**THE IMPORTANCE OF AN ANIMAL HEALTH PLAN, AS THE BASIS FOR SUSTAINABLE LIVESTOCK PRODUCTION**

**Introduction:**

The Red Meat Producers Association (RPO) is a service organisation that acts as mouthpiece for South African commercial red meat producers. It is an independent producers organisation that strives to dynamically promote the sustainability and the profitability of the red meat industry in South Africa, which is directly in line with the vision of both Midlands Veterinary Wholesalers (MVW) and GWK respectively.

After the completion of this talk, it is hoped that you will all, as members of the RPO and livestock farmers, be in a position to understand how animal diseases influence trade in livestock commodities and understand and explain the role of animal health management in supporting this trade on a sustainable basis. In addition, the crucial role that veterinarians play, in the sustainable production of livestock products for human consumption will be highlighted.

Every livestock farmer should be able to apply the knowledge attained, in order to formulate animal disease control strategies that are both functional and appropriate for the circumstances under which they will be implemented, maintaining the focus on the objectives of animal health management and disease control. These strategies must be reasonable, feasible and measurable in order for them to have any chance of success in the long term.

All livestock commodities (i.e. fresh or frozen meat, fresh eggs and milk, raw hides and any other derivatives that have not undergone further processing) including live animals themselves, are traded commercially both on a national as well as an international basis. The traceability of these products is going to become more and more of an issue with retailers and consumers alike, as the world strives to get red meat into the food market which does not contain tetracyclines, growth hormones, milk stimulants, penicillins and antibiotics amongst others, to impact on human consumption.
Today's RPO members and livestock farmers, have a responsibility to society to ensure that the food that is eaten, is safe.

While there may be a large number of forms of Livestock commodity, each has the same basic requirement - healthy and sustainable food production. There is no doubt, that sound animal health practices, linked to a consultative health program built with your veterinarian, will lead to safe, traceable products being produced which will in turn demand a higher price in the market. As food becomes scarcer in a world where the population continues to grow and potential land available for livestock is shrinking, the demand for quality, safe food will dictate the market pricing, as the public becomes more aware about what they are eating.

The Tim Noakes diet for example, which most people are aware of today, bases its benefits on a high fat (protein) and low Carbohydrate (HFLC) diet - which is a huge bonus for those in the red meat producing environment and one which needs to be capitalized on. However, will this diet prove to be sustainable if the red meat being eaten is not "safe" in the true sense of the word?

Noakes, who encourages a diet that consists of high fats and low carbohydrates, was expected to launch an intervention in the Karoo to change the diets of children from poor communities. He firmly believes in a talk given on the 16th July this year for example, that animal organs are preferred over carbohydrates.

"Carbohydrates drive hunger. They do not satiate us... Children in the Karoo can access animal organs but they are not eating the parts... that help them. The liver, marrow and organs are the healthiest," he was quoted as saying. With this effective marketing in place for the red meat producers, it is no longer merely the red meat which the livestock farmer will be able to sell at a premium price, but potentially also the organs, which means demand will
increase, and in line with this prices will go up on a product which previously was seen as a by-product of red meat production.

Will this attitude continue however, if in our drive to produce red meat, the meat itself becomes unhealthy, or the origins untraceable? What happens if the organs are filled with residues of pharmaceutical origin and prove to be unhealthy for human consumption? I believe we could destroy a potentially lucrative business opportunity, over night!

MVW and GWK remain committed to represent veterinary surgeons and work closely with farmers, in order to support the veterinary profession in its commitment to improving the health and welfare of animals under its care, protecting public health and serving the changing needs of its clients and the community through effective and innovative leadership.

MVW believes that herd health planning at farm level is a key mechanism in maintaining the sustainability of livestock production, with direct positive knock-on effects for animal welfare and public health. Proactive herd health planning also has a role to play in tackling climate change.

It is important for all farmers to remember the fact that there is irrefutable evidence to clearly highlight the opportunities and challenges for the South African red meat producer industry inherent in changing population demographics and the need to provide a 20% increase in protein by 2020 to feed our world. Will this drive us to produce animals faster, through more and more growth hormones, or conversely sell animals which have been recently treated, leaving residues in the meat?

It is important to note that Prof. Bath, present with us all at the RPO congress, has himself highlighted the need for herd health planning on many occasions and he also proposes that we need to start by looking at the animal first, - we should not start with the drugs to first, in order to control a disease which could have been prevented proactively.
What are the developments in farming?

1. More Free Trade
2. Industrialization of farming:
   • Animals in large units
   • Minimization of investment costs for animal facilities
3. Individual productivity has increased significantly by selective breeding programmes.
4. Animals are being pushed to the limits of their productivity capability

As an implicit consequence of this development in animal production, adverse effects have developed, and will manifest themselves more and more as production pressures increase further:

1. Animal health problems
2. Impaired animal welfare
3. The use of large quantities of medication
4. A high risk of residues

What are the developments in the Consumer?

1. Demand for daily food at a low price
2. Ask questions related to animal welfare
3. Are concerned about the amount of residues in food of an animal origin
4. Know how to use Google...
5. Are aware of what they are eating.
6. The Time Noakes Diet is a winner for our industry.

With all this information available to us, and with the resources we have, the questions we need to then answer, are as to how do we:

1. Keep our valuable livestock in good health?
2. Improve the livestock welfare?
3. Sustainably produce food for a reasonable price?
The simple answer to these developing problems are to ensure that you start an animal health management programme today. Use the local veterinarian to develop strategies to improve animal health and welfare and produce safe food. Please remember your veterinarian has a major role to play in these issues. The bottom line is that farmers have to pay more attention to animal health programmes and the welfare of the livestock in order to save our food.

**History of Health Management**

1. The emphasis was originally on the individual animal, affected with a clinical disease.
2. About 30 years ago, subclinical disease was recognised as a major cause of economic loss.
3. Regular scheduled visits to the farm by veterinarians was highly effective in improving the health status.
4. Most health problems are complex and multifactorial in origin - eg fertility or mastitis.

When considering these health status evaluations, and Animal welfare requirements, the farmer and vet must work to understand all the aspects which will have an ultimate impact, and this is why MVW and GWK have worked so closely together over the years, as it is not just medication requirements needed, but also the nutritional and infrastructural which play an important role too in any animal health programme.

Consideration must therefore be given to aspects like:

- Housing conditions
- Feeding and nutrition
- Hygiene
- Infections
- Contaminations
- Breeding and selection
- Management
In your animal health plan and with your herd health management generally, the GOAL must always be to:

- eliminate inefficiencies which are caused by factors which impair animal health.
- The animals and animal products entering the food chain, must be free from disease and residues.

It is the Livestock owner's task, linked directly to his veterinarian, to trace these factors, and implement an integrated herd health and production management system.

A herd health management programme is a total quality assurance system, not just a document in a drawer, which consists of both:

1. Regularly scheduled veterinary activities
2. Good herd management by the Farmer.

There are two fundamental and basic cornerstones of any effective Herd Health Plan. This is consistent to every successful animal health plan.

1. A competent vet
   - Livestock specialist
   - Services delivered economically.

2. A Farmer who:
   - is committed to the programme.
   - Complies with the recommendations of the vet.
   - Has a good data recording system in place which is simple (manual or computerized).
Economic viability must be a consideration in the plan. Sustainable food production must be the primary goal, and for this reason, every commercial farmer needs to look at the Cost : Benefit ratio as a fundamental consideration, as cost effectiveness is essential for sustainable livestock production. What costs are we prepared to carry in order to gain what benefit? Stated in another way, at what point does the cost become too high, that the farmer is prepared to sacrifice the benefit?

**Costs** - veterinary and medicine costs  
**Benefits** - enhancements in productivity and profitability

Part of the cost : benefit analysis done by the farmer, must be to take into account what the financial losses because of disease actually are. This is where record keeping and direct discussions with your veterinarian can add significant value in understanding what these losses could actually be.

1. Reduced animal production - calves, lambs, birth weights, weaning weights, multiple births.  
2. Less efficient production.  
4. Reduced Slaughter value.  
5. Lost future income due to culling.  
6. Vet costs.

Clearly point number 6 is an ultimate objective in any plan. Instead of a vet being called out to treat a sick individual or work with an under-performing herd, it is beneficial to rather use the vet in the beginning to set up the herd health plan - which will ultimately save significant costs in the long ter. However, what are the veterinary costs for Health Management?

1. The time required for data analysis.  
2. The vet services on the farm.  
3. The preparations of reports and advices.  
4. Additional medicines and vaccines - perhaps.
By way of example, it has been established through research that a herd with 100 cows would require approximately 90 minutes per month. This is not a huge amount of time, nor a significant cost if managed effectively. With this understanding in place, the protocol of a good animal health programme would include the following:

- Regularly scheduled farm visits.
- Recording and analysis of animal health and production data.
- The provision of advices.
- Good farm management by the livestock owner.

The objective of the Plan should be quite simply split into two basic requirements:

1. **To support the farmer in meeting his targeted performance and farm goals.**

For example - Calving interval.

- The farmer sets his desired interval: 365 days.
- The actual performance is determined to be: 422 days
- The vet analyses the problem through clinical assessment of the cows and risk assessment.
- Cost effective corrective actions are formulated and taken.

Let's look briefly at some examples which could be evident on your farm, and which should be incorporated in your animal health plan as a starting point.

**Problem - Calving interval too long:**

Risk assessment:

- Nutrition is too low resulting in low body condition post partum.
- Insufficient effort put into building condition 90 days prior to oestrus.
- Insufficient bulls.
- Too many bulls.
- Heat detection ineffective in AI environment.
- Trace element or mineral deficiencies.
**Problem - Infectious diseases**
The herd is infected with BVD for example. This has major impact on productivity and weaner mass.
- How does the farmer eradicate?
- How to prevent new infection?

**Problem - Vaccination**
Remember that prevention is better than cure - it saves time and it saves on medical and veterinary costs.

- Vaccination should not replace poor management.
- Knowledge of the real threats to your livestock must be assessed.
- Blood samples must be taken to confirm diagnosis.
- Vaccines must be stored, transported and administered correctly.

2. **Animal Welfare**
Often seems obvious, but is not in reality, so it is important to remember that in any welfare consideration, the animals must have the freedom:

- to move
- from thirst, hunger and malnutrition
- from discomfort
- from pain, injury and disease
- from fear and distress
- to express normal behaviour.

The veterinarian should be the advocate for animal well being.

MVW has very strict controls in place to ensure correct handling of medications, including registrations with the Medicine Control Council (MCC) as well as with the South African Pharmacy Council (SAPC). Linked to the SAVC (South African Vet Council) as well, MVW has a clear responsibility to supply medications correctly and appropriately. Our vet trained staff are always available to offer advice on products to the farmer for this reason.
The use of Medicines correctly and responsibly is a crucial component of Food Safety. The various medications can be used incorrectly and lead to complications or resistances developing, or could end up leaving residues in the meat.

For this reason cognisance should be taken of the following:

- When pharmaceuticals are used then clear written instructions must be followed.
- Adequate withdrawal periods must be considered.
- A drug use protocol and residue avoidance plan should be established.
- Avoiding residues is a part of the vet's task.

The questions all farmers need to consider is the following - if you could control Mother Nature, would you? If you could plan when to receive rain and when to have sunshine, would you not treat this as a priority? Would you not measure your soils first to manage the fertilizer you apply appropriately, in order to optimize the benefits? Would you not dam water and irrigate appropriately to ensure water is stored?

I have no doubt that you all would answer yes to every question asked. So why then, do we not manage the one area where can be effective in minimising the impact of nature on our livestock - animal health management through livestock plans?

When looking at adding value to livestock produce, it is important to remember that Food value is supported by four pillars.

1. Firstly, food must be produced in compliance with relevant food safety legislation.
2. Secondly, the product itself must meet relevant quality requirements, for example somatic cell count limits for milk.
3. Thirdly, the environment must be protected in the production of food.
4. Fourthly, as the modern consumer becomes ever more discerning and sophisticated, the animals’ health and welfare status will start to play an even greater role in the perception of product quality.

The challenge for today's livestock owners, is not only to achieve basic farm and food legislative compliance but to realise that the definition of quality has changed and broadened to embrace enhanced and measurable animal welfare and animal health parameters. Our exports will be challenged to compete and flourish on world market price levels, with world welfare and animal health care practices becoming the norm.

**What is herd health planning?**

Herd health planning involves adopting a proactive approach to maintaining high standards of animal health and welfare, while at the same time optimizing productivity.

This approach monitors performance, identifies areas where performance is below par, puts in place strategies to address deficiencies and reviews the impact of these changes on performance criteria. This then does a full circle, going back to the start where the performance of the plan is once again monitored.

Areas typically addressed in herd health plans include aspects like:

- Fertility
- Milk quality and mastitis
- Lameness
- Infectious and parasitic disease
- Nutrition
- Calves and young stock health
It is important for the livestock farmer to remember that disease is not always inevitable. Many diseases can be avoided through effective animal health planning. This is because the herd health planning identifies risks to animal health, effectively prioritizes these risks and puts in place strategies to reduce and/or eliminate them, thereby reducing the chance of disease occurring. An approach such as this, relies more on improved husbandry and effective management, rather than on medicines to promote better animal health. Herd health planning is normal business sense, and therefore has many of the characteristics of any good manufacturing practices which are encouraged in industry.

A proactive approach to herd health will reduce the prevalence of disease in the national herd. Anything which reduces the prevalence of disease has obvious beneficial effects for animal welfare. In addition, by addressing production diseases such as mastitis, infertility and lameness there will be a reduced level of culling, which in turn reflects improved animal welfare.

Healthy livestock are required to produce healthy food. A reduction in the incidence of disease on farm will result in reduced and more prudent usage of veterinary medicines. This approach will reduce the risk of medicinal residues entering the food chain and the risk of antimicrobial resistance developing in the general population.

Having a herd health plan will aid in protecting public health inside the farm gate by documenting and putting in place a proactive programme for maximising public as well as animal health on that farm.

As a support infrastructure to the veterinary surgeons working in the food chain pre farm gate, the team at MVW are aware of the necessity to achieve legislative compliance along every step of the food chain in matters pertaining to food quality and safety. It will become more and more apparent to the livestock owner, the feedlots and the abattoirs, that our international markets in Europe, China and Asia are all increasingly interested in the associated farm and agri-industry procedures and standards.
Finally, as RPO members, and general livestock owners, we must prevent zoonotic diseases from spreading where possible, and address public health issues especially on the farm where the responsibility rests solely with us, as the farmer and producer of red meat products.

Farmers may be tempted to cut expenditure on animal health during periods of low prices for red meat in the country. However, it is in such times that the return on investment is greatest. Decreasing the incidence of disease will reduce costs at farm level and thereby increase efficiency.

**Climate change and environmental sustainability**

Agriculture is regarded as a major contributor to global warming, a fact reported in a number of articles published, and every livestock owner needs to start being extremely aware of. Ruminants are significant producers of methane, which is regarded as a very potent greenhouse gas (it is 23 times more potent than carbon dioxide from a global warming perspective).

Farmed livestock produces as much as 18% of the greenhouse gas emissions (Anon, 2006) today. It is highly likely that pressure will be applied on livestock farms to reduce their emissions in the years ahead. This will force farmers to increase productivity per animal, increasing fertility, altering diets and even implementing possible vaccination programmes to minimise the impact of methane producing gut flora. Each of these are potential means to reduce methane production from ruminants, and subsequent increasing in productivity, will effectively make animals more efficient in converting feed into product.

Quite simply, disease prevents animals reaching their genetic potential. The aim for every RPO member, should simply be to produce more kgs of weaner beef per cow, or lamb per ewe over her productive life. There is a need for improved herd health to reduce culling for infertility, lameness and mastitis. By improving health and welfare the current levels of wastage could be reduced.
With climate change an important issue being considered in most discussions today, herd health programmes have a significant role to play in future years.

Vets in South Africa are keen to continue participation in animal health programmes, both pre and post farm gate, as facilitators and leaders in partnership with the livestock farmers to enhance the integrity, safety and marketability of produce from the South African farms.

We, at MVW, believe that actions to improve herd health have a significant contribution to make to the sustainability and competitiveness of South African livestock production and red meat production specifically, both now and into the future. Veterinary practitioners are the only profession that truly have the skills and training to implement meaningful herd health planning at farm level.

**Developing an Animal Health & Livestock Management Plan**

The farmer needs to understand that there are a multitude of reasons for the development of any animal health plan. Some of the basic considerations are the following:

1. Used as a tool for the owners’ Recordkeeping, Planning Guide, Historical Reference.
2. Basis for Employee Instructions and Training & Transparency of Information
3. Setting of Production Goals: Set Yearly Benchmarks and Evaluations
4. Financial tool used in the making of Business decisions that lead to decreased Input costs.
5. Holism: Look at Your Farm as a System, Rather than as Individual Enterprises
6. Continually Improve Health and Welfare of Animals and pick up any illnesses or injuries much earlier.
In the United Kingdom for example, it is mandatory for organic livestock farms to have an animal health plan in place, as a required document providing evidence of active management of disease and building positive health. Many organisations, use animal health planning as a part of their strategy, and currently, it is the presence of a regularly updated health plan document that serves as evidence that this is in place.

**What Is a Livestock Management Plan?**

A Livestock animal health management plan is effectively a combination of the **Farm Plan + Animal Health Plan** which should be reviewed on an annual basis, with your veterinarian, but must also be tailor made to fit your personal needs so as to be both in place and useful.

At the end of the day, every livestock owner should know if the Management decisions being made are helping you to move toward the ultimate goal - a healthy, and highly productive herd, which will ultimately provide safe food to eat?

When building the plan though, there are always factors outside of the farm itself which should be considered, and for this reason, you need to look at your farming system as a whole:

1. Stakeholders  
2. Employees  
3. Soil Nutrient Cycle  
4. Water Cycle  
5. Plant & Wildlife Community  
6. Livestock Herd  
7. Neighboring Properties  
8. Financial Resources  
9. Weather/Rainfall

The benefits of health plans, including animal welfare improvement, financial gain and increased farm efficacy have all been highlighted in various
publications (Sibley 2000; Gray & Hovi 2001; Lovatt 2004; Dobbs 2005) so the benefits have already been proven, time and time again. It has frequently been suggested that, through good stockmanship and appropriate use of veterinary medicinal products, health planning can improve the smooth running of a farm, and this is why MVW is driving animal health programmes so strongly.

An animal health plan should be an active tool for animal health and welfare planning. However, as retail outlets and several farm assurance schemes require a health plan, there is a danger that they become seen as something to be policed, when in fact they should be used as a forum for advice. In order to fulfil this challenge a health plan must therefore be farm specific and relate to farm specific issues.

Woolworths for example, have advised me that due to the rulings within the new Consumer Protection Act, they can be sued by their customers, if their customers get sick from eating food from Woolworths. The onus is now on Woolworths to prove it was not the food which caused the illness rather than the consumer proving it was, as in the past. Clearly this means that Woolworths are going to have to put stricter controls in place, and they will come after the farmer to prove the safety of the food being produced. The only thing which will prove that healthy food came from healthy animals is the presence of a controlled herd health programme, reviewed by a veterinarian in my opinion. It is this type of traceability which will lead to farms with sound health plans getting a good price for their red meat, while those with poor, or no health plan in place, will get a lower price and may not even be in a position to sell their beef at all in ten years time.

An animal health plan needs to be a useful management tool though, and not a daily chore which adds no perceived value. This plan must be able to assist the farmer to identify and control the particular health problems of the individual farm for which it has been designed, thus improving and maintaining animal welfare. This is why it must be based on farm specific experiences and problems, as all farms are likely to be different.
Key stages of health planning

Herd health planning is the process in which a health plan is formulated, and it can be described as having four different stages in the cycle:

- Protocols (current treatment and prevention policy)
- Records (typically disease incidence or number of treatments)
- Review (target and intervention levels)
- Action: the plan that is made based on the review.

Within a functional system, this health plan should be assessed in terms of:

- its presence on a farm
- its adequacy in relation to the farm for which it is designed
- its adequacy in relation to organic standards
- its implementation on the farm.

If animal health plans are to be of any true value to a farmer however, then the following key features are proposed by MVW (through discussions with veterinarians) as being the essential elements to consider during establishment of the animal health plan:

1. Specific to the individual farm

2. Practical and easy to use
   - Modern day farming has given rise to a lot of paperwork.
   - The health plan should be simple and practical
   - Large and complex documents are unlikely to be used.

3. Regularly reviewed and updated
   - Should highlight problem areas
   - Specific farm issues are likely to change over time.
   - Current procedures should be changed in accordance with changing issues
   - Usual practices can be questioned and evaluated
4. Formulated with agreed advice from a veterinarian
   • It is very difficult to review health management issues in isolation
   • Competent, external advice is, therefore, important
   • Health plans remain responsibility of farmer
   • Farmers must agree to the content for it to be a meaningful document

5. Reflect good farm management

In order to facilitate this process, a health plan chart should be formulated, which is designed to allow the veterinary certification and inspection process to work together with the farm, to enable presence, implementation and adequacy all to be annually checked without additional work load.

The proposed health plan chart must be easy to overview, allows the content to be discussed with the farmer and encourages regular health plan updating with your veterinarian.

As has already been stated, this same animal health plan should aim at contributing to improvements on the farm, and in the herd itself, through active prevention and monitoring of health and welfare, and to find farm specific solutions to farm specific problems.

Unfortunately however, at present the situation appears to be the following:

• Most farms have plans, but which are often not valued.
• Records are available, but are often of poor accuracy.
• Reviewing of the animal health plan or records is usually very limited.
• Farmers are not aware of the real problems - only the perceived.
• There is a definite and urgent need for good advice.

In order for an animal health plan to be effective it must become a dynamic document to be used as a tool in the management of the farm. As a static,
archived document, developed for a farm assurance scheme, the health plan has limited use at best. Ideally, a health plan should involve the use of protocols and records, along with regular review and necessary actions.

After action has been taken, follow-up should be conducted in order to determine whether the action is sufficient and seen to improve the farm situation. This should become a constant circle resulting in improving health and welfare.

Whilst health plan development can benefit from competent external advice from the responsible vet, it is critical that the farmer takes direct ownership of this process personally. To be meaningful, it is important that the farmer not only takes responsibility for the health plan, but is also in full agreement with the content, and believes that what is incorporated therein is achievable.

As the animal, the farmer, the vet/advisor and the consumer all require higher welfare, the health plan should be benefiting all of these stakeholders. If it does not - then it should be considered to be ineffective.

MVW and GWK have built a platform to "Co-Operate with our production animal veterinarians" and responsible farmers in the search for sustainable and safe production of red meat for the South African and potential world market.

**Vaccination of Livestock**

As one of the most important aspects of any animal health plan, vaccination programmes require some specific focus in our opinion. As the livestock farmer, it is your responsibility to establish which vaccines are crucial to your herd health, which would add value, and which are simply not required.

Vaccination protects hundreds of millions of animals worldwide from disease and possibly even death, as livestock just like humans, suffer from a range of infectious diseases. As veterinary medicine has advanced, prevention of disease has become a priority, due to the fact that it is internationally
accepted that healthy food comes from healthy animals. One of the best means of preventing disease is by creating immunity in the animal. This is usually achieved by vaccination and gives the farmer traceability if recorded properly or done with the supervision of a veterinarian.

Animals which develop diseases, often require treatment with medicines so vaccination helps reduce the amount of pharmaceuticals used in the treatment of animals. Vaccination presents no hazard to consumers of produce from vaccinated animals. The vaccination programme chosen for farm animals depends on the management system, the location of the farm and the history of the herd or flock (and whether or not a disease is likely to be encountered).

It is important for the farmer to understand very clearly in his herd health plan, how vaccines actually work, before embarking on a strategy as different vaccines can only be used in specific environments.

The vaccines stimulate the body to produce its own defence against infection. Mimicking what happens when an animal has been exposed to disease, the body and its defensive system will "remember" the identity of the invading organisms. For this reason, when the animal comes into contact with a disease, its body is ready to fight it and the animal will not fall ill and suffer. This protects the individual animal and because this animal will not develop the disease and will not become infective, it will also help protect the population from the disease - "herd immunity", and in zoonotic situations, protect the people who come into contact with the animals.

A vaccine may consist of live but attenuated viruses or bacteria, or killed (inactivated) viruses or bacteria, or parts of them.

"Killed" or inactivated vaccines are prepared from killed organisms or fractions of the organism incapable of causing disease. They generally provide a relatively short period of immunity.
In attenuated vaccines, the immunising agent (antigen) is an organism such as a virus, bacterium or parasite, which has been developed to stimulate the production of the appropriate antibodies without causing the disease. Live vaccines are particularly effective in providing long-term protection, because they are a more powerful stimulus to the immune system. They are also more versatile in their route of administration, but unfortunately cannot be used on pregnant animals or breeding bulls.

Biotechnology can provide vaccines for diseases which cannot be controlled by conventional vaccine technology and create more specific, better defined products with even greater safety and efficacy.

Achieving initial immunity may require more than one injection. Once established, this can be boosted by subsequent vaccination, as required. Modern vaccine research and technology means that some vaccines can actively protect against a variety of diseases, in a single product. These are called multivalent vaccines and using these reduces the number of injections, broadens disease protection - and helps reduce costs to the farmer.

Today's vaccines are very effective and have a remarkably high safety record. Millions of doses should be used annually in South Africa every year, yet unfortunately this is not the case. The use of vaccines has brought significant levels of control against diseases that farm animals previously suffered.

There is a constant quest for new preventive measures to meet the changing challenges to animal health. It is a well known fact that the diseases threatening animals evolve themselves; just like with human influenza, when the medical profession needs to be prepared with a vaccine to counter the particular strain that is prevalent at the time.

So the work goes on, as animal medicine companies continue to look for new vaccines to help farmers protect their animals. Vaccines, when available, provide a safe and effective answer to many animal welfare problems and represent an important field of ongoing research.
The Benefits of Vaccination

The major benefit of vaccination is the prevention of disease or in some instances, the lessening of the severity of illness. For the single animal the significance is obvious, and for a herd it could be the difference between sustainability or demise.

Protecting our national livestock from undo disease or illness is important. On a larger scale, disease prevention in large groups of animals, especially our food producing species, such as cattle and sheep, is critical. If one animal in a herd becomes sick with a disease that the herd is not vaccinated for, the outcome can be economically devastating for the commercial farmer as significant illness and loss can occur.

As previously stated, another potential benefit of vaccination is to prevent human illness. There are several diseases that animals can transmit to people (i.e. zoonotic diseases) which can have devastating consequences if not managed closely. If the animals that can spread these diseases to people are vaccinated appropriately, then the human protection against illness is also raised.

Conclusion

We all have a responsibility to sustainably produce safe food for generations ahead, and your animal health plan and business relationship with your vet is crucial to your sustainability.

The team at MVW, supported by the GWK Group, are available to assist you and your preferred veterinarians to respond effectively to your herd health plans.

I ask the RPO to recommend the implementation of herd health plans at farm level for the benefit of the livestock industry as a whole. This will ensure an
ongoing improvement in animal health and welfare, while enabling the farmers to guarantee high food quality at reasonable prices.

Thank you for listening.

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