CURRENT DEVELOPMENTS WITHIN THE PIG INDUSTRY

INTRODUCTION

E.S. BATTERHAM*

The last couple of years have been difficult ones for the pig industry, with high feed costs, shortages of grain and low financial returns. However, the tight financial situation has tended to mask the fact that a considerable number of developments have been occurring within the industry and these are likely to have significant effects over the next few years.

The move towards a smaller number of larger units has continued, together with greater integration of the various sectors of the industry. The genetic potential of the Australian herd has improved and may be further enhanced by the current reintroduction of genetic material from overseas, There has been a greater awareness and adjustment to social issues facing the industry, particularly that of animal welfare and environmental pollution. The feed situation has improved, not only due to the recent good cereal harvests but also due to the expansion of new feed sources, particularly triticale, lupins and field peas. There is also greater awareness of the potential for the development of additional feed-grade amino acids and microbial protein from waste products or through genetic engineering. Changes have also occurred in the marketing sector, with the recent introduction of sale by classification. The results of promotional campaigns for pigmeats are becoming evident, and should be greatly enhanced by the substantial increase in funds made available for future activities.

These and other developments are reviewed in greater detail in the following papers by representatives of the producer, feeds and promotional sectors of the pig industry.

THE CURRENT INDUSTRY SITUATION FOR PRODUCERS

I.R. JONES**

The Australian pig industry continues to change at a rapid rate. The number of farmers with pigs has reduced steadily from 43,000 in 1966 to approximately 18,000 in 1981, an annual drop of about 6%. The drop is remarkably steady and does not reflect the financial state of the industry.

On the other hand pig numbers have lifted steadily from approximately 1.5 million in 1960 to 2.4 million in 1980 with the exception of a hiccup in the early 1970's which saw numbers reach an all time peak of 3.2 million.

This demonstrates that while there has been little change in pig numbers there has been a decided change in ownership. No longer is the industry an appendage of the dairy industry with wild fluctuations in its fortunes as a result. The change of ownership will continue and the reasons will continue to be largely social. Farmers have discovered that there are alternatives to working seven days each week and are demonstrating that they were partly convinced by the doctrine of specialisation so widely preached a decade or two ago.

In addition to changes in ownership, there are also changes in location occurring. Urban sprawl and more stringent Local Government By-laws, usually under the heading of Noxious Trades, are having their effect. Many city based

* Agricultural Research Centre, Wollongbar, N.S.W. 2480.
** Cefn Stud, Mail Service 544, Clifton, Qld 4361.

feed mills are facing problems of reduced tonnages and increased freights as suburban piggeries close in the face of redevelopment.

INTEGRATION

There is no doubt that pork production will be dominated by the integrated processor, the integrated feed miller and the integrated grain grower. (Before I am misquoted let me emphasise I said "production" not "marketing"). It should be stated that this prospect frightens a great number of the more traditional farmers, some of whom feel that the industry is exclusively theirs and their interests should be protected. There have been calls for legislation to close the industry or to at least exclude processors and feed-millers. Any attempt to do this would simply accelerate the process and add the complication of Government interference. The reasons for the changing ownership of the pig population are simple. Properly financed and managed piggeries can be extremely profitable. Processors and feed millers need tied volume, The industry has been noticed by investors in agriculture as being stable and full of opportunity.

The change in average herd size and ownership has its problems:

1. Lack of knowledge of the industry by the NEW;
2. Lack of expertise in large unit organisation by the NEW and the OLD;
3. Shortage of experienced managers;
4. Shortage of experienced labour;
5. Polarisation of present market outlets;
6. The animal welfare issue and the visibility of the large units; and
7. Lack of good information on building design, construction and waste disposal.

GENETICS AND CARCASS QUALITY

The increased number of large units will have a marked effect on the genetics of the national herd as there will tend to be a concentration of strains within those herds. There will be little movement of sires from one to another for political and commercial reasons and the stud breeder of traditional style will cease to exist. The approximate numbers of Australian Pig Breeders Society members for the last 30 years are as follows: 1950, 390; 1960, 780; 1970, 975 and 1980, 410.

Of the 410 members currently listed only 310 actually registered any animals. While the figure for 1970 probably demonstrates the peak of the Landrace boom the current figure demonstrates the effect of the larger breeding companies, the self sufficiency of the larger herds, the increasingly businesslike approach to pig production and the inability of the stud breeder to cope with these changes. All these factors will necessitate the introduction of large quantities of genetic material from overseas with the associated disease risks and the loss of an enormous amount of material presently available here without it even being recognised,

The positive effect of these changes will be a continuing improvement in carcass quality, because of a more standard approach to breeding and feeding. The industry is capable of making enormous strides in this area working from the base that is already firmly established. The breeders who are involved in consignment selling or sale by description are leading the way. It is disappointing that breeders are not taking a more dominant role in the promotion and organisation of sales. It is also about time the industry organised the closure' of all establishments where pigs are bought or sold without measurement. The only edge the chicken industry has at this stage is uniformity of product. The pig cuts into a wide variety of flavoursome pieces which should give our Promotion Committee, suddenly and unexpectedly flush with cash, an enormous advantage. It has been proved that pork can command a higher price for quality and the quality image should be maintained. That does not mean the maintenance of the "luxury" or "Christmas and Easter only" image,

The present rumblings about inconsistent quality in the beef industry is a lesson we learnt ten years ago and has given us an unassailable advantage.

ANIMAL WELFARE

Obviously the animal welfare issue requires comment because of its possible effect on methods of production. Some farmers and their organisations are adopting a dangerous "heads in the sand" attitude which clearly demonstrates a lack of knowledge and understanding on both sides. While there may be a radical fringe of rabid vegetarians there are many thousands of people, some of them farmers, who feel for the condition of farm animals. Not enough thought or research has been given to the comfort of housed animals or their transport and subsequent slaughter. Most of the research work being done is quite elementary and often viewed by farmers as pointless and ridiculous. The legislation proposed by the radical fringe by the welfare movement is just as foolish and a change of attitude by all concerned must take place if the animals are to benefit from all the huffing and puffing that is presently going on.

I believe that it is inevitable that the Australian Government will be forced for political reasons to hold an inquiry into animal housing and slaughtering in the near future. The prospect of highlighting abattoir penning facilities and slaughtering conditions on prime time television is appalling but most of the people concerned appear quite oblivious to the time bomb ticking loudly under their noses.

The animal housing aspects of such an inquiry will no doubt highlight the "multi-national" establishments but will have its greatest effect on the small farmer who will be unable to cope with the legislative controls that will inevitably ensue. We may be looking 'at the introduction of psychological and physiological impact studies alongside the currently popular environmental impact study.

We should acknowledge these facts and establish some common ground prior to a formal inquiry because at this stage we have nothing to fear except stupidity, ignorance and prejudice.

OTHER FACTORS

We are constantly reminded that food represents 75-80% of our costs, yet little of our research goes into the discovery of new food-stuffs. We have tended to look on that as the task of agriculturists. When the industry does find a product like triticale for example we do little to encourage its culture. We have all but ignored the prospect of food additives from industrial processes, some of them like yeast production for example applicable to our waste disposal problem as well.

Maintenance has become such a problem in some piggeries that it almost rivals food as the greatest problem of survival. Almost nothing is happening in the field of design and almost all the new techniques are developed by innovative farmers. Most of these are incomplete due to the knowledge and resources available and lead to other problems later on. We are unable to convince the Federal Government of the need for a review of depreciation schedules because of the short life of piggery buildings and equipment. This is really an admission that we have not done our homework on corrosion, condensation and animal behaviour.

The average farmer has been so busy rearing piglets, attaining his mating targets and welding fences that he has no time to solve the problems The new farm manager of the larger units will not be so encumbered and will be available to involve himself in research projects. This will require a marked change of attitude by the Industry Organisations who have not been quick to recognise the needs of the industry.

THE FEED SITUATION IN RELATION TO THE PIG INDUSTRY

G.J. SCHUMANN*

The last three years has seen some very dramatic changes in the nature of the pig industry in Australia, and probably one of the major factors in shifting the industry into this new phase has been the dramatic escalation in feed costs. Unfortunately as feed costs have risen dramatically, the price paid for the baconer has not by any means kept up with these increases so that many of the less efficient producers have been forced out of the industry, particularly in the last twelve months. This paper sets out firstly'to show what has happened to feed costs in relation to profitability, and secondly to show the likely changes which may occur in the availability of raw materials, including some new raw materials, and those areas where further research is needed to overcome what would appear to be immediate or longer term problems in meeting the nutrient requirements of the pig. The last section is an attempt to look at other factors such as Government Regulations on the pig industry.

FEED COSTS IN RELATION TO PROFITABILITY

It only takes a cursory glance of the Victorian Department of Agriculture Pig Management Studies to show that there is a wide range in the feed cost per pig produced which is of course affected by a number of factors such as the number of pigs produced per sow per year, feed conversion efficiency, the cost per tonne of feed, mortality, etc.

In order to give some idea of the magnitude of the increase in feed costs, I have set up a model based on a herd producing 18 baconers per sow per year, and with a herd feed conversion (HFC) ratio of 5.6:1 on a dressed weight basis (4.2:1 liveweight basis, assuming 74% dressing rate) i.e. the total number of kg of pig meat sold off the farm per annum divided by the total number of kg of feed used per annum. (Note: there are piggeries in Australia with a HFC up to 25% better than that used in this model)

In Table 1 we take into account fairly typical prices paid for 85 kg liveweight baconers, and compare the feed cost to produce this baconer based on typical commercial feed prices operating in Victoria between November 1979 and November 1981, If we look at these feed costs as a percentage of the price paid for bacon we see that there has been a big variation, and quite clearly this has been reflected in large movements in gross margin per sow per annum.

The point that I particularly want to make is that despite the fact that many producers could dramatically improve their performance, a major factor in this reduced profitability over recent years has been the very dramatic increase in feed costs. At the time of writing this paper, feed costs on this particular model had increased by 47% or nearly $27 per baconer produced, whereas bacon prices had only increased approximately $13 or 13% during the same period. Obviously the question that needs to be asked is what has occurred to increase

* Barastoc Stockfeed, a Division of KMM Pty. Ltd., Box 2008S, G.P.O., Melbourne, Vic. 3001,

TABLE 1 Relationship between feed costs and selling price over the period November 1979 to November 1981

Quarter ending	Nov '79	Feb '80	Mar '80	Aug '80	Nov '80	Feb '81	Mar '81	Aug '81	Nov '81
Selling price	99.50	97.50	82.50	86.00	103.70	106.93	99.02	106.51	112.29
Feed cost	56.98	62.37	67.38	67.38	71.73	77.27	77.27	80.41	83.90
Margin over feed cost	42.52	35.13	15.12	18.62	31.97	29.66	21.75	26.10	28.39
Feed cost as a % of selling price	57.3	64.0	81.7	78.3	69.2	72.3	78.0	75.5	74.7

these feed prices so much, and it is obvious that one of the major factors has been the steep increase in the price of wheat which became the primary grain for use during 1981, largely due to the drought situation which existed during this two-year period. Likewise the price of vegetable proteins and meat meal increased very steeply during this same period.

Most efficient piggeries have during this last decade been putting more emphasis on increasing their output of pig meat per sow per year by improving productivity per sow, carrying their pigs to heavier weights, and to do this many piggeries have resorted to *ad lib.* feeding. In order to maintain the quality of the carcass with these *ad lib.* feeding systems, the quality of the feed must be high, and generally speaking higher performance feeds, i.e. higher energy, higher lysine levels etc. have been used in an effort to increase performance and maintain profitability.

On the surface it would seem that Victoria has been disadvantaged relative to N.S.W. and Qld-because we have not had an alternative to wheat such as sorghum, and the limited supplies of barley and oats during this period have been eagerly sought after such that their price became uneconomic in comparison to wheat. Relatively speaking then, Victorian pig producers have suffered higher feed costs compared to those operating in N.S.W. and Qld. Furthermore in some ways wheat may not be the best grain to use, as wheat based rations fed to breeding stock would seem to result in an increased incidence of bloat, vomiting, gastric torsion, twisted colons, and constipation problems, particularly with lactating sows, unless care is taken to balance the fibre content of the ration. There is also some field evidence that fecundity and litter weight may decrease, with neo-natal scour and mortality increasing when breeder rations are based on wheat. More detailed studies of the possible relationships between the incidence of these problems and high wheat rations would seem to be warranted.

At the time of writing this paper the third largest wheat crop on record was anticipated. A good barley harvest was also expected, and really for the first time, significant quantities of triticale were being grown in South Eastern Australia. For this reason it would be reasonable to assume that feed prices will drop significantly in the first half of 1982, particularly as it is expected that the world grain situation will be fairly well catered for because of the large crops in the U.S.A., Mexico, etc. However it must always be remembered that the grain situation in Australia can change dramatically, because we are in a world commodities market and a failure of a grain crop in one of the major exporting countries such as the U.S.A. could result in dramatic price increases in the second half of 1982.

DEVELOPMENTS OF FEED SUPPLIES IN THE FUTURE

(i) Energy sources Obviously as mentioned above, cereals will continue to play a major role in supplying energy to the pig industry, but I believe that there is going to be a shift in emphasis away from using crops primarily grown for human food use, i.e. where animals compete with humans for the same foodstuff, I have little doubt that grains such as triticale and barley, because of higher yields per hectare, higher lysine levels, and the fact that they are cash crops to the growers, will result in increased availability and usage in the pig industry. At the same time we cannot rule out the possibility that dehulled oats may be used increasingly, especially with young pigs because of their high energy level and good palatability (provided they are stabilised with respect to lipase activity).

While some people are optimistic about the possibility of cassava being available, I do not think it will become a significant item in the diet of pigs in the near future. I believe that research funds would be far better spent on developing new grains such as triticale and on furthering our understanding of their nutritional properties.

Time does not allow me to discuss the role of fat as an energy source, but I believe there will need to be increased work on the use of animal and vegetable fat for young pigs and in particular at certain critical stages with breeding sows, e.g. just before and after farrowing, The role of animal fat as an appetite stimulant with young pigs would seem to need further research as well.

(ii) Protein sources Recently there have been some exciting developments with regard to the availability of protein sources to the pig industry, and in particular I refer to lupins, which can play a very important role in crop rotation, and at the same time provide a very valuable source of protein to the pig industry, particularly if we can unravel some of the problems with the newer varieties such as Hamburg which seem not to perform as well as the amino acid profile would indicate. Field peas also look to have potential as a valuable source of protein, but it does seem that further research is needed to investigate the availability of the lysine in peas and to determine usage rates in pig rations.

Whilst newer protein sources such as chick peas may have some potential, I believe that further research is needed on some of the other more traditional protein sources, and I am referring particularly to the use of soyabean meal, including full-fat soyabean meal, and rapeseed meal which has been shown to be a very good source of lysine. The new, low thioglucoside, low erucic acid varieties of rapeseed which are becoming available offer great scope to the pig industry in Southern Australia. In view of the proposed changes to the use of rapeseed oil in margarine production, I believe that this product will become very important to the pig industry.

Meat-and-bone meal, and blood meal still remain very important sources of protein to the pig industry, and if processed correctly and properly supplemented with lysine etc. will give reasonably good performance. The value of meat-and-bone meal as a phosphorus source is becoming more and more obvious, particularly as the use of vegetable protein increases in the diets of pigs, and we have no other low fluorine, highly available phosphorus source in Australia, other than imported, relatively expensive, di-calcium phosphate. It is for this reason, more than any other, that the pig industry must be assured of adequate supplies of meat-and-bone meal, hence retention of meat meal on the Third Schedule of Prohibited Exports would seem to be desirable. This is particularly the case when we bear in mind the depletion in beef numbers, the'effect of the severe drought, increased exports of live sheep, and the possible reduced kill due to loss of export markets.

(iii) Essential amino acids Most work so far would seem to indicate that the first limiting amino acid is lysine followed by methionine, depending upon the protein sources being used, but it is possible that threonine and/or isoleucine may be potentially limiting. However unless there was a dramatic reduction in the cost of producing threonine and isoleucine, we would almost certainly be better to continue to use natural sources such as soyabean meal as supplements. with the recent exciting developments in "genetic engineering", it is possible that micro-organisms tailored to produce specific amino acids may result in significant cost reductions. The production of a wider range of cheap, reliable synthetic amino acids would allow us to make better use of the lower cost protein sources which are usually deficient in some of the essential amino acids.

The techniques centred on recombinant DNA (genetic engineering) may also be applicable to improving the nutritional value of single-cell protein through specific amino acid enrichment. Without such enrichment I have some doubts if in the short term single-cell protein is an economic proposition largely because of the high cost of production of the dried product.

OTHER FACTORS OF CONCERN TO THE FEED INDUSTRY

One of the main aspects concerning the industry in recent times has been the increase in legislative control of the use of growth promoters and prophylactic drugs. It is recognised by the industry that we have a responsibility to ensure that antibiotics and drugs which are of major significance to human medicine are not used extensively for animal medication if at all possible, even though there is little if any evidence to indicate that resistant bacteria from animals are the cause of problems with humans. However, it must be understood that with the intensive production of pig meat it seems to be almost essential that we have access to a range of suitable medications, particularly for prophylactic programmes with the young pig when it is in its most susceptible stages of development. It is therefore important that a balanced attitude is taken to the control and usage of these additives.

Another matter which needs careful consideration is the current limitation on the use of the trace element selenium, as there seems to be increasing evidence that an addition of 0.1 ppm of selenium is inadequate in some areas of Australia. Recent evidence both here and overseas would indicate that up to 0.3 ppm of added selenium may be necessary in some areas.

The industry is of course increasingly under the control of Government bodies such as the Environment Protection Authorities in each State, Health Departments etc. and to some degree would seem to be at the point of being over-regulated. Hopefully this trend will not become such that piggeries are forced to move further and further out into the country where cartage costs on raw materials and on transport of the finished article may make the product uncompetitive against other items offered to the consuming public.

PROMOTION OF FRESH PORK IN AUSTRALIA - A MARKETING APPROACH

J.M. CREAGH*

Until recently, there was little order or cohesion in the marketing of fresh pork in Australia. This situation was mainly brought about by the fragmented nature of the pigmeat industry, There was little integration between the many independent pig producers, pork retailers, wholesalers, processors and other middlemen. Most importantly, the needs and preferences of the consumer were given little consideration.

To exacerbate this fragmented situation, the large majority of pig producers were production oriented with little interest in the marketing process and the ultimate user of their product. This lack of knowledge of marketing was potentially dangerous as it can lead to resistance to change and the eventual production of pigs for which there is shrinking demand. A pig, like any other primary product, is worthless until it is bought and paid for. Production therefore, cannot exist unless profitable markets exist.

Fortunately over the past few years a much more marketing-oriented approach has been adopted by pig producers. The formation of the Pigmeat Promotion Committee in 1975 has helped to achieve this position as they have taken many of the steps required when adhering to the marketing concept. In doing so they have influenced many producers and others involved in the presentation of pork to the consumer and there is now a greater appreciation of marketing. Many of these people have learned the most important marketing lesson i.e. providing the ultimate user with a product which satisfies their needs and is wanted.

BACKGROUND SITUATION

At the end of 1975 when the Promotion Committee were ready to begin their operations the estimated per capita consumption of meat in Australia was 12.1 kg, which was only 11.8% of the total per capita meat consumption. Pork accounted for 40% of total pig meat consumption and was declining each year.

The Pigmeat Promotion Committee therefore conducted the initial steps of assessing the market, identifying the market, ascertaining consumer needs and then providing a product concept to meet these needs and promoting that concept. Some influence over the other aspects of marketing such as pricing, quality, production and distribution was achieved as time went on.

CONSUMER RESEARCH

Because of the continuing decline in consumption of fresh pork the first task of the newly formed Pigmeat Promotion Committee was to investigate consumer attitudes and behaviour towards the product. At the same time similar information was sought from retail butchers and those people considered to be "opinion leaders" in the field of food consumption such as food writers, home economists, cookery book editors, chefs, restauranteurs, teachers and so on.

A study of consumers, conducted during 1976, indicated that pork was the least served of all fresh meats. The two major reasons limiting consumption were fat content and cost. Other negative consumer attitudes included the lack of versatility in pork cuts and cooking methods, pork seen as a "special occasion" meat and misconceptions regarding cooking methods and nutritional value.

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* Pork Promotion Centre, P.O. Box A510, Sydney South, N.S.W. 2000.

A survey of retailers also indicated little in the way that would sell more pork. Pork accounted for less than 10% of all meat displays (mainly pork chops) and only 6% of promotional material applied to pork, It also had the highest incidence of price ticketing in meat displays,

Equally important, many of the retail butchers included in the research project had negative attitudes towards pork. Their view was that pork was not a good family meat, was poor value for money, had a health risk association, needed cooking longer, was a special occasion meat and was greasy. They also indicated that pork was not promoted sufficiently.

The poor image of pork amongst consumers and retail butchers proved to be far less the case with opinion leaders although they did exhibit more of a negative than positive reaction. That means that whilst they may have expressed a favourable, overall liking for pork many of the characteristics perceived by consumers as negative were also in evidence.

The key finding of this section of the research was however, the apparent lack of information about pigmeat products available to this group of people. Most of them were well catered for in terms of information about beef and lamb but no comparable information was thought to exist about pigmeats, particularly pork. All expressed a strong desire to be provided with information about various aspects of these products.

Incidentally in contrast to pork, the consumption of cured and canned products at this time was increasing and continued to do so for the next three or four years.

STRATEGY FOR IMPROVING PORK CONSUMPTION

Beef, as the dominant fresh meat, was vulnerable to an aggressive competitor with something new and different to offer consumers. It was in this area of fresh meat that the Pigmeat Promotion Committee saw the major opportunity of increasing pigmeat consumption in Australia. It is worth noting too, that despite the gloomy results of the abovementioned research, pork did emerge with one important plus. Consumers rated the best characteristic of pork to be its QUALITY i.e. its flavour, tenderness, taste, texture. Alternately the best characteristic of beef was seen to be its price i.e. its low cost.

The decision to promote fresh pork coincided with the development of a concept to provide a wider variety of retail cuts of pork. This development was based largely on adoption of new butchering techniques and many people involved in the pigmeat industry will recognise it as the "Superporker" concept. This concept involved the removal of excess fat and skin, together with the bone from most cuts. This had the effect also of increasing the versatility of pork cuts.

A small research study to test consumer reaction to these new cuts was conducted in Melbourne. The reaction was favourable.

However, despite the apparent consumer preference for these new cuts of pork the job of gaining distribution and retail support was more difficult. Butchers were reluctant to stock the new cuts claiming there was too much time in preparation, lack of suitable pigs and difficulty in selling some cuts. In contrast, the supermarket chains were largely enthusiastic and many of them adopted the concept. Processors, however, were not very supportive in supplying the primal and sub-primal cuts.

During this period the Pigmeat Promotion Committee also made available to retailers a continuous supply of consumer promotion material which promoted the use of the new cuts of pork. As well, various approaches to advertising were tried including daily newspapers, radio and national womens' magazines.

During this time, the price of beef to the consumer rose markedly with a resultant downturn in consumption. Consumption dropped by approximately 25% in 1979 over 1978. Because of this change in the marketplace the Promotion Committee decided to test a number of concepts for the new pork cuts and adjust their advertising and promotional approach if necessary. Prior to this the new cuts had been promoted to the consumer as being better value for money than the better known conventional cuts of pork.

Testing several concepts with housewife groups, it was found that the variety and versatility associated with the new cuts was the major attraction. Whilst cost was important, it became a secondary consideration when housewives learned that pork was now available in a variety of cuts which could be cooked and served in many different ways and to suit all meal situations.

The outcome of this research was the name New-Fasioned Pork with its distinctive symbol and the consumer proposition that pork now offered a new variety of cuts for more versatile meals. Advertising and promotional material was altered accordingly.

TELEVISION PROMOTION

Early in 1980 it was decided to test television advertising, the most dynamic of all advertising media and also the most expensive. Adelaide was chosen as the test market and the major local processors provided the retail trade with a range of primal cuts for the test market.

In the six month period, from the beginning of the television campaign in mid-May to mid-November, retail sales of New-Fashioned Pork (new cuts) increased by approximately 230% over the same period in the previous year (1979). This was a much larger increase than those achieved in other states where womens' magazine advertising and in-store activity supported the New Pork Cuts.

Factors other than the television and associated promotion no doubt had some influence on the retail sales of pork during this and later periods. Not the least of these influences would have been the favourable price comparison between pork and beef. However, it is not possible to satisfactorily take these factors into consideration and therefore the sales increases and accrued benefits to growers can, reasonably be attributed to the use of television advertising.

The test of television advertising in Adelaide saw a dramatic increase in the distribution of the new cuts and other promotable cuts of pork (i.e. lean, boneless cuts such as pork mince and diced pork). Along with this came a greater degree of retailer cooperation and confidence in the efforts of the Promotion Committee which indicated that a successful promotional mix had been arrived at.

PROMOTION DURING 1981

All media effort in 1981 was concentrated on television with campaigns being conducted from May to August in Melbourne, Perth, Brisbane, Tasmania, Newcastle and of course a repeat in Adelaide. The field force employed by the Promotion Committee to contract retailers and organise supply channels was expanded during this period so that all retailers were given the opportunity to become involved.

Conditions in 1981 had changed somewhat from those prevailing in 1980 when pork showed extremely healthy increases in consumption. Beef prices were down somewhere in the vicinity of 20-25% while pork prices increased as the year went on. This meant that pork became less attractive to both retailers and consumers alike as the year progressed. At the time of writing this report (early December) the wholesale price of pork is at almost prohibitive levels and has been for at least two months.

Despite this increasing difference in prices and the resultant lack of pork promotion by retailers indications are that pork consumption in 1981 will remain at almost the same high levels achieved in 1980. At the end of September per capita consumption was approximately 4.7 kg, an increase of about 2% on the same period in 1980 (Table 2).

TABLE 2 Estimated per capita domestic disappearance of pork

	kg/head	% change on previous year
1975	4.7	-18.9
1976	4.8	+2.1
1977	4.6	-4.2
1978	4.3	-6.5
1979	4.1	-4.7
1980	5.7	+38.1
1980 (Jan-Sept)	4.6	
1981 (Jan-Sept)	4.7	+2.4

The Promotion Committee sees this as a major achievement particularly when the importance of price is considered and that the overall consumption of meat in Australia has declined over recent years (Table 3).

TABLE 3 Estimated per capita domestic disappearance of meat (kg/head)

	Beef & veal	Mutton	Lamb	Pigmeat	*Chickenmeat	Total
1975	67.0	7.3	16.1	12.1	12.2	114.7
1976	67.8	5.6	15.6	12.4	13.3	114.7
1977	68.6	3.4	15.5	13.3	14.5	115.3
1978	65.6	3.1	14.1	13.8	15.8	112.4
1979	48.9	5.4	14.8	13.8	17.6	100.3
1980	45.0	4.5	15.1	15.5	19.3	99.4
1980 (Jan-Sept)	34.6	2.8	10.8	11.3	**6.6	
1981 (Jan-Sept)	37.0	2.9	11.7	11.5	**5.6	

* Product weight ** January-April consumption only

It must also be remembered that there was very little promotional activity in Sydney, the largest market in Australia. A combination of a lack of funds and the lack of suitable supply sources prevented television advertising in 1981 and this must have had some detrimental affect on the national consumption figure.

Figures supplied by some of the leading retailers in the markets where television advertising took place reveal a pattern that sales of the new pork cuts increased during the year whilst sales of conventional cuts decreased. This supports the theory that when beef and lamb prices become more competitive with pork prices, as they have been in 1981, users of conventional pork cuts revert to these other meats. Their purchase decisions are based wholly on price and consequently this group in 1981 appear to have used less pork than in 1980. If this is the case it could be argued that the maintenance of 1980 per capita consumption levels during 1981 is due in no small way to the promotion of the New-Fashioned Cuts of Pork.

with the prospect of beef prices remaining at current levels in 1982 and perhaps in 1983 it is reasonable to assume that consumer usage of conventional pork will decline still further. It is therefore important that the promotion of New-Fashioned Pork is continued in an effort to maintain and improve, if possible, current consumption rates.

The decision to treble the size of the promotional element of the Pig Slaughter Levy, taken by the Australian Commercial Pig Producers' Federation, earlier in 1981 was therefore crucial. It will allow the Promotion Committee to continue their efforts to change consumer attitudes and behaviour in the area of fresh pork.

One important task carried out by the Promotion Committee in 1981 was to investigate consumer attitudes towards pork and their relationship to the communication objectives established for the promotion of New-Fashioned Pork.

Very briefly the results of the research indicate that the concept of New-Fashioned Pork was best known and appreciated in Adelaide with advertising and other promotional aids (used at point-of-sale) being readily recalled. Consumer benefits from using the New-Fashioned Pork Cuts were seen to be increased variety and versatility, quick cooking, easy preparation and good economics. By contrast, in Sydney, pork still assumes a very specialist orientation and there was very limited awareness of New-Fashioned Pork.

THE FUTURE

In 1982 a second television commercial will be produced to stress the ease and speed of preparing and cooking New-Fashioned Pork meals. Between 60-70% of Australian housewives will be exposed to a television, advertising campaign during the winter months. In-store promotion will also be maintained.

It is expected at this time that the supply and price of beef and lamb will give both of these meat types an edge over pork at retail level and consumer promotion will be used in an effort to increase domestic consumption. It is also expected that chickenmeat and fish will be more aggressively promoted to the consumer than in the past. All of which makes competition for a share of the Australian food dollar that much harder for the fresh pork industry.

The eating habits and tastes of the Australian consumer have changed dramatically in recent years. Add to this the increasing number of working housewives and mothers, the increased leisure time available and the increasing trend to eat away from home or buy take-away and there is a situation that the Australian pigmeat industry must respond to.

Following the marketing process mentioned earlier the Promotion Committee have almost completed a comprehensive research study into the non-household food market, using Victoria as a basis for this investigation. Results of this research have helped the Committee to a better understanding of the catering industry, its various segments and the potential for pork products in those segments. Communication channels and the type of promotion required to increase usage of pork (or any other food product) have also been identified. Preliminary research has also been carried out in selected segments to test the acceptability of a number of pork product ideas.

The final phase of this study will be completed in early 1982 when consumer attitudes in regard to take-away food and food eaten away from home will be examined.

Unfortunately none of the findings to date indicate that there is an easy route to achieving significant increases in the use of pork by caterers. It is a very fragmented market and there are thousands of caterers, many of whom are non-skilled or semi-skilled cooks and chefs and not at all marketing oriented. Many of its segments are extremely price conscious as well.

However, one thing is certain, the 1982 promotion campaign for New-Fashioned Pork will provide an extremely sound base from which the Promotion Committee can step up its activities in the catering area. Stimulation of demand, the over-coming of negative consumer attitudes and increased usage of pork are prerequisites for success in this important market.

With the increased funds available for promotion the Committee also plans to promote processed pigmeats during 1982, particularly ham. The same marketing principles that *were* applied in the promotion of fresh pork will also be used for these promotions.

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CONCLUSIONS

E.S. BATTERHAM

Whilst it is always very difficult to predict the future of agricultural industries, currently the pig industry is in a sound position, with adequate feed supplies and market prices. The developments outlined in this paper regarding productivity, feed supplies and pigmeat promotion all suggest that the pig industry is in a sound position to meet the challenges of the eighties.