

EIN VERSUCHSPROGRAMM FÜR DEN ABSATZ VON EBERFLEISCH

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4 400 kg Eberfleisch von 100 Tierkörpern wurden an ein kleines Einzelhandelsgeschäft geliefert und über einen Zeitraum von 10 Wochen verkauft ohne Kommentar oder Störung des normalen Verkaufsablaufs. Zu keiner Zeit gingen spontane Kundenbeschwerden ein und Interviews mit Stammkunden des Geschäfts stellten keinerlei Anzeichen einer Unzufriedenheit fest. Der Metzger und seine Kunden schätzten die magere Qualität dieses Schweinefleisches.

TENTATIVE DE COMMERCIALISATION DU PORC PROVENANT DESVERRATS

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4 400 kg de porc provenant de 100 carcasses de verrats furent fournis à un petit boucher de détail, et vendus au cours de 10 semaines sans susciter des observations de la part des clients ni déranger le processus normal des ventes. Les clients n'ont jamais déposé aucune plainte, et une enquête effectuée auprès de clients habituels dans la boucherie ne révéla aucune preuve de mécontentement. Le boucher et les clients ont apprécié le fait que la viande était plus maigre.

A MARKETING TRIAL OF PORK FROM BOARS

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4,400 kg of boar pork from 100 carcasses was supplied to a small retail shop and sold over a period of 10 weeks without comment or disturbance of the normal selling process. No spontaneous customer complaint was received at any time and interviews with regular customers in the shop gave no evidence of dissatisfaction. The leanness of the pork was more acceptable to the butcher and the customers.

ПРОБА ПРИГОДНОСТИ ХЯКОВИНЫ ДЛЯ ПРОДАЖИ.

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Одному небольшому розничному торговцу было поставлено 4,400 кг. хяковины со ста туш. Он продавал это мясо в течение десяти недель, не делая замечаний и не срывая нормального процесса продажи. Прямых жалоб со стороны покупателей не было, и на интервью постоянные клиенты не проявляли неудовольствия. Постность была более приемлемой и для мясника, и для клиентов.

A MARKETING TRIAL OF PORK FROM BOARS

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Large scale consumer trials in the United Kingdom have shown that pork or bacon from boars slaughtered at about 100 kg is not differentiated from comparable meats from gilts or castrates when cooked and eaten under domestic conditions (1,2). Such studies, which involved single comparisons by each participant, cannot explore the possible effects of repeated exposure as will be the case in the many families who eat pork regularly, nor does the housewife have the chance to express her, perhaps subconscious, opinion of the meat by subsequently varying her purchasing pattern as would be the case in the normal situation. Such questions can be investigated only by a marketing trial in which the responses of customers are observed without interfering with the purchasing decision in any way.

A summary account of such a trial is given here, the detail of which will be presented elsewhere (3).

Experimental

10 pork carcasses were supplied weekly through a commercial channel to a single shop located in a working class district in a large United Kingdom city, enough to supply the whole of the pork sold. Only the proprietor and the manager of the shop were aware of the purpose of the trial. For the first four weeks the carcasses were from gilt or castrates and for the next ten weeks all carcasses were from Large White boars. The boars were raised under standard commercial conditions and were slaughtered at between 54 and 77 kg live weight. The animals were held in lairage after 100 miles road transport for 30 hours with access to food and water before electrical stunning and standard dressing. Carcasses were cooled, split and butchered and sold in the shop without interference.

During the first 12 weeks of the experimental period an observer from the laboratory was present in the shop as an 'assistant' during the two periods in each week when the maximum of pork sales occurred. He observed customer reaction and discussed pork sales with the shop staff. During the last two weeks this observer also interviewed customers who bought pork and obtained details of their buying pattern during the experimental period and their reactions to the pork they had purchased.

Among analyses made on the meat, we report here the level of boar odour in the fat as measured by the soldering iron technique (4) by a panel of three experts on a scale 0 - absent, 1 - weak, 3 - medium, 5 - strong. At the same time any other unpleasant odours observed were noted and marked, independently of boar odour, on the same scale.

Results

Odour level

Zero boar odour was recorded in the 40 gilt/castrate carcasses used in weeks 1 - 4 although, as is usual, various other odours of unpleasant

descriptions were occasionally recorded (Table 1). In all 100 boar

TABLE 1. Strength of boar odour and any other odour in individual pork carcasses. Mean values of three judges on scale 0 - absent, 1 - weak, 3 - medium, 5 - strong.

	Week number		Mean other unpleasant odour
GILT or CASTRATE	1	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.13
	2	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.17
	3	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.30
	4	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.33
BOAR	5	1.3 1.0 0.0 0.7 1.7 1.0 1.3 0.7 1.0 0.0	0.30
	6	1.7 1.7 0.3 1.0 2.0 1.3 1.3 1.3 1.7 0.3	0.03
	7	1.0 2.0 1.3 1.0 2.3 2.0 0.3 1.3 0.3 0.7	0.23
	8	0.7 1.3 1.0 1.7 0.3 3.0 1.0 1.0 1.0 1.0	0.10
	9	0.3 0.0 1.7 1.0 1.0 0.3 2.0 0.7 1.3 1.3	0.17
	10	1.0 1.0 1.7 0.7 1.3 1.7 1.0 0.3 2.0 0.7	0.17
	11	0.3 1.0 1.0 1.3 1.3 0.7 0.3 1.0 1.0 0.0	0.13
	12	3.0 2.7 1.3 1.0 2.0 2.3 2.3 1.0 2.7 1.7	0.00
	13	1.3 1.3 2.7 1.7 1.3 2.3 1.7 1.0 1.7 2.3	0.33
	14	1.7 1.7 1.7 1.0 2.0 1.3 1.7 1.7 1.0 0.7	0.27

carcasses were examined in weeks 5 - 14 : 76 were marked around the 'weak' level (mean marks 0.5 to 2.0), 14% showed zero or negligible odour (0 to 0.5) and the remaining 10% were all marked below the 'medium' level (3.0). Again some other unpleasant odours were noted at about the same mean levels as in the gilt/castrates (Table 1). Assuming this distribution of odour levels is representative of that amongst boars of this breed and weight range, extrapolation by fitting the observations to a log normal distribution gives probabilities of 1 in 50 of carcasses occurring at a level of 3 or above and 1 in 300 of 4 or above. The correlation between odour level and live weight was significant ($r = 0.20$) indicating that 4% of the variability was accounted for by weight in the range 55 - 77 kg. The regression equation was odour level = $0.45 + 0.026 \times \text{slaughter weight}$.

Marketing results

A total of 4,400 kg of pork was sold during the experimental period. Pork is sold in the United Kingdom in legs, loins, shoulders either bone-in or boned and rolled for roasting, and in chops and cutlets for frying or grilling. The heads, hocks and bellies are also sold for specialised dishes. In the retail preparation, as much as 20% of the weight of conventional gilt/castrate carcass may be trimmed as waste fat; the boar carcasses were, therefore, highly acceptable to the butcher who was able to cut and sell the whole carcass

Without removal of any back fat.

During the experimental period no customer volunteered any complaint about their purchases of pork or reported any reaction from their family members. During the last two weeks when 41 people were interviewed, they had all purchased pork more than once and all found it indistinguishable from normal or, in a considerable number of cases, preferred in some way (Table 2). One

TABLE 2. Results of customer interviews held after 8 or 9 weeks of selling boar pork. Total number interviewed 41.

Frequency of purchasing pork	once	0
	more than once	41
Differences noted in pork purchased	leaner	28
	fatter	3
	noncommittal	10
	brighter	20
Differences noted during cooking	darker	1
	noncommittal	20
	no difference	37(1)
	different	4
Differences noted during eating	no difference	27(2)
	different	14
Overall acceptability	better	22
	no difference	18
	worse	1

(1) No comment concerned odour or flavour

(2) Majority of comments indicated preference

person concluded that the overall acceptability was inferior to normal.

Discussion

This marketing trial confirms the experiences of several producer/retailers in the United Kingdom who have raised boar porkers and sold the meat over periods of some years without adverse comment from their customers. In addition to the complete absence of complaints from the approximately 300 purchases per week involved, a considerable majority of comments made by the regular customers who were interviewed indicated either no reaction or that the meat was in some way better than normal.

The panel estimates of boar odour in the fat of 100 carcasses were all in the lower half of the scale range available. The panelists were experts

and would be expected, therefore, to mark critically, nevertheless no carcass had an abnormally high odour which might raise risk of rejection and the shape of the distribution curve gave some evidence that the probability of heavily odouriferous carcasses occurring is very small. The regression of odour on weight, though significant, confirms the bulk of published evidence that boar odour does not greatly increase in the range of 50 - 100 kg and supports the previous consumer trials on both pork and bacon which used pigs slaughtered at 100 kg (1,2). In view of these results and the general experience it does not appear either necessary or desirable in a commercial operation to monitor the level of odour in boar carcasses by examining every one by a smell test in the abattoir. By such a test some proportion of carcasses would be rejected, dependent upon the idiosyncracies of the tester and the random variables in presentation in different factories. Consumer trials consistently fail to establish that any carcass has, in fact, significantly detectable odour in the domestic situation.

Boar carcasses up to 45 kg have for a long time been admitted to the first grade as porkers by the South African Livestock and Meat Industries Control Board and this policy is also likely to be adopted in other countries in that continent. Boar pigs suffer from no regulatory discrimination in the United Kingdom but many other countries differentiate against them. The rationale of such regulations is difficult to understand: it may have been based in the past on the control of breeding stock, or on the belief that boar odour was a real hazard against which consumers could not protect themselves. Whatever the reason, in the present situation where the first class protein that meat provides becomes more and more in demand and the costs of producing meat are continuously rising, the considerably greater efficiency of the boar in converting vegetable matter to lean meat compared to the castrate should be utilized to the full. To achieve this, regulations differentiating boar meat from gilt or castrate need to be changed and the traditionalist attitude of the meat industry will need revision.

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