



Australian Government

Department of Education, Employment and Workplace Relations

ACMCAN403A Develop animal diets

Revision Number: 1

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Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit of competency covers the process of developing and presenting animal diets, including the ordering of food, and communicating with others in respect to the nutritional requirements of animals, recognising signs of poor nutrition in animals and developing interim corrective diets. No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.
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Application of the Unit

Application of the unit	The unit is applicable to senior or more experienced keepers or animal carers with extensive zoo keeping or related experience. In addition to legal and ethical responsibilities, all units of competency in the ACM10 Animal Care and Management Training Package have the requirement for animals to be handled gently and calmly. The individual is required to exhibit appropriate care for animals so that stress and discomfort is minimised.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Develop a feed regime	1.1. Diets are evaluated in accordance with facility policy and procedures. 1.2. Natural and artificial diets and feeding regimes are researched to assist in correct diet development. 1.3. Diets and feeding regimes are formulated and modified as required. 1.4. Substitution of natural feed with artificial or alternative feeds is approved by supervisor. 1.5. Preparation and presentation of diets is coordinated in accordance with occupational health and safety (OHS) and animal requirements.
2. Order food	2.1. Supplies are ordered from internal and external suppliers. 2.2. Food quality is monitored in accordance with facility policies and procedures. 2.3. Food and feeding records are maintained and stored in accordance with facility policies and procedures.
3. Communicate effectively with others about animal nutritional requirements	3.1. Contribution is provided to facility's nutritional policy. 3.2. Assistance is provided with nutrition training of keepers. 3.3. Coordination of nutritional projects and communication with internal and external personnel is maintained. 3.4. Nutritional reports are prepared and presented to management in accordance with facility policies and procedures.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- calculate and evaluate dietary needs for a range of animals
- develop interim corrective diets for animals
- employ safe and environmentally responsible organisation systems and procedures when working with animals and feed
- maintain the highest standards of hygiene and infection control at all times to reduce the risk of infection and cross-infection
- recognise and investigate signs of poor nutrition in animals
- identify food items and evaluate methods of preparation, storage and presentation for various animal groups
- implement and advise on animal care strategies related to nutrition
- maintain records and write workplace documents, including nutritional reports to management
- undertake research
- use a variety of feeding techniques in response to behavioural needs of animals
- literacy skills to read and follow institutional policies and procedures, including OHS and waste management; develop sequenced written instructions; record accurately and legibly information collected; and select and apply procedures to a range of defined tasks
- oral communication skills/language to fulfil the job role as specified by the facility, including questioning techniques, active listening, training others and consulting with supervisors, internal and external personnel and management
- numeracy skills to complete mathematical calculations relating to formulating feed regimes
- interpersonal skills to work with others and relate to people from a range of cultural, social and religious backgrounds and with a range of physical and mental abilities
- problem-solving skills to use available resources and develop well-balanced diets
- use safe manual handling techniques and/or equipment
- use safe waste handling and disposal procedures
- write food orders and prepare feed records.

Required knowledge

- animal care and management strategies
- anatomy and physiology for a range of animal groups relating to nutrition and digestive processes
- animal classifications that influence dietary needs and styles of eating
- behavioural features related to feeding styles and unsuitable responses to diets

REQUIRED SKILLS AND KNOWLEDGE

- animal husbandry manuals and other recordkeeping requirements
- animal management software, such as Animal Record-Keeping System (ARKS) and Single Population Analysis and Records Keeping System (SPARKS)
- dietary requirements for a broad range of animal groups
- feedstuffs available and approved in Australia for animals, their availability, cost, shelf life, method of storage, preparation and presentation to animals
- institution master plan
- importance of vitamin and mineral substitution in artificial diets
- methods used to calculate rations, estimate weight of animals, calculate dry feed weight of food stuffs and other relevant measurements and calculations used for diet planning and food preparation
- natural animal diets
- principles of animal welfare and ethics
- principles of nutrition and the impact of poor nutrition on the health and condition of animals
- relevant facility policies and procedures, including OHS, animal welfare, feeding regimes, hygiene standards and other industry guidelines
- relevant federal and state or territory legislation and codes of practice, including OHS and animal welfare
- safe work practices
- workplace hygiene standards, disinfectants, cleaning agents, cleaning techniques and cleaning equipment and materials.

Evidence Guide

EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competence in this unit must be relevant to workplace operations and satisfy all of the requirements of the performance criteria, required skills and knowledge and the range statement of this unit. Assessors should ensure that candidates can:

- manage the preparation of diets and feed regimes to meet specific animal requirements
- monitor the quality of food and communicate effectively with staff and management on all aspects of animal nutrition
- maintain section nutrition records and write reports.

The skills and knowledge required to develop animal diets must be transferable to a range of work environments and contexts and include the ability to deal with unplanned events.

Context of and specific resources for assessment

Assessment of this unit is to be practical in nature and will be most appropriately assessed in a captive animal workplace. Workplaces may include small or large captive animal facilities, traditional or open-range type facilities, mobile or theme park environments, wildlife parks, zoos or rescue facilities.

There must be access to the appropriate equipment and/or resources to enable one to demonstrate competence.

Method of assessment

To ensure consistency in one's performance, competency should be demonstrated, to industry defined standards, on more than one occasion over a period of time in order to cover a variety of circumstances and where possible, over a number of assessment activities.

The assessment strategy must include practical skills

EVIDENCE GUIDE	
	assessment. Suggested strategies for this unit are: • written and/or oral assessment of candidate's required knowledge • observed, documented and first-hand testimonial evidence of candidate's application of practical tasks • simulation exercises that reproduce normal work conditions • third-party evidence • workplace documentation • portfolio. This unit may be assessed in a holistic way with other units of competency relevant to the industry sector, workplace and job role.
Guidance information for assessment	Assessment methods should reflect workplace demands (e.g. literacy and numeracy demands) and the needs of particular target groups (e.g. people with disabilities, Aboriginal and Torres Strait Islander people, women, people with a language background other than English, youth and people from low socioeconomic backgrounds).

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<i>Feed regime</i> may include:	• foodstuffs: • fresh • live • preserved • reconstituted • supplements • preparation • presentation • quantities • quality • timing and method of food distribution • animal needs: • species requirements • age • sex • breeding status • activity load • climate.
<i>Natural and artificial diets</i> may include:	• natural: • sources of food normally available in wild or similar environment • fresh or preserved food • artificial: • chemical replacement foodstuffs • chemical supplements • items that can provide required nutrients but aren't usually consumed by species.
<i>Preparation and presentation of diets</i> may include:	• avoiding inhalation of organic and other dusts • checking the shelf life of foodstuffs and using appropriate storage methods • controlling animal movement and handling

RANGE STATEMENT	
	during feeding • preventing contamination from other animal diet materials that are potentially toxic to some species • preventing contamination of foodstuffs from vermin, bacteria, fungus, virus and other sources • preventing plants and other materials being thrown into animal enclosures by the public • using appropriate personal protective equipment: • aprons and gloves • ear protection when working with noisy animals • using infection control procedures to avoid the possibility of zoonotic infection • using manual handling and general food preparation, storage and distribution equipment according to manufacturers' instructions and safe work method statements (SWMS).
OHS risks when working with animals may include:	• animal bites, envenomation, kicks, scratches and crush injuries • biological hazardous waste and sharps disposal • handling of chemicals and medicines • gas leakage • inhalation of aerosol particles • intraocular contamination • manual handling, including carrying, lifting and shifting • moving parts of machinery or equipment • noise including machinery and some animals • release of infective agents (animal and human) • slippery or uneven work surfaces • zoonoses. •
Food quality may include:	• cost versus availability • cost versus nutrient content • digestibility • nutrient value of food items • percentage of spoilage per order • roughage content

RANGE STATEMENT	
	• shelf life.
<i>Nutritional policy</i> may include:	• budget for food purchase • minimum quantities for on hand supplies • procedures for: • approving nominated suppliers • calculating rations • checking animal's response to diet • disposing of uneaten food • disposing of unused or perished items • ordering supplies • preparing rations • recording dietary information • recording food use • returning of poor quality product • storing food stuffs • staff authorised to: • approve purchase • calculate and modify diets • check supply quality • order supplies • prepare rations.
<i>Internal and external personnel</i> may include:	• internal: • curators • management • operations managers • records managers • staff within the section • staff in other sections • team leaders • veterinarians • external: • contractors • government bodies • members of the public • other captive animal facilities • professional associations • suppliers.

RANGE STATEMENT**Nutritional reports** may include:

- written and verbal information on:
 - animal profile and response to diet
 - diet calculations
 - feed budget
 - feed orders
 - feed stocktake
 - options for feed substitutes.

Unit Sector(s)

Unit sector	Captive animals
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		