

Newsletter
February
2021



Welcome to the
RED MEAT
ABATTOIR
Association

Tel: (012) 349-1237/8/9
Fax: (012) 349-1240

Dear Abattoir Owners

The past year posted unexpected and out of the ordinary challenges to the world with the COVID 19 pandemic. Although the abattoir industry remained resilient we would like to thank each person for their diligent effort to keep the Red Meat Industry open as an integral part of food security for our Country.

South Africa is almost a year in lock down of various stages. Amidst these challenges I wish bring the following under your attention.

1. The Mandatory Grant information is available in the newsletter. it is of utmost importance for each abattoir to apply for grant to ensure that funding is available for the abattoir industry to maintain the highest industry standards.
2. We encourage the abattoirs who are not currently participating in the price information and would like to do so, to send an email to info@rmaa.co.za for further detail. Your support to ensure accurate and representative historical price information for the industry.
3. Abattoirs who have not yet received the documents for the salary scale Questionnaire should please send an email to info@rmaa.co.za. Reports are available to participating facilities.
4. Please contact Jean at training@rmaa.co.za for any bookings for routine or formal training or any enquiries in this regard. A summary of some training outcomes are available elsewhere in the news letter.
5. The IFC resource efficiency reports and a policy document were made available to all provinces. This information is available on our website.

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11	Animate - Salbutamate



ALERT LEVEL 1

KEEP WEARING A MASK WHENEVER YOU ARE IN PUBLIC

STAY AWAY FROM CLOSED OR CROWDED SPACES

KEEP A DISTANCE OF ONE AND A HALF METRES FROM OTHERS

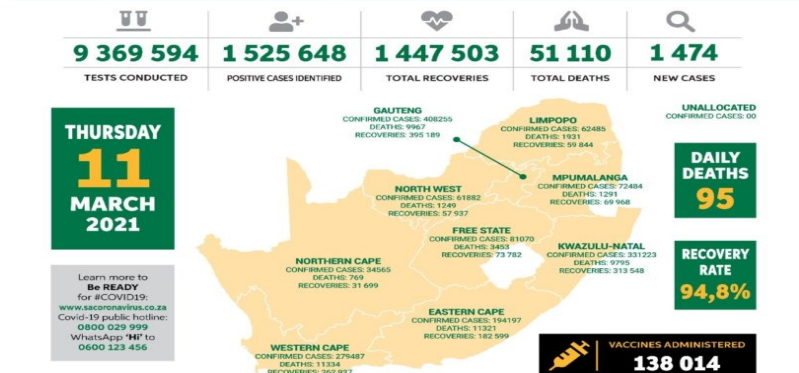
WASH YOUR HANDS REGULARLY

DOWNLOAD THE COVID ALERT SA MOBILE APP

WHAT CAN YOU DO TO PREVENT A RESURGENCE OF THE VIRUS?

WHATSAPP SUPPORT: 0600 123 456 | EMERGENCY NUMBER: 0800 029 999 | @PresidencyZA | www.stateofthenation.gov.za

COVID-19 STATISTICS IN SOUTH AFRICA



DOWNLOAD the COVID Alert SA app

The COVID Alert SA app can notify you if you have been exposed to another app user with coronavirus. Download it now to protect yourself and others.

Available on the App Store and Google Play

ALERT LEVEL 1

MANDATORY MASK WEARING:

WEARING A CLOTH MASK OR SIMILAR COVERING OVER THE NOSE AND MOUTH IS MANDATORY WHEN IN PUBLIC

ANY PERSON WHO DOES NOT WEAR A MASK IN A PUBLIC PLACE WILL BE COMMITTING AN OFFENCE

WHATSAPP SUPPORT: 0600 123 456 | EMERGENCY NUMBER: 0800 029 999 | @PresidencyZA | www.stateofthenation.gov.za



How do Employers benefit from Mandatory Grant (SDL Levies)

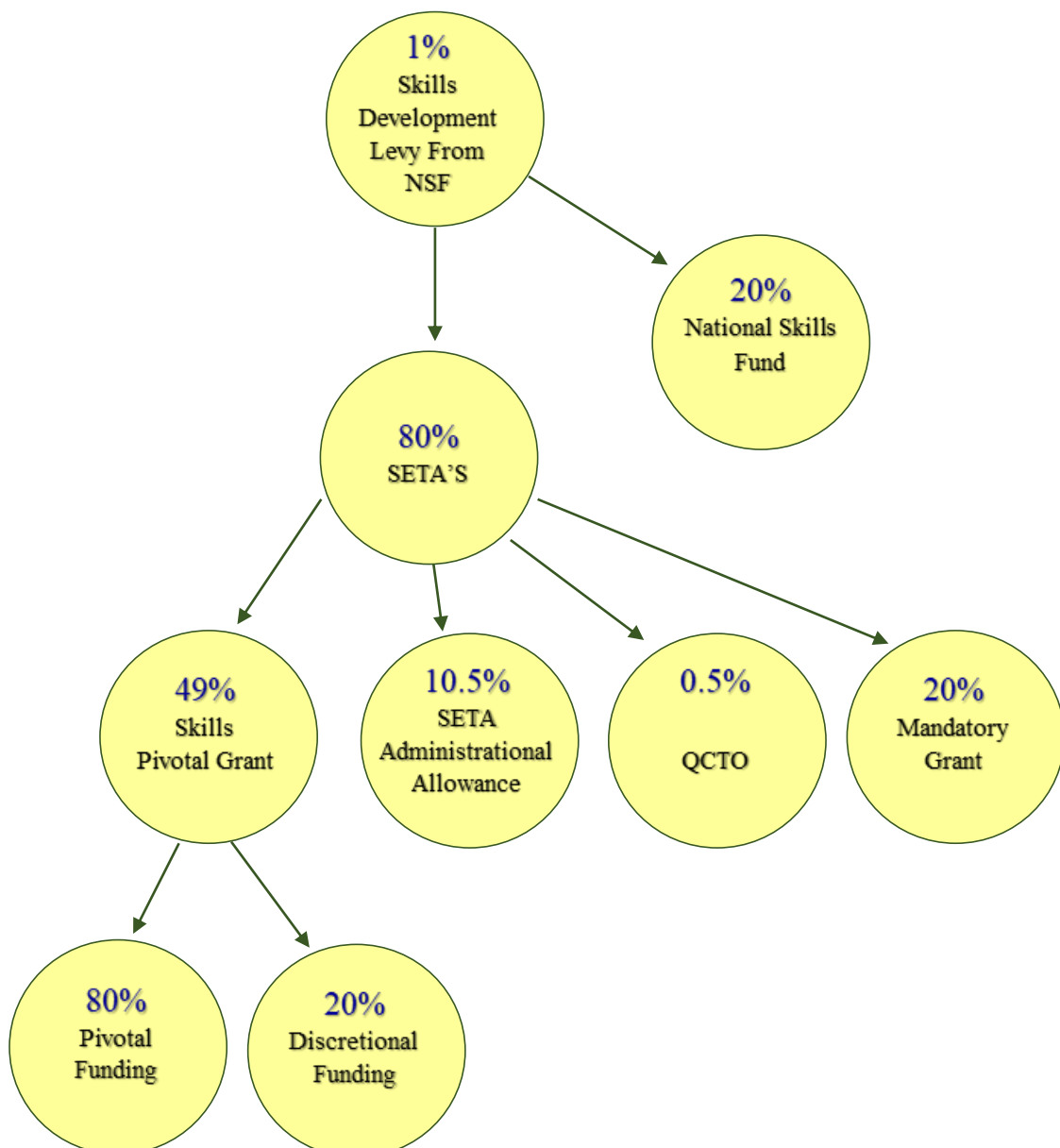
Mandatory Grants percentage has changed on 01st April 2013, to **20% of levies paid to the Receiver of revenue (SARS) that can be claimed by employers** by submitting the Annual Training Report for the previous year training completed, combined with a Workplace Skills Plan for planning of training for the next scheme year.

Non-participating Companies, forfeit their Mandatory Grant each year. Their unclaimed money, plus the SETA's discretionary allocation and any special funding received by the SETA from the National Skills Fund (NSF), provides funding to participating employers in excess of what is available as their Mandatory Grant (20% of their 1% Skills Development Levy) and Pivotal Grant (up to 49% of their 1% Skill Development Levy). This funding is applied for, and allocated by the employers SETA, at their sole discretion.

Employers can benefit from financial incentives (Section 12H (a) a SARS incentive) and participants may access funding from respective SETAs. Organizations will also optimize their B-BBEE compliance by aligning training objectives and will address skills shortages through participation.

An employer is exempted from paying Skills Development levy if the total levy-able amount of all its employees over the next 12 months are less than R500 000.00. Employers who are exempted from paying SDL are also exempted from submitting an Annual Training Report (ATR) or Workplace skills plan (WSP). For more information on SDL exemption, a SARS office should be contacted.

HOW IS THE SKILLS DEVELOPMENT LEVY SPLIT UP



Feel free to contact our office for assistance with your SDF support service and courses the Abattoir Skills Training can provide you with and let Mandatory Grant provide you with funding for skills development.



JOINT MEDIA STATEMENT

26 FEBRUARY 2021

AFRICAN SWINE FEVER OUTBREAK REPORTED IN THE WESTERN CAPE FOR THE FIRST TIME

The Department of Agriculture, Land Reform and Rural Development (DALRRD) and the Western Cape Department of Agriculture, jointly report an outbreak of African Swine Fever (ASF) in the Western Cape.

Two small-holding farms in Mfuleni, North of Khayelitsha, were found positive for ASF, after laboratory testing of samples from dead pigs. Approximately 5% of pigs had died on each of the two properties and the disease has the potential to kill all pigs on a farm.

A ban has been placed on the sale and movement of live pigs from Mfuleni, to limit the spread of the disease. A survey has been initiated by the Western Cape Veterinary Services, to determine the extent of the spread of the disease Mfuleni and the immediate surrounding area. This includes the collection of further samples from any dead pigs from any suspect farm. The origin of the outbreak is still unknown but the clues may be provided by the study of the specific virus detected and by information provided by affected farmers.

Farmers are requested to be vigilant and to report any sudden illnesses and deaths of their pigs to the local State Veterinary office immediately, so that swift action can be initiated to prevent the spread of this disease.

Since 2019, the provinces outside the ASF controlled area affected by ASF have been Mpumalanga, Gauteng, Free State, North West, Northern Cape and the Eastern Cape.

In 2021 thus far, there have been numerous outbreaks in Gauteng reported in the Randfontein, Tembisa and Midvaal areas. The latest outbreak in the Free State was reported in January 2021, where contact with warhog is suspected to have played a role. In North West, the latest ASF outbreak was reported in the Potchefstroom area in February 2021, after a smallholder experienced high pig mortalities. Investigations into the source and

spread of this outbreak have been initiated. Within the ASF controlled area, a single outbreak was also reported in the Thabazimbi area of Limpopo in February 2021.

The disease is transmitted to pigs by contact with infected wild or domestic pigs, and contact with contaminated people, vehicles, equipment or shoes, and eating contaminated food waste, feed, or garbage, or by being bitten by infected soft ticks. The department therefore urges owners to improve their biosecurity measures and to be very vigilant on good husbandry practices.

BIOSECURITY PREVENTS AFRICAN SWINE FEVER

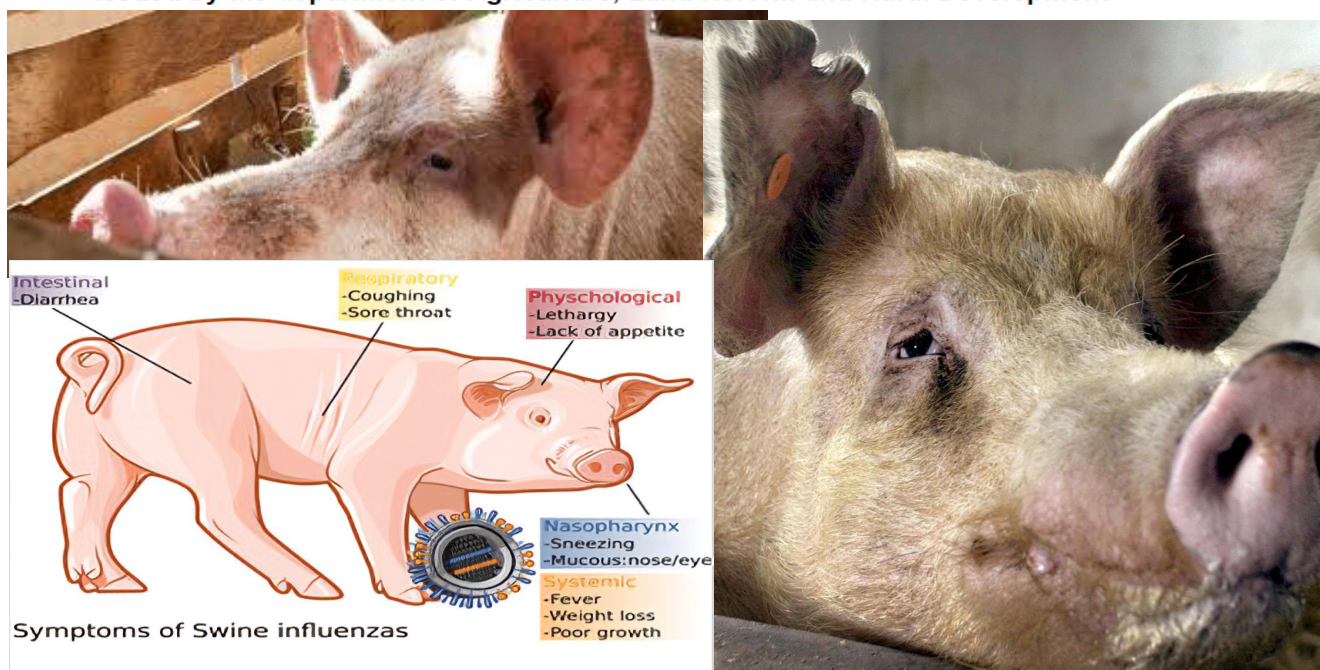
You can keep your pigs safe by following these recommendations:

- Enclose your pigs to prevent contact with pigs of unknown health status, including wild pigs and warthogs.
- Only buy healthy pigs from a reliable source.
- Preferably, do not feed kitchen waste, but if you have no option, remove all meats and cook the kitchen waste thoroughly.
- Do not allow visitors to have contact with your pigs.
- Before having contact with pigs, wash hands, only use clean clothes, shoes, equipment and vehicles (that have not been in contact with other pigs).

ASF does not affect humans and the consumption of pork is safe; however, any meat and products from affected pigs can be a source of infection to other pigs. Farmers should ensure that, if any swill is fed to pigs, it must be pre-cooked for at least an hour. This will ensure the inactivation of the ASF virus, as well as other diseases of concern.

For more information, contact the media liaison officer, Reggie Ngcobo, on 0662980980

Issued by the department of Agriculture, Land Reform and Rural Development





MEAT EXAMINER COURSE

01.07.2021 – 31.12.2021 (6 Months)

The Red Meat Abattoir Association, is proudly offering a Meat Examiner and Game Meat Examiner course in collaboration with IMQAS.

The 6 months course is acknowledged by Department of Agriculture, Land Reform and Rural Development (DALRRD). Learners will be exposed to knowledge and skills that will allow the learner to practice as a red meat ex-

Learning areas covered

- Meat Inspection
- Anatomy and physiology
- Microbiology
- Pathology
- Meat Quality & Safety
- Abattoir Layout
- Personal Hygiene
- Pest Control
- Cleaning and sanitation
- Waste management
- Slaughter & Dressing
- Condemned material



ONLINE CONTACT SESSIONS

Learners have a choice to attend the THEORY contact sessions ONLINE or in person at a high throughput abattoir, where abattoir practical will be done in person



Cost:

ALL REGISTRATIONS: R9 680 (Excl 15% VAT)

Includes study guides, facilitation, practical's, assessment and certification

AST reserves the right to re-schedule dates and venues
Cancellation within 5 days of commencement date will incur a 20% administration fee
Full course fee to be paid before examinations are written

**Closing date for
registration
15 June 2021**

Contact us

Phone: (012) 349-1237/8

Fax: (012) 349-1240

E-mail: ella@rmaa.co.za

Website: www.rmaa.co.za

Accreditation

Accredited Training provider—AgriSETA AGRI/c prov/027710

Registered Private FET College—2011/FE07/010

Entry requirements: Grade 12

Abattoir Skills Training presents Food Safety Management System Awareness (HACCP Awareness) – AgriSETA Accredited

What is this training program about?

At the end of the 1 day training program the learner will understand, in broad, the difference between food safety and quality systems, where they originated, why they are important, what they entail, different kinds of systems, legislation involved, different kinds of documents used in these systems, important definitions used in the systems and the relationship between the different kinds.

The learner will understand that food safety principles apply to all these systems and that there are pre-requisite programs which need to be in place before a specific system is implemented. It will be clear to you that all these programs require monitoring, record keeping and verification. You will understand the requirements regarding monitoring, record keeping and verification in terms of the requirements as set out in the regulations under the Meat Safety Act, 2000 (Act no 40 of 2000) for the Hygiene Management System. You will have a broad knowledge of the HACCP system and you will be able to monitor and record CCP's and CP's and take corrective action in cases of non-conformances detected against the critical limits of the CCP.

Who should attend this course?

This unit standard is intended for a person working in a food handling environment who has the responsibility of monitoring a CCP derived from a HACCP study, and the authority to react against the identification of a non-conformance against a CCP because of such monitoring.

A person credited with this unit standard is able to:

Demonstrate an understanding of a CCP in a food handling environment.

Monitor and record a CCP.

Take action when a non-conformance is detected against the critical limits of a CCP.

This unit standard will contribute to the full development of the learner within the food handling environment by providing recognition, further mobility and transportability within the field of manufacturing and assembly. The skills, knowledge and understanding demonstrated within this unit standard are essential for social and economic transformation and contribute to the upliftment and economic growth within the food handling environment.

Learning Assumed to Be in Place and Recognition of Prior Learning




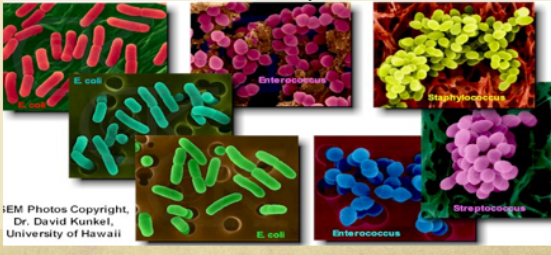
Knowledge of good manufacturing practices within the learner's scope of work.

Perform quality control practices in a food or a sensitive product operation.

Examples of Sampling programs:

Meat: TPC E coli Salmonella Staphylococcus aureus Clostridium perfringens Antibiotic residues Trichinella	Surfaces: TPC Staphylococcus aureus Coli forms	Personnel: TPC Staph aureus
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Water:
Chlorine
TPC
E coli
Streptococcus



Can you spot the problems???

STASIE 6

EM Photos Copyright, Dr. David Kunkel, University of Hawaii

Why was it necessary to implement food safety/ quality systems?

People have the right to expect the food they eat to be safe and suitable for consumption. Foodborne illness and foodborne injury are at best unpleasant; at worst, they can be fatal. But there are also other consequences. Outbreaks of foodborne illness can damage trade and tourism, and lead to loss of earnings, unemployment and litigation. Food spoilage is wasteful, costly and can adversely affect trade and consumer confidence.

International food trade, and foreign travel, are increasing, bringing important social and economic benefits. But this also makes the spread of illness around the world easier. Eating habits too, have undergone major change in many countries over the last two decades and new food production, preparation and distribution techniques have developed to reflect this. Effective hygiene control, therefore, is vital to avoid the adverse human health and economic consequences of foodborne illness, foodborne injury, and food spoilage. Everyone, including farmers and growers, manufacturers and processors, food handlers and consumers, has a responsibility to assure that food is safe and suitable for consumption.

These General Principles lay a firm foundation for ensuring food hygiene and should be used in conjunction with each specific code of hygienic practice, where appropriate, and the guidelines on microbiological criteria. The document follows the food chain from primary production through to final consumption, highlighting the key hygiene controls at each stage. It recommends a HACCP-based approach wherever possible to enhance food safety as described in *Hazard Analysis and Critical Control Point (HACCP) System and Guidelines for its Application* (Annex).

The controls described in this General Principles document are internationally recognized as essential to ensure the safety and suitability of food for consumption. The General Principles are commended to Governments, industry (including individual primary producers, manufacturers, processors, food service operators and retailers) and consumers alike.

Foodborne disease

According to the World Health Organisation (WHO) (1989), illness resulting from eating contaminated food is considered the most widespread health problem in the contemporary world and thus an important cause of reduced economic productivity. Food poisoning may be caused either by ingestion of pathogenic bacteria or the toxins produced by them.

The symptoms may include the following: diarrhoea, fever, stomach and abdominal cramps, headache, muscle cramps, nausea and vomiting. The onset is generally a matter of hours. Usually, several persons who have shared the same meal are poisoned at the same time, but the degree of intoxication depends on the amount of tainted food consumed and the sensitivity of the individual to the toxin (Jay, 1996).

Potentially, anyone is at risk from the effects of food poisoning, although certain groups are more susceptible than others. Therefore, the need exists to implement methods to prevent and control outbreaks.

There are more than 250 known foodborne diseases. Bacteria cause most cases, followed by viruses and parasites. Overall, foodborne diseases appear to cause more illnesses but fewer deaths than previously estimated. More than 200 known diseases are transmitted through food. The causes of foodborne illness include viruses, bacteria, parasites, toxins, metals, and prions.

Experts agree that there is a significant level of under-reporting of food borne disease. The tendency of people to 'shrug off' the occasional stomach upset and failure of GPs to diagnose (and confirm) other than serious, well-defined cases, present major hurdles to an improvement in this situation.

What does food safety and/ or quality systems entail?

Management commitment

Personnel commitment

Training

Resources (personnel, time, funding, infrastructure etc)

Documentation (policies, procedures and checklists)

If you are interested in this course please contact the Training Manager Jéan Neethling on 084 047 001 or training@rmaa.co.za to arrange for a quote and a training date

We have received a few requests for the Salary Scale since the last time we compiled a report. We encourage abattoirs to please take part in the process, if you have not received a questionnaire to fill in by the 31/03/2021 please email info@rmaa.co.za to participate. Please send all Salary and Wage Questionnaire documents to info@rmaa.co.za by no later than 31 March 2021

ABATTOIR WAGE & SALARY QUESTIONNAIRE

The abattoir industry is an employer in the Agricultural Sector and the Training Authority (AgriSETA), Certificate Nr 20/AgriSETA/1/07/05 as gazetted in Government notice No 656 (1 July 2005) in terms of the Skills Development Act (Act 97 of 1998). The following Standard Industry Classification codes (SIC) refers to the abattoir industry:

30111 Slaughter, dressing and packaging of livestock
30117 Slaughter, dressing, packaging and processing of Ostrich products

The RMAA regularly receives requests to assist abattoirs with the determination of salary scales, or to provide guidelines for the Standard Industry Classification (SIC) codes in the abattoir industry or job grades and personnel components for abattoirs.

The Association has developed a set of guidelines to categorize the various work stations in the abattoir. The questionnaire attached aims to gather applicable information. We have decided to move the Abattoir Wage and Salary Questionnaire earlier in the year, as the festive season is a busy period in the abattoir industry.

The survey is based on the Paterson Job Grading system, which takes into account the employees level of experience, accountability, skills level, responsibility, etc. The result of the survey can assist in curbing the threads in our environment and assist with possible retrenchments, training needs, job security and many more.

Kindly supply information as on the 31st December 2020. Please supply your inputs and ensure the accuracy of the information.

Submissions closing date – 31 March 2021

ABATTOIR LOON & SALARIS VRAELYS

Die abattoirbedryf is n werkgewer in die Landbou Sektor en Sektorale Opleiding (AgriSETA) Sertifikaat nr 20/Agriseta/1/07/05 soos afgekondig in Goewerment kennisgewing nr 656 (1 Julie 2005) in terme van die Vakvaardigheidontwikkelingwet (wet 97 van 1998). Die volgende Standaard Industrie Klassifikasie (SIC) kodes het betrekking op die abattoirbedryf:

30111 Slag dressering en verpakking van lewende hawe
30117 Slag, dressering, verpakking en prosessering van volstruisprodukte

Die RVAV ontvang gereeld versoeke om behulpsaam te wees met die bepaling van salarisskale in die abattoirbedryf of om riglyne te verskaf oor die Standaard Industrie Klassifikasie (SIC) kodes waarin die abattoirbedryf werksaam is, of posgrade en personeelkomponente in hierdie bedryf.

Die RVAV het 'n stel riglyne saamgestel ten einde die verskillende werkstasies in die abattoir te kategoriseer. Die aangehegte vraelys het ten doel om toepaslike inligting te versamel. Ons het besluit om die Abattoir Loon- en Salarisvraelys vroeër in die jaar te skuif, aangesien die fees seisoen 'n besige tydperk in die abattoirbedryf is.

Die opname is gebaseer op die Paterson posgradering stelsel wat die volgende aspekte in ag neem; die werknemer se vlak van ondervinding, aanspreeklikheid, kundigheidsvlak, verantwoordelikheid, ens. Die resultate van die opname kan as 'n teenvoeter dien teen die bedreigings in die omgewing en kan help met moontlike afleggings, opleidingbehoefes, werksekuriteit en baie meer.

Verskaf asseblief inligting soos op 31^{ste} Desember 2020. Verskaf asseblief u insette en verseker die akkuraatheid van die inligting.

Indienings sluitings datum – 31 Maart 2021

IFC Benchmarking Study: Resource Efficiency in Red Meat Abattoirs in South Africa

Two reports released by the IFC, a member of the World Bank Group, and its partners estimate that South Africa's red meat industry has the potential to significantly reduce its water and power consumption, thereby cutting costs and lowering its impact on the environment.

The reports, produced in partnership with South Africa's Red Meat Abattoir Association, the Swiss State Secretariat for Economic Cooperation (SECO) and the Netherlands Enterprise Agency, estimate that South Africa's red meat industry could cut water consumption by up to 28 percent, saving up to 1.25 million cubic meters of water a year. The industry could reduce energy consumption by up to 24 percent, the equivalent of up to 92,000 MWh a year.

The [Benchmarking Study: Resource Efficiency in Red Meat Abattoirs in South Africa](#) provides an in-depth resource efficiency analysis of the beef, pork, sheep and goat meat processors in South Africa. The study, conducted by IFC, in partnership with SECO, the Red Meat Abattoir Association, and the Netherlands, assessed 21 red meat abattoirs of various sizes, species and geographical locations in South Africa.



How can South Africa's red meat abattoirs use fewer resources?

- MONITOR** energy and water usage
- UPGRADE** knife sterilizers to use less water
- ENHANCE** cleaning processes to use less water
- OPTIMIZE** compressed air systems
- ADOPT** waste heat recovery systems

IFC International Finance Corporation
WORLD BANK GROUP
Creating Markets, Creating Opportunities

The [Practical Guide for Improving Resource Efficiency in Red Meat Abattoirs in South Africa](#) accompanies the Benchmarking Study, and identifies and summarizes common resource efficiency opportunities for red meat abattoirs in South Africa.

A key output of the Benchmarking Study is the **Self-Assessment Tool** that produces a Resource Efficiency Benchmark Report tailored to the participant plant.

Contact info@rvav.co.za for your free customised assessment.

The reports are available for download here:

[Benchmarking Study: Resource Efficiency in Red Meat Abattoirs in South Africa](#)
[Practical Guide for Improving Resource Efficiency in Red Meat Abattoirs in South Africa](#)

For more information about the reports and program contact:

Rong Chen
Senior Operations Officer
rchen@ifc.org

How does your abattoir's energy and water consumption compare to best practices?

Contact info@rvav.co.za to get your free customized assessment



Lead Auditor course Gauteng

2021.05.17 - 2021.05.21

**Strict
COVID-19
protocol**



TARGET AUDIENCE

- ☞ Quality Manager
- ☞ Hygiene Manager
- ☞ Internal Auditor
- ☞ Supervisors



DELEGATE FEEDBACK

My knowledge and skills to audit facilities improved remarkably. The course is recommended to all who are responsible for auditing functions in food safety management systems

COURSE OUTLINE

Lead Auditors conduct audits for compliance to legislation and regulatory requirements. This SAATCA approved Lead Auditor Program includes:

- ☞ Food safety management systems criteria
- ☞ Purpose of an audit
- ☞ Audit principles
- ☞ Audit approach
- ☞ Auditors responsibilities
- ☞ Leading an audit team
- ☞ Audit strategy
- ☞ Auditing techniques
- ☞ Nonconformance and corrective actions
- ☞ Accreditation and certifi-

ENTRY REQUIREMENTS

- ☞ At least 4 years work experience in the **food safety management systems**
- ☞ Training in food related microbiology
- ☞ Training in food related regulations / legislation
- ☞ Training in pre-requisite program **min 3 days**
- ☞ Advance HACCP implementation 3 day minimum
- ☞ **ISO 22000 bridging course** (3 Days) or **HMS HACCP / ISO 22000 course** (4 days)
- ☞ Training in auditing techniques according to ISO19011

Cost:

RMAA Members: R8 075 (Excl VAT)

Non-Members: R9 075 (Excl VAT)

Includes study guides, facilitation, practical's, assessment and certification

AST reserves the right to re-schedule dates and venues
Cancellation within 5 days of commencement date will incur a 20% administration fee

**Closing date for
registration
2021.05.03**

Contact us:

Phone: (012) 349-1237/8

Fax: (012) 349-1240

E-mail: ella@rmaa.co.za

Website: www.rmaa.co.za

Accreditation:

Accredited Training provider—AgriSETA AGRI/c prov/027710

Registered Private FET College—2011/FE07/010

SAATCA training course provider

Safety and use of Beta-agonists in cattle, sheep, and pigs.



Author: Marlien de Kock (Pr.Sci.Nat), Sales and Technical Manager, Animate Animal Health

Cattle and sheep feeders, as well as pig farmers use feed additives – like beta-agonists – to increase the rate of weight gain without additional feed intake, improving feed efficiency and overall productivity.

The use of beta-agonists in food animal production has for a long time been a controversial topic. Opinions for and against their use has been published worldwide with varying scientific merit.

What are they?

Beta-agonists are non-hormonal pharmaceutical compounds fed to cattle, sheep, and pigs. They work by binding to receptors on fat cells in the animals' body and redirect and reduce the built-up of fat. Consequently, less fat is produced and stored in the carcass. At the same time the compounds bind to receptors on muscle cells and increase the size

of muscle fibres. Muscle fibre size replaces some of the weight normally formed by fat and the total carcass contains a higher percentage of lean muscle. With more weight produced by the same level of feed intake, efficiency is improved.

Beta-agonists bind to beta-receptors on body cells which in turn affect certain metabolic processes. The difference between them however is in how long they bind to the receptors, how long they remain active in the animal and to which type of beta-receptors (beta-1, beta-2, or beta-3) they bind.

For this discussion, we compare four different beta-agonists: ractopamine which is registered for pigs and cattle in South Africa; zilpaterol registered for cattle in South Africa; R-salbutamol, which is registered for cattle, sheep and pigs in South Africa and clenbuterol which is not registered for use in production animals. The latter has made many headlines worldwide as a performance enhancer used illegally by athletes and for causing adverse effects in humans consuming animal tissue containing residues of clenbuterol.

What are the differences?

The first classification of beta-agonists can be made on how long they remain active in the plasma and how long it takes to be excreted. This is referred to as the half-life ($t_{1/2}$) of the molecule. Therefore, beta-agonists are classed as either long acting or short acting. Figure 1 illustrates the classification of the molecules under discussion.

Long-acting beta-agonists bind more avidly to receptors and therefore require a lower dose. On the other hand, the consequence of more avid binding is the over stimulation of the receptors due to long binding time. This in turn leads to the

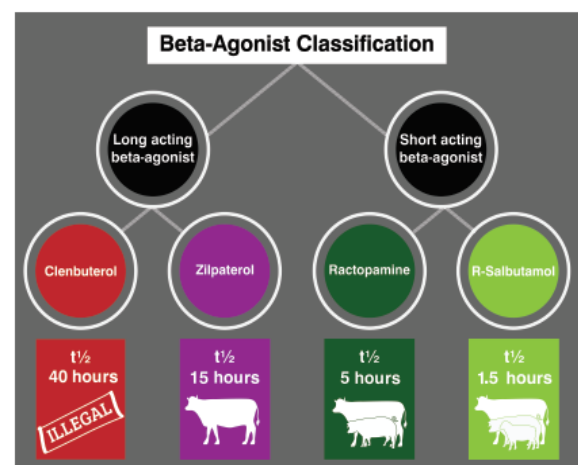


Figure 1: Beta-agonist Classification

desensitisation of the receptors and loss of efficacy of the beta-agonist. This effect is of lesser importance in the case of short acting beta-agonists.

Consumer safety

Beta-agonists have been used in human medicine long before they were used in production animals. In human medicine, beta-agonists are inhaled or taken as tablets by asthma patients to prevent the constriction of airways; and pregnant women who are in premature labour have beta-agonists injected intravenously to relax the smooth muscle tissue of the uterus, preventing premature births.

Consumer safety is always a priority when feeding any pharmaceutical to food producing animals. The build-up of residues can be detrimental to human health as it can lead to consumption of meat and organs with a high level of the active ingredient. Long-acting beta-agonist lead to the build-up of residues as they take longer to be metabolised and excreted. It is therefore important to adhere to the prescribed withdrawal periods indicated by the manufacturer.

A safe level of consumption with regards to residues in meat is calculated for all molecules used in food producing animals. In the case of beta-agonists the safe level is causally linked to the half-life of the molecule. Therefore, shorter acting beta-agonists are safer at higher levels in humans. The safe level for clenbuterol is 0,04 µg/kg human body weight, followed by zilpaterol at 0,4 µg/kg body weight, ractopamine at 1 µg/kg body weight and R-salbutamol at the highest safe level of 2 µg/kg body weight. These safe levels, together with residue studies performed in target animals, is used to calculate the safe withdrawal period of beta-agonists.

All animal health products are reviewed and regulated by both the South African Health Products Regulatory Authority and the Department of Agriculture, Forestry and Fisheries in South Africa, prior to use in animals, to ensure there are no adverse effects on human and animal health.

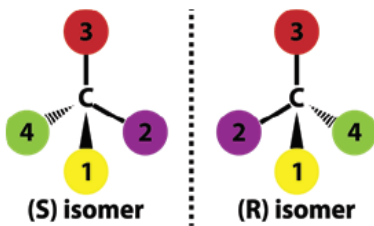


Figure 2: R- and S-Isomer

Animal safety

All beta-agonist molecules appear naturally as mirror images of each other.

They are referred to as R- and S-isomers (see figure 2). In general, the R-isomer is the active part of the molecule with the S-isomer leading to higher adverse effect. In the case of R-Salbutamol, only the active mirror image is administered to the animal and therefore improves the safety profile of the product.

Long-acting molecules, which is composed of both the R- and S-isomer have an even more pronounced effect on the heart muscle.

Research at Kansas State University has noticed how cattle being fed zilpaterol during summer months had a significant drop in feed intake as soon as zilpaterol was introduced into cattle feed. This could be due to the higher heat stress and the increase in heart rate with subsequent discomfort caused by feeding long-acting beta-agonists.

Operator safety

All beta-agonists should be handled with care as they are cardio-active compounds. Protective clothing, gloves and dust masks should always be worn when handling these products. It should be noted that products should only be used as indicated on the packaging and using higher dosages or using it in non-target species, which it is not registered for, could endanger both human and animal safety.

Drugs which are not labelled for use as feed additives in a particular species do not have safe use guidelines and should not be used to promote meat production or improve performance.

Brought to you by
Animate
Animal Health

www.animate.co.za





Salbutamate® 10%

Now also registered for use in finisher pigs



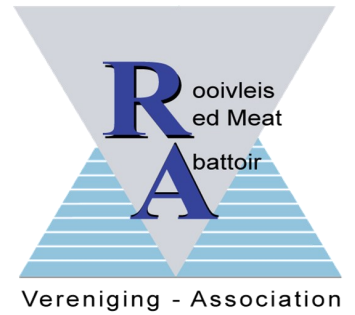
*Improving performance and profitability
in cattle, sheep and pigs
without sacrificing on
meat quality and safety*

Animate Animal Health (Pty)Ltd
Co.Reg.No. 1973/002312/07
43 Hornbill Road, Rooihuiskraal, Centurion
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Animate
Animal Health

The RMAA is an independent membership-based organisation, which was established in February 1991 with its primary aim being training at all abattoirs in South Africa. The Association is a representative forum for red meat abattoir owners in South Africa and aims to establish communication and co-operation between the members of the Association in order to determine a coordinated opinion on matters of general, as well as specific, importance. The Association provides members with specific and general information and technology regarding all aspects of the industry and related activities and renders services to advance and promote the industry.

Building no. 4, CSIR
Meiring Naudé Rd,
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Striving towards meat safety and quality



Abattoir skills training (AST)

AST was established by the Association to adhere to the legislation and regulations of the Department of Higher Education and Training as a registered Further Education and Training College. AST conducts generic and specific food safety and quality training in the meat industry and other related industries.

Abattoir Skills Training is responsible for the formal training with the industry on behalf of the RMAA and is an accredited training provider registered with:

AgriSETA as a training provider (ETQA) – AGRI/c prov/027710

Department of Education as a Further Education and Training College – 2011/FE07/010

SAATCA accreditation for Lead auditors training

AST has a Level 4 BBBEE rating with a B-BBEE Procurement Recognition level of 100%

