

Animal Welfare Policy

Executive Summary

Abstract

This report outlines NOUKK's dedication to upholding exceptional animal welfare standards in the care and handling of Arabian camels. Emphasizing ethical practices, the document details our commitment to sourcing camel hair through natural shedding processes, aligning with the Textile Exchange's Benchmark for Animal Welfare as well as the Sustainable Fibre Alliance (SFA) guidelines. We utilize the Five Domains Model to evaluate and enhance our operations, focusing on nutrition, environment, health and management, behavior, and mental state. Beyond welfare, NOUKK integrates sustainability into its practices, incorporating regenerative approaches to promote ecosystem health and long-term resource renewal. Through continuous improvement, education of suppliers, and exploration of sustainable techniques, NOUKK strives to exceed industry standards, ensuring humane and responsible practices in producing high-quality, ethically sourced textiles.

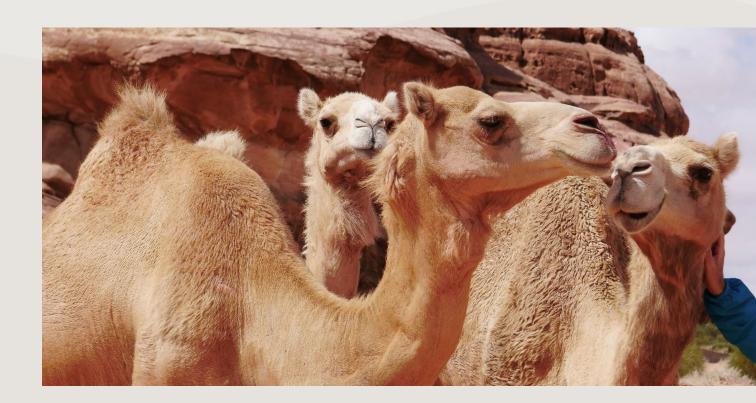
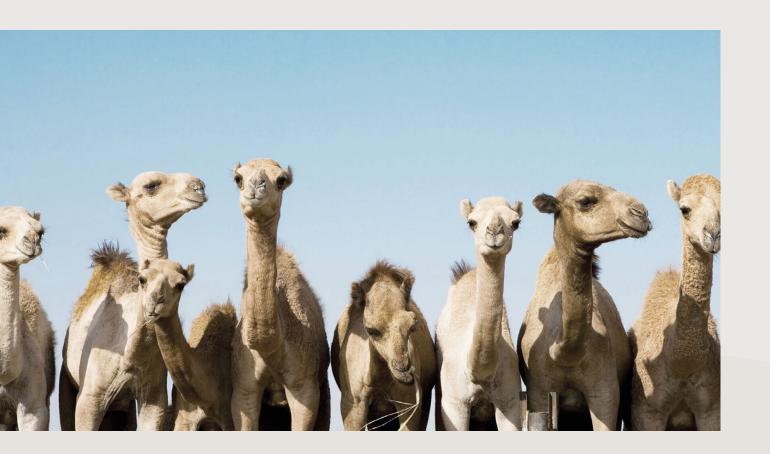


Table of Contents

Abstract	02
Commitment and Purpose	04
Section A- Introduction	04
Background Information	
Arabian Camels05	
Arabian Camel Hair05	
Section B- Overview of NOUKK's Camel Operations and Status	05
Section C -The 5 Domain Model: Animal Welfare Criteria	06
• Nutrition	
a) Watering and Pasturing Guidelines07	
b) Water and Feed Restrictions07	
c) Salt Supplementation07	
d) Nutrition Management07	
e) Transportation07	
f) Pregnant Camels and Calves	
Living Environment	
a) Indoor Environment	
b) Outdoor Environment	
c) Indoor and Outdoor Environment	
Health and Management	
a) Management	
b) Health09	
c) Branding09	
d) Restraining10	
e) Harvesting10	
f) Breeding10	
g) Pregnancy 10	
h) Transportation	
i) Castration11	
j) Sustainable and Regenerative Practices	
Deboviour	
Behaviour	
Mental State	
Conclusion	12
ANNEX	13
Contact Information	14



Commitment and Purpose

At NOUKK, we are deeply committed to upholding the highest standards of animal welfare in every aspect of our operations. Our process is rooted in respect for the natural behaviour and well-being of Arabian camels. We source camel hair solely from the natural shedding process, ensuring that no animals are harmed or stressed during collection. This document provides a summary of the Animal Welfare Standard, highlighting key points that align with international standards. For more detailed information on our operations and how we compare, please refer to our full Animal Welfare Standards report.

Click here for the full verison

Section A- Introduction

Background Information

Arabian Camels

The Arabian camel, also known as the one-humped camel, is a remarkable member of the camelid family that includes Alpaca, Bactrian camel, Guanaco, Llama and Vicuña. The Arabian camels thrive in vast drylands and desert environments, primarily in the Arabian Peninsula and Africa. Excellently adapted to harsh landscapes, showing remarkable resilience to climate change. Referred to as the "resource of the future" as they are low maintenance animals. The United Nations declared 2024 as the year of the Camelids "Heroes of Deserts and Highlands: Nourishing People and Culture" to highlight their growing importance in global sustainability efforts.

Arabian Camel Hair

The Arabian camel hair embodies 40 million years of evolution in a fibre, the hair boasts exceptional softness, parallel to other luxury animal hair like cashmere and vicuña. This softness stems from the fine, insulating undercoat of the camel, offering warmth without excessive weight or coarseness. Despite its remarkable qualities, Arabian camel hair remains a hidden gem that can be transformed into exotic textiles. Its usage has been limited throughout history, primarily confined to the Arabian tribes, and it is often reserved to create a limited quantity of traditional handcrafts.

Section B- Overview of NOUKK's Camel Operations and Status

Our operations span across the vast deserts of the North African region, where camels are widely herded in their natural environment. These herds are typically allowed to roam freely, choosing their own paths, and are cared for with respect and affection. The camels are well- hydrated, receive consistent attention, and are highly valued by the communities that work with them, which ensures their overall well-being. However, during a recent site visit, we identified some areas where practices could be enhanced. Traditional identification methods, such as restraining and branding, could be reconsidered for less intrusive alternatives, and managing the lactation of young camels with cloth coverings, while common, may benefit from more research into best practices. Additionally, improvements in hygiene and sanitation could be made, particularly in certain semi-enclosed areas. NOUKK is committed to continuous improvement, working closely with local communities and experts to ensure that our operations not only meet but exceed animal welfare standards in the region. At this stage, NOUKK is actively exploring and evaluating its supply chain. Given the limited resources available, we are not only selecting the best options but also focused on enhancing and improving the existing ones. This involves educating our suppliers, particularly camel herders, on sustainable practices and introducing them to eco-friendly techniques such as manual dehairing, understanding the natural shedding process, the physiology of camels, and best practices for proper nourishment and handling. All these efforts are aligned with our animal standards, which serve as our primary reference point.

Section C - The 5 Domain Model: Animal Welfare Criteria

The Five Domains Model is a framework used to assess animal welfare by evaluating both physical and mental states. It builds on the "Five Freedoms" of animal welfare and is designed to offer a more comprehensive approach by considering how various aspects of an animal's life contribute to its overall well-being. NOUKK has decided to adopt the five domains model framework and assess its operations and animal care against its criteria.

The Five Domains:

- 1. *Nutrition*: Evaluates the animal's diet, including access to adequate and appropriate food and water, and how this affects its health and well-being.
- 2. *Environment*: Considers the living conditions, such as shelter, space, temperature, and enrichment, and their impact on the animal's comfort and safety.
- 3. *Health and Management*: Assesses the animal's physical well-being, addressing injuries, diseases, and overall fitness, alongside management practices such as harvesting, restraining, and regenerative methods.
- 4. *Behaviour*: Looks at the ability of the animal to express natural behaviours and interact with its environment and other animals.
- 5. *Mental State*: Focuses on the animal's psychological well-being, considering emotions like pain, fear, pleasure, and contentment.

It is important to mention that compliance with the standards is reviewed annually to account for any amendments ensuring continuous improvement. The review considers the following:

- Welfare challenges that the husbandry procedure aims to address
- The integration of new technologies to enhance regenerative practices
- Alternative practices that prioritize animal's welfare and their effectiveness
- The most appropriate techniques for procedures considering the animal's age
- Measures to minimise pain and distress, as advised by veterinary experts
- Innovative approaches for fibre harvesting and protection.

Nutrition

a) Watering and Pasturing Guidelines

Camels require proper nutrition, hydration, and pasture access to maintain their health and well-being. They should receive around 2kg of dry matter per 100kg of body weight daily and 6 liters of water per 100kg of body weight, with a ±10% variation. While they can survive without water for up to 10 days under normal conditions, extreme heat reduces this duration. Continuous pasture access is essential unless severe weather conditions prevent it, and grazing should be managed to protect the environment. Feed must be stored properly to prevent contamination, and spoiled food should never be given. Regular monitoring of food, water, and overall health ensures that any issues are promptly addressed.

b) Water and Feed Restrictions

Camels should only be deprived of food and water for necessary management practices, such as shearing or transport, and never for more than 24 hours. Any restriction must be justified and time-limited. Additionally, camels must be protected from consuming harmful substances, including stale bread, human food scraps, spices, rotten or inedible vegetables, new growth plants, overly young grass, and flour. Proper care ensures their well-being by preventing exposure to toxic or unsuitable foods.

c) Salt Supplementation

Camels require salt supplementation to maintain nutritional balance and prevent related health issues. This can be provided through salt blocks, especially when halophyte plants are not available. The recommended salt intake is 20g per 100kg of body weight, meaning a 400kg camel should consume approximately 28-34kg of salt per year.

d) Nutrition Management

Feeding and nutrition planning should consider camel numbers, seasonal forage availability, purchased feed, and climate variations. Growth hormone promoters and non-therapeutic antibiotics must not be used for growth enhancement. Camels should always have access to adequate water, feed, and rest to maintain their health. Feeding and watering points must be designed to prevent overcrowding and ensure safe access. Body condition is routinely monitored as part of the Health and Welfare Plan, with a healthy camel scoring between 3 and 4 on a 5-point scale. Camels scoring below 2 must receive prompt treatment.

e) Transportation

Camels must be properly prepared for transport with adequate food and water, considering their species, age, condition, journey length, and travel conditions to prevent pain, injury, or distress. For camels older than 12 months, water and feed must be provided at least once every 24 hours unless the journey is completed within 30 hours.

f) Pregnant Camels and Calves

Pregnant camels and calves require slightly increased amounts of food and water to support their nutritional needs. Calves must have access to milk until they are at least six months old, along with sufficient additional feed to ensure proper growth and development.

Living Environment

a) Indoor Environment

Indoor facilities, including handling and housing systems, must be designed and maintained to minimize stress and injury risks for camels. Measures should be in place to protect camels from heat, cold stress, and extreme weather conditions. Housing must allow access to natural light and be free from dangerous debris. Wet manure should also be removed daily, and air quality must be well-regulated. Lying areas and floors should be safe, clean, and comfortable, with no fully slatted flooring. Bedding must consist of dry, soft, and deformable materials at a sufficient depth to ensure camel comfort.

b) Outdoor Environment

Outdoor fencing and handling systems, including yards and chutes, must be designed and maintained to minimize stress and injury risks for camels. Protective measures such as shade and shelters should be in place to safeguard camels from extreme temperatures and weather conditions. Equipment used for camel husbandry must be well-maintained and suited for its intended purpose. The birthing period should be planned according to favorable local climatic conditions to support the health and survival of newborns. During transportation, camels must be shielded from harsh weather, and they should not be transported if conditions could cause significant discomfort or harm.

c) Indoor and Outdoor Environment

An emergency plan must be in place to protect camels in exceptional situations like fires or floods, covering feed, water, shelter, and relocation or humane euthanasia if needed. Camel housing must be structurally sound and well-maintained, with sufficient space (at least 19 m² per camel) to allow for natural behaviors. Close confinement or tethering is only allowed briefly for medical needs. Comfort measures for extreme weather, such as bedding and ventilation adjustments, are necessary. Camels should not be exposed to toxic chemicals, mud, or manure, and housing must be well-ventilated. Stocking rates should consider land, pasture, and seasonal conditions, and breeding strategies must prioritize welfare traits. Pregnant, ill, or injured camels should be segregated and provided shelter as needed.

Health and Management

a) Management

Camels must be handled humanely, avoiding any physical or emotional abuse, with strict prohibitions on harmful practices like chasing, striking, and the use of electric prods or growth promoters. Staff must be trained in camel care and welfare, and pain relief should be used for any injurious procedures. The organization should have a comprehensive Health and Welfare Plan addressing nutrition, water, disease prevention, and other health measures. Regular welfare inspections are required, especially during critical periods. Non-physical handling methods should be prioritized, and living areas must be kept clean and free of waste to ensure the camels' well-being.

b) Health

Camels should be assessed annually by a qualified veterinarian to review their welfare and the management strategies in place. When necessary, a veterinarian or specialist advisor should be consulted for guidance on parasite prevention and treatment. Measures must be implemented to control parasitic infections. Sick, lame, or injured camels must receive appropriate medical treatment, care, and feeding, with observations at least twice a day. Good hygiene practices are essential to control outbreaks, and vaccines should be available for serious diseases. Sick or injured camels should be isolated to prevent contagion and provide a safe space for treatment and recovery.

Records must be kept for all treatments, including the substance administered, reason, and withdrawal period. If mortality rates exceed expected levels, investigations should be conducted, and corrective actions taken. Camels that are suffering and not responding to treatment should be euthanized promptly using humane methods. Proactive disease prevention strategies should be in place, and any unexpected deaths or disease outbreaks should be addressed with remedial actions.

c) Branding

Face branding should be prohibited unless required by national or regional regulations. Humane branding technologies such as ink, microchipping, or freeze branding should be used. When branding, it's important to consider the size limitations, area, and expertise involved. Ear notching (notching) is only allowed under specific conditions: if there is a risk of tag loss or theft, if no more than 10% of each ear is removed, and if tools used are sharp and appropriate for the procedure.

d) Restraining

Both standing up and lying down restraint methods are allowed, provided they are performed competently and the camel remains calm and compliant. Camels should only be restrained for the minimum time necessary, in positions that prevent them from inhaling regurgitated stomach contents. Camels under temporary restraint must not be left unsupervised. Nose pegs may be used for guiding or controlling camels, but not for restraining, and should be applied carefully with proper technique. Camels under restraint must be constantly supervised and released immediately if they are struggling to the point of potential injury.

e) Harvesting

Camels should be handled calmly and carefully to reduce stress during shearing. Equipment must be well-maintained to prevent injury, and extra care is required for first-time shearings. Fiber should be harvested when it begins to shed naturally, with proper timing to maximize yield without excessive loss. Camels can be sheared starting at 3 months, and it is advised to deprive them from water before harvesting. Ropes used for restraint must be soft and non-restrictive, and only two people should lift and restrain camels. Any severe injuries during shearing should be addressed immediately, with pain relief applied when necessary. Harvesting should be planned to account for weather conditions, and combs must be smooth to avoid tearing the skin. Sensitive areas, such as teats and genitalia, should be treated with extra care. The entire process should be supervised by qualified personnel.

f) Breeding

Male camels can be bred multiple times a day but should not remain in the same herd for more than five years to prevent inbreeding. Female camels should be bred between 2.5 to 5 years old and only once they reach 65% of their adult weight. Males are ideal for breeding between 5 and 12 years of age. Breeding should occur on the first or second day of heat for the highest fertility rates, and females can be bred 4–5 months after calving. Breeding practices should prioritize the health of the animals, focusing on welfare traits such as longevity and disease resilience, rather than just production. Breeding methods must ensure the safety of the animals, and birthing should be supervised with quick action taken if necessary.

g) Pregnancy

The site should only carry out C-sections when justified and ensure they are performed by a veterinarian using clean, suitable equipment, with proper aftercare to promote the mother's recovery. Newborn camels should be allowed to bond with their mothers and the herd, and provided with a warm, clean area. Adequate colostrum supplies must be available in case of emergency. During the birthing season, at least one person knowledgeable about birthing should be on-site to manage common birthing problems. Camel calves should not be weaned from their mothers before one year of age.

h) Transportation

The site must ensure that transport vehicles provide adequate space and prevent heat or cold stress for camels. Transport facilities must be free from strong odors, with proper ventilation. Certain camels, such as heavily pregnant ones or newborns, should only be transported short distances. Sick, injured, or weak camels should be transported humanely, and those unable to stand or bear weight should not be moved unless for veterinary care. Transport must be managed by knowledgeable personnel, and all necessary documentation should be ready to prevent delays. Vehicles must ensure safety, ventilation, and temperature control, with regular welfare checks during the journey.

i) Castration

The site shall only castrate camels when necessary, ensuring it is done by competent personnel using clean, suitable equipment. Pain relief may be used during the procedure, and aftercare should support the camel's recovery. Castration typically occurs around 2–3 years of age, but it should ideally be done before 12 months. The maximum age for castration is 5 years. Castration is performed to prevent male camels from mating with their offspring. Equipment used for castration and similar procedures must be safe, clean, and in good working order.

j) Sustainable and Regenerative Practices

The site should focus on sustainable practices such as ensuring clean bedding, regular water provision, and adequate shaded areas to prevent heat stress and dehydration. Observing camels'behavior and physical condition can help identify stress or health issues early. Promoting sustainable grazing methods, such as rotating camels across smaller paddocks, will support pasture recovery and prevent overgrazing. The use of organic materials like manure for soil enrichment and employing regenerative grazing methods enhances soil health, biodiversity, and moisture retention. Additionally, fostering biodiversity by incorporating native plant species and supporting beneficial organisms is encouraged. Regular evaluation of clean facilities and good feeding practices, along with ensuring access to clean water, is essential for camel welfare.

Behaviour

The site ensures that camels are only transported when they are fit and healthy enough to handle the journey. Transport vehicles are appropriately designed, offering enough headroom and adequate ventilation for camels. Space allowances and maximum camel capacity are planned in advance, with a focus on maintaining camels' natural behaviors. Trained personnel manage the transport, and ramps and steps are designed for easy camel access. Camels are monitored for distress when off feed and water, and the maximum transport duration for weaned camels is set at 36 hours. Isolation is minimized, and where unavoidable, camels are given companions or allowed visual contact with others. Special care is taken when handling camels with specific needs, such as calves or pregnant, lame, or injured animals. Positive human-camel relationships are encouraged through regular, positive interactions, fostering trust and reducing anxiety.

Mental State

The site ensures camels are kept in stable groups with familiar companions, allowing opportunities for bonding and social interactions, while minimizing isolation for justified, short-term reasons. Grazing is encouraged to support both their physical and mental well-being, and it is prohibited in populated areas. Camels are handled calmly during shearing using methods designed to minimize stress and injury. The site emphasizes humane treatment, ensuring no abuse of animals. Weaning is done using low-stress methods, and handling practices are gentle and consistent to reduce fear and stress. Camels are transported with enough space for natural postures, and after 24 hours of transport, they are given a 12-hour rest period with access to food, water, and space for exercise. Regular monitoring of the camels' behavior ensures timely adjustments to care, and exposure to loud noises is avoided to prevent stress. Camels are driven calmly, following the pace of the slowest animal.

The five domains of animal welfare nutrition, environment, health, behaviour, and mental state are interconnected. Improvements in one area, such as providing proper nutrition or gentle handling, positively impact the animal's overall health and mental well-being. Conversely, deficiencies in any domain can lead to negative effects on the others. Thus, a holistic approach to animal welfare, addressing all interconnected aspects, is essential for ensuring the well-being of the animal.

Conclusion

At NOUKK, we are deeply committed to the highest standards of animal welfare, particularly concerning the care of Arabian camels. Our approach ensures that camel hair is sourced ethically, only from natural shedding, and reflects our dedication to humane and sustainable practices. This report highlights our adherence to Sustainable Fibre Alliance and the Textile Exchange's Benchmark for Animal Welfare and outlines our use of the Five Domains Model to continually assess and improve our practices.

We are actively enhancing our operations by exploring sustainable techniques and educating suppliers, aiming to address areas for improvement and exceed industry standards. Our ongoing efforts emphasize transparency, ethical treatment, and respect for animal well-being. NOUKK is dedicated to advancing these practices, ensuring our contributions to high-quality, responsibly sourced textiles are both effective and compassionate.

ANNEX

- 1. Draft Unified Standard V1.1 https://docs.google.com/spreadsheets/d/1Gul-rLyX2jsvU 8rWMFgHlg8bVZNvrlO/edit?usp=sharing&ouid=104629529517887708600&rtpof=true& sd=true
- 2. Abdel-Rahman, M. A., Ahmed, M. M., & Derar, D. I. (2003). APPLIED STUDY ON PHYSICAL RESTRAINT DURING ULTRASONOGRAPHY AS STRESS ON HEALTH STATUS AND SOME BLOOD PARAMETERS OF ONE HUMPED CAMELS (Camelus dromedarius) IN UPPER EGYPT. In Ass. Univ. Bull. Environ. Res (Vol. 6, Issue 1).
- 3. Ansari-Renani, H. R., Salehi, M., Ebadi, Z., & Dradi, S. (2010). Identification of hair follicle characteristics and activity of one and two humped camels. Small Ruminant Research, 90(1-3), 64-70. https://doi.org/10.1016/j.smallrumres.2010.01.004
- 4. Camel Hair _ Encyclopedia.com. (n.d.).
- 5. Faye, B. (2013). Camel Farming Sustainability: The Challenges of the Camel Farming System in the XXIth Century. Journal of Sustainable Development, 6(12). https://doi.org/10.5539/jsd.v6n12p74
- 6. Faye, B., Konuspayeva, G., & Damp; Magnan, C. (n.d.). Large Camel Farming A Care-Management Guide from Breeding to Camel Products.
- 7. Higgins, A. J., & DISEASE A series of eight papers: edited by A. J. Higgins I. A GUIDE TO THE CLINICAL EXAMINATION, CHEMICAL RESTRAINT AND MEDICATION OF THE CAMEL.
- 8. Introduction to Camel Origin, History, Raising, Characteristics, and Wool, Hair and Skin, A Review. (2015).
- 9. Khan, B. B., Iqbal, A., Riaz, M., & D. Camels PRODUCTION AND MANAGEMENT OF CAMELS.
- 10. Menchetti, L., Faye, B., & Day, Padalino, B. (2021). New animal-based measures to assess welfare in dromedary camels. Tropical Animal Health and Production, 53(6). https://doi.org/10.1007/s11250-021-02978-8
- 11. Menchetti, L., Zappaterra, ;, Costa, N., & Dadalino, ; (n.d.). Welfare of dromedary camels: what do we know?
- 12. Padalino, B., & Denchetti, L. (2021). The First Protocol for Assessing Welfare of Camels. Frontiers in Veterinary Science, 7. https://doi.org/10.3389/fvets.2020.631876

13. Ranjan, R., Tuteja, F. C., Kashinath, & Daril, N. V. (2017). A survey on traditional practices adopted for restraining camel in Rajasthan. Indian Journal of Animal Sciences, 87(1), 118–121. https://doi.

org/10.56093/ijans.v87i1.66940

Contact Information

We are delighted to address any questions you may have and look forward to advancing the conversation. We are eager to hear your expert thoughts on how we can enhance our animal welfare operations. Please feel free to contact us at:

NOUKK Ltd. Company No. 15218375

Oliver Business Park Oliver Road NW10 7JB London, UK

Email: hello@noukk.com aya.kaskas@noukk.com

said.awad@noukk.com