



Meat Board of Namibia

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“THE SEAL OF QUALITY” PUBLIC AWARENESS CAMPAIGN

The “SEAL OF QUALITY” logo identifies butcheries, which conform to high standards of meat quality, hygiene, preparation and displaying of their red meat. Consumers can be confident that meat bought at these butcheries is sourced at approved abattoirs, has passed careful scrutiny by inspectors and is healthy and safe for human consumption. The “SEAL OF QUALITY” will indicate consumer-friendly butcheries where you can purchase safe meat and meat products with the greatest of confidence to protect your family’s health. Butcheries that voluntarily participate in the scheme to supply safe and healthy meat to the public will be evaluated according to their hygiene standards before the logo is awarded to them. The staff will receive training in hygiene and in the handling of meat and meat products to ensure food safety.

BUY INSPECTED MEAT

With the worldwide threat of foodborne diseases such as BSE, Bird flu and Swine fever, and typical spoilage bacteria like the deadly E. coli 0157:H7 and Salmonellae that constitute a food safety risk, the Meat Board recommends that consumers only purchase inspected meat because of the safety precautions built into a meat inspection programme to protect your family’s health.

Where can consumers buy inspected meat?

Meat from an abattoir registered with the Meat Board where meat inspection took place is eligible for sale at any butchery, grocery store or meat market.

Who performs this meat inspection?

The competent authorities in the Ministry of Health, Municipal Health or Department of Veterinary services under whose jurisdiction the abattoir falls.

A veterinarian or health inspector will examine the live animal before slaughtering. Meat inspectors will also oversee the humane handling of animals.

Meat inspectors are highly qualified in meat hygiene and well trained to distinguish abnormalities in animals for human consumption. They work closely with veterinarians involved in inspection.

Why issue a meat inspection certificate?

The meat inspection stamps on a carcass certify that the abattoir has been registered by the Meat Board and that a Certificate of Fitness has been issued by the competent authority that the facility has been declared fit to slaughter animals for human consumption.

The stamp safeguards to the consumer:

- that the abattoir is registered and is part of a Meat Inspection Programme,
- that a meat inspector or veterinarian was present at the slaughter and examined the carcass,
- that the animal from which your meat derives was judged fit for slaughter and human consumption,
- that a high level of cleanliness and sanitation was maintained throughout the slaughtering process, and
- that the health certificate that accompanies a consignment will confirm all the above-mentioned conditions.

What is the function of meat inspectors?

Meat inspectors oversee the complete operation of the abattoir, carefully examining both live animals and finished carcasses. They inspect abattoirs or slaughterhouses for:

- proper and adequate sanitation of premises and equipment before operations begin and during operational procedures of the plant,
- proper handling of meat,
- protective clothing and sterilisation of knives and saws, and
- adequate equipment including lighting, ventilation, water supply, and cooling facilities.

Meat inspectors examine:

- all animals presented to be slaughtered for evidence of infectious diseases or other abnormalities detrimental to human health,
- organs, lymphatic system, head and the dressed carcass.

Meat inspectors turn down carcasses, or portions of carcasses, deemed unfit for human consumption because of disease, injury or sanitary reasons. They might consult with a veterinarian before doing so.

The carcasses of animals passing inspection are stamped with a meat inspection stamp before they are placed in a cooler for further distribution. They also inspect vehicles used for transportation of meat or carcasses for proper sanitation and equipment.

What are the advantages of meat inspection for

(a) the consumer?

- Meat inspection protects the health of the general public by making safe, wholesome meat products available.
- It prevents the outbreak of many reportable diseases, which can duly be discovered during routine meat inspections.
- It offers assurance that food safety professionals are present during the slaughtering and dressing of animals.

(b) the certified abattoir operator?

- Operators can buy livestock locally, slaughter them in the abattoir and offer the products for sale to the public over the front counter.
- Abattoirs can supply meat to butchers, restaurants, meat markets, institutions and stores throughout Namibia.

(c) the retail market and food service industry?

- Retail outlets and restaurants have a local source of inspected quality products.
- Tenders can comply with quality products as indicated in tender specifications.

(d) the producer?

- The farmer has a local market for his product.
- The farmer has easy access to an inspected plant for the slaughtering of animals sold directly to an individual customer.

The Meat Board urges consumers to be on the lookout for the “SEAL OF QUALITY” that will ensure safe and healthy meat products to the consumer.

CLASSIFICATION OF RED MEAT

Buying red meat with colour-coded roller markings gives the consumer the guarantee and satisfaction that it was classified by a qualified meat classifier from the Meat Board in an approved abattoir. Classification ensures quality control between the different fatness classes ranging from very lean to excessively over-fat carcasses.

Age and fatness

Carcasses are classified according to carcass characteristics. Age and fatness are the most important indicators a consumer should consider when buying red meat. Age plays an important role in your choice, because meat of a young animal is very tender, while meat of older animals is least tender. The following colours describe the age of carcasses:

- **A – Class – purple ink – very tender**
- **AB – Class – green ink – tender**
- **B – Class – brown ink – less tender**
- **C – Class – red ink – least tender**

Look for the different colour-coded roller marks on meat or carcasses to ensure that you obtain the meat you prefer.

For more information contact the Meat Board of Namibia Tel: 275 847

STANLEY VAN ZYL
MANAGER: CLASSIFICATION

The meat handler and foodborne diseases

Foreword

In the previous article the Meat Board of Namibia handled the aspects of meat inspection and classification. In this article we take a look at the handling of meat and meat products as part of safe and healthy food offered for sale to the daily consumer.

All over the universe the human outcry is for safe and healthy food to reach their table. Consumer awareness of food handling, processing and packaging together with the source of the product has become a more and more discerning factor. The food service sector requires a consistent and reliable supply of quality, customised and convenient products. Meat, on the other hand, has become an anonymous mass product.

Illegal and informal slaughtering with uninspected carcasses finding their way into our homes, butcheries and supermarkets is a major concern of food safety. Foodborne diseases have the potential to cause adverse health conditions in humans. Food safety is about ensuring fitness for purpose and protecting public health.

Hygiene standards in abattoirs and butcheries

Clean, healthy meat is one of the most valuable and safest food commodities available to humans. If handled improperly and unwisely it can develop into a highly perishable product. Rigorous control guarding against the introduction of any organisms likely to affect the health status of our general public is underway. Make sure, whenever you purchase meat, that the meat derived from an approved abattoir that delivered the carcasses to your consumer-friendly butchery, displaying the "SEAL OF QUALITY" logo.

Health and hygienic standards are vital for food safety measures in the red meat industry. On meat safety there can clearly be no compromise.

The most common cause of bacterial food poisoning is salmonella. Faecal contamination of a carcass and the bowel contents of animals are nearly always responsible for this infection. Informal slaughtering with no hygienic standards imposed on them or a proper cooling system in place is mainly responsible for contaminated carcasses ending up with our public and in our butcheries. The red meat industry runs risk management programmes to suit individual circumstances without compromising food safety.

The meat handler may have a stomach problem and the source of contamination may be the bowel movement of this person if he/she neglects washing his/her hands after visiting the toilet. Specifically, human enteric infection such as typhoid and paratyphoid fevers may be foodborne and caused by contamination of food by the intestinal contents of carriers. Staphylococci derive from the skin and septic lesions or open sores on the hands or arms of meat handlers and may also lead to contamination of the meat product handled by the person, which is another serious cause of food poisoning. On farms the facilities to check human health are not always readily available and sanitary measures are lacking during slaughtering, which poses a direct threat to the health of humans.

How can we reduce such contamination?

The likelihood of such contamination may be reduced in several ways:

- By not purchasing uninspected meat from unregistered abattoirs and selling it over the counter in the butchery to the general public;
- By identifying procedures which may lead to contamination of the product and by modifying them;
- By paying special attention to the direct handling of meat and meat products in an abattoir or butchery;
- By providing suitable equipment and working conditions, including adequate hand-washing and hand-drying facilities;
- By education, training and supervision;
- By paying attention to the health of the staff, so that workers with certain health conditions such as diarrhoea or infected skin lesions, which increase the risk of their shedding harmful micro-organisms, can be excluded from handling meat until they no longer pose a risk of spreading an infectious disease.
- Alternatively, under special circumstances, they may be permanently excluded from work as a meat handler.

Why should meat handlers adhere to basic personal hygiene practices at all times?

Whatever stringent health standards are applied in abattoirs and butcheries, there can be no absolute certainty that a healthy, symptom-free employee is not shedding pathogenic bacteria or viruses. On the other hand, and in comparison, this cannot be said of informal slaughtering under unhygienic circumstances where the unsuspecting public like to purchase their meat at a cheaper price without considering the quality or the health risk to which they expose their families.

Staphylococcus is part of the normal flora of the nose and some skin areas. For weeks or months following a salmonella infection, the organisms may be excreted in such small numbers that a laboratory test may not even detect them. Laboratory tests for viruses have a relatively low sensitivity even where they are available, and for this reason it is impossible to say that an individual is not infected. The tests merely show that pathogens have not been detected.

Managers or supervisors should ensure that meat handlers at all times adhere to the following aspects, which should become part of the customary norms and values of all persons handling meat in abattoirs or butcheries:

- Hands should be washed and fingernails scrubbed in warm soapy water –
 - before meat is handled;

- after visiting the toilet;
 - after blowing the nose;
 - after coughing into the hands;
 - after smoking and/or eating;
 - after handling raw meat;
 - after handling any soiled objects, such as a refuse bin; and
 - after wiping a sweaty forehead with the back of the hand.
- Hands should be dried with paper towels or a hot air drier – never with a communal cloth or towel.
 - Fingernails should be kept short and clean without nail polish.
 - Keep all cuts and sores covered with a waterproof dressing. Never prepare or work with raw meat while there are unhealed cuts or sores on hands or arms, unless rubber gloves are worn.
 - Keep hands away from the mouth, nose, eyes, ears or hair during the time that meat is handled.
 - Food must not be eaten or fingers licked while preparing meat.
 - A clean, washable overcoat or overall of a pale colour must be worn that will show dirty stains very easily.
 - Hair should be kept covered with a hairnet to prevent hair, dust and bacteria from falling into the food.
 - Never cough, sneeze or blow the nose over meat.
 - Do not smoke or chew tobacco while handling meat and do not wear rings or other jewellery which can come into contact with the meat.
 - Meat handlers should ensure that they are at all times clean on their person. It is recommended that a hot shower be taken every day before commencing work. Soap and clean towels must be readily available.
 - Clean protective clothing should be worn every day.

The main emphasis of maintaining hygienic abattoirs or butcheries should fall on personal hygiene, clean protective clothing, effective supervision of employee health and the timeousness of appropriate action when needed. Sound management with regard to hygiene, and thorough commitments from employers and employees alike, hold the key to success.

What is a meat handler?

It is a person engaged in the slaughtering process, boning process, preparation, packaging, storage and transport of carcasses, meat and meat products, involving direct contact with meat products. Maintenance staff, hygiene and cleaning workers who come into contact with meat cutting equipment and machinery, or employees working in the meat cutting plant do not normally constitute a health hazard as long as adequate hygiene and cleaning regimes are strictly and routinely followed.

Why the need for education and training?

Quality assurance staff should liaise with management to ensure that a thorough initial training in hygiene discipline is given to all meat handlers, and that this is re-enforced at regular intervals to maintain high hygiene and quality standards. Temporary workers who are to be employed as meat handlers must also undergo the appropriate hygiene training. Supervisors must be trained to check the temperatures of displaying fridges on a regular basis. Packages of fresh meat with a due date must be removed immediately if their shelf life has expired in order to prevent foodborne diseases that are detrimental to human health. Do not stall until public complaints are received. This will harm the image of your butchery. The education and training of meat handlers is also part of the company's responsibility, and management should ensure that an appropriate programme receives the employees' attention. This is a vital element of a food safety programme. All employees must know and understand the basic principles of food safety and personal hygiene as well as their own responsibility. Managers, quality assurance staff and supervisors must be aware that employees with gastro-enteritis, persistent coughing, colds, open skin lesions or sores must stay away from work, transferred to another job, or be prohibited from handling meat while the symptoms persist. Trained personnel must conduct workshops on a regular basis for all employees within the food handling company, including management, and training must be reinforced by periodic refresher courses.

Why the need for medical screening?

Health interviews are necessary when new appointments are made within a meat processor's establishment. This involves the completion of a questionnaire by the potential employee, and is aimed at a general assessment of a person's suitability for work as a meat handler in terms of demeanour, appearance and cleanliness. All relevant aspects related to environmental health matters and practices of food handling should be covered in the questionnaire. A number of aspects are essential in such a questionnaire:

- Questions should be directed towards the identification of excretors, whether clinically well or symptomatic of organisms detrimental to food safety.
- The interview should take place before employment.
- The interview may be repeated after employment in special circumstances such as following a period of absence from work due to illness, or a holiday in a country where an epidemic of gastro-enteritis has been reported.
- Medical advice need only be sought if the interviewer considers that a more detailed examination would be desirable.

Disqualification as a meat handler

Persons suffering from the following conditions will require a medical examination, and if confirmed, be disqualified from being a meat handler:

- Chronic conditions such as drum perforation;
- Chronic bronchitis;
- Chronic skin conditions, such as eczema, which make skin cleansing difficult.

The following conditions disqualify a person temporarily from meat handling

Supervisors and management should always be on the lookout for the following symptoms in meat handlers that could disqualify them temporarily from handling meat:

- Infection of the eyes or eyelids;
- Inflammation and/or discharge from ears;
- Staphylococcal conditions, such as recurrent boils or open sores;
- Recent history of gastro-intestinal infection;
- Hepatitis A – six weeks from onset of jaundice;
- Salmonella food poisoning, cholera, typhoid and paratyphoid – three consecutive negative stool specimens 48 hours apart;
- Parasitic worms and other parasitic conditions – until successfully treated;
- All other gastro-intestinal illnesses (bacterial or viral) – until symptom-free;
- Tuberculosis – seven days from onset of effective treatment;

The return to work in these cases should, however, only take place after consultation and with the consent of a medical doctor. These measures are aimed at protecting co-workers as well as the general public from becoming infected through direct contact with an infected meat handler or by means of contaminated meat handled by such a person. In other words, the workers' health, safety and welfare are of the greatest concern when handling meat or meat products to ensure a safe and healthy product to the consumer.

Illnesses should be reported

Managers in abattoirs and butcheries should encourage their employees to report to their supervisors whenever they have diarrhoea, a sore throat, fever, a cold or open skin lesions, or are jaundiced.

Managers should have a general knowledge of contagious diseases and their symptoms to ensure that meat handlers suffering from them can be identified on a very early stage.

Management must thus be aware that employees who have gastro-enteritis or open pus-producing lesions must stay away from work or be relocated to tasks that do not involve the handling of meat.

It must be kept in mind that health standards should be applied in a practical way so as to uphold food safety standards, without excluding a person from work unnecessarily, while still maintaining the safety of other employees and the public, in order to produce safe food.

What is the commitment of management?

Food hygiene is the responsibility of management and can at no point be delegated to meat handlers. The commitment of management to the following is essential:

- A programme of optimum hygiene, covering all aspects of hygienic meat handling. Vigilant and competent supervision in this respect is vital, with open discussion and reporting of hygiene problems by employees, followed by quick responses with corrective measures;
- Reassurance that meat handlers will not suffer loss of pay or their jobs if symptoms of diarrhoea or infected skin lesions are found;
- Employment of in-house technical experts that can advise on hygiene principles;
- Creating optimum hygiene conditions and practices, with regular updating;
- Implementation of stringent quality control programmes;
- Responding to consumer complaints regarding hygiene in a professional and responsible manner;
- Implementation of an occupational health programme for improving working conditions and increasing product reliability; and
- Mutual trust between employees in order to support each other in the maintenance of maximum hygiene levels. To create these meat handlers should be empowered to be part of the evaluation process regarding hygiene standards.

Management commitment must also include the existence of a good relationship with the local health authority to ensure a spirit of co-operation in the interest of public health. Management should feel free to discuss any aspect related to food handling, such as illness of meat handlers, with the relevant officials of the health authority when they visit the butchery on a routine inspection. It should, however, be stressed that health authorities must not only depend on management commitments or public reactions with regard to safe food handling practices. They must carry out their statutory and functional responsibility.

The physical appearance of all areas in the butchery should be strictly monitored, and general housekeeping and personal hygiene observed on a regular basis.

Basic food handling practices

With regard to basic food handling practices, the following golden rules will always apply:

- Basic foodstuffs like meat must be obtained from a health-approved source.
- Cook meat thoroughly.
- Eat cooked meat immediately, or within one hour of preparation.
- Store cooked meat carefully – temperature control is essential.
- Reheat cooked meat only once.
- Reheat cooked meat thoroughly.
- Cover and/or seal cooked meat during storing and when exposed or displayed.
- Avoid contact between raw and cooked meat.
- Keep all kitchen surfaces, utensils and equipment meticulously clean.
- Protect meat from dust, insects, rodents, animals and other sources of contamination.
- Clean tongs, gloves, etc. should be used to handle prepared meat when necessary.
- Use pure water. Hot water must be continuously available to ensure hygiene.
- Waste foods must be properly disposed of.
- Do not inflate meat containers, such as plastic bags, by blowing into them by mouth.
- Do not thaw frozen meat in cold or hot water for more than six hours at room temperature.
- Do not use ordinary dishcloths to wipe or clean working surfaces. This is a breeding ground for harmful bacteria.

These measures are necessary to limit bacterial growth that might lead to foodborne illnesses in humans. A system such as the “SEAL OF QUALITY” can only be functional if it is fully supported at all the stages which are involved in the production and marketing process of red meat.

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