

The consumer's right to safety

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A question I have been asked many a time is »What is Meat Hygiene?». Meat hygiene is a term introduced in the early twenties by the German veterinary school to connote a collective applied science concerned with the production, inspection and control of meat and meat products. It deals with the condition and health of animals and carcasses destined for human food, and the construction, lay-out and hygiene of the meat plant. It covers the preservation of meat and facilities provided for this purpose as well as the processing, transport and disposal of this important food. With the constant discovery of animal diseases transmissible to man, meat hygiene is a most valuable instrument in combatting some of these dangerous zoonoses. Meat hygiene has therefore become a vital component in veterinary public health, a definition introduced by the W.H.O. and comprising »veterinary medical arts and sciences, applied to the promotion of the well-being and efficiency of man.»

Meat is a tasty food and a desired body builder which can, nevertheless, under certain circumstances turn into a hazard to human health. Of course, nature has herself taken precautions to defend man against meat-borne infections and provided a defence-force for this purpose. Smell and sight reject unclean or decomposing flesh, while gastric and intestinal secretions exert a fair amount of bactericidal action on the invading organisms. Specific immunities help to oppose the aggressor and the age old bastion of this self-defence is of course thorough cooking. However, since the latter method of preparing meat does not appeal to every palate and since the consumer is not prepared to gamble with his health, his demands for safety and assurance from a well organised and knowledgeable meat inspection service are fully justified. While the awareness of the necessity for proper meat hygiene is constantly gaining ground, changes in feeding habits and food supply are causing the Veterinary Meat Hygienist some justifiable concern and require even stricter vigilance and adherence to the basic rules of hygiene in order to give the consumer the protection he needs and expects.

The far reaching, scientific and economic evolution of our times has chan-

ged the pattern of meat production, distribution and sale. The individual supply directly from producer to consumer has been replaced by an intricate commercial chain. Mass production of food, ready to serve dishes, staff canteens and restaurants have to a great extent replaced the home cooked meal. While then in the past a food poisoning outbreak could be confined to only one family when the meat was uninspected and diseased or the housewife did not pay attention to cleanliness or proper storage of food, today hundreds of consumers may suffer if those who prepare, handle or serve the food do not appreciate the necessity for hygiene or if the meat inspection service fails in its duties.

The centre of meat production, the abattoir, has also passed through many phases since the early days of animal sacrifice. At the peak of Roman might, it was even the rendezvous of the noble gourmet, as at the adjacent eating place fresh succulent and tasty joints were served and pleasant gossip exchanged. However, with the downfall of the Roman Empire the finesse of meat production declined and indeed it was not until the 13th Century that a wise Bavarian king appreciated the necessity to slaughter animals for human food in a confined place supervised by a public authority and so came the birth of the municipal abattoir.

However, with the growth of dwelling areas and the demand for improved standards of meat inspection and hygiene the whole question of slaughter of animals for human food had to be thoroughly reviewed. In consequence, during the last two decades, the majority of private slaughterhouses and out-of-date municipal abattoirs closed down either as a voluntary measure or as the result of newly enacted legislation. Today the bulk of meat is supplied by meat concerns which have their own slaughter and processing facilities and usually retail the meat in their own shops. Modern transport and the ease of communication has made far off corners of the globe potential meat supply bases of importance. This world wide exchange of food necessitates an international standard for the hygiene, processing and inspection of meat. For this reason FAO/WHO are endeavouring through Codex Alimentarius Committees to give the world these essential minimum requirements. The envisaged draft proposals stress the necessity for protecting the consumer and demand well constructed meat plants, laid out for new operational systems based on the widespread use of mechanical installations. This modern equipment offers two main advantages from the point of view of hygiene. The space of time during which carcasses are exposed to the atmosphere is reduced and less manual handling of the meat takes place. All by-products, condemned carcasses and parts are removed from the dressing floor in the shortest possible time and combined with an improved overall standard of hygiene, sanitation and better meat inspection facilities the danger of post-mortem contamination of meat is greatly reduced and its shelf-life extended.

It is of course vital that all these international rules, codes and standards are of a realistic nature. Therefore, before placing any demands on paper, those responsible should be quite certain that such demands are absolutely necessary and feasible to fulfil in day to day practice. While the Meat Hygienist's foremost duty is to protect the health of the consumer, he should not overlook the economical and practical implications of his demands. Meat must not become a costly luxury food. It is a vital protein which must be available as a staple diet to the largest possible number of consumers throughout the world at a reasonable price.

In step with the progress of time, meat inspection methods have changed. Although the traditional macroscopical examination of carcasses and viscera still holds good it is rightly regarded as being incomplete especially in doubtful cases where a differential diagnosis is essential. Meat inspection should begin on the farm as none but the healthy animal should go to the meat plant. The importance of ante-mortem inspection is now fully appreciated and the laboratory examination has been accepted as a necessity and a vital link in the new concept of meat inspection and judgment. It is not only micro-organisms and pathological lesions which the meat hygienist is looking for. Today he has to be quite certain that the meat he passes for human consumption is free from harmful chemicals and drugs which may have masked the true state of the animal's health when it was presented for slaughter. Indeed the abattoir is becoming more and more a diagnostic centre for the veterinary field services, intercepting as well as uncovering diseases which may endanger the health of man or animal. It is not the consumer alone who enjoys the benefits of a well organised and reliable meat inspection service and up-to-date slaughtering and meat processing facilities, but the livestock producer also, consequently the economy of the country as a whole. »Disease due to bad nutrition kills 100 times more people than the past war» said Lord Boyd Orr, regarding nutrition as »that base of human life». It should be understood that by bad nutrition this eminent scientist did not only mean insufficient or poor food but food which had actually undergone decomposing changes. It is the Meat Hygienist who has been called upon to participate in the protection and supply of »that base of human life». He has accepted this challenge and must therefore ensure that the meat the consumer purchases is wholesome, healthy, clean, of good quality and free from undesirable or prohibited drugs, chemicals and hormones. To carry out this responsible task, the Meat Hygienist must have the full support of the man in the street and the people who produce, prepare, process or handle meat and meat products. Here then there is still ample room for broadcasting knowledge and understanding of hygiene at all levels the world over. Full advantage should be taken of the existing mass media of modern education

and propaganda. Public health education should start in the meat plant with the meat inspection staff taking a critical look at themselves. How otherwise can a Meat Inspector enliven the attitude of the labour force towards hygiene if he himself tolerates an untidy or even unclean environment in his own changing room or office. How can a Meat Hygienist inspire an employee of a meat plant when he himself has a slovenly appearance in unclean protective clothing requiring urgent repair. How can one expect a butcher working along the killing and dressing line to wash his hands regularly or sterilise his implements when the Mean Inspector himself makes no effort to take advantage of these facilities and is content to wipe his hands on a piece of stockinette stuck behind his belt.

A splendid display of stainless steel and walls tiled in white to the ceiling, washed down every minute or so by automatically operated water points are tangible evidence of progress, provided they are not a meaningless display without the backing of all other essential facilities and an operational staff which is fully aware of the meaning of hygiene.

Over the last decade not only methods of meat production but distribution and sales techniques have also changed. In the preparation of meat and meat products the machine has taken over a good deal of work previously carried out by hand. It is perhaps this partial automation which has caused some operators to become casual to the point of neglecting the principles of hygiene. Yet regardless of all changes for better or worse the aim of the Meat Hygienist must remain the same, to assure the consumer that the meat or meat products he eats have been thoroughly examined, hygienically handled, prepared, processed and stored and that they are sound, healthy, wholesome and of good quality.

In this struggle for the betterment of meat hygiene and public health the relationship between the executives and the labour force in the meat industry and meat trade is of paramount importance. An order alone may have worked wonders in the past, but, today an inspiring example from the foreman or even a more senior executive is what is required to win the people over. It is not enough to display a placard saying »Wash Your Hands-Wear Protective Clothing«, if the Manager himself struts about in his executive suit without a white overall and head covering when entering departments where meat is prepared, processed, stored or packed. When talks are given to the staff of the meat plant, as there ought to be, in connection with the drive to improve hygiene, it is impertative that not only the meat inspection personnel but also the plant's executives should be seen and heard and so set an example of their attitude towards this vital problem to their employees.

Even in countries with an overall good standard of hygiene one can still witness for instance that the room behind the shop where meat is cut up

into joints or meat products sliced, hand washing facilities are not available, the explanation being that there are plenty of hand wash basins in the adjoining changing room. This room may indeed be situated next to the cutting up department but the existing physical separation will no doubt have its psychological effect. Even the most conscientious employee may finally succumb to the urge to wipe his hands on his white overall instead. A glance at the side of the employees' protective clothing may provide the answer but in this instance the blame rests with the employer.

There are still far too many employers who do not take enough trouble to understand the advantages hygiene can offer to the meat industry and meat trade. Far too few employers see the necessity to explain the job to their employees and clearly define duties and responsibilities. It is in their own interest that employees suited to a formal training and the attainment of qualifications should be encouraged to do so. Others, whose aptitude shows less potential, should receive simple instructions on the job. They should be told, for instance, that a machine which reduces the handling of meat and meat products will not automatically raise the standard of hygiene, but on the contrary if not properly looked after by the operator could become a dangerous breeding ground for micro-organisms. But whatever the background and intelligence of the employee he or she must become fully aware of the necessity for improved and better hygiene as the goods handled are a source of great economic and public health value. For this reason New Zealand's meat industry introduced this very essential training. Executive staff, meat plant superintendents and foreman can take special diploma courses in meat technology and allied subjects including of course hygiene, at the Massey University in Palmerston North. The Meat Research Institute in Hamilton which is part of New Zealand's meat industry is most energetically supporting this hygiene drive. The officers of the Meat Inspection Service lecture and demonstrate to the meat works employees so as to acquaint the whole labour force of the meat plant with the principles of hygiene, their necessity in meat production and the benefits derived from a good name in international meat trade. Indeed it was the Meat Division of the Department of Agriculture which started this hygiene drive.

However, no matter how carefully and hygienically meat and meat products are prepared, processed or stored in the meat plant, all efforts are in vain if the chain is broken before the food reaches the consumer's table. Proper hygiene, care and handling and, if necessary, temperature control are essential features throughout every phase even after the food has been purchased by the consumer. Indeed, outbreaks of food poisoning have been retraced to the consumer's kitchen. It was not the canned meat which caused the food poisoning but the carelessness of the consumer on

leaving the half empty can exposed to infection during a hot summer's night. Increased attention to public health education is therefore essential. Besides, a well informed consumer becomes a promoter of sound and good meat and meat products prepared and offered for sale in conditions worthy of a reputable food industry and food retail trade.

Nations certainly cannot afford disruption of the activities within their community because of illness caused by unsound food nor can they tolerate faulty handling of food resulting in nutritional wastage and economic loss.

In his efforts to help humanity the late President Kennedy demanded four basic rights for the consumer: 1. The right to choose; 2. The right to be heard; 3. The right to be informed; but foremost 4. The right to safety. This safety we Meat Hygienists can and must assure the consumer.