NEWSLETTER MAY

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Dear clients,

We hope you are well. In this newsletter you can read more about the importance of bees (20 May it was World Bee Day), and we discuss once again animals and cold weather. Now that we had the first cold spell it is important to start taking measures for when it gets really cold. We have listed a few tips for you. Lastly, we explain the renewed Documentation-section on our website. We hope you find this part of the website useful, and we are open for any suggestions!

Kind regards, the Wildlife Vets Namibia team

WORLD BEE DAY

On 20 May it was World Bee Day. Is a day specially for bees needed? Yes! Bees are one of those species that everybody knows, but that does not get the attention they deserve. Bees are very important in our ecosystems, as they are pollinators. Pollination is the transfer of pollen from male to female parts of flowers,

which leads to fertilization, seed development and fruit production.

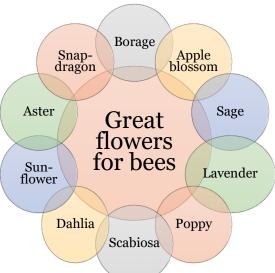
Bees are excellent pollinators, as they spend most of their lives collecting pollen, which is a source of protein that they feed to their developing offspring. When they land on a flower, their hairs attract pollen. They go from flower to flower to get this pollen. The pollen are groomed together in special sacs or pockets on their legs or bodies, and taken to their nests. Many plants need this kind of pollen distribution, in order to produce viable seeds. Bees thus help to maintain biodiversity and ensure the production of nutritious food for us.

Did you know that pollinators, such as bees, contribute to 35% of the worlds total crop production? And did you know that about 75% of the world's crops producing fruit and seeds for human use are (partly) dependant on pollinators? In south-Africa, it is estimated that over 50 crops are dependent on bee pollination.



These "pollen sacs," which also include nectar and can account for 30% of a bee's weight, hang off their hind legs like packed saddlebags © <u>Heidi and Hans</u>
Juergen Koch/Minden Pictures

Unfortunately, world-wide, bee populations are declining. This is due to the use of pesticides, habitat loss, changes in land use (more patchy distribution of food and nesting resources), climate change and pests/diseases to name a few.



What can you do to help bees? First of all, educate yourself! If you are using pesticides, read about biological controls, rather than chemical controls. Plant pollinator-friendly plants in your garden, choose plants that have long blooming cycles, and leave flowering weeds to grow — this is a great spot for bees to feed from, and to hide! Have a (shallow) water source in your garden where insects (and birds) can drink. You can build a bug hotel, where bees and other insects can hide in. You could even become a bee-keeper! Have a look at the <u>Beekeeping Association of Namibia</u> for more information.





WINTER IS COMING! ANIMALS AND COLD WEATHER

Several parts of Namibia had their first cold spell of the year already. It is getting time for blankets and hot chocolate around the fire! In previous newsletters we have discussed animals and cold weather before, but a little recap can't do harm! If you want more information, have a look at our article 'Animals and cold weather', on our website.

Animals have several 'defense' strategies to protect themselves from the cold. Some species hibernate or migrate to escape the cold. Often species will undergow physiological changes such as growing a thicker fur and building up fat reserves. But few of our African antelope species have the ability to build up significant (protective) subcutaneous fat reserves. In addition, most are pregnant during our dry, cold winter months. This puts additional nutritional strain on the animals. Some species, such as kudu, nyala and warthogs are more sensitive to cold then others. We thus often see mortalities in these species (not so much warthog because they shelter in relatively warm ground boroughs) whilst frost bite and the dropping off of ear tips in sable and roan is not uncommon.

With modern weather prediction models, we receive fairly accurate information and advance warnings of pending cold spells. This enables the farmer to take a couple of steps to prevent or minimise stock losses. The most important one is to maintain your animals in the best condition possible. Animals in poor body condition start utilising their fat reserves as a source of energy. We all know that fat also has an important insulation function. Animals in poor condition thus not only have minimal body reserves, they also have no physical protection against the cold.



The tips of these sable ears have frozen off. Under normal circumstances, blood carries oxygen to keep all tissues healthy. If an animal's body temperature starts to drop, blood vessels constrict → the blood is kept close to the vital organs. This means the extremities (such as the ears) get less blood. This lack of blood and oxygen damages the tissue cells in the extremities, and ice crystals start to form. Blood cloths may start to occur, leading to further damage of the tissues. If this condition lasts long enough, the tissue dies off. This is what we call frostbite. ⊚ M. Bijsterbosch

Under extreme winter conditions farmers may have to take additional precautions to protect their animals. The following are some recommendations and suggestions to protect your animals:

- Maintain good body condition: Make sure animals are in good body condition before the winter. Animals in a good body condition can handle winter weather and extreme conditions better than smaller or weaker animals. Cold and wet weather may result in a 100% increase in energy used to help maintain normal body temperature and function (this is especially true for pregnant and lactating animals). Failing to meet these needs may result in condition loss, stunted growth, poor milk production, weakness and death.
- **❖ Vaccinate:** Winter conditions predispose animals to pneumonia − vaccinate if possible.



- Good quality food: Ensure sufficient and accessible supply of good quality food to provide the animals with nutrients to maintain body temperature and survive cold temperatures. If you are aware of severe cold coming in, consider giving your animals a late afternoon meal of good quality roughage. You are not just supplying the animals with food, roughage fermentation by rumen microorganisms results in substantial heat production. This "passive" heat from fermentation does NOT require any work from the animal thus near zero energy consumption.
- Water and boma/kraal hygiene: Animals' water consumption increases when it's cold because of elevated metabolic rates necessary to maintain warmth. Make sure water is clean, free of ice, and in adequate supply. To minimise heat loss avoid keeping animals in wet, muddy kraals. Proper plumbing and maintenance should minimise water leakage. If there are muddy areas around water troughs, consider installing proper drainage and/or making use of soil/gravel filling.
- Shelter and debushing: Shelter animals from the wind. Trees, land windbreaks, other natural weather barriers and constructed shelters will assist in blocking winds. These protected areas should provide all animals enough space to lie down safely without being trampled or smothered. Bushes and trees provide cover and shelter against the elements; winds, cold, sun etc. Many game species hide their offspring for the first few days of life in dense bush. Browsers, especially the cold sensitive species such as kudu and nyala, are negatively affected by the reduced availability of browse as well as the lack of shelter.

Many farmers try to literally eradicate the much-maligned blackthorn (Swarthaak) *Acacia mellifera* – now called *Vachellia mellifera*. We would like to caution against such a radical approach since it is usually the first bush to start greening, flowering and producing pods following winter and thus providing essential food for browsers like kudu. Sparse density of leafless trees are ineffective windbreaks – avoid radical debushing! For game ranches we recommend structured debushing, in the pattern of a cheetah or zebra skin. Create open grass plains (the yellow part), interspersed with 1-5 ha sized patches of denser bush (the black spots), where the animals can find cover from the elements and hide.



Let nature guide you; debush according to a cheetah or zebra skin. Leave dense spots for animals to hide and seek shelter. Natural patterns look more attractive for yourself, and quests.

**Additional shelter: Avoid excessive heat loss by providing insulation. For very susceptible animals (e.g., lambs and kids etc.) consider constructing a maze-like structure from stacked hay bales and hay bedding. These are very effective BUT, esp. for wild animals, must be constructed early in the winter (close to feeding and drinking site) to allow the animals time to get used to the structure and enter it on cold nights. Such a "maze" should obviously have multiple openings to allow easy entrance and exit. This is more applicable for livestock, however from experience we know that for example nyalas use and appreciate straw bale shelters as well.





Shelter with grass bales © Living my dream life on the farm



Another type shelter with grass bales © <u>Dr. S. John Martin</u>



Hedge shelter © <u>BBC</u> Gardeners' World Magazine

- Concentrating animals: Try concentrating animals into sheltered spaces so that proximity to other animals provides some form of shelter and heat. Take for example the penguins in the Antarctica, who huddle up against each other against the cold. This is of course more applicable to livestock and not so much for game.
- **Bedding:** Keep bedding as dry and clean as possible to avoid increased ammonia fumes which can irritate the respiratory lining of livestock, thereby increasing susceptibility to pneumonia.
- Monitor: During extreme cold spells animals should be monitored often. Specifically monitor the young/smaller animals (e.g., Nyala) that are more at risk to cold temperatures Care for young animals first, since they have lower body energy stores and are more vulnerable than larger animals.
- Buy animals from areas similar to yours: When buying game, especially exotic species best adapted to sub-tropic or tropic regions (nyala, lechwe, bushbuck etc.), ideally source these from game ranches where they have been exposed to cold temperatures for a few generations (e.g., nyala sourced from the Freestate area vs. those sourced from Natal adapt far better). In the case of translocations within Namibia, game from traditionally cold areas animals from the Nina/Seeis area will do better when taken to say Tsumeb than the other way round. This gives some guarantee of the animals being more cold-adapted thus hopefully

For more information, click <u>here</u> to read our article 'Animals and cold weather'.

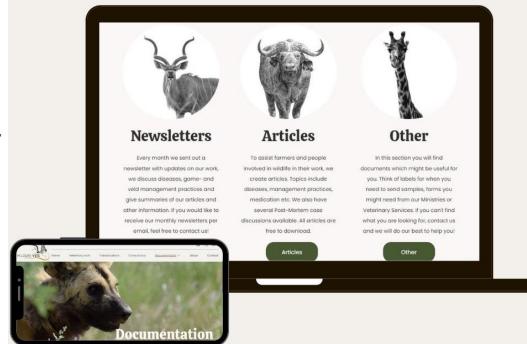
reducing your losses in a harsh winter.





DOCUMENTATION-SECTION WEBSITE

Did you already have a look at new Documentation-Our section on the website? It's filled with useful information. which is all free to download!



Newsletters

Here you can find all our old newsletters back. Unfortunately, the website does not support a search engine, but there is another solution. If you are looking for a certain topic, press CRTL + F (or Command + F for Mac) on your keyboard. A small search box will open on the right top of your screen. Now you can enter your search word(s), and read/download the newsletter with the topic you are interested in.

Articles

On the Articles page we have listed several articles, divided over the categories 'Management', 'Diseases and Health' and 'Nutrition and Body condition'. The last category is called 'Post-Mortem case discussions'. Hoover with your mouse over the topic, and you will see a short summary of the article. Click on the green button to read and/or download it.

Other documentation

In this section you can find other documents, such as labels that you can print out, some useful other documents and government forms. Under 'Government forms' we have listed several forms from MEFT and State Veterinary Services you can download, print and fill in (for example, application to utilize game and application for a movement permit). If you are missing certain forms, let us know! We gladly add them.

If you encounter any problems, or if you have suggestions on how we can improve, please let us know 😊



Here is the link:

https://wildlifevetsnamibia.com/documentation/





DR ULF TUBBESING
P.O. BOX 50533, BACHBRECHT,
WINDHOEK
+264 (0) 81 128 3050

ULFT@AFRICAONLINE.COM.NA

MARISKA BIJSTERBOSCH +264 (0) 81 382 8473 +31 (0)6 4369 3095 (WHATSAPP) MARISKA@WILDLIFEVETSNAMIBIA.COM

WWW.WILDLIFEVETSNAMIBIA.COM
FACEBOOK: WILDLIFE VETS NAMIBIA
INSTAGRAM: WILDLIFE VETS NAMIBIA
YOUTUBE: WILDLIFE VETS NAMIBIA

