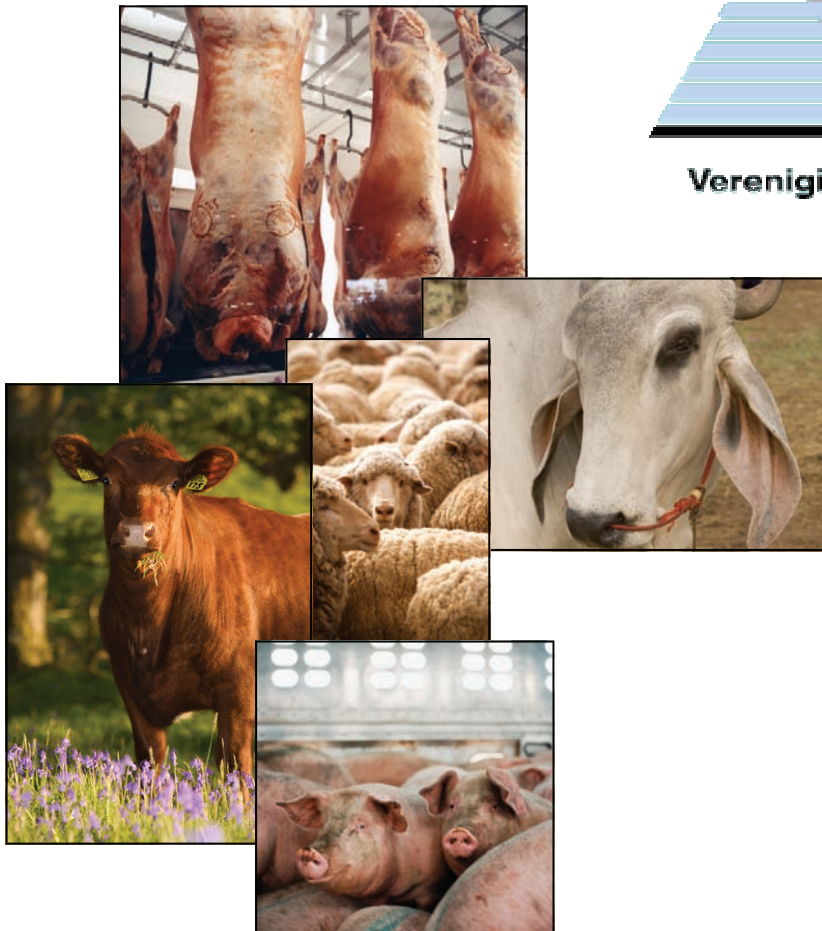


Vereniging - Association



Red Meat Abattoir Association Information Package

1. RMAA BACKGROUND

The RMAA (Red Meat Abattoir Association) is a representative forum for abattoir owners in South Africa. The abattoir industry is responsible for the conversion of livestock to meat. This process remains critical to ensure a safe and wholesome product to consumers. The Meat Safety Act, 2000 (Act no. 40 of 2000) addresses measures to promote the safety of meat and animal products and to establish and maintain Essential National Standards in respect of abattoirs.

The RMAA is an independent membership-based organisation, which was formed in February 1991. Prior to the deregulation process, the abattoir industry comprised mainly of larger abattoirs with high throughput. The deregulation process accomplished an increase in the number of abattoirs to over 488. Vast numbers of smaller Low Throughput abattoirs are included in this number. Not only the High Throughput abattoirs, but also Low Throughput and Rural abattoirs now contribute significantly to slaughtering in South Africa.

The RMAA is an accredited training provider at AgriSETA
(Provider number: ACCSET - TSP 00010)

2. MISSION

We serve abattoir owners by:

- providing specialised training and technical support,
- distributing relevant information and
- representing owner's interest

to secure standards of meat safety and quality to the benefit of the red meat industry and the consumer.

3. STRATEGIC OBJECTIVES

- Promote meat safety and essential national standards as provided for in the Meat Safety Act, 2000 (Act no. 40 of 2000).
- Provide applicable training to ensure the highest standards of animal handling and meat safety and quality.
- Contribute to the development and implementation of hygiene management programs in abattoirs.
- Participate actively in the establishment of the skills development framework in the meat industry.
- Represent the interests of members on forums relating to the abattoir industry.
- Assist in the enhancement of meat hygiene awareness in rural communities.
- Create an environment conducive to the continuing education of abattoir personnel.
- Liaise with governmental and private stakeholders in the interest of common goals.

4. SERVICES

4.1 Training

a. Routine Slaughter Training

b. Skills Programs

- Basic Introduction to the Abattoir Industry
- Animal Handling
- Beef Slaughter
- Hygiene Awareness
- Business Simulation
- GMP & HACCP
- HMS & HACCP

c. Learnerships

- National Certificate in General Abattoir Processes
- National Certificate in Abattoir Slaughtering Processes
- National Certificate in Abattoir Supervision
- Further Education and Training Certificate in Meat Examination
- Further Education and Training Certificate in Meat Classification

4.2 Food Safety Management

- Pre-requisites and HACCP
- Implementation
- Verification
- Document preparation review
- Audits (HAS & pre-assessment)

4.3 Technical Services

Technical support services:

- *Abattoir layout*
- *Abattoir operation*
- *Abattoir start-up*

Operational support services

Effectiveness of stunning

Obtain and implement new technology

Abattoir plans

Background and application of the Meat Safety Act 2000 (Act no. 40 of 2000) and regulations

Export requirements

Associated services:

- *Microbiological analysis*
- *Environmental standards and control*
- *Abattoir design*
- *Hygiene management systems*
- *Cleaning and disinfection*
- *Equipment*
- *Slaughter services*

4.4 Information

Update and maintain a database

- Price information
- Provide industry and government with relevant statistics:
 - *Registered abattoirs*
 - *Member abattoirs*
 - *Slaughter statistics*
 - *Condemnations*

National and regional meetings to update abattoir owners

Handbooks

Forums: operation and standards of the meat industry

4.5 Representation

The board and management represent the abattoir industry on the following forums:

SAMIC (South African Meat Industry Company):

- Board
- Welfare Co-ordination Committee

RMRDT (Red Meat Research and Development Trust)

RMIF (Red Meat Industry Forum)

IMQAS (International Meat Quality Assurance)

AIAC (Abattoir Industry Advisory Committee)

DOA (Department of Agriculture)

AgriSETA (Seta for Agriculture)

- Board
- SSU (Sub-Sector Unit)

4.6 Annexures

- A. Slaughter Processes – Current best practice
- B. Abattoir Membership Application
- C. Fee Structure 2007
- D. RMAA Price Information Week 9
- E. Expression of Interest in Training/ Services

4.1. TRAINING

A. SLAUGHTER TRAINING

Routine slaughter training is provided to both members as well as non-members of the Red Meat Abattoir Association. Requests for routine slaughter training are also received from abattoir owners and provincial veterinary officers on a regular basis. In order for routine slaughter training to take place, the abattoir's slaughter practices are evaluated and compared with the current best practice slaughter procedures, as regularly updated by the association (**Annexure A**). Deviations are recorded and corrective training is provided by experienced training teams. A report is provided to the abattoir which has to be kept as part of the Hygiene Management System required in terms of the Meat Safety Act and the regulations promulgated there under.

B. SKILLS PROGRAMS

Skills programs are short courses designed to address critical needs in the industry. The programs are based on SAQA registered unit standards and competent learners achieve credits on the NQF (National Qualifications Framework). The credit value gives an indication of the amount of learning required and the NQF level an indication of the difficulty level within the field.

The following programs are currently available:

Program	Duration	Credits	NQF Level
Basic introduction to the abattoir industry	1 day	3	2
Animal handling	3 days	24	2
Beef slaughter	3 days	25	2
Hygiene awareness	0.5 day	4	2
Business Simulation	2.5 days	9	3
GMP & HACCP	4 days	25	4
HMS & HACCP	4 days	27	4

Basic Introduction to the Abattoir Industry

The aim of the program is to ensure that workers employed in the meat industry will have basic background regarding the abattoir industry. The program is intended for new employees entering the meat industry as part of the induction program.

In the Unit standard "Basic Introduction to Abattoir Industry" the following aspects are addressed:

- Work ethics
- Hygiene and safety requirements
- Organizational structures and production flow
- Different facilities, areas and equipment
- Customer relations and service excellence
- Animal welfare

Animal Handling

The aim of this program is to provide learners with competencies in the field of animal handling. The program is intended for workers involved with handling of animals.

In the Unit standards “Identify and respond to abnormalities in slaughtered stock”, “Ante mortem handling of Slaughter Animals”, “Demonstrate knowledge of hygiene awareness in a food production facility” and “Prepare animals for slaughter” the following aspects are addressed:

- Anatomy and physiology
- Diseases and conditions
- Lairaging
- Protective clothing
- Documentation
- Care for animals
- Hygiene awareness
- Stunning and bleeding
- Electrical stimulation

Beef Slaughter

The aim of this program is to provide learners with knowledge in the slaughter and dressing of beef in accordance with statutory requirements and operational procedures to ensure optimal quality of the end product. The learner is expected to perform the specific outcomes as reflected in the unit standards with supervision, but with access to work-site procedures, operating instructions and statutory requirements. The program is intended for workers who are involved in beef slaughter.

In the Unit standards “Identify and respond to abnormalities in slaughtered stock”, “Slaughter and dress beef”, “Demonstrate knowledge of hygiene awareness in a food production facility”, “Handle and maintain utensils and equipment “, and “Basic understanding of the abattoir industry” the following aspects are addressed:

- Anatomy and physiology
- Diseases and conditions
- Corrective actions and control measures
- Slaughter process
- Hygiene awareness
- Induction programs
- Documentation
- Facilities and equipment
- Animal welfare
- Pest control
- Meat quality and safety
- Cleaning and sanitising

Hygiene Awareness Training

The aim of the program is to ensure that each worker in an abattoir acquires basic knowledge of personal hygiene and the dangers associated with unhygienic practices. This knowledge should ultimately lead to a safer, more hygienic product. The program is regarded as a pre-requisite for all abattoir workers. The learners are taught the basic concepts of microbiology and the spread of bacteria that could lead to food poisoning. They are also taught how to prevent food poisoning. The program is intended for all abattoir workers.

In the Unit Standard “Demonstrate knowledge of Hygiene Awareness in a food production facility” the following aspects are addressed:

- basic knowledge of food poisoning
- food hygiene
- prevention of food contamination
- importance of working in a clean environment
- personnel and food safety principles

Business Simulation

The aim of the program is to ensure that learners will have an understanding of business principles in the industry. This will result in better customer relations, greater awareness of costs and higher profits to owners and stakeholders. The program is intended for anyone with at least grade 9 (standard 7), supervisors and heads of departments.

In the Unit standard “Apply Basic Business Principles” the following aspects are addressed:

- Income statement and analysis thereof
- Balance sheet and analysis thereof
- Debtor/ creditor analysis
- Vertical trend analysis
- Profit tri-angles
- Impact of customer service
- Different types of enterprises
- Identification of non-compliance of working standards
- Analysis of budget (own budget)
- Methods to improve cost items on budget

Good Manufacturing Practice & Hazard Analysis Critical Control Point (GMP & HACCP)

The aim of the program is to ensure that competent learners will be able to implement GMP's and HACCP at their abattoirs. Due to pressures around food safety and quality, it has become crucial to educate learners in the importance of GMP's as the minimum requirements and control measures that must be implemented to ensure that a consistently good quality product is produced before HACCP is implemented. HACCP is an internationally recognised food safety system that reduces the risk of food poisoning by identifying hazards and ways of controlling these hazards. The program is intended for workers in the food safety and quality field who have completed standard 8 (grade 10) and are at supervisory level and higher. The ideal candidates will have been employed in the food safety/ quality field for at least six months and include quality assurance/ control personnel, meat inspectors/ examiners, veterinary personnel, supervisors and middle management.

In the Unit Standard “Implement Good Manufacturing Practices in food processing” the following aspects are addressed:

- Personnel practices
- Cleaning and sanitation
- Pest control,
- Construction and maintenance and
- Production and process controls.

In the unit standard “Implement and maintain a HACCP system in a food processing facility” the following aspects are addressed:

- Identification of hazards
- Identification of critical control points
- Design of the procedures to control and monitor CCP's
- Design of necessary documentation
- Implementation
- Auditing

Hygiene Management Systems and Hazard Analysis Critical Control Points (HMS & HACCP)

The aim of the program is to ensure that competent learners will be able to implement a Hygiene Management System at their abattoirs. Due to the requirements of the regulations under the Meat Safety Act, 2000 (Act no 40 of 2000), it has become crucial to provide guidance to the industry regarding the implementation of the legally required Hygiene Management System.

The program will not only address this need but will also provide theoretical and practical training in the principles of HACCP. The program is intended for workers in the food safety and quality field who have completed standard 8 (grade 10) and are at supervisory level and higher. The ideal candidates will have been employed in the food safety/ quality field for at least six months and include quality assurance/ control personnel, meat inspectors/ examiners, veterinary personnel, supervisors and middle management.

In the Unit Standard “Implement a Hygiene Management System in a Meat Fabrication Plant” offers learners knowledge and skills in the following areas:

- Relevant, practical examples of HMS policies, procedures and checklists
- Implementing the requirements for the implementation of a Hygiene Management System at abattoirs according to the Essential National Standards as set out in the Meat Safety Act, 2000 (Act no. 40 of 2000) – paragraph 11(1)(e).
- The integration of HMS with other food safety and quality management systems;
- The fourteen Hygiene Management Programs as required by the regulations
- The components of the HMS;
- Implementation of HMS;
- The documentation required for the implementation of HMS;
- The auditing requirements for the HMS.

During discussions of the unit standard “Implement and maintain a HACCP system in a food processing facility” the following aspects are addressed:

- Identification of hazards
- Identification of critical control points
- Design of the procedures to control and monitor CCP's
- Design of necessary documentation
- Implementation
- Auditing

C. LEARNERSHIPS

Background

A learnership is a work-based route of achieving a qualification. It is a combination of structured work-place exposure (how), and theory learning (why), and culminates in a qualification that has been registered on the National Qualifications Framework (NQF). Successful candidates will achieve a nationally recognised qualification that signals occupational competence.

Learnerships are based on legally binding agreements between an employer, a learner and a training provider. This agreement spells out the tasks and duties of the employer, the learner and the training provider. It is designed to ensure the quality of the training and to protect the interests of each party.

Qualifications available

Title	SAQA ID	Learnership Registration Number
National Certificate in General abattoir processes	48655	22Q 220045 27 125 2
National Certificate in Abattoir slaughtering processes	48660	30Q 300018 26 130 2
National Certificate in Abattoir supervision	48902	30Q 300019 23 139 3
Further Education and Training Certificate in Meat examination	48651	30Q 300029 23 160 4
Further Education and Training Certificate in Meat classification	48649	30Q 300025 24 149 4

Enrolment requirements

Any worker, employed or unemployed, with appropriate levels of competence in Communication, Languages, and Numeracy equivalent to NQF 1 (Grade 9) can enrol for these learnerships. Provided that the requirements of the qualification are met, no one is excluded from enrolling. However, there is a learner selection process to ensure that only the most suitable learners are selected.

Employer requirements

In order for employers to register learners the following is required:

- Employers need to contribute skills development levies to a relevant SETA
- Work place skills plans must have been submitted to the SETA
- Facilities have to be available for theoretical training (Classroom)
- Learners have to be on NQF 1 level (To be determined during the pre assessment)
- Unemployed learners can be accommodated.

Furthermore, once an employer is involved in a learnership, the employer needs to identify an on-site mentor. This person will guide the learner and help her/him to deal with any work-related problems

Enrolling workers

Upon receipt of the complete application (available from the RMAA) to enrol learners, arrangements will be made for a pre-assessment of the identified nominees. The number of allocated learnerships can be selected from the list of suitable candidates and will then enter the learnership.

Benefits of learnerships

Firstly it is a way to get more skilled people. Skilled workers make better workers as they:

- Are more likely to do the correct thing the first time and make fewer mistakes
- Are more likely to 'get the best' out of their equipment
- Tend to be more independent workers
- Are more motivated because they know why what they are doing is important to the overall business and might also be less likely to leave their jobs

Secondly, registering learners entitles you to a tax credit (up to R 20 000 per an employed learner and up to R 25 000 per unemployed learner) and an additional credit (up to R 30 000 per learner) on successful completion of the learnership (subject to SARS regulations).

Furthermore, if you give an unemployed learner the opportunity to participate on the learnership, the SETA will pay those unemployed learners an allowance of R 150 (Seta Regulated) per week and you will have the choice to offer employment to successful candidates by the end of the learnership.

There are a number of benefits for the learners (employed or unemployed):

- Undergoes training at no cost to him/herself
- Receive a nationally recognised qualification
- Opens doors for career opportunities

Claiming tax incentives

In order to claim the tax incentive, you will need to complete a declaration for the purpose of claiming a deduction for an allowance in respect of a learnership agreement. The official document is available on the SARS website.

Delivery

Learnerships have a duration of 1 year. The training is a combination of structured work-place-, theory learning. The training includes the fundamental unit standards as well as core (technical) unit standards. Depending on the number of learners, the training could be conducted at your facility or alternatively at a central venue, in combination with other groups. Training will proceed according to a rollout schedule that is compiled in consultation with the abattoir management.

4.2. FOOD SAFETY MANAGEMENT

In addition to the GMP and HACCP training offered by the Association, we also offer the abattoir assistance with the implementation of Meat Safety Management Systems.

Pre-assessment surveys may be done at an abattoir prior to implementing HACCP to determine the current status of the quality management system. The survey focuses on GMP requirements and is based on national and international codes. The client is provided with a detailed report of observations and recommendations that can be used immediately as an action plan.

HACCP implementation support is given by RMAA representatives in the form of feedback, advice, generic HACCP plans and reviewing existing documentation.

Verification audits may be done once the company has successfully implemented a HACCP system and have at least three months worth of records. This is an external audit that can be seen as a readiness for the final certification.

Hygiene management support

Although regular laboratory testing of water, personnel, products and facilities form part of the regulations in terms of the current Meat Safety Act, abattoirs often neglect this aspect. The training division now offers this service with an accredited laboratory.

4.3. TECHNICAL SERVICES

4.3.1 Operational Support Services

The RMAA continuously receive enquiries as to the operational aspects at abattoirs and have designed a package to evaluate and correct the slaughter and operations on a continuous basis. Below are some of the aspects which are addressed during such a visit:

- Management information
- Documentation & Records
- Production statistics
- Line staff investigations
- Carcass yield investigations
- Job and task descriptions
- Hide and skin damage control
- Primary offal handling
- Hygiene aspects
- Promoting and implementing technology
- Monitoring of slaughter procedures
- Resource Management
- Intervention with other role-players in the industry
- Research pertaining technology and information
- Carcass dressing standards
- Quality control
- Production line layout
- Operational impact of regulatory aspects
- Promotion and application of technology

The association provides the service by way of a fixed contract with participating abattoirs.

4.4. PRICE AND HEALTH INFORMATION SYSTEM

The Red Meat Abattoir Association (RMAA) was founded in February 1991 as an independent membership-based organization. Prior to the 1994 deregulation process, the abattoir industry comprised mainly of larger high throughput abattoirs. The deregulation process accomplished an increase in the number of abattoirs to over 500. These events led to the need for current and up to date price and health information. The RMAA therefore initiated the price information system with a database of historical and current price information.

The RMAA strives to create and maintain an information system containing relevant and historical data essential for planning and development purposes. The primary objective is to timeously release accurate and valid information to the benefit of the S.A. abattoir industry.

4.5. ABOUT US

4.5.1 Personnel

Board

Chairman : Mr. Gerrie Oberholzer
Vice Chairman : Mr. Lou Campher

Provincial

Gauteng : Mr. Lou Campher
Free State : Mr Dave Muller
Mpumulanga : Mr Daan van der Wath
Limpopo : Mr. Kobus Venter
North West : Mr. Deon Erasmus
Kwazulu-Natal : Mr. Ray Sidey
Western Cape : Mr. Gerrie Oberholzer
Northern Cape : Mr. Wessel van Wyk
Eastern Cape : Mr. Barry Swart

Management

General Manager : Dr. Gerhard Neethling

Training Department

Training Manager : Mr. Neels Nell
Training Officials : Mr. Veli Nkosi
: Mr. Elphus Mkhwebane
: Mr. Johan Maritz
Training Administrator : Ms. Mariana du Toit
Slaughter instructors : Mr. Chris Stegling
: Mr. Ben Walkenshaw

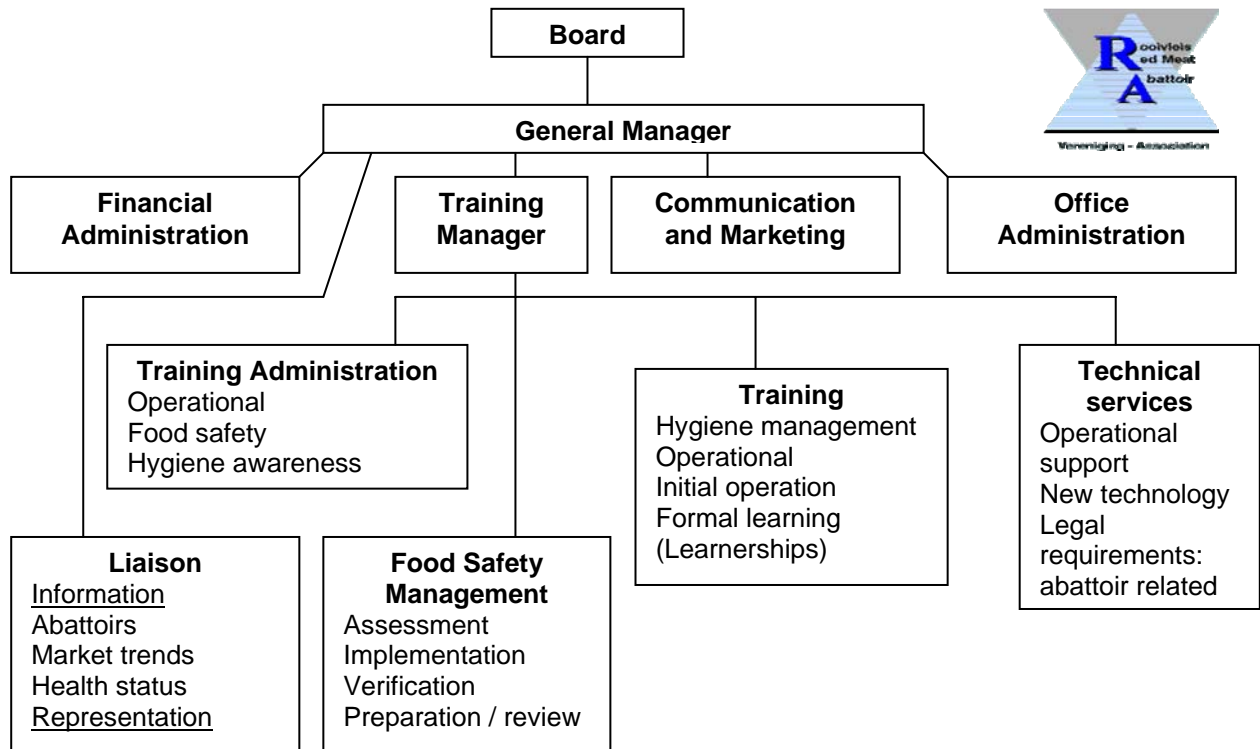
Office Administration

Office Administrator : Ms. Luna Lamprecht
Marketing & Comms : Mr. Christo Heuer

Financial Administration : Ms. Suzette Grobler
: Ms. Elize Webb

4.5.2 Organisational flow diagram

Structure and Functions of the RMAA



4.5.3 Contact Details

Red Meat Abattoir Association / Roivleis Abattoir Vereniging

Phone: (012) 349 1237/8/9
Fax: (012) 349 1240
E mail: training@rmaa.co.za or admin@rmaa.co.za
Web page: www.rmaa.co.za

Postal Address: P. O. Box 35889
Menlopark
0102

Physical address: Building no. 4, CSIR
Meiring Naudé Road
Brummeria, Pretoria

Annexure A

SLAUGHTER PROCESS OF CATTLE

Stunning

Bovines are stunned with a captive bolt or pneumatic pistol. Ensure that the pistol is in good working order. The person doing the stunning must stand above and behind the head of the animal. The point of stunning is roughly at the intersection of imaginary lines drawn from the eyes to the horns. The pistol must be pressed firmly against the forehead, angled slightly in the direction of the spine, and fired. The stunning pistol kicks out a hollow rod, which penetrates the skin, skull and brain before retracting. If effectively stunned, the animal will collapse onto the bottom of the stunning box. The eye reflex test may be done to ensure effective stunning before the gate is opened.

Shackling and hoisting

After stunning, the side panel of the stunning box is opened to allow the animal to roll out onto the dry landing area. The animal is shackled by wrapping the chain of the shackle around the hind foot (left or right depending on the abattoir design) just above the hock joint, and securing it by inserting the hook into one of the chain links. The hook should point towards the carcass to ensure that it does not come loose while being hoisted. The animal is hoisted so that the roller may be placed on the bleeding rail (if a bleeding rail is in use - else a fixed bleeding point or the hoist itself will be utilised to hold the carcass in the bleeding position). Stand clear while the animal is hoisted.

Bleeding

As soon as the stunned animal is positioned over the bleeding trough, the bleeding knife is removed from the steriliser and the bleeding incision done. Two methods currently in use are the throat cut and sticking. The most common method used is the throat cut from ear to ear. The neck skin is cut through, then the trachea and oesophagus, and then further until the two main arteries have been severed, stopping before damaging the spine. Bleeding should take place within 60 seconds of stunning to facilitate maximum bleeding. The whole process from stunning to bleeding, including hoisting, should be carried out quickly and without any delays. A two knife system should be in place. Bleeding time should be at least 8 minutes.

Electrical stimulation

Directly after bleeding, clamps are attached to the ear, cheek or throat of the carcass and an appropriate current passed through for ± 50 seconds from a stimulation unit. After completion of the cycle, the cables are removed and prepared for the next animal.

Weasand rodding

Weasand rodding is done after separating the trachea from the oesophagus. Equipment is operated as per manufacturer guidelines.

Removal of front feet

The correct method is to saw the leg just before the joint. The piece that is left is removed with the hide leaving a clean joint to cut through. Because of economical considerations it is allowed to sever front feet at the knee joints with a hand knife and then to put the feet in the feet container.

Removal and dressing of the head

With a hand knife, make an incision between the head and the last neck vertebra and sever the neck. It may be an advantage to cut a slit in the skin flap of the head to facilitate a handgrip on the head while carrying. Hang the head by the tip of the lower jaw (nearest the teeth) on a hook on the head rail. Remove the tongue by cutting loose the connecting tissues and severing the tongue root including the two cartilage structures at the base of the tongue. If the head is left with skin on, it is regarded as dirty offal, whereas a demasked head is regarded as clean red offal and it can follow the

same route as the other red offal. The head and tongue must remain identifiable with the carcass until the meat inspector has completed his inspection on the carcass.

First hind leg

The first hind leg comprises the hoof, hock and round which is not attached to the bleeding shackle and is hanging free. With a hand knife, make a cross incision just above the tail brush and with the knifepoint make a spear cut, from under the skin, straight up the tail past the anus, between the legs, past the inguinal area (around the scrotum or udder) on the central opening line. Make a small incision through the skin between the hoof and the first joint. With a hand knife, make a spear cut from this incision towards the central opening line between the legs while cutting from the inside to the outside. The hock is flayed (air knife or hand knife) on both sides and the inner leg is flayed first after which the carcass is rotated and the outer leg or "round" is flayed down to below the tail, in the lumbar area. The skin of the anus is flayed to be removed with the hide. Remove the hoof by sawing through and not by snapping it. The area where the hoof is clipped will have no skin. Insert the hook of a dressing roller through the sinew of the hock and hoist the carcass up until the bleeding shackle can be removed, lower the dressing roller onto the dressing rail. The second hind leg will now be hanging free to be flayed. If a bleeding rail is not available, the roller is hooked into the shin, hoisted up and lowered until the weight of the carcass has been transferred to the line. The bleeding shackle can be removed and the second hind leg will be free.

Second hind leg

Make a small incision through the skin between the hoof and the first joint. With a sharp hand knife make a spear cut from this incision towards the central opening line between the legs cutting from the inside to the outside. The hock is flayed on both sides and the inner leg and flank is flayed from the middle opening line. The carcass is turned around and the outer leg is flayed to below the tail in the lumbar region. The hoof is removed, a dressing hook inserted through the sinew of the hock and the roller hoisted onto the dressing rail.

Flanks

The central opening line is now extended with a spear cut (hand knife) up to the middle of the front legs. Lactating udders and scrotums must however be removed before this incision is made. The high flanks are now flayed up to the point where the red meat becomes very thin. The left and right lower flanks are flayed until the elbows are exposed. Take great care at the flank folds as the hide can easily be damaged in this area when using an air or hand knife incorrectly.

Lumbar region and back

The skin is pulled only half way off the tail in order to carry the weight of the hide being flayed in the lumbar and back region. This method ensures that the hide is pulled tight, upwards to indicate the flaying line, providing a flat flaying surface which is different to the "double hide" surface obtained when the tail skin is removed completely. Flaying proceeds from left to right down to the middle of the carcass. The tail skin is still left in place.

Neck, shoulders and forelegs

Extend the central opening line with a spear cut down to the end of the hide (throat cut). Flay the brisket area from left to right past the elbows. A spear cut is made on both forelegs. Flay the insides and then the outsides of the forelegs. Proceed to the shoulder and then the neck leaving the forequarter hide hanging loose in the region of the first neck vertebra. Continue flaying up to the area under the shoulders (hump).

Final hide removal

The hide, still being held up by the tail, is pulled tight upwards while the neck region is flayed. When completely loosened from the carcass, the weight of the hide will pull the skin off the tail and the hide will fall into the hide trough.

Splitting of the breastbone

With a hand knife, make an incision through the fat and meat onto the bone of the brisket. Split the cartilage on the top end of the breastbone with a knife and proceed to split the breastbone with a breastbone saw or handsaw down to the neck area. Sawing is done with short strokes avoiding penetration of the blade into the thoracic cavity where damage to organs or contamination could occur.

Evisceration

This is a critical procedure, which must be done with precision to avoid damage to the paunch and intestines causing contamination with its contents. Make an incision in the abdominal wall (on the central opening line) in the inguinal area. Insert the knife into this opening, handle inside and blade pointing outward, extending the incision downwards carefully by applying pressure on the knife. The incision extends to the start of the breastbone (which has been split previously). Reach inside the abdominal cavity, cut the omentum loose, and place it into a container. Remove the spleen and hang it on a hook. Loosen the rectum while carefully pulling the anus down with the left hand. Be careful not to cut into the rectum, which causes contamination or into the fillet, which will damage a prime cut. Pull the rectum and anus down towards the uterus (in cows), loosen reproduction organs and bladder making sure no leakage occurs. Separate the kidney fat and kidneys from the intestines so that they stay in the carcass. Loosen the rumen which will now fall down, being held only by the oesophagus, which is then severed about 20 cm from the rumen where it passes through the diaphragm. The stomach will now drop down into a container or onto the evisceration table.

Removal of the pluck

An incision is made into the diaphragm first on the left and then on the right while pushing the liver to one side to prevent puncturing the gall bladder. Lift the kidneys and kidney fat to cut the liver loose from top to bottom. Grasp the pluck between the liver and the lungs, taking care not to drag it on the floor, and cut the trachea loose up to the furthest point of the neck. Remove the pluck and hang on a hook for inspection.

Splitting the carcass

The splitting of the carcass is an exacting task as the two halves must be of equal size and weight for trading purposes, economical cuts and easy handling of the carcass. Band saws are most frequently used. The operator is positioned behind the carcass and starts sawing by placing the blade on the vertebra which is visible between the hind legs. The blade guides should be pressed against the carcass surface while sawing to prevent the blade from bending. Hot water at 82 °C must be available for sterilising the saw, especially after contamination.

Final finishing

Final finishing includes removal of pieces of membranes and arteries etc. from the inside neck area. The spinal cord may be removed at this stage and the forelegs can be picked up a few times to pump blood out of the shoulder area.

Final wash

This function must be done only after meat inspection has been completed. Extensive washing of the carcass should not be necessary. Bone splinters from sawing and possible blood marks on the inside of the carcass may be washed off, but it should not be necessary to wash the outside of the carcass. Washing with high pressure hoses must be avoided.

SLAUGHTER PROCESS OF SHEEP

Stunning

Sheep are stunned with an electrical stunner or a captive bolt pistol. For practical purposes the electrical method is favoured. The electrical stunner consists of a pincer, equipped with electrodes which are pressed on either side of the head, below the ears. The current is switched on by a button on the handle. Follow the manufacturer's guidelines for volts and time of application. Some models maintain the current automatically. Not too many animals should be held in the stunning pen at one time. The animals must be able to move around freely and the person doing the stunning should also be able to move freely to position himself behind a particular animal to stun it. The normal position for stunning with the pistol is between the ears and horns, pointing downwards, but this will have to be adjusted in sheep with large horns, as stunning should not be attempted at the base of the horn. The eye reflex test may be done to ensure effective stunning.

Shackling and hoisting

Sheep must be shackled directly after stunning, the direction of the chain being either right or left around the leg depending on the structural design of the abattoir. A sheep is normally shackled on the right hind leg when looked at from behind. The shackle or bleeding chain is then placed onto the bleeding rail and the stunned animal positioned over the bleeding trough so that bleeding can commence without delay.

Bleeding

Bleeding must commence within 60 seconds after stunning. The person doing the bleeding should take the head of the sheep by the mouth (lower jaw), in his left hand and pull it towards him. With the right hand, he positions his knife across the throat, just behind the lower jaw, and with a quick pulling action, severs the arteries in the neck without cutting into the neck vertebrae. Care should be taken not to "crack" the neck during this procedure. The knife should be very sharp. After bleeding an animal, the knife must be rinsed and placed in a steriliser with water at a minimum temperature of 82 °C. A two knife system should be in place. Bleeding time is at least 6 minutes.

Removal of front feet

With a hand knife sever the front feet at the knee joints and place the feet in the feet container.

Removal of the head

Removal of the head is done by pulling the head to one side by the ear and severing the neck between the first and second neck vertebra. It should remain identifiable with the carcass until meat inspection and carcass classification has been completed.

First hock

The loose hanging leg is pulled tight, towards the flayer, and a small cross incision is made just before the heel. With the knife cutting edge facing outward, a spear cut is made from this incision up the leg, past the anus and towards the tip of the tail. The hock is flayed on both sides to reveal the Achilles heel tendon (hamstring). Remove the foot and proceed to hook the leg by the hamstring onto the dressing roller and placing the roller onto the dressing line. The bleeding chain is removed from the second leg and the bleeding roller placed onto the return rail.

Second hock

The second leg is pulled tight towards the flayer and held under his right arm. A spear cut is made by inserting the knife just above the scrotum or udder and the incision extended up to the heel laying bare the inside of the heel. The carcass is then rotated to the left and the skin flayed off the outside of the heel up to the point where the hamstring is joined to the leg muscles. The foot is removed and placed in a container. The leg is hooked and placed on the dressing rail. The carcass should now hang spread by the two heels on the dressing rail with only the two heels skinned.

Left flank and hind leg

The central opening line is made by a spear cut from between the legs down to the beginning of the breastbone. Lactating udders and scrotums must be removed before this incision is made. The left flank is flayed from the central opening line, left towards the flank for a width of \pm four fingers. Flaying extends up to the inner thigh and down to the breast. Flaying should extend slightly to the back to avoid the dirty side of the skin from curling back onto the meat. During the whole process, the skin must be pulled tight in the correct direction to avoid damaging the skin. It is important that the skin is flayed far enough to avoid the dirty side of the skin from flapping back onto the meat.

Flaying of right flank and hind leg

Flaying of the right flank is easier because the left flank has already been exposed. Slaughtering is again from the middle line but to the right hand side. What applied to the left flank applies to the right flank. From the tail, between the hind legs, the remaining skin is cut loose in the direction of the shank, up to the red part of the shank. The skin of the shank is pulled, first up and then down. The skin is pulled up to beneath the tail root. At the end of this process the skin must be pulled loose from the tail to prevent soiling by the skin curling back.

Lumbar region and anus

The skin is cut loose beneath the tail and is carefully pulled down, using both hands, until it is in line with the sternum of the carcass. The advantage of this is that, should carcasses touch each other, only clean parts will come into contact. The anus is cut loose with the anus skin, but without damaging the rectum.

Left and right breast and flanks

The middle spear cut is now extended from the cartilage part of the thorax, between the front legs, and past the throat cut made for bleeding. The skin is taken in the hand on the left side of the thorax with the left hand, close to the opening. The right hand thumb is used to separate the skin and the brisket fat. Two separate forces are at work; the left hand picking up the sheep weight, and the right hand and thumb pressing in the opposite direction. In this way the skin is removed from the brisket without using a knife, avoiding damaging the skin and carcass. The right hand side of the thorax is done in the same way. After exposing the thorax, the skin is pulled hard in the direction of the worker with one hand while the other hand is used to make "punch and turning" motions to loosen the skin up to the shoulder. A spear cut is made from the upper part of the front leg up to the elbow joint. The fist is punched in between the neck and the shoulder and back to the shin with the forearm. The skin is cut loose at the shank joint. The same procedure is repeated on the other side of the carcass after washing hands, to avoid cross contamination.

Front legs, neck, hump, and shoulder area

The skin is cut loose on the inside of the front legs and the underside of the neck. Thereafter the skin is pulled tight in the direction of the worker to loosen the skin with the fist in the shoulder and neck areas on the left side. The same procedure is repeated on the other side of the carcass by the same person (after washing hands), or another person, to avoid cross contamination.

Final skin removal

The skin is taken with both hands and pulled down and loose from the neck. The skin is then placed in a skin trough or chute.

Evisceration

This is a critical procedure, which must be done with precision to avoid damage to the paunch and intestines causing contamination with its contents. Make an incision in the abdominal wall (on the central opening line) between the legs. Make an incision down to the breastbone. Two fingers may be used to press the intestines away from the incision while cutting. An incision is made on either side of the rectum in the pelvic canal. Two fingers of the left hand are pushed into the pelvic canal and the anus and the rectum is pulled down to the bladder and uterus in the case of ewes. These organs are then cut loose together with the large intestine up to the junction between the large and small intestines. Before above mentioned is separated from the small intestine, the intestine should be

stroked to move the contents away from where the separation is to be done before cutting. Failure to do this will result in faecal contamination of the carcass. Pull the omentum together, cut loose and place into a container. Push the rumen down with the left hand and with the same hand take hold of the reticulum pulling it out of the abdominal cavity. The oesophagus will now be visible and should be cut off. The total stomach can now be lifted out and placed into a tray for inspection. As an alternative, the intestines and stomach should be removed as a whole if above procedure cannot be accomplished without contamination.

Removal of the pluck

With a hand knife, make an incision through the fat and meat onto the bone of the sternum. Split the cartilage on the top end of the breastbone with a knife and proceed to split the breastbone with a breast saw or handsaw down to the neck area. Sawing is done with short strokes, avoiding penetration of the blade into the thoracic cavity where damage to organs or contamination could occur. Pull the thoracic cavity open and cut loose the diaphragm on both sides. Push the liver to one side to prevent puncturing the gall bladder. The pluck is cut loose along the spine and pulled down and out of the thoracic cavity, while cutting loose the oesophagus and trachea right down to the beginning of the neck (bleeding cut). The pluck is placed in a container or hung up for inspection.

Final finishing and wash

The neck is trimmed and the inside of the ribcage and the neck is washed with running water. This function must be done only after meat inspection has been completed. Extensive washing of the carcass should not be necessary. Bone splinters from sawing or cutting the breast bone and possible blood marks on the inside of the carcass may be washed off, but it should not be necessary to wash the outside of the carcass. Washing with high pressure hoses must be avoided.

SLAUGHTER PROCESS OF PIGS

Stunning

The purpose of stunning is to render the pig unconscious and insensitive to pain. The stunning area must be constructed to ensure effective stunning. For electrical stunning, the manufacturer of the equipment provides guidelines for stunning volts, amps and time which should be followed. Pigs should be washed with water in the raceway prior to stunning. This reduces contamination of the scalding tank water and improves conduction of electricity during stunning. It is important that the electrodes of the stunning apparatus are placed correctly on both sides of the head, beneath the ears, on the horizontal line through the top part of the snout. During stunning, the animal's legs will fold and it will fall down. Hereafter the legs will begin to stretch and the neck will arch backwards. When the current is switched off, the pig will relax and may make walking movements. Although not recommended, a captive bolt pistol can be used for stunning pigs. Pigs that are stunned with a pistol tend to struggle a lot which may lead to muscle tension and eventually to PSE (*Pale, soft and exudative*) meat. With the captive bolt pistol, aim approximately 2 cm above the level of the eyes, on the middle line, with the barrel pointing upwards into the head. The cartridge marked with green is used for pigs. Animals that have been effectively stunned should have no eye reflex to touch. The head should be totally relaxed, the ears should hang, and the tongue should be relaxed.

Hoisting, sticking and bleeding

After stunning, a bleeding chain is attached just above the trotter of the hind leg. The pig is hoisted with either a manual or electrical hoist. As animals should be bled in the hanging position, it is important that the bleeding rail should be high enough so that the pigs do not touch the floor. After stunning, the animal's blood pressure increases dramatically. If bleeding does not commence within 60 seconds after stunning time, small arteries will start to burst and cause blood splashing in the muscles. Because of this, a manual hoist is not recommended. The correct sticking technique must be followed to avoid internal bleeding in the neck and shoulder. The pigs should be allowed to bleed for at least 6 minutes, before dressing commences. Shorter bleeding times will cause soiling of the slaughter floor and scalding tank with blood.

Scalding

If the lungs of a pig are to be recovered, it is important that the trachea is tied off to prevent soiling of the lungs with scalding tank water. The pig is put in the scalding tank until the hair can be removed easily. The temperature of the tank should be maintained between 62°C and 64°C. Care must be taken not to leave pigs in the scalding tank too long causing over scalding.

Washing, flaming and shaving

After coming out of the scalding tank, the pig is placed in a dehairing machine, where most of the hair is removed. Thereafter the toe nails are removed on the landing table. A scraping cone is used to clean the pig further. The pig is then transferred to the main slaughter line. Then the carcass is washed and shaved. Before commencing the flaming process, the carcass has to be washed to prevent fixation of blood and proteins on the skin causing unsightly yellow discolouration. The carcass is flamed to remove smaller hairs. After flaming, the carcass is again washed and shaved. The very last step just before evisceration is a full carcass wash.

Evisceration

The anus is cut loose by making an incision next to it. Hook a finger in this cut and ring the anus while pulling it. Do not sever the rectum. Release the anus and let it drop into the carcass. Cuts must be as small as possible to prevent unnecessary damage to the hindquarter of the carcass. Care must be taken not to rupture the anus and soil the carcass. Lactating udders should be removed. An incision is made through the fat from between the hind legs up to the thorax on the mid line of the carcass, taking care not to rupture the intestines. A small incision is made through the scrotum and the testes are squeezed out. The penis is removed and the carcass is opened from the abdominal cavity up to the thorax. The intestines are cut loose and the anus is pulled out. The spleen and the omentum is removed. The intestines are removed followed by the stomach. The sternum (breastbone) is sawed through. The diaphragm is cut loose, while holding onto the liver, taking care not to rupture the gall bladder. Remove the liver together with the heart and lungs. It is important that damage to internal organs, (*bladder, uterus, gall bladder, stomach and intestines*) be avoided at all costs.

Final trimming and wash

The following items are trimmed:

- Spinal cord
- Pieces of skin and intestinal remains
- Remainder of reproductive organs
- Hanging blood vessels and fat

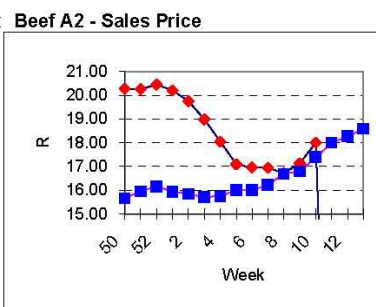
After the carcass has been trimmed, it is washed with running water to remove blood and sawdust. Enough time and adequate rail length must be available so that carcass can drip dry to prevent excessive fluid accumulation in the chillers.

Annexure D

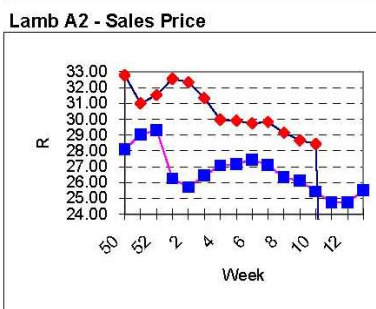
RMAA PRICE INFORMATION WEEK 10

From 2007/03/05 To 2007/03/11

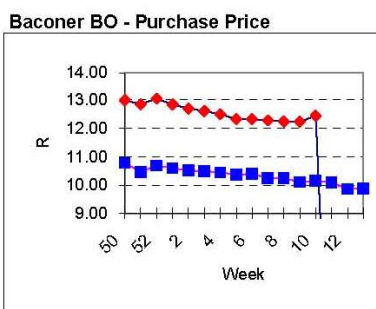
Class	Units	Avg Mass	Avg Purch Price	Avg Selling Price	Selling min	Selling max
CATTLE						
A2	5206	244.9	18.32	18.00	16.51	20.00
A3	3171	258.9	18.25	17.89	16.52	20.00
AB2	250	255.9	17.06	17.25	15.68	19.30
AB3	2177	264.6	18.24	19.19	16.51	19.30
B2	247	261.3	16.59	16.64	14.98	18.30
B3	92	300.2	16.25	15.77	15.20	18.30
C2	440	252.8	15.68	15.35	14.00	15.97
C3	216	263.7	15.63	15.35	14.00	16.50
	11,799					



LAMB/SHEEP						
A0	503	13.5	20.07	22.78	21.81	27.45
A1	1697	14.8	26.72	26.45	22.50	29.05
A2	19520	17.2	27.36	28.44	27.33	31.00
A3	7057	19.1	26.88	27.92	27.10	31.00
A4	1183	20.0	22.68	24.33	23.11	31.00
A5	815	20.5	20.39	21.48	20.00	25.00
A6	768	21.1	19.93	21.50	19.81	29.80
AB2	796	18.7	23.72	25.55	23.38	27.61
AB3	293	21.0	22.19	24.71	22.84	27.61
B2	815	21.9	45.08	25.96	22.12	29.85
B3	286	22.0	21.36	22.88	21.34	26.50
C2	2345	22.6	20.40	21.57	20.11	25.50
C3	857	24.3	19.77	21.07	20.11	25.50
	36,935					



PIGS		Avg Purch Price	Purch Min	Purch Max	
BC	270	77.7	9.89	7.90	10.58
BO	5222	74.4	12.44	11.60	13.04
BP	4491	72.4	12.40	11.60	13.06
BR	1599	76.8	11.84	10.40	12.68
BS	24	78.0	7.59	6.63	8.33
BU	60	78.0	9.05	7.85	10.04
PC	113	54.3	5.23	5.00	8.00
PO	1221	52.8	13.37	11.70	13.80
PP	1545	48.5	12.63	12.03	13.80
PR	580	41.8	5.49	5.00	11.80
SAS	673	109.0	8.24	6.00	8.80
	15,798				
Hide	Feedlot	8.22			
	Veldt	7.19			
Dorper	ea	30.33			
Merino	ea	24.20			



Year: 2007 ◆
 Year: 2006 ■

Only abattoir prices received in time for this report are stated as contributors

Austin Evans, Beefmaster, Bloemfontein, Bull Brand, Ceres, Crafor, De Aar, Enterprice PP, Eshowe, Eskort, Farmers M & M, Farmers Meat, Huntersvlei, Just Lamb, Karoo Lam, La Rochelle, Langberg, LAW, Malmesbury, Meat to Market, Meatlands, Ne, Pidelta, Rondebosch, RTV, Saamstaan, Sparta OKK, Stella, Triple A, Upington, Vencor Holdings, Vereeniging, X - Cell Pork,

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Annexure E

EXPRESSION OF INTEREST IN TRAINING/ SERVICES

Please complete and fax back to RMAA (012) 349 1240.

Abattoir: _____

Contact person: _____

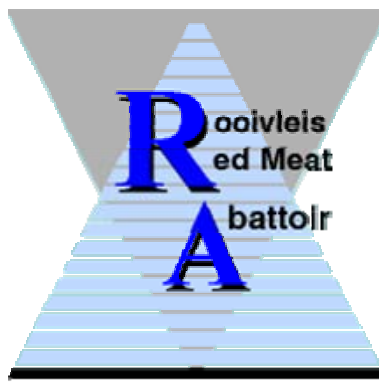
Telephone: _____ Cell: _____ Fax: _____

E mail: _____

Do you contribute Skills Development Levy (SDL)? _____ To which SETA? _____

Operational Training	Number of workers
Routine slaughter training	
Skills Programs	
Basic Introduction to the Abattoir Industry	
Animal Handling	
Beef Slaughter	
Hygiene Awareness	
Business Simulation	
GMP & HACCP	
HMS & HACCP	
Learnerships	
National Certificate in General Abattoir Processes	
National Certificate in Abattoir Slaughtering Processes	
National Certificate in Abattoir Supervision	
Further Education and Training Certificate in Meat Examination	
Further Education and Training Certificate in Meat classification	
Other training or information	
Operational support services	

Building No 4
CSIR
Meiring Naudé Rd
Brummeria



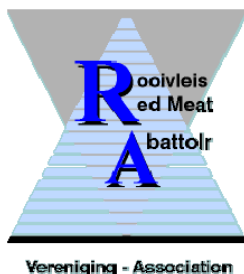
P O Box 35889
Menlopark, 0102
Tel: (012) 349 1237
Fax: (012) 349 1240

Vereniging - Association

ABATTOIR MEMBERSHIP APPLICATION

New Application				Change of Details			
Abattoir Name				VAT No			
Owner	Mr	Mrs	Ms	Other	Name & Surname		
Contact Person	Mr	Mrs	Ms	Other	Name & Surname		
Designation of Contact Person				Tel ()			
Cell ph				Fax ()			
E-Mail							
Physical Address						Code	
Postal Address						Code	
Abattoir Grade				CoR No			
Species	Bovine	Sheep	Pork	Ostrich	Other		
<i>Please attach a copy of the abattoir's Certificate of Registration as issued by the Provincial Veterinary Authority.</i>							
Signature & Designation							
Date							
Abattoir grading: Annual Membership (Please mark X)	High Throughput 100+ Units (A)	High Throughput 50-99 Units (B)	High Throughput 21-49 Units (C)	Low Throughput 11-20 Units (D)	Low Throughput <10 Units (E)	Rural Abattoirs	
<i>Membership fee quoted is calculated pro rata per annum, quoted in ZAR and excluding 14% VAT</i>							
Bank details	Absa	Lynnwood Road					
	Branch Code	334 745					
	Account Number	540 157 065					
	Type	Current					

Building No 4
CSIR
Meiring Naudé Rd
Brummeria



P O Box 35889
Menlopark, 0102
Tel: (012) 349 1237
Fax: (012) 349 1240

FEE STRUCTURE 2009

(All prices quoted are in ZAR and excluding 14% VAT)

Abattoir grading:	High Throughput 100+ Units (A)	High Throughput 50-99 Units (B)	High Throughput 21-49 Units (C)	Low Throughput 11-20 Units (D)	Low Throughput <10 Units (E)	Rural Abattoirs	Associated Members
Annual Membership	1650.00	1300.00	1100.00	675.00	300.00	150.00	1650.00

SERVICE	Members	Non Members
Technical Services:		
Demonstrations, work studies & advisory services Cost per day (excluding travel & accommodation) ¹	1150.00	1500.00
Operational support services (fixed contract) per day	1600.00	2400.00
Skills Development Facilitation	<i>Equal to SDF grant payable to employer</i>	
Meat Safety Management:		
Pre-assessment survey per day (excluding travel & accommodation) ¹	2000.00	2300.00
<i>Additional cost per hour if survey exceeds 1 day</i>	220.00	220.00
HACCP Implementation / Support Cost per hour (excluding travel & accommodation) ¹	250.00	350.00
Verification Audit per day (excluding travel & accommodation) ¹	2000.00	2600.00
<i>Cost per hour for additional days</i>	220.00	220.00
HMS Pre-assessment, Implementation / support and verification (±6 days) (excluding travel & accommodation) ¹		
Low throughput abattoir =< 20 units	7000.00	8800.00
High throughput abattoir 21- 80 units	9650.00	13200.00
High throughput abattoir >80 units	13200.00	17550.00
Industry Manuals:		
Meat Inspectors Manual: Red Meat (English or Afrikaans)	100.00	100.00
FAO Manual for Meat Inspection in Developing Countries (English only)	400.00	400.00
Advertisements:		
In diary – Annual A5 colour advertisement per page	3100.00	3100.00
In RMAA newsletter to Industry	1350.00	1350.00
RMAA Web banners or dedicated landing page (3 months hosting)	1350.00	1350.00
Annual Conference:		
Exhibitors: 2 x 3 metres stall, including plug point, two spotlights and a name board Includes conference package for two exhibitors (1½ days) and gala dinner	4000.00	4000.00
Delegates: Conference registration fee Includes conference package (1½ days) and gala dinner	TBA	TBA

SLAUGHTER TRAINING		Members	Non Members
Routine slaughter training (1 day per annum)		No Charge	Part of provincial programme
Additional requests <i>per day (excluding travel & accommodation)</i> ¹		1250.00	1650.00
FORMAL TRAINING		Funded by AgriSETA	Cost per additional learner
		Members	Non Members
SKILLS PROGRAMS			
Hygiene awareness (1 day)			
AgriSETA client	10 learners	240.00	290.00
Other SETA clients ²	None	390.00	490.00
Not contributing Skills development levies	None	580.00	680.00
Introductory abattoir hygiene (2 days)			
AgriSETA client	5 learners	1075.00	1175.00
Other SETA clients ²	None	1275.00	1375.00
Not contributing Skills development levies	None	1475.00	1575.00
Introduction to the abattoir industry (1 day)			
AgriSETA client	10 learners	240.00	290.00
Other SETA clients ²	None	390.00	490.00
Not contributing Skills development levies	None	580.00	680.00
Animal handling (4 days)			
AgriSETA client	4 learners	3050.00	3140.00
Other SETA clients ²	None	3280.00	3380.00
Not contributing Skills development levies	None	3380.00	3480.00
Beef / Sheep / Pig slaughter (4 days)			
AgriSETA client	4 learners	3050.00	3140.00
Other SETA clients ²	None	3280.00	3380.00
Not contributing Skills development levies	None	3380.00	3480.00
Basic business principles (4 days)			
AgriSETA client	4 learners	1100.00	1200.00
Other SETA clients ²	None	1350.00	1450.00
Not contributing Skills development levies	None	1550.00	1650.00
HACCP awareness (1 day)			
AgriSETA client	4 learners	450.00	550.00
Other SETA clients ²	None	650.00	750.00
Not contributing Skills development levies	None	850.00	950.00
HMS / HACCP or GMP / HACCP (4 days)			
AgriSETA clients			
Abattoir hosting the course	4 learners	1750.00	2150.00
Other abattoirs	2 learners	1750.00	2150.00
Veterinary Public Health	2 learners	1750.00	
IMQAS	2 learners	1750.00	
Other SETA clients ²			
Abattoir hosting the course	2 learners	2220.00	2320.00
Other abattoirs	None	2420.00	2590.00
Any client not contributing Skills development levies	None	2420.00	2590.00
LEARNERSHIPS			
National certificate: General abattoir processes		13750.00	16500.00
Notes:			
¹ Travel cost: R2.00 per km			
² Request funding from your SETA or claim in terms of your submitted workplace skills plan			
All prices quoted are in ZAR and excluding 14% VAT			

ABATTOIR PRODUCTS



AFRICAN HIDE TRADING CORPORATION

Springbok Trading (Pty) Ltd and African Hide Trading have combined together to form a dynamic and well recognised company as a major buyer of all cow hides, sheep skins, game skins, wool and horns.

Tel: 041 405 7000
Fax: 041 461 2357
E-mail: info@aht.co.za



DELUXE CHEMICALS

Deluxe Chemicals is a large chemical manufacturer in South Africa, operating in South Africa and neighbouring countries.

Since 1990, Deluxe Chemicals has grown into a major role player in the manufacture and sale of industrial detergents and disinfectants. Right from the start, Deluxe Chemicals has prided itself on producing top quality products specially formulated to improve hygiene in the food, beverage, laundry, institutional & industrial industry. With this background, Deluxe Chemicals was able to achieve ISO 9001:2000 listing in a very short time, because of the high quality standards that were already in place.

Many of their products sold into the food industry hold the SABS 1828 or 1853 marks, which relate specifically to ensuring safety for use on food contact surfaces. All their disinfectants are registered with the SABS per the compulsory specification as published in the Government Gazette No. 19999 dated 14 May 1999.

With their dedicated team, the company has more than 60 years of experience in the chemical industry. Customer support and back up service is considered a top priority,

which involves assisting their customers fully with every aspect of the use of their products in a wide range of applications including food factories, laundries and institutional outlets to name a few. Deluxe Chemicals are in constant contact with overseas technology and development, and have their own development and microbiological laboratories. Deluxe Chemicals are able to manufacture a wide range of powder and liquid products in their modern factory based in Jet Park.

Deluxe Chemicals is still small enough to give personal service, but large enough to professionally handle the toughest cleaning problems, using the latest overseas technology.

Contact Person: Mr Jannie Viljoen

Tel: 011 397 3299

Fax: 011 397 3315



DIVAC

DIVAC are abattoir plant and food processing engineers, with experience in processing plant design and construction according to SA, EU and USDA Export standards. They design, develop and supply specialised equipment, plan and design by-product, chilling and freezing facilities and handle projects of ostrich, red meat, venison, fish, de-boning etc.

Tel: 044 874 2720

Fax: 044 874 2747

E-mail: divac@pixie.co.za



EASIMEAT

UCS Software's **EasiMeat** solution, developed for the South African meat industry, is developed upon Microsoft Dynamics NAV.

UCS Software is the leading provider of Enterprise Resource Planning solutions in the South African meat industry.

EasiMeat has already implemented innovated key business processes at several large South African meat companies – The right solution guaranteed to generate positive results.

EasiMeat is a fully integrated IT application for the handling of production, administration and management information in one system.

EasiMeat covers the full spectrum from ‘gate to plate’. In the meat industry, marginal earnings on large volume production are essential to total earnings.

EasiMeat will assist in maximising these margins with features like: Traceability, Stockkeeping Units, Age Analysis, circulating input costs proportionately to unit costs or weight and deboning. **EasiMeat** has fully integrated data collection functionality, including: Settlements, General Ledger, Cash Book, Sales Management, Purchases and Payables, Inventory, Fixed Assets, Plant and Fleet Maintenance, Deboning and Processing.

Contact Person: Gary Shandler
Tel: 011 421-4800
Fax: 011 421-4999
Website: www.ucssoftware.co.za
E-mail: gary.shandler@ucs-software.co.za



The GMPBasic™ Patented Livestock Traceability and Management Program has been developed for the South African Livestock Industry.

The program accommodates the latest technology, **not** excluding the producers that do not have access to technology. The full audit trail could start with a manual capturing process, GMPBasic™ Manual Passport for livestock, off line CD to download CD to local computer and online facility via the internet and central database.

The program addresses and includes three important aspects of high importance to the agricultural industry and *food safety*.

Good Management Protocols

The program is easy to use, with protocols promoting good management of livestock by collecting important information and capturing processes that will benefit the producer financially, such as: - Regular weight of animals – to calculate average weight gain-Recording of treatments and veterinary pharmaceutical product uses,- Recording of progeny events- Medical history-***Traceability, proof of ownership and movement, control and stock theft*** - The ability to generate a dispatch record per individual animal with the Animal history to the next owner electronically and manually, by printing out the dispatch note, produces an audit trail of the animal's history. The farmer, who would like to take a DNA sample of his animal, could send

this to the DNA library for proof of ownership when needed.

Traceability, proof of ownership and movement.

Control and stock theft, As every animal is **uniquely marked** with a tamper evident visual animal ear tag and change of ownership are recorded on the system, this movement can be monitored to the next location from place of origin. Online verification via the internet could assist the stock theft unit, Veterinary officials, Law enforcement officers in online verification.

Bio-security Notifiable and erosion diseases

Notifiable diseases could be recorded online and proactive response could take place. Erosion disease could be flagged on the system and managed. This could protect prospective buyer against financial losses in future.

GMPBasic™ is available from the internet to the farmer, producer, free of charge, **not license fee.**

Contact Rachele: 0836307181 – www.gmptags.co.za



JARVIS PRODUCTS CORPORATION RSA (PTY) LTD

Jarvis products have been known to the abattoir industry for more than 15 years for quality equipment. Jarvis provides a complete range of equipment required for the beef, sheep, pig, poultry and ostrich industry.

Contact person: Mr Ben Myburgh

Tel: 011 974 6776 / 9

Fax: 011 974 6802

E-mail: jarvissa@yebo.co.za



JohnsonDiversey

JohnsonDiversey is a world leader in providing hygiene solutions customized to suit your needs. At JohnsonDiversey we believe in the importance of establishing and maintaining strong relationships with our customers. Our unrivalled spread of cleaning and hygiene products (all SABS approved) and systems is as comprehensive as it is focused. We have an in-depth understanding of the unique demands of the red meat industry and as such go beyond clean to look for ways of enhance reputations, building and protecting brands and maintaining the highest standards of food safety

(SecureCheck), efficiency and cleanliness.

Contact: Peet Grobler – Technical Manager
Email: peet.grobler@johnsondiverse.com
Cell: 083 301 8033

Contact: Geoff Bayman – National Sales Manager
Email: geoff.bayman@johnsondiverse.com
Cell: 083 263 8945



KENTMASTER SA (PTY) LTD

Kentmaster has been providing the meat industry with quality built carcass cutting tools and saws for over 50 years.

Contact person: Mr John Berrington / Mr Renier Burger

Tel: 011 455 3748
Fax: 011455 3749
Website: www.kentmaster.com
E-mail: kentmaster@mweb.co.za



PATH PLASTICS was established in 1996 to fulfill a role as the **supplier of high rotationally moulded plastic products** to industry in the Western Cape, with special emphasis on the Food Processing Industries, following the philosophy of supplying innovative, high quality solutions to its clients' needs, ensuring that products produced are **well priced**, meet the client's **exacting standards** and are **delivered on time**.

The current product line, produced from tooling that have been designed and developed by Path, includes a variety of products used in the general food processing, fishing, materials handling & pharmaceutical industries, and consist of a **range of bulk bins, insulated bulk bins, crates, boxes and containers**, as well as **pallets, trolleys, drums & tanks, floats**, and the latest innovative additions to the range:-

PLASTIC LOCKERS and the **ROLPAC** - a unique mobile packing / shelving unit that is very robust, very hygienic & modular with various configurations, to take the place of metal roll cages and storage units.

Tel: 021 551 9191/2/3
Fax: 021 551 9190
E-mail: sales@pathplastics.co.za
Web: www.pathplastics.co.za



UNITEMP

Unitemp's new testo 205 is a robust food penetration pH / C⁰ meter. It has a unique combination of a pH penetration tip and a temperature probe in an ergonomically designed, one hand instrument for accurate and fast temperature compensation.

Tel: 021 762 8995 (Cape)
Tel: 011 392 5989 (Gauteng)
Website: www.unitemp.com
E-mail: ph4rmaa@unitemp.com



UPFRONT INSTRUMENT DISTRIBUTORS (U.I.D.)

UPFRONT INSTRUMENT DISTRIBUTORS (U.I.D.) (Previously Status Instrument cc) is an established company with the aim of providing the perishable product market with all the measuring instruments required.

UID is the **distributor** for the **Ebro** range of products, imported from Germany, and the locally manufactured wireless **Termolog** temperature monitoring system.

The **Ebro** range consists of portable thermometers, ph meters etc, including data logging equipment for these parameters.

Data loggers measuring temperature and pressure, as required for the **BSE** graduation is available.

The **Termolog** product is designed for temperature monitoring in cold and freezer rooms.

We supply **waterproof** equipment, specific designed for **abattoir conditions**.

With almost 20 years of experience in this field, we trust to continue with the service to you and the industry.

Tel: 011 475 6983
Fax: 011 475 6983
E-mail: statusin@mweb.co.za



VAN VLIET DE WET & PARTNERS

Van Vliet de Wet & Partners are consulting engineers who have for more than 35 years been involved in the planning, design and construction of plant and equipment for abattoirs, deboning facilities and the meat industry in general both locally and internationally.

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