ZINUNDA FARMING

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WINTER WHEAT MANAGEMENT GUIDELINES CREEP FEEDING IN YOUNG LIVESTOCK GLOBAL GAP CERTIFICATION

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Growing Vegetables in Winter

BY WENDY MADZURA

Head of Agronomy SeedCo Divison

The onset of the winter season brings with it a new cropping prospect. Farmers are encouraged to select crops that are tolerant to frost and pest conditions to maximize on their cropping programs. The risk of frost means that a wide range of vegetable crops cannot be grown successfully hence farmers are implored on to make an informed decision before they venture into winter horticulture crop production.

The winter vegetable range of vegetables that can be grown successfully include onions, peas, carrots and crops in the brassica family which include cabbage, broccoli, cauliflower and leafy vegetables like rape. Selection of the best crop to grow should be guided by market analysis, region and available resources. Once this has been ascertained the next step which plays a pivotal role in the productivity matrix is the selection of the best varieties that will guarantee you to get a high return per dollar invested. Farmers need to embrace the use of hybrid seeds in horticulture production to increase their profit margins and make their farming ventures more profitable. To unlock the genetic potential of hybrid varieties there is need adhere to good agronomic practices like pest control and crop management.

Cabbage production tops the list in the brassica family of crops. Farmers should know the key attributes to

(Right) Early winter carrots harvest

(Below) Healthy winter cabbages, Ansellia Farm



look at when selecting the best cabbage hybrids and these include; cabbage head size, uniformity of the crop in the field, field holding capacity from harvesting and disease tolerance. In Brassica production the problematic insect pests include Diamond Back Moth (DBM Larvae) and aphids, however in winter the incidence of insect pests is lower compared to the summer season because of low day and night temperatures. This, however is not a guarantee for farmers to fold their hands and wait to for the crops to reach maturity. Farmers should strive to be "crop doctors". They should regularly scout their fields for insect and diseases. Regular inspections of the field will enable farmers to detect insect pressure before economic threshold levels are reached. In brassica production the most problematic disease is black rot which can be managed by selecting disease tolerant varieties which include Fabiola, Delight or Macanta.

Onions thrive under winter conditions especially in Zimbabwe. Farmers who wish to venture into onion production should either have planted or be at the peak of trans-planting their onion seedlings to optimize on the cool winter season. Farmers should know their



intended market before purchasing the ideal seed variety. There are two main classes of onion; fresh market onions that are sold soon after harvesting and storage onions that are dried and stored for four months. This enables the farmers to sell their produce when the demand is high thereby fetching a higher price. Onion farmers should look out for thrips, bulb mites, onion maggots and leaf miners. Correct diagnosis of the insect pest problems enables effective and timely control before economic threshold levels are reached. The most common diseases in onion production include powdery mildew, leaf rust and purple leaf blotch. Selection of disease resistant

varieties like Elad F1, Saturn F1, Ada and Dina F1 helps in cost of spraying for such diseases thereby increasing the profit margins.

Winter has the ideal conditions for *Pea production* because of the cool conditions. Peas thrive in winter, however farmers should invest in the right seed



AGRONOMY

IMPORTANT HORTICULTURAL CONSIDERATIONS

varieties that will satisfy the market. There are three main types of peas, the mange toute, shelling peas and snap types. In peas production the most common insect pest include semi loopers, caterpillars and thrips while the most common diseases include powdery mildew, blights and wilts. Variety selection is indeed the most important way to manage disease pressure at the lowest cost possible. *Carrot production* is another lucrative crop that can be done in winter, farmers can grow varieties like Hekla which give deep orange, tasty temperatures result in a reduction in nutrient uptake hence there is need to come in foliar fertilizers to boost crop growth. Farmers should remember that farming is a business hence they should aim to increase productivity through establishing the right hybrid vegetable seeds and adhering to Good Agronomic Practices (GAP's).

> Images provided by Wendy Madzura & Melissa Katunga

carrots that sell out fast on the market.

Winter harvesting of kale, this occurs several times throughout the season

The challenges that winter brings provide an opportunity for some farmers to establish frost sensitive crops in greenhouse structures. This means that the demand for crops like tomatoes, English cucumbers and coloured papers will be high. Some farmers even gamble with open field vegetable production of frost sensitive crops like tomatoes but this cannot be recommended. Farmers need to appreciate the importance of soil analysis for fertilizer recommendations. They should also note that low





Wheat Management Guidelines

BY MEMORY PILIME

Wheat and Potato Breeder

Wheat is the second most important cereal crop in Zimbabwe. It is typically milled into flour which is then used to make a wide range of foods including bread, noodles, pasta, biscuits, and pastries. Wheat thrives best during the cool dry winter season (May -September), under irrigation. For optimum yield, farmers are encouraged to grow wheat on the recommended planting dates; the first half of May in the Lowveld and Middleveld and second half of May in the Highveld. This will result in the wheat crop evading early summer rains, diseases and pests. In this way high yields are attained since critical growth stages such as crop establishment, tillering, flowering and grain filling will coincide with low temperatures.

FERTILISATION

General fertiliser recommendations range from 400kg-500kg/ha of basal dressing or a compound fertiliser (such as 7-14-7) and 300kg-500kg/ha of Urea or Ammonium Nitrate top dressing. Top dressing is applied 2-3 weeks after crop emergency in heavy soils or can be split applied into 2 equal amounts in sand soils at 3 weeks and 5 weeks. We recommend to base the fertiliser application rates on soil analysis results.

IRRIGATION AND CROP HARDENING

breakdown. Generally,

irrigation water can be

applied after every 7 and

10 days on sand and clay

soils, respectively. Irrigation scheduling can be done

using an evaporation pan,

soil auger or tensiometer to estimate water loss. The crop generally requires

about 500-600 mm water.

Common pests of wheat

are aphids and quelea birds.

Quelea birds are the most problematic pests of wheat

during the late grain-filling

period; their damage can

be up to 90% yield loss. A

PESTS CONTROL

The soil should be irrigated to field capacity immediately after sowing. A light irrigation must be applied on the 4th or 5th day after sowing to get rid of soil capping. It is important to irrigate the field to field capacity after 7-10 days depending on soil texture, so as to ensure proper crop emergence and to stimulate root development. Once the crop has fully emerged, with-hold irrigation for 10 to 14 days, depending on soil texture to harden the crop. Hardening enhances tillering which has a direct bearing on yield and development of deep root system. A hardened crop can tolerate mild drought in the event of an irrigation

(Right) Wheat trial field

(Below) Wheat at Ripple Mead Farm



pesticide called 9,10-Antraquinone 50%WP (Bird Shield) can be used as a seed dressing or foliar sprayed at soft dough stage as a bird repellent. The efficacy of the pesticide can be enhanced by mixing the solution with a sticker so that the pesticide molecule can adhere better to leaves. The other option is bird scaring using sing bells, tins, whistles or reflectors. This method is rather strenuous, less effective and is sustainable under small scale farming. Aphids prefer warm temperatures, their outbreak will coincide with the late vegetative stage of wheat, which is less sensitive to aphid damage. Therefore, a preventative measure of aphids is early planting, so that wheat matures in late winter. Aphids can be controlled by pesticides such as dimethoate after field scouting.

WEED CONTROL

Use appropriate pre-plant and pre-emergence herbicides is recommended. Glyphosate (non-selective herbicide) can be used before land preparation. MCPA and Dicamba can be used as a post-emergence herbicide to control broad-leafed weeds.

DISEASE CONTROL

Diseases such as leaf and stem rusts cause significant yield losses and are most prevalent in Zimbabwe. Stem rust is a big problem globally since stem rust races are constantly evolving. The most sustainable and economic way to control the diseases is to grow disease tolerant varieties. Farmers are discouraged from planting outdated wheat varieties as well as retained seed since



practices encourage disease build-up. Farmers may use chemical control option to minimize economic damage by the diseases.

Crop Breeding Institute Department of Research & Specialist Services

Ministry of Lands, Agriculture, Water & Rural Resettlement

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Images provided by Paul Maloney & Crop Breeding Institute



AGRONOMY

MRF Farm Tyres

BY TREN TYRE

MRF (Madras Rubber Factory Limited) tyres are available locally through Trentyre Zimbabwe. MRF tyres are recognized globally by the iconic Muscle Man logo.

A BRIEF LOOK INTO HISTORY

The MRF success story is an extraordinary one. MRF originally started out as a rubber balloon factory in 1946. It was not until 1952 when it altered direction and turned to tread rubber manufacturing, establishing it as an Indian multinational corpora-tion. It is currently the largest manufacturer of tyres in India and ranked the 14th largest tyre manufacturer in the world. The company's headquarters is in Chennai, IndiaMRF has been manufacturing agricultural tyres for over 60 years. By the early 60's, MRF was exporting its quality tyres to offices overseas in multiple countries, 1967 it became the first Indian company to export tyres to the USA and soon its presence was known globally in 65 different countries with tyres rolling out of nine facilities built across 450 acres, 4000 plus strong dealer networks and 180 different offices. MRF manufactures a variety of rubber products not only tyres, these include treads, tubes, conveyor belts, paints and toys.

"It's very easy to think 'well, how much technology can be fitted into things that look round and black' well there's a lot," That's the view of respected Australian tractor tyre expert Michael Armstrong.

MRF AGRICULTURAL TYRES

MRF is recognized for its continuous research and development focus-ing on quality improvement and customer satisfaction. MRF Agricultural tyres are

manufac-tured to suit all-terrain and all-weather conditions, while offering the lowest cost per kilometer for off-road conditions

THE MRF TRACTOR REAR SHAKTI SUPER TYRE

Top sellers include the MRF Tractor Rear Shakti Super Tyre which features the unique, broader lug (are the raised portion of a tyre's tread) design which ensures greater surface contact and offers better soil penetration, all while adding to the self-cleaning property of the tyre. The strong tyre casing is durable, which guarantees a longer tyre life and is perfect for better re-tread ability. The MRF Tractor Front Shakti Super Tyre has a 3-rib design, the centre rib is

pronounced, assisting with better

AKTILA

steering control and self-cleaning. While the strong nylon casing ensures a longer tyre life offering extra depth penetration. MRF tyres will be sold nationally through all four Trentyre branches located in Harare, Bulawayo, Mutare and Gweru.

The design starts with the customer – valued feedback from customers is compiled and given to MRF's Research and Development division, and Product Development Division to be included in future development by MRF's team of 300 engineers and scientists. MRF is known to use cut-ting - edge

technologies in predictive testing and design validation before any design leaves the drawing board. These advances have significantly brought down the time to market for new tyre designs. Image provided by Tren Tyre

TYRE MAINTENANCE

"If you have chosen the right tractor for your farm, the tyres should be appropriate and well maintained; both for your safety and for your pocket".

Premature tyre wear can be avoided by ensuring that tyres run at the correct pressure. Under high pressure grip is reduced, mainly because of a smaller surface tread area. Low-pressure results in having too much of the tyre surface in contact with the ground; resulting in heat building up in the rubber leading to wear and tear. In an ideal world, tyres pressures would be adjusted to suit the job in hand, driving surfaces and load, but realistically that can be hard to implement. Ensure that the tyre is the correct size for the rim by checking measurements with your machinery dealer and tyre manufacturer. Incorrect wheel alignment is another common cause of irregular tyre wear.

At the point of purchase, it is important to make an inquiry on the kind of care your tires will need and ask about maximum speeds for your specific tyre to keep them in tip-top shape.

The Editor's note

6



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DripTech - Making Every Drop Count

BY DRIPTECH

Modern drip irrigation has arguably become the world's most valuable innovation in agriculture. In the past, if one wanted to grow more, they needed more fertilizer, labour or land. Precision irrigation is about reversing this age-old relationship between cost and output. Now more than ever farmers are under pressure to optimize their land and water use efficiently. Facing challenges like drought, evaporation, salinization, ground water depletion and lack of access to water reserves. Drip irrigation can help provide a simple and cost-effective solution, delivering greater ROI (Return on Investment) compared to other irrigation methods in such seasons, it also gives farmers an efficient and simple way to utilize, operate and manage their farms.

What is Drip Irrigation? - It is the most efficient water and nutrient delivery system for growing crops. It delivers water and nutrients directly to the plant's roots zone, in the right amounts, at the right time, so each plant gets exactly what it needs, when it needs it, to grow optimally. Thanks to drip irrigation, farmers can produce higher yields while saving on water, fertilizers and energy.

How does it work? - Drip irrigation feeds the plant, not the soil. Water and nutrients are delivered across the field in pipes called dripper lines. The dripper lines have built in units known as emitters that run along the drip line. Just like people, plants like getting water and nutrients in a balanced way. Nobody wants to eat a month's worth of food in one day, and the same goes for plants. Which is why each 'dripper' has been designed to apply small, frequent doses to help ensure optimal growing conditions. These emitters are spaced 30cm apart and can deliver 1.5 – 2 litres of water per hour per emitter depending on your choice of dripline. Plants do not obtain water through their leaves but through their roots, which is why drip is so effective as comparted to other means of irrigation. Any water sprayed onto a plant has the potential of evaporating before getting to the root zone. By only targeting the root zone you can minimise weed growth and greatly reduce the chance of disease, saving farmers on finances through a healthier crop.

Advantages of Drip irrigation

- Excellent Uniformity of application.
- Precise water placement.

- Ideal wetted profile.
- Reduced weed pressure due to smaller wetted surface area.
- Critical savings on water and power.
- Availability of spares, back up support and advise from DripTech Irrigation.
- Can irrigate any land shape or size and any topography or soil type.

System Design is probably the most important step, the actual design of your system. Its easy to design a cheap irrigation scheme by using a low application rate, small pipes and a large pump which will initially appear to work. The limitation of the system begins to surface when the crop reaches full canopy, water is suddenly insufficiently supplied, unevenly distributed and the power required for the system is excessively high. Suddenly the cheap scheme becomes an expensive one.

Factors that affect the efficiency and success of any system are:

Correct Application - The system must be able to replace the daily water consumption of the crop at peak periods.

Uniform Distribution - Water should be evenly distributed across the field. This is especially important where fertigation is used.

Capital vs Operational Costs - Generally, the lower the capital cost, the higher the running cost. This is because smaller pipes are used with a larger pump, whereas a higher capital cost would mean bigger pipes and a smaller pump. The aim would be to find a compromise between the two scenarios. Ease of Management- Blocks should be uniform and imigated in a sequence that is simple and easy to manage. Correct Scheduling - The essential factor here is to replace the moisture lost through evapotranspiration. To do this, accurate records of daily evaporation and crop growth stage are used to calculate the correct application required.

In overall, a well-designed and managed system can greatly improve a farmer's ability to fully utilise their available resources, reduce risk and ensure their viability. If you are considering replacing your existing system or would like to put in a new one visit any of our DripTech branches for a free quotation.

NETAFIM IN PARTNERSHIP WITH DRIPTECH IRRIGATION

At DripTech, we aim to provide our farmers with only the best quality products available globally. Which is why DripTech has been in partnership with Netafim from the very beginning.

NETAFIM is an Israeli manufacturer of irrigation equipment. Having started in 1965 in the Negev desert in Israel, with an aim of growing crops in desert soil. Netafim has experience in growing crops in extreme conditions. Their knowledge is a combination of precision irrigation, agronomic expertise and relentless innovation in helping farmers grow more of any crop, in any climate and with less. The company produces drippers, dripper lines, sprinklers and micro-emitters. Netafim also manufactures and distributes crop management technologies, including monitoring and control systems, dosing systems, and crop management software globally. As of 2012, Netafim was the global leader on the fast-expanding market of drip - and micro-irrigation.

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Global Good Agricultural Practices Certification

The adoption of the Global Good Agricultural Practices (G.A.P) by players in the horticulture industry can lead to acceptance of local products on the international markets. The Global G.A. P certification in summary is a set of agricultural standards. It is primarily designed to reassure consumers about how food is produced on the farm by minimising detrimental environmental impacts of farming operations, reducing the use of chemical inputs and ensuring a responsible approach to worker health and safety as well as animal welfare. It was created in the late 1990s by several European supermarket chains and their major suppliers and is now the world's most widely implemented farm certification scheme. It currently has more than 170,000 certified producers in over 124 countries and has more than 400 products available for certification.

The certification scheme comes in two-fold;

 Single Producer Certification - A single farmer receives a certificate following a successful audit by a Global G.A.P. approved certification body.

2. Producer Group Certification - A group of producers with a shared mandatory Quality Management System (QMS) receives one certificate for the entire group following a successful audit of the QMS and random sample inspections of some of the producers by a Global G.A.P. approved certification body.

Global G.A.P uses the Integrated Farm Assurance (IFA) Standard. It covers the certification of the whole agricultural production process of the product – cropping, growing or rearing. The IFA has control points and compliance criteria grouped into four scopes; all farm base, crop base, livestock base and aquaculture. These scopes are further divided into sub-scopes or modules as demonstrated in the illustration picture.





In order to obtain the certification, the farm undergoes an audit for the specific module, each control point is scored and if the farm passes a certificate valid for one year is issued. Each module has specific control points for example the Fruit & Vegetables module has a total number of 218 control points. To ensure traceability and transparency from the farm to the market shelf, Global G.A.P. offers a secure online certification database. It is used to check producers and validate certificates using their Global G.A.P. Number (GGN). Once you receive the certification, your GGN is saved on the online database for identity purposes.

The local actor

It is advised to engage a Global G.A.P. licensed Farm Assurer, who is a trained and approved consultant if you are thinking of getting Global G.A.P certified. At the moment in Zimbabwe, Fair-Mark is the only company providing the service of training, development and implementation of Global G.A.P. Fair-Mark is run by Clarence Mwale a compliance expert in food and agriculture and is a Global G.A.P Licensed Farm Assurer. The farm assurer will provide you with valuable assistance during your audit preparations, Global G.A.P training, perform pre-audit assessments, connect you with Global G.A.P. approved certification

bodies and support producers during the official audit procedure as a partner.

Connect yourself to the global agriculture markets through the Global G.A.P certification.

Fair-Mark Compliance Consultants clarencemwale@fairmark.co.zw

(Bottom left) A modular approach to Integrated Farm Assurance (IFA) (Top right) Distribution of the total number of control points (218) of the Fruit and Vegetable module.

Images provided by Fair-Mark

10

Creep Feeding

BY CHRIS GRANT Mzilikazi Kalahari Red Goats

Creep feeding is an important management practice that some farmers might not be aware of. It is the 'art' of feeding a solid diet to young livestock (kids, calves and piglets) while they are still suckling. Thus, preparing their digestive systems for weaning by initiating and promoting gut and digestive enzyme development.

Creep feeder - In order to correctly implement this practice a creep feeder must be constructed. This is an infrastructural division made up of a simple enclosed frame. The frame should be made up of pass panels that are large enough to allow only the young livestock to fit through the openings, but small enough to restrict access by the rest of the livestock. The feeders are placed inside the creep feeder and the young livestock can move in and out to eat.

Creep feed - The feed needs to be soft and easy for the young livestock to eat. As a farmer, I make my own creep feed for my goats. Maize bran with a bit of mealie meal mixed in, is a good place to start for kids. A nutrient balanced store-bought creep feed can be used. But since the kids will be getting plenty of nutrients and minerals from their mother's milk it's all adds up to be a bonus. Creep feeding using fodder crops is a good option to consider. A small plot of lucerne is a definite good creep feed, and as well as for the lactating doe's. It is important to sun dry it to avoid bloat. Lucerne is known as the king of fodder crops because it is packed with minerals and vitamins. Alternatively, one can grow lablab or velvet bean and have the dry bails milled to make milled fodder.

Creep Feeding - In goats, creep feeding is initiated at 10 days old. It is advised to start the kids off with small quantities and gradually increase the ration as they get used to the feed. In order to keep the feed fresh, one can put small quantities of feed at a time in the trough. At the same time making sure to have the creep feed ad lib. This is the 'art of creep feeding'.

Weaning - At Mzilikazi Kalahari Reds we wean our male kids at 3 months because at this age they become a bit boisterous and the doe's are weaned at 4 months to promote maximum development. In cattle, I have seen farmers wean their calves at 4 months old, giving the cows a shorter reproduction cycle, which is more profitable for a farming enterprise. Creep feeding encourages feed intake, which is one of the greatest challenges to post-weaning performance.

Benefits of creep feeding - As the kids, calves or piglets grow bigger, so does their demand for milk. Therefore, creep feeding eases the burden on the mother by taking away some of the nutritive load off her. An advantage in the mothers' reproductive cycle is therefore presented. "I give my doe's a slightly above maintenance ration of feed during the nursing period,



<mark>(Top)</mark> Kids creep feeding at Mzilikazi Kalahari Reds Farm

(Right) A litter of piglets at creep feeding age

(Below) Healthy Nguni Calves

in order to maintain their weight for subsequent reproductive competence. I would have been adjusting their maintenance rations as the browsing season changes. I mentioned slightly above maintenance because we need their weight to be slightly increasing so that they will have a higher chance of having twins. I prefer to mate them after weaning. I firstly look at the condition of my doe's before mating them." It means that doe's can be mated after 3 months of giving birth hence making maximum use out of them. Its important to note that this practice will shorten the does lifespan.

"I think by now I have made my argument clear; creep feeding is a practice that we need to adopt in order to increase production and farm profits. This in turn will lead to successful farming".

Images provided by Chris Grant, Tafadzwa Nyakatsapa & Sekuru



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Blackleg Disease & Bluetick in Cattle

BY DR SHADRECK MAGONZIWA (BVSC, BBA, MCOM)

Ticks cause significant economic losses in cattle production. Reduced productivity is due to irritation and loss of condition impacting on fertility, the loss of blood in severe infestation can sometimes lead to death, reduced body weight gains, reduced milk yield in dairy cattle and in addition can create sites for secondary bacterial infection that can often lead to mastitis.

common and widespread tick in Zimbabwe, especially in these cooler months of the year. The tick has a wide range of hosts; mainly cattle, although the tick can be found in sheep, goats, pigs and sometimes horses. This tick is economically more important in winter as it can survive up to six months in cooler months. In summer, the blue tick can survive for as long as three to four months without feeding. The female ticks lay up to 4400 eggs, therefore the infestation spreads

BLACKLEG

Blackleg is disease of young cattle caused by the bacteria called Clostridium which reproduce in form of spores, making it highly resistant to weather elements in the soil. Feet, legs and the tongue are often the affected areas, hence the name of the disease. Usually lameness (limping or unwillingness to move), loss of appetite, rapid breathing and a fever are the signs seen with the disease. There is often a crepitation when the skin over the affected leg when pressed with hands as the bacteria produces gas. In most cases the animal is found dead without being previously observed sick. Most losses due to blackleg occur when the cattle are between the ages of 6 months and 2 years, although it can occur when they are as young as 2 months. Many blackleg cases occur during the hot and humid summer months or after a sudden cold period, but cases can occur at any time

(Right) Plunge dipping for complete and of the animal against ticks



fairly fast. Heavy infestations of Blue tick cause hides to be downgraded and a source of transmission tickborne diseases namely Red water (Babesiosis) and Gall Sickness (Anaplasmosis). Dipping or spraying livestock with an Acaricides once a week in summer and once a fortnight is winter helps control blue tick infestation. Farmers are urged to keep dipping in winter as most farmers tend to stop when rains end in May and often end up with problems. It is also important to rotate the dipping chemical so as to

during the year. The use of a clostridial vaccine is the most common and cost-effective preventative measure taken against blackleg. It is often in a combination with Anthrax and botulism vaccines. Burning the upper layer of soil to eradicate spores is the best way to stop the spread of blackleg from diseased cattle although burning should be cleared by the Environmental Management Agency (EMA) official. This should also be in line with the veld management plan. Diseased cattle should be isolated so that they can be tended to separately. Treatment is generally not effective due to the rapid progression of the disease, but penicillin is the drug of choice for treatment and should be prescribed by a registered veterinarian. Treatment is only effective in the early stages and as a control measure.

THE BLUE TICK

The Boophilus (Rhipicephalus Boophilus) tick commonly known as the blue tick. It is the most avoid tick resistance. It is also critical to apply the Acaracide correctly and at the correct concentration for an effective outcome.

Images provided by Stu Taylor & Iryna Imago

Redwater and gallsickness disease are transmitted by the Blue tick. Gallsickness is also transmitted by stamoxys or biting/stable fly and horseflies. Gallsickness is characterised by very hard dung and on post-mortem the rumen is almost solidified with dry matter. In the case of redwater, symptoms are blood-red urine. The drug of choice is a long-acting tetracycline and in the case of gallsicness, bowel movement must be induced with liquid paraffin or cod-liver oil and brown sugar or molasses.

By Stu Taylor

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A Summary on Rabbit Health



BY OBEY MASHINGA

Animal Scientist

Rabbits are raised for meat, Angora wool or breeding stock. There are some common diseases and problems seen in rabbits that can be prevented by ensuring you have an understanding of what a healthy rabbit requires and the subtle signs that can tell you your rabbit is unwell. The article is a quick overview on rabbit health.

GENERAL CAUSES OF DISEASES	GENERAL SIGNS OF DISEASES	COMMON DISEASES
Poor management	Reduced feed intake	Diarrhoea
Poor nutrition	Weight-loss	Mange
Poor production facilities	Abscesses	Bloat
Food poisoning	Inflammation	Ear canker
Infection (viral, bacteria etc.)	Diarrhoea, soft or jelly like droppings	Coccidiosis
Stress	Head tilt	Snuffles
Excessive heat	Genital infection or damage	Sore hooks
Exposure to rain or direct sunlight	Respiratory problems	Pneumonia
Poor ventilation	Stuffy and crusty nose	
Poor biosecurity measures	Coughing, sneezing	
	Grinding of teeth	

THREE ESSENTIAL DRUGS TO KEEP IN THE RABBIT CARE KIT

Alamycin - Treatment of general bacterial infection. An intramuscular injection at 0.1-0.3 ml/adult.

Bedgen 40 - Treatment of hepatic coccidiosis. Oral administration. Mix 51 of drinking water with 2 teaspoons and give treatment for six days. **Bremamed** - Treatment of scours. Oral administration. Mix 12l of drinking water with 1 teaspoon and give treatment for six days.

NOTE: Seek a veterinarian for specific questions relating to your rabbit's health and inquire on administration doses from your vet medical supplier. Commercial Rabbit Farming Solutions Contact: email obmashinga@gmail.com



Image provided by Melissa Katunga

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The aim of ZiMunda Farming is to provide correct and relevant farming information to farmers. Every effort is made to check the content of every article, the directors will thus not be held responsible for errors or omissions in such articles. Farmers should thus consult with the references and resource people before making any financial or production decisions.

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