	11	16	91+	15	41	8	61	7	5	10	921

+ Points lost because too much fat. — Too little fat. L. Loin development. B. Belly thickness. M. Marketing points.

The boar Medway White Bonza 5th 15462 has qualified as a merit sire.