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International Atomic Energy Agency

Job Description for Professional Posts

Reference: NA2024/50

Position and Grade:	Associate Animal Nutrition Officer, P2
Organizational Unit:	Animal Production and Health Section Joint FAO/IAEA Centre of Nuclear Techniques in Food and Agriculture
Duty Station:	Vienna
Type/Duration of Appointment:	FT – JPO, 1 year

Organizational Setting

The Department of Nuclear Sciences and Applications implements the IAEA's Major Programme 2, "Nuclear Techniques for Development and Environmental Protection". This Major Programme comprises individual programmes on food and agriculture, human health, water resources, environment and radiation technologies. These programmes are supported by laboratories in Seibersdorf, Monaco and Vienna. The Major Programme's objective is to enhance the capacity of Member States to meet basic human needs and to assess and manage the marine and terrestrial environments through the use of nuclear and isotopic techniques in sustainable development programmes.

The Joint FAO/IAEA Centre of Nuclear Techniques in Food and Agriculture assists Member States of the Food and Agriculture Organization of the United Nations (FAO) and the IAEA in using nuclear techniques and related technologies to improve food security, alleviate poverty and promote sustainable agriculture. The Joint Centre consists of five Sections, each with an associated laboratory (located in Seibersdorf, 45 km south-east of Vienna), in the areas of: animal production and health; plant breeding and genetics; insect pest control; soil and water management and crop nutrition; and food and environmental protection.

The Animal Production and Health Section and Laboratory assist Member States in improving livestock productivity through the efficient use of locally available feed resources, reproduction and breeding practices, and disease diagnostic tools and control measures.

Main Purpose

The Associate Animal Nutrition Officer will be co-responsible, under the supervision and guidance of the Head of APH and the technical officer(s) responsible for the activities and projects in animal production, for a study aimed at developing a practical method to predict pasture intake of ruminants grazing heterogeneous pastures and rangeland using stable isotopes to provide tools for better grassland management that enhance animal productivity and reduces impact on environment due to overgrazing, and to allow the design of effective feed supplementation strategies at farm level to optimize animal production. The methods will include analysis of concentrations and stable carbon isotope composition of n-alkanes in the plant and faecal samples to predict dry matter (DM) intake and its plant proportions and development of the near infrared reflectance spectroscopy (NIRS) predictive equations of DM

intake and the plant profile of that intake. The equations are expected to facilitate the design of diets and supplements required to cover the nutritional needs of animals to optimise their productivity.

Role

As a member of the Animal Production and Health group the Associate Animal Nutrition Officer will be based at the Vienna International Centre and will maintain regular contact with the staff of APH. S/he will be based on an established work plan, technically assisting the team on the analysis of n-alkanes in the plant and faecal samples and their compound specific stable carbon isotope composition for computing predictive equations to estimate dry matter (DM) intake and its plant compositions.

Partnerships

The Associate Animal Nutrition Officer will work under the partnerships already established within the UN system as well as with other international organisations and the scientific and commercial communities.

Functions / Key Results Expected

The Associate Animal Nutrition Officer will participate in a study aimed at analysis of n-alkanes in the plant and faecal samples and their compound specific stable carbon isotope composition for computing predictive equations to estimate dry matter (DM) intake and its plant compositions. S/he will undertake the following activities:

- Perform a literature search and write a review for publication that includes the current status of knowledge on the application of isotope techniques in animal nutrition and pasture management.
- Gather data from research contract holders, design appropriate statistical methods for data analysis and compute predictive equations where n-alkanes contents of plant and faecal samples and their compound specific stable carbon isotope composition will be used to estimate dry matter (DM) intake.
- Assist with other activities of the Section in relation to CRP and TC projects on animal nutrition and reproduction as appropriate.

Competencies and Expertise (do not revise or edit)

Core Competencies		
Competence	**Occupational Role**	**Behavioural Indicator**
Communication	Individual Contributor	Communicates orally and in writing in a clear, concise and impartial manner. Takes time to listen and understand the perspective of others and proposes solutions.
Achieving Results	Individual Contributor	Takes initiative in defining realistic outputs and clarifying roles, responsibilities and expected results in the context of the Department/Centre's programme. Evaluates his/her results realistically, drawing conclusions from lessons learned.
Teamwork	Individual Contributor	Actively contributes to achieving team results. Supports team decisions.
Planning and Organizing	Individual Contributor	Plans and organizes his/her own work in support of achieving the team or Section's priorities. Takes into account potential changes and proposes contingency plans.

Functional Competencies		
Competence	**Occupational Role**	**Behavioural Indicator**
Analytical thinking	Associate	Gathers and analyses information, identifying critical relationships and patterns among data and proposes workable solutions.
Knowledge sharing and learning	Associate	Actively seeks opportunities to learn by formal and informal means; learns from others, adopting and sharing best practice.
Technical/ Scientific credibility	Associate	Acquires and applies new skills to remain up to date in his/her area of expertise. Reliably applies knowledge of basic technical/ scientific methods and concepts.
Judgement/ decision making	Associate	Consults with supervisor/manager and makes decisions in full compliance with the Agency's regulations and rules.

Expertise	
Expertise	**Description**
Animal Production	Good understanding of animal nutrition.

Education, Experience and Language Skills

- University degree in biological, agricultural, veterinary or animal sciences. Post-graduate training up to PhD level or equivalent in a subject related to animal nutrition, feed resources, pasture management and or isotope technologies an asset.
- Minimum two years of experience and working knowledge on the analysis of stable isotope, alkanes, wet chemistry of feeds and forages, NIRS with sound knowledge in computer applications to compute predictive equations.
- Excellent oral and written command of English. Knowledge of other official IAEA languages (Arabic, Chinese, French, Russian and Spanish) is an asset.
- Competence in computer applications including word processing, spreadsheets, databases, presentation graphics and statistical packages.