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AGRIBANK OF NAMIBIA

Your all Season Bank

Agri-Learn

Volume 2 (May-June 2019)

Farmers Information Bulletin

Agribank specializes in financing the entire value chain from land acquisition, production inputs, harvesting, transport, processing and marketing of the products at competitive interest rates.

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INTEREST RATES*

*Interest rates are subject to change without prior notice.

Affordable interest rates for affordable products to grow the farming business in more ways than one.

	Period	Interest Rates for Commercial Clients	Interest Rates for Communal Clients	Interest Rates for Resettled Clients
Short Term Loans				
Production Inputs / Crop production / Seasonal Loans (revolving basis)	1 year	7.50%	4.00%	4.00%
Medium Term Loans				
Loan for the purchase of male breeding stock and tollies	5 yrs	7.50%	4.00%	4.00%
Loan for the purchasing of light delivery vans, veld vehicles and small trucks	5 yrs	8.25%	7.50%	N/A
Loan for the purchasing of used tractors and agricultural implements	5 yrs	7.50%	7.50%	4.00%
Loan for the purchasing of Draught animals and implements	5 yrs	N/A	7.50%	N/A
Loan for the purchasing of Irrigation equipment, etc.	5 yrs	7.50%	7.50%	N/A
Loans for the purchasing of breeding birds	5 yrs	7.50%	4.00%	4.00%
No Collateral Loans	5 yrs	N/A	8.00%	NA
Bush encroachment: Labour	10 yrs	8.00%	7.50%	8.00%
Aerial spraying and other methods	10 yrs	8.00%	7.50%	8.00%
Infrastructure and Improvement loan	10 yrs	8.25%	7.50%	8.00%
Loan for the purchasing of large stock	8 yrs	8.25%	4.00%	4.00%
Loan for the purchasing of small stock	6 yrs	8.25%	4.00%	4.00%
Loan for the purchasing of new tractors and agricultural implements	10 yrs	8.25%	7.50%	N/A
Long Term Loans				
Loan for the purchase of land for beginners	25 yrs	8.50%	N/A	N/A
Loan for the purchase of additional land for expansion	20 yrs	8.50%	N/A	N/A
Loan for the construction of dwellings and other permanent farm buildings	15 yrs	8.50%	N/A	N/A
Loan for the construction of Labourers Housing	15 yrs	4.00%	N/A	N/A
Loan for water provision, fencing and other improvements	15 yrs	8.50%	7.50%	N/A
Loan for taking over of debts	15 yrs	8.50%	N/A	
Loan for consolidation of debt	10-25	Weighted interest rate	Weighted interest rate	
Bush encroachment: Labour	15 yrs	8.50%	7.50%	
Aerial spraying and other methods	15 yrs	8.50%	7.50%	

AASD events and outreach (1 April 2018 - 31 January 2019)

Type of Event	No. of Events	Total Partici-pants	Total Male	Total Female
Farmer Infor-mation Days	34	1596	1100	474
Evening/Day Lec-tures	119	2440	1474	945
Short Training Courses	39	1209	643	562
Practical Sessions	30	437	268	168
Excursions	4	71	33	38
Pre-settlement Training	3	102	67	35
Total	***229***	***5,855***	***3,585***	***2,222***

AGRI-LEARN: Inside This Edition

Agribank's Agri Advisory Services Division (AASD)

AASD offer mentorship and training services to farmers in an effort of enhancing their knowledge, skill and attitude in order to improve their farm productivity and income.

Did you know?

Our AASD offers free evening lectures to farmers in Windhoek.

Place: Van Ryan P. School

Time: 17 h 30

Dates: See the training calendar on pg.11

NB// Don't miss these informative and educational lectures!!

MARKET ANALYSIS, A KEY SUCCESS FACTOR IN AGRIBUSINESS

Photo: Mia Godfres (Upstart University)

- **Emilie Abraham**

Market analysis, in simple terms means understanding the market you intend to serve as a farmer. Every farming enterprise starts with the consideration of what to produce and who to serve. This requires thorough market analysis from the beginning to ensure the success of the farming enterprise. In general, market analysis entails the assessment of market needs as well as the consideration of startup factors to establish the viability of the potential enterprise. Agim (2014), in his article on marketing research is path towards the development of agriculture argued that in order to successfully transform any business idea into higher capital gains, it is important for farmers to gain a thorough understanding of the market they intend to serve and determine the fair value of their investment. To this end, regardless of the selected farming enterprise, farmers are advised to conduct thorough market analysis to establish the economic viability of the enterprise and determine the resources required to sustainably operate the enterprise in the targeted market area.

Resources needed:

It is imperative for farmers to establish the availability and cost of resources such as inputs, infrastructure, equipment etc. required to operate the enterprise successfully. Key questions to ask include; are the resources available

Notes:

Enjoy the reading!!

SUMMARY OF AGRIBANK PRODUCTS

Affirmative Action Loan Scheme (AALS)
Alternative energy - Solar farm systemsAquaculture

Bush encroachment or deforestation of dry land

Draught Animal Power Acceleration Programme (DAPAP)

Horticulture Production Loan Facility

Infrastructure & Implement Loan Facility

Livestock Loans

Loan Consolidation facility

Loans for the construction of labourers houses

North-South Incentive Scheme (N-SIS)

Post Settlement Support Fund (PSSF)

Poultry Loans

Production Loan

Purchase of farmland

Vehicle and Tractor Loans

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locally? How much do they cost? Who are the suppliers and where are they located? It is also worthwhile for farmers to consider the level of their expertise and skills to operate the business. If a prospective farmer has minimal or no knowledge on the enterprise, capacity building is highly recommended or alternatively a skilled farm manager with the appropriate expertise can be hired to manage the enterprise in order to ensure good returns on investment.

Economic feasibility:

It is worth noting that most farm enterprises fail because their feasibility was not established from the onset. Consequently, farmers that have not conducted proper market research struggle to sell their produce and experience deterioration in the quality of produce due to prolonged storage. This eventually forces farmers to sell produce below break-even prices to minimize total losses. It is therefore advisable for farmers to identify potential markets and determine the selling prices for the produce prior to establishing the enterprise. It should be noted that excessively high prices turn away customers and prices below average market prices tend to create suspicions among consumers. The correct pricing of produce is therefore integral to ensure successful sales. Farmers are therefore advised to analyse current market prices for a product they wish to produce and consider the costs required to produce it in order to determine profitability. Farmers should also investigate the reliability of the potential market and explore opportunities for future growth. In essence, the potential for future growth defines the sustainability of the enterprise.

Finally, the marketing of agricultural produce is a complex and dynamic process that is consistently subject to change due to market forces (e.g. change in consumer preferences and taste) and a range of global phenomena. Thus, farmers should acquaint themselves with market trends to ensure the sustainability and relevance of their farm enterprises. On the other hand, market analysis alone should not be seen as the sole guarantee to success. Farmers are advised to use market research findings to develop appropriate courses of action to ensure satisfactory profits and the sustainability of their farming businesses.

MOSQUITOES CAUSE SICKNESS IN POULTRY BIRDS

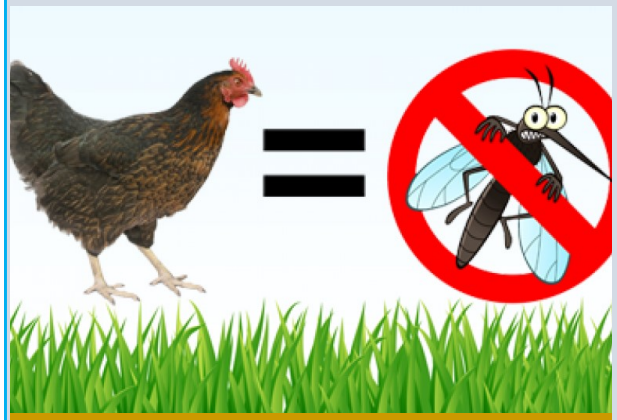

Photo: Google picture

- **By Emilie Abraham**

Mosquitoes and related insects can carry a range of disease-causing pathogens that affect farm animals. During the wet season, mosquitoes serve as the primary source of infection on various farm animals including poultry birds. Mosquitoes spread diseases by ingesting disease pathogens when they feed on infected birds and transmit them to healthy birds. Thus during the rainy season and in mosquito infected areas, farmers are advised to protect themselves and their poultry birds from mosquito bites. Farmers should not wait until their poultry birds show symptoms of infection to act. Farmers should be proactive and prevent disease-causing pathogens from multiplying, as it is rather difficult and expensive to treat an infected flock.

Poultry diseases caused by Mosquitoes:

The most common poultry disease transmitted by mosquitoes to poultry is referred to as Fowl Pox. Fowl Pox differs from Chicken Pox that affects humans. The main symptoms of Fowl Pox are lesions observed on the featherless parts of the bird such as on combs, wattles, ear lobes, eyes and around the beak etc. It should be noted that mosquitoes could harbor the virus for a month or more after feeding on infected birds and eventually play a significant role in spreading the virus from one flock to another. Affected young birds are stunted in growth whereas laying birds experience a drop in egg production. Poultry birds of all ages that have oral or respiratory system infections as a result of the disease have difficulty eating and breathing, and thus poor appetite can be observed among the infected flock.

Prevention & control:

Poultry farmers are advised to make all efforts to reduce the risk of poultry bird exposure to mosquitoes. Although, it

reproduction. The heat stress forces animas to reduce their exhaustive physical activities which also includes mating. The female animal's reproductive system as well as the sperm production process in male animals can be adversely affected by high temperature. Heat stress is said to depress the release of reproductive hormones such as the oestrogen and progesterone, compromising the consequent processes of oocyte (female egg cell) growth, oestrus (heat) cycle, conception, embryo development, and foetus growth amongst others. In male animals, high temperature negatively affects the process of sperm production, leading to temporal infertility.

Preventing heat stress in livestock

Although animals have the ability to adapt to environmental conditions and management regimes, the hot environments will compromise their potential physiological functioning and overall performance to some degree. It is therefore advisable to minimize the exposure of your animals to extreme high temperatures.

The most available mechanism is when the animals themselves laze in the shade under the tress when they are out in the veld. It is critical to provide shade in the kraals by having trees or use of shade nets or other appropriate shading structures. This is very important especially for the young (calves, kids, lambs) animals that spend a lot of time or in some cases, a whole day in the kraal without any shelter.

In the hot environments or when animals forage during the hot hours of the day, the water demand or intake increases. Thus, animals should have daily access to clean, cool and sufficient water. Water has a direct role of quenching the thirst and in digestion, and is importantly used as a coolant by animals through the sweating mechanism.

During the current drought, farmers would be relocating their animals to "greener pasture". On that, it is important that the animals be transported during the cooler hours of the day, and to have stop-overs along the way for them to rest or even drink water especially when trekking. The transporting vehicle should also be well covered to provide sufficient shade and ventilation at the same time. It is also advisable to execute routine husbandry practices such as vaccination or branding during the cooler hours or early morning.

many parts of the world, and Namibia is evidently experiencing the adverse effects of climate change. The agricultural output is primarily driven by climatic events, and these have adverse effects on both food and water availability in agroecosystems, hampering sustainable crop and Livestock productivity, as well as farmers' livelihoods.

The climate change effects can be direct or indirect. Livestock productivity is directly reliant on rangeland productivity which in turn is determined by soil moisture availability and environmental temperature. The management aspects as secondary determinants of agricultural output, should therefore aim at mitigating or enhancing farmers' adaptation to climate change events.

Climate change has been characterized by increases in environmental temperature, hence the extreme heat wave being experienced in all parts of Namibia currently, and figures of more than 40^{o}C were recorded especially in the southern regions. The direct impact of this on livestock is the heat stress which negatively affects their wellbeing and performance.

Heat stress and feed intake

When an animal is eating, the digestive processes generate heat and increases the body temperature. For example, the normal body temperatures (^{o}C) of cattle, Sheep and goats are; 38.5, 39, 39.5 respectively. When the body temperature increases beyond the normal, then the animals physiological functioning is affected and could be detrimental or life threatening in extreme cases. These ruminant animals (cattle, goat, and sheep) under normal circumstances will prefer to graze/forage during cooler hours of the day (early morning, late afternoon, or night) to avoid heat stress. They would only rest during the hot hours of the day to ruminate or re-chew the food they have eaten, breaking them into smaller pieces to enhance digestion further.

Grazing during the hot hours will mean too much heat will be exerted on the animal, from the sunlight and from the internal digestive processes rendering it to heat stress. This means the animal's physical activities such as walking, and feed intake will have to be reduced in order to maintain normal or optimal body temperature, and this in turn compromises the animal's nutrition and health status, and the overall performance. These will be experienced as nutrient deficiencies, poor growth rate and body condition, reduced milk yield, and poor reproduction amongst others.

Heat stress and reproduction

High temperature also affects livestock

may be nearly impossible to completely prevent poultry birds from being bitten by mosquitoes, exposure should be minimized at all cost. Prevention should start with the clearing of grass around the coop and the disposal of old tins, tyres, and other forms of garbage that can hold water, as stagnant water can become a breeding site for mosquitoes. Farmers can also smoke their poultry coop with traditional herbs such as the boiling of mango leaves, bitter bush, etc. Alternatively, synthetic remedies available in shops can also be used.

Vaccination is also considered effective, which can be performed using wing–web vaccination methods. The vaccination of broilers against this disease is usually not required unless there is a history of fowl pox outbreaks on the farm. Poultry birds are vaccinated against fowl pox when the birds are six to ten weeks of age. One application of fowl pox vaccine results in permanent immunity.

In conclusion, farmers should take note that there is no treatment for this condition. The disease may resolve itself. Thus, it is imperative for farmers to control any mosquito infestation and sanitize their premises. The virus is highly resistant in dried scabs and may survive for months on contaminated premises. Moreover, poultry birds showing unusual symptoms should be isolated to avoid cross-infection to healthy birds. Sick birds should be promptly reported to the nearest veter-

Seasonal nutrient supplementation

- **By Erastus Ngaruka**

There is a great emphasis on livestock lick and feed supplementation (cattle, sheep & goats), and this is an expensive exercise that needs proper planning. Positive impacts of supplementing the animals are conspicuous, but in some cases not because supplementation is irregular, insufficient, wrong product,

wrong timing etc.

The importance of livestock supplementation is basically to; supply nutrients, enhance feed intake, enhance digestion, thus, ensuring good health and productivity. Animals require daily supply of protein, energy, minerals, and vitamins for them to survive.

How can one decide on a lick and feed supplements to give. Your decision should be based on both the condition of the rangeland/grazing and the animal's body. This means, you should provide what the rangeland cannot provide, and also provide what the animal needs. As the seasons are changing, so is the rangeland condition in terms of quality and quantity of forage materials. Therefore, livestock supplementation is also influenced by the season and prevailing conditions.

Starting with the summer months where the forage materials are green and plenty under normal circumstances, protein, energy and vitamin A are in sufficient amounts. The most emphasis is on mineral supplementation because during these rainy months, minerals are leached deep down the soil, thus they are less available to the plants, especially grass. Amongst the minerals, Phosphorus demand is higher. Apart from being deficient in the soil, the animal body demand for Phosphorus increases with plentiful food because it is needed to release the energy (in the form of Adenosine tri-phosphate) that will be used for enhancing metabolism or digestion, and feed intake. Therefore, farmers can look for mineral products (e.g. P14, P6 etc.).

In the early winter months (May-June-July), the most deficient nutrient is protein for grazing animals. The protein in the grass is in the seeds, so when the grass dries out and a start shedding seeds, then it means protein is also lost. Therefore, during that period, a farmer should look for protein supplements (e.g. The common Feedmaster's Dryveld concentrate amongst others). Very importantly, when the grass is dry, then it has no vitamin A, and it should be supplemented as well. The most common way is to use the injectable Vitamin A, which can be repeated every three months during the dry season only.

The grass plant is the energy base for grazing animals, and if grass is depleted, then the energy supply to the animal is affected. From August onwards, the quantity of grass becomes lesser as the dry season progresses. Grass can be taken away by grazing, trampling, wind, termites, and baboons etc. during this period, energy supplements should be introduced or increased. They can be added to the ongoing protein supplements as mixed ingredients. One of the good energy sources is yellow maize meal. In critical cases, hay (e.g. grass) is also fed to animals to help fill the rumen or satisfy the daily dry matter (roughage) intake.

Lastly, it is very important to give the right supplement, to the right animal, at the right time, in the right amount. Supplementation is an expensive duty, wastage and unnecessary costs should be avoided. Do not buy the name or colour of a lick bag but the content (nutrient) inside it. Supplementation should not substitute the rangeland, thus, sustainable rangeland management practices should be adopted.

Some impacts of climate change on livestock productivity

- **Erastus Ngaruka**

Climate change is a long term change in climatic/weather patterns of the earth or region. Such change is observed in temperature and rainfall patterns amongst others. It is being evidently reported that the earth temperature is on an increase and that rainfall activities have become unpredictable in