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The industrialisation of pig production has meant that traditional approaches to veterinary medicine are unable to satisfy the demands that arise in these systems. Scientific training has by necessity been directed towards the individual animal rather than the group and has neglected the understanding of the complex relationships between man, animal, organisms and the environment and preventive medicine.

The concept of disease prevention has, by the nature of its definition, implied procedures to this end but a more positive definition would be the maximisation of the animals physiological function. If the veterinary surgeon is to fulfill his rôle in this respect he must become an integral part of the production and management team being required to investigate ill-defined disease production problems and appreciate the whole farm situation and its associated inadequacies. To maintain this positive rôle, the goal must be to help in the protection of the capital outlay of the pig unit and maximise the return on the investment. This must be carried out within accepted welfare practices.

Experiences in providing such a service to 82 intensive pig units have indicated a number of new areas of veterinary appreciation.

#### Man Management

With increased intensification of livestock production new concepts in disease control are being developed but to make this effective becomes an exercise in education and communication - the art as distinct from the science. Man management often becomes a limiting factor to the achievement of high levels of health and production and often the solutions to complex problems are to be found through the pigman rather than the pig. Human relations play a great part in the control of animal diseases by ensuring that personnel have an understanding, appreciation and awareness of their job and problems.

In some cases the solutions to problems will involve housing alterations and further capital investments, the necessity of which must be justified. The veterinary advisor must have the ability, personality and leadership to communicate affectively at all levels and it is only when such standards are achieved that the operator will be completely successful.

#### Education

Veterinary specialisation is essential to provide the expertise that modern day pig production requires and this further education is gained through colleagues, active both in the field and in specific areas of research. The Veterinarian that has achieved a high level of expertise must accept a responsibility for this further education because there are limitations to academic post graduate training without actual field work. It is possible to train the graduate to become competent at a high level after an 18 month period of in practice training. This is a function for the specialist, not previously recognised. Another important area is the acquisition of knowledge through on-farm experiences and putting this into a scientific context. This is done surreptitiously by group discussions of on-farm problems that are ultimately given veterinary direction. These experiences can be further disseminated between farms and may involve such topics as economics, new housing systems and design features, staff salaries, fly and rodent control, and many other diverse subjects. The provision of education on the farm is a new rôle for the veterinarian to consider and its prime objective is to give a scientific understanding of the tasks already undertaken. This can be carried out by short seminars on the farm during the course of an advisory visit, or more formal group sessions that are pre-arranged either on the farm or in the practice. The ultimate is for the veterinarian to

provide formal education, within his practice, to small groups of pigmen at different levels of expertise.

#### The Advisory Visit

This is the most important part of the veterinary service to the farm. The farmer will accept a periodic visit once the veterinarian has further educated himself and communicated and sold the service to his client. A recording system is essential so that data can be collated and presented for analysis. Methods of carrying this out are important in epidemiological investigations and problem areas thus are defined. This data is of four types, production, health, nutrition and economics and each parameter within any group is given a target figure either on a weekly or monthly basis. The actual on-farm data is then matched to the target. Each visit would open with an appraisal of the records and general discussion of on-going problems followed by a clinical examination of the herd or vice versa. Check lists are prepared for each area of production and used during the herd examination. These allow on-going discussions with the pigman, and ensure that all possible factors are considered. Examinations establish the presence of acute or low levels of disease, poor areas of production and, supported by pathological tests, will complete the process of problem identification. Visual appraisals and discussions will finally assist in epidemiological analysis and the preventive measures to be adopted. A written report is essential because it documents the results of the farm discussions and recommendations. This report is studied closely by the owner who often uses it in making his assessment of the services provided. It should be written in a clear concise way and always be typed with a copy filed for reference. The report can be used to reinforce the advice given and also highlight the critical areas but the contents must also be factual and of standards considered normal for current pig production. Disease control is an important part of the advisory visit and involves a study of the possible ways disease may enter the pig unit and the therapeutic management and environment control of those diseases that already exist in the herd. Ration formulation and the application of nutrition are important rôles.

#### Economics

Preventive medicine in ultimate terms describes a service offered to the pig farmer, the cost of which is less than the economic return which it yields. By comparing target figures for any production or disease parameter against the actual ones, a cost in terms of lost production or death can be determined.

#### Summary

An advisory service to pig farmers was started in 1969 from within general practice. During the period of 1980-81, this service was available to 103 pig farms (average herd size of 225 sows) and 82 of these received regular advisory visits (average 6 per annum).

Selected References: MUIRHEAD, M.R.; Vet. Rec. 1976, 99:288. 1978, 102:222. 1980, 106:170. MUIRHEAD, M.R.; Fellowship Thesis. 1978, Royal College of Veterinary Surgeons, London. PENNY, R.C.H.; Pig. Vet. Soc. Fourth International Congress, Ames, Iowa. 1976.