Veterinary consultancy boosts piggery profits

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By Ashley Mercy, Principal Veterinary Officer (Epidemiology), Division of Animal Health, South Perth

A pilot Pig Herd Health Management Scheme co-ordinated by the Department of Agriculture has stimulated much increased involvement of veterinarians in the Western Australian pig industry.

Co-ordinated by Ashley Mercy, principal veterinary officer (epidemiology) from 1985 to 1989, the scheme demonstrated the value of having regular visits from veterinary consultants and in implementing programs to prevent disease and production problems occurring in herds.

After three years, herds participating in the scheme had increased their annual gross margin over feed costs per sow by $141 (discounted). Every dollar spent on a veterinary consultant was associated with a $16 increase in gross margin per sow when compared with results for the year immediately before the herd joined the scheme.

How the scheme works

Herd health programs are common overseas and in some other Australian States. However, in 1984, only six Western Australian herds had a regular veterinary consultancy service and only two veterinarians were involved.

The aim of the pilot Pig Herd Health Management Scheme (PHHMS) was to establish a veterinary consultancy service for several Western Australian pig herds and to evaluate the cost benefit. Rural veterinary practitioners and pig producers were selected to participate in the three-year pilot scheme.

Six herds joined the scheme in 1985 and six in 1986. These herds were in the main pig raising areas of the State and were serviced by five veterinary practitioners from Perth, Bullsbrook, Northam, Merredin and Narrogin.

The cost of the PHHMS varied between herds and depended on the frequency of herd visits by the veterinary consultant and the amount of travel involved. Veterinary visits were scheduled at six to eight week intervals, depending on herd size. Actual costs ranged from $1,200 per year for herds with less than 100 sows to about $2,000 for herds with more than 150 sows (1984 prices).

The consultancy fee was shared between the participating veterinarians, the producers involved and the Western Australian Pig Industry Compensation Fund (PICF). The
veterinarian's share decreased from 40 per cent in the first year to 20 per cent in the third year, with the producers' contributions increasing correspondingly from 30 to 50 per cent. The PICF paid 30 per cent of the consultancy fees in each of the three years.

Training and support

None of the veterinary practitioners selected had been involved in consulting to pig producers before the scheme started. An initial intensive training seminar was held to increase their skills in this area, with emphasis on financial planning, management, health, nutrition, breeding and housing.

Continued training and support in these areas was provided by Ashley Mercy, veterinary officer (pigs) in the Department of Agriculture, Ross Buddle, senior lecturer in pig medicine, Murdoch University and Norm Gerraty, pig consultant from E.R. Squibb and Son. Department of Agriculture pig specialists in nutrition, reproduction and genetics were also involved.

Consultancy service format

The service was based on regular herd visits at which the consultants provided advice and service in the following areas:

- Initial financial planning and setting of production targets
- Monitoring of production records to detect deviations from projected targets
- Clinical inspection of stock and diagnosis and treatment of health problems
- Planning, review and discussion of specific disease control programs
- On-going monitoring of environment, housing, management, nutrition and breeding programs
- Post mortems and diagnosis of disease outbreaks
- Liaison with appropriate specialists in particular problem areas such as nutrition and ventilation
- Close monitoring of economic performance of the herd
- Marketing of slaughtered pigs
- Disease security
- Staff training

Between the planned herd visits, consultants monitored performance records and provided advice on specific problems as required.

Recording service

A major problem in many pig herds is determining the actual level of performance. Poor records in some herds make it difficult, if not impossible, to know whether the herd is profitable. It is often difficult to identify where a problem area is in the production cycle.

A computer-based recording service called PigCHAMP® was offered to participating herds to help monitor herd production. Although only five of the herds used this service, PigCHAMP® proved beneficial in providing early warning signals for emerging production problems. The other herds used manual recording systems. PigCHAMP® provided fortnightly 'action lists' to help producers manage the breeding herd, and monthly production reports summarizing reproductive performance.

Herd performance

Nine of the 12 herds which started the PHHMS completed the full three years. Three herds ceased operation due to circumstances unrelated to the scheme. Records from another herd were incomplete so that at the end of the pilot scheme data for eight herds were available for evaluation.

The mean results of the eight herds for the main profit-linked parameters showed a steady improvement over the three years of the scheme. A comparison of the results for the third year of the veterinary consultancy service with those for the 12 months before the scheme started shows statistically significant improvement in the following parameters:

- Litters per sow per year - up 5.5 per cent
- Pigs born alive per sow per year - up 8.9 per cent
- Pre-weaning mortality down - 17 per cent
- Pigs weaned per litter - up 4.9 per cent
- Pigs weaned per sow per year - up 12.8 per cent
- Gross margin over feed per sow per year - up 28.5 per cent after correction for inflation at 8 per cent per year.
The number of pigs sold per sow per year increased by 13.4 per cent and the mean herd feed conversion ratio (kilograms of feed eaten per kilogram of pig meat produced) declined by 8.7 per cent. However, neither of these results were statistically significant.

Cost-benefit analysis

There was considerable variation between herds in their actual performance and in the magnitude of improvement for the various production parameters during the three-year scheme.

The number of pigs sold per sow per year increased in seven herds and declined in one. In three of these herds, the increase ranged from 33 to 53 per cent.

Most importantly, five herds showed improvements in the gross margin per sow per year (corrected for inflation) ranging from 6 to 66 per cent. In one herd gross margin per sow per year improved from $630 per sow to $1045 per sow over the three years.

In the third year of veterinary consultancy, the mean consultancy fee of $8.90 per sow for the eight herds was associated with a mean increased gross margin over feed per sow of $141 (corrected for inflation). This is a cost benefit ratio of 1 to 15.8.

Industry benefits

As well as producing significant financial benefits for most participating herds, the PHHMS demonstrated to the whole pig industry the value of regular veterinary inputs to pig herds.

Partly as a result of the PHHMS, many Western Australian pig producers have begun using the services of veterinary consultants. By 1989, when the pilot scheme concluded, 10 veterinarians were providing regular consultancy services to more than 100 Western Australian pig herds. These herds represented about 12,000 sows, or about a third of the State's pig population. This is a marked increase on the pre-scheme figures of 1984, when only two veterinarians were consulting to six pig producers.

This greatly increased involvement of veterinarians in the pig industry should result in increased profits for individual pig producers, and lead to a better approach to pig health problems, particularly in the areas of responsible use of veterinary medicines and animal welfare.

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FROM LEFT: The author, Ashley Mercy, David Hackling and Tim Bicket, rural exchange student from the USA, discuss the records provided by PigCHAMP®.