

QUALITY ASSURANCE THROUGH RESIDUE SCREENING -A PIG INDUSTRY MODEL

I.B. STEPHENS*, T.J. NICHOLLS**, L.R. BRADSHAW*** and R.A. CHOWN****

Today's consumer demands high quality, residue free, nutritious and affordable food. The provision of this is one of the major technological and managerial challenges facing producers and processors.

The Commonwealth government has a clearly defined policy of industry self regulation designed to ensure industry meets statutory regulations and customer quality requirements through its own planned actions. The most cost effective way to achieve this is by the adoption of quality management principles. Since 1986, the Department of Primary Industries and Energy (DPIE) has introduced and assisted with the implementation of quality assurance programs in the export food industry. The DPIE maintains responsibility for primary health inspection and also monitors/audits industry quality assurance systems to ensure that export requirements are met without the need for item-to-item inspection. An integral component of food safety and public health programs will be the introduction of rapid, sensitive and inexpensive screening tests for chemical, microbiological and particulate contamination.

An on-plant urine antibacterial residue screen testing program was used in a pilot project at an abattoir during 1987-88. Pig urine samples were collected at slaughter and tested at the rate of one/pork category/property/slaughter day. Category-properties were continually tested until 5 consecutive negative results were recorded, then they were routinely monitored. Results for the first five tests only from each category-property were: of 441 heavy pork-properties tested 371 (84%) were negative while 70 (16%) had 1 or more positive tests. For 203 sow/boar pork-properties 150 (74%) were negative and 53 (26%) had one or more positive tests. Feedback to the producers with residue problems on the correct usage of drugs resulted in an increased awareness and a reduction of the residue problem.

In July 1989 these procedures were introduced as a quality assurance program at the above abattoir to produce antibacterial residue free heavy pork for meat for the export trade. Product from "clear" properties is segregated and exported. The test results, identification of residues and related farm management practices are entered into a database. An extensive feedback and extension/education program for producers, feed-millers and veterinarians has been instituted. A system of property antibacterial residue accreditation is planned to be introduced whereby the producer produces pigs under a code of good management practice.

This program serves as a model for other quality assurance programs which may be implemented by producers, processors and regulatory authorities in order to reduce product wastage and inspection costs and to produce goods that are acceptable to the consumer.

* DPIE, Bureau of Rural Resources, Box 778, Brisbane, Qld. 4001.

** DPIE, Bureau of Rural Resources, Box 858, Canberra, A.C.T., 2600.

*** DPIE, Aust. Quarantine & Inspection Service, Box 157, Toowoomba, Qld. 4350.

**** KR Darling Downs Cooperative Bacon Association, Box 157, Toowoomba, Qld. 4350.