Non-Government Schools Animal Ethics Committee

ANIMAL CARE INFORMATION SHEET

The document provides comprehensive guidelines on the care, handling, and use of turkeys in educational settings, detailing their physical characteristics, behaviour, housing requirements, feeding, breeding, and disease prevention.

Turkeys	
Scientific Name:	***Meleagris gallopava***
Activities requiring School Principal approval only:	Capture, restraint and handling of turkeys Taming/gentling of turkeys Training and grooming of turkeys for showing Administration of oral drench treatments to turkeys Collection of faecal samples from turkeys (non-invasive) Measurement of growth and body weight of turkeys (non-invasive) Measurement of body temperature of turkeys (non-invasive) Measurement of respiration and pulse rate of turkeys (non-invasive) Measurement of mild dietary effects including palatability preference in turkeys Loading and unloading of turkeys for transport Transport of turkeys
Activities requiring NGSAEC approval *prior* to the commencement of the activity:	Administration of treatment by subcutaneous injection to turkeys Breeding using artificial insemination of turkeys
Approval Level:	Where an activity is not listed in this **Animal Care Information Sheet (ACIS)**, advice must be sought from the Non-Government Schools Animal Ethics Committee (NGSAEC) and confirmed before it can be undertaken.
Authority:	**Independent and Catholic Schools** – Non-Government Schools Animal Ethics Committee
Disclaimer:	This document is reviewed annually. You should check the website regularly to ensure that you are meeting the most recent recommendations. If you note any concerns with the information provided (inadequate, incorrect) please contact the NGSAEC.
Licensing Requirement:	Check the Department for Environment and Water website for further details www.environment.sa.gov.au
Compliance Requirement:	The keeping of this species requires approval from the School Principal or the NGSAEC. It is recommended that this **Animal Care Information Sheet (ACIS)** be followed as a minimum in the provision of appropriate care and housing for this species.
General Information:	Turkeys can be used for showing or meat production. Birds that have finished showing are then used also for meat production in many

	cases. Common breeds of turkey include Black, Bourbon, Bronze, White, Slate, Narragansett, and Royal Palm. Male turkeys are referred to as toms or stags, females as hens and young turkeys as poults. Turkeys have a wingspan of 1.5 - 1.8 metres and males have a distinctive fleshy appendage hanging from their beak called a snood. Due to the domestication of turkeys and selective breeding for enormous body size, turkeys cannot participate in many 'normal' behaviours. This includes breeding and all turkey breeding is now done using artificial insemination.
Physical Attributes:	• **Size:** to one metre tall • **Weight:** male 8-15 kg, female 4-8 kg • **Weight at birth:** 40-60 gm • **Incubation period:** 28 days • **Sexual maturity:** well grown, seven-months old pullets • **Healthy characteristics:** body temperature: 40-42^{o}C Heart rate: 180-340 beats/minute
Behaviour:	Turkeys are alert and inquisitive with an erect carriage. They are best kept in flocks due to their social nature. A mixed of females and males is preferred. Turkeys will form a hierarchy or pecking order amongst their flock with clear dominant individuals, usually males and older females. They have good hearing and vision to detect predators. Adult turkeys cannot run or fly, they can only walk, and they cannot roost. Instead, turkeys usually find their way to a comfortable spot that is elevated off the ground where they can nest. They rely on flapping their wings to defend themselves. They often scratch and peck as they investigate their surroundings but do not forage as deep into the groundcover as chickens do. At night turkeys do not roost like fowls, but rather bed down somewhere comfortable, usually in an elevated place if they can get to it. Turkeys make a gobbling noise to communicate with one another in a flock. Females have a softer 'gobbling' call, while a male's call can be quite loud. The males can call out without reason but most commonly call out to alert their flock because have spotted a predator. Male turkeys have a wattle which is a skin flap that runs down and below this is the carbuncle which changes colour during courtship. Turkeys can be aggressive towards one another, especially if new birds are introduced to an existing flock. Head pecking is common and to avoid injury when introducing new birds, introduce two new birds at once so that the entire flock cannot focus on an individual new bird. Turkeys can be quite territorial animals and males will often fight with one another. Toms should only be introduced into the same enclosure when mating season is over. When introducing a new tom to a flock, always monitor the birds to make sure no bird is excessively injured while fighting and be present to break up fights. Females will also become aggressive to new birds that are introduced to the flock and will also be aggressive to other species of birds including chickens. Female turkeys with poults will also defend their young from other birds and handlers. Never introduce a new bird in hot weather as this can lead to further problems such as heat exhaustion and dehydration. Turkeys are prone to behavioural problems due to a lack of stimulation when kept in intensive conditions. Feather pecking and cannibalism are common if not enough stimulation is providing, or they cannot

	perform normal behaviours. This includes socialising, pecking at vegetation and scratching in the dirt. The provision of environmental enrichment can reduce problem behaviours. Methods include providing natural vegetation to peck at, objects to climb up on to roost (e.g. hay bales and roosting houses), as well as other turkeys and other fowls species to socialise with. It is recommended where turkeys are kept in schools that they are in large enclosures or free-range environments. Turkeys reared in intensive meat rearing systems are more prone to developing behavioural issues due to the intensive nature of their environment.
Environment:	Housing/Space - Stocking density should be reviewed periodically and adjusted as necessary for age, breed, strain and type of turkey, colony size, temperature, ventilation, lighting, quality of housing and occurrence of disease and cannibalism. Floor space under a hover brooder should be at least 90 cm2 for each poult. For birds up to six weeks of age, provide at least 900 cm2 a poult. From eight weeks of age, the minimum intensive space required for rearing is 0.6 m2 per bird. Grassed runs should have at least 15 m2 of pasture per bird. Rotate pastures between batches. Provide a shed with 1.2 m2 of roof per bird and allow 25 cm of roost space per bird at a minimum. Use clean, dry litter of rice hulls, shavings from untreated timber, straw, or sand for bedding. Suitable nesting material such as clean, dry sand, rice hulls, straw or untreated wood shavings should be provided. A nesting box should have a minimum size of 0.5 x 0.5 x 0.5 m and accommodate three or four birds. The nest should be dark and of sufficient size to isolate one bird from another, so that egg damage and aggressive behaviour from some birds during nesting time are avoided. Avoid draughts and chilling winds. Ventilation is required to prevent ammonia build up in intensive situations. To prevent ammonia building up, reduce the number of birds in each area, clean out the litter and improve ventilation. **Movement and exercise -** Turkeys appreciate a ranging situation but can be successfully raised in more intensive situations. **Temperature -** For day-old poults under a brooder, measured 10 cm above the ground at the rim of the brooder, the temperature, taken with a black bulb thermometer, should be 38^{o}C. Every three days, lower the temperature 1 - 2^{o}C to reach 21^{o}C when the poults are four to six weeks of age. The poults are the best indicators of temperature. When it is too hot, they will disperse, and they will huddle if it is too cold. When poults are weaned, the preferred temperature range is 20–28^{o}C. Temperatures below 10^{o}C and above 32^{o}C cause stress and are unacceptable. **Light -** Birds kept in sheds must have reasonable light and not be kept in dark. The birds should experience a light and dark cycle. **Shelter -** Sufficient shelter is required to protect birds from extremes of climate such as temperature changes, wind, rain, and direct sunlight. **Cleaning:** Little cleaning is required if the litter is deep and kept dry. Make sure that equipment, such as nest boxes, is hygienic so that the disease risk is minimised.
Feeding:	**Diet:** Commercially prepared turkey crumbles for poults, growers and adults can be used. Type depends upon physiological status and health of the turkeys you are housing. Ad lib preferred, at least twice

	per day, in the morning and evening. Turkeys need 28% protein ration for the first four weeks, 24% for the next four weeks and then reduced to 20% until grown. When the birds are young, use medicated rations to counter blackhead disease. **Daily requirements:** Ranges from a few grams per day for poults to up to 250 grams per day for adults. Check the labels on the food packaging or seek advice from an industry expert or Veterinarian familiar with turkeys. Cool, clean, and fresh water must be always available in sufficient quantity.
Breeding:	**Turkeys cannot breed naturally** and mating usually results on severe injury to the female. This is due to the selective breeding that has occurred creating large males with enormous sized bodies. All turkey production occurs through artificial insemination. If schools wish to run a commercial turkey enterprise, they need to assess breed suitability, local climatic conditions, facilities available and market accessibility with animal industry representatives or veterinarians noting the requirement for artificial insemination and trained operators to do so, prior to undertaking these activities. Schools must also consider their capabilities with regards to rehoming excess stock.
Handling:	Turkeys need to be handled calmly and with care to prevent distress and injury to the animals. Avoid chasing, which agitates the turkeys, and causes them to pile up in corners. Turkeys develop their own personal space called their flight zone. A flock of turkeys will have a collective flight zone depicted by their individual characteristics, breed, age, environment, and previous handling experiences. If an animal's flight zone is penetrated, they move away to regain a more comfortable distance from the intruder. Turkeys raised in a pen with close contact to people will have a smaller flight zone and be calmer when being handled, as opposed to turkeys raised in a free ranging area with minimal contact with people. It is common for turkeys that have been hand raised to be very tame and comfortable being caught and handled. Turkeys are very easy to catch due to their inability to run or fly. When turkeys need to be caught for any reason (e.g., husbandry procedures or moving into cages consideration must be given to flight zones. Turkeys kept in a free ranging setup may also have to be herded into smaller enclosures at night for extra protection or for easy catching.
Hygiene:	Thoroughly wash hands with soap and running water for at least 15 seconds after working with or handling turkeys. Dry hands with clean paper, cloth towel or air dryer. Turn off the tap with the paper towel if possible.
Disease prevention:	Disease control methods and parasite control programs should be developed in consultation with Veterinarians familiar with turkeys, as part of an animal management plan. Consideration should also be given to discussing the turkeys' ongoing welfare with a veterinarian when being cared for by the school. This includes pain management for any activity that may illicit pain and pain relief medication is required. This is particularly important not only for the animal's welfare but to ensure compliance with withholding periods where turkeys are utilised for meat production. Treatments must be documented in the appropriate records. Schools should also develop a **farm biosecurity plan** to assess risks to their enterprise. Consideration should be given to other animal species being kept at the school.
Signs of Illness:	**Indicators:** • Diarrhoea; • nasal discharge; • sneezing; • nervous signs or paralysis;

	• inactivity, head under wing, feathers ruffled or isolated from group; • a pale or purple comb; • frequent shutting of eyes; • little response when touched or pushed, or often pecked at by others; or • failure to thrive or grow.
Treatments:	Schools are encouraged to develop relationships with veterinarians and animal industry representatives (e.g., fodder store) familiar with turkeys. These contacts can be used for disease diagnoses, treatment options including vaccinations and dietary, husbandry and welfare advice. Veterinarians can also assist with emergencies, particularly where euthanasia is needed. Treatments must be documented in the appropriate records. Turkeys can be vaccinated against diseases such as haemorrhagic enteritis, cholera, and fowl pox. This affords immunity for the younger turkeys, which are normally included in a vaccination program when vaccinating large populations of turkeys. Blackhead is caused by a protozoan parasite that can be transmitted in drinking water, feed, or excrement. It can be prevented by incorporating drugs in the feed as recommended by your local veterinarian or animal industry expert.
Euthanasia:	When an illness or injury is such that recovery is unlikely then the turkey must be euthanised by a Veterinarian. Schools should contact their local Veterinarian to discuss emergency treatment options prior to an event occurring when keeping turkeys.
Disposal/fate planning:	Turkeys can be sold privately at auction or consigned to an abattoir. Carcasses must be disposed of in accordance with local council regulations.
Holiday and weekend care:	It is preferred that poultry remain onsite for quarantine reasons and are not mixed with other livestock offsite, while being used for school activities. Poultry can be taken offsite however with the permission of the school principal and the carers and on advice from a Veterinarian. Staff should provide carers with animal care and record-keeping instructions, emergency contacts and provide appropriate equipment and food. Turkeys must be checked daily, records kept and any problems reported to the school immediately whether kept onsite or taken offsite.
Approved activities:	Where an activity is not listed in this ACIS, advice must be sought from the NGSAEC and confirmed before it can be undertaken.
Activity:	**Capture, restraint and handling of turkeys**
Objective:	To instruct students in methods of capturing and restraint for handling of turkeys Before students attempt these tasks, they should be familiar with turkey behaviour and be instructed to move quietly and slowly. Avoid handling turkeys for extended periods and return them to feed and water as soon as possible after handling. Always ensure that each turkey has one or more others in proximity or view to avoid stress and danger to the handler.
Activity:	**Taming of turkeys**
Objective:	To instruct students in methods of taming turkeys Turkeys should be tamed as early as possible to avoid stress when handling them. Older animals that have been handled extensively and are well tamed, will be the most suitable to purchase for the school environment. Older, untamed turkeys may never settle in and are likely to become stressed when handled extensively by students.

Activity:	Training and grooming of turkeys for showing
Objective:	To instruct in methods of preparation of turkeys for showing, including grooming, and washing. Turkeys are very trainable and will easily respond to food rewards, coming up to a feeding pen when called or at a routine feed time. Short training sessions should be undertaken in a quiet area free from distractions or predators. Turkeys familiar with handling should be used for training sessions where possible. After washing turkeys should be dried off as much as possible to prevent hypothermia and kept in a suitable environment out of the cold until dry.
Activity:	**Administration of oral drench treatment to turkeys**
Objective:	To instruct students in the procedures for the administration of drenching treatments Drenching is an important part of any preventative health program when housing turkeys. Faecal testing is recommended to determine if and what types of internal parasites are to be treated. When treating for internal and external parasites, all animals should be treated at the same time. These activities need to be documented in the appropriate records. Animals should be dosed according to the product labelling with a species appropriate product. Ensure the dose is calculated accurately. The animal should be securely restrained. Do not share any injecting or drenching equipment to avoid cross-contamination between animals. Consult your animal industry representatives or Veterinarian for product advice.
Activity:	**Administration of treatments by subcutaneous injection to turkeys**
Objective:	To instruct students in the procedures for the administration of treatments given by subcutaneous injection Vaccinations should feature in any school animal management plan. These activities need to be documented in the appropriate records. Consultation with a Veterinarian should be undertaken prior to giving any treatments to turkeys in your flock. Vaccinations should be given by a Veterinarian or under the direct supervision of a Veterinarian.
Activity:	**Collection of faecal and urine samples from turkeys (non-invasive)**
Objective:	To instruct students in the process of collection of faecal samples from turkeys Ensure that staff and students wear gloves and follow strict hygiene procedures when collecting faecal or urine samples. Fresh faeces can be easily collected from the housing pen floor.
Activity:	**Measurement of growth and body weight of turkeys (non-invasive)**
Objective:	To instruct students in methods of measuring growth and body weight of turkeys The animal's growth can be recorded by measuring the width of a turkey's body parts (e.g. girth). A soft plastic tape measure can be used to measure different body parts. Two handlers are required for the measurement of body proportions using low stress handling techniques. One handler is required to restrain the bird while the other handler takes measurements. It is important to ensure that all the equipment required is ready prior to restraining the turkey. Towels can also be used to aid with restraint to prevent turkeys injuring themselves or handlers. Turkeys should not be excessively distorted to make measurements of body parts. Growth measurements can also be shown by photographing or drawing a bird against an appropriate

	background scale. Use enough birds to determine individual difference. A turkey's bodyweight can be recorded by weighing the turkey regularly. This measurement should be done with low stress handling techniques returning the turkey to its enclosure promptly. Only turkeys accustomed to being handled should be used. It is important to ensure that all the equipment (e.g. scales) required is ready prior to catching the turkey. Cages or boxes can be used to hold turkeys when weighing. Rubber matting or towels can be used to avoid the surface being slippery. Scales should be cleaned regularly. Recording regular measurements of weight can give an accurate measure of weight over time.
Activity:	**Measurement of body temperature of turkeys (non-invasive)**
Objective:	To instruct students in the invasive measurement of body temperature of turkeys Temperature is measured in the cloaca or vent using a clinical thermometer. Ensure that the turkey is carefully restrained using a towel and use a plastic digital thermometer dipped in lubricant, to prevent injury from a broken glass thermometer. Restrain a bird by the hand and arm method. Slide the thermometer in carefully and wash after each bird.
Activity:	**Measurement of respiration and pulse rate of turkeys**
Objective:	To instruct students in the measurement of respiration and pulse rate Respiration can easily be measured by visually observing a turkey's chest movements as it breaths. Alternatively, turkeys can be observed in warmer weather conditions as indications of respiration become more obvious. Observe and record a bird with its beak naturally open and tongue moving, recording the number of tongue movements. A stethoscope is required to measure a pulse rate in turkeys. This is due to their very high pulse rate which makes it difficult to measure otherwise. With a little practice, students should be able to hear a pulse rate using a stethoscope. One handler should restrain the turkey while a second handler measures the pulse. It is best if students practise using a stethoscope on each other prior to performing this procedure.
Activity:	**Measurement of mild dietary effects including palatability preferences of turkeys**
Objective:	To demonstrate to students measuring mild dietary effects in turkeys. A variation in diet can be achieved by using commercially prepared foods, which use a different formula than the usual one provided. Any variation in the diet should be an enhancement to, rather than a deprivation of the diet. The minimum level of protein, energy or fat selected for the trial must be the minimum acceptable for the life stage of the bird type. The trial period should not be longer than is necessary to achieve a clearly observable result. Ten to fourteen days is sufficient for young birds, after which the birds should be returned to their normal diet. Where comparative food trials are being undertaken, no less than the minimum protein levels should be fed to birds. The maximum amount of protein permitted is 20% above the minimum levels. For adult birds, use a variety of commercially prepared layer pellets and mash, ensuring a plentiful supply of clean fresh water. Observe two adult birds in separate pens and record the food selection of the birds.
Activity:	**Loading and unloading turkeys for transport**

Objective:	To instruct students on correct methods of loading and unloading of turkeys for transport. Good handling skills and patience are essential when caging, loading, and unloading turkeys for transport. Correctly sized cages are necessary to facilitate loading and unloading with minimum distress and risk of bruising and/or other injuries. Turkeys must be examined prior to transport to ensure they are fit and healthy for transportation.
Activity:	**Transporting turkeys**
Objective:	To demonstrate to students the appropriate procedures for transporting turkeys. Turkeys are susceptible to weather extremes and should not be transported in the heat of the day. See resources section for a compliance checklist – Poultry transport and the Australian Animal Welfare Standards and Guidelines – Land Transport of Livestock.
Activity:	**Breeding using artificial insemination of turkeys**
Objective:	To demonstrate to students the use of artificial insemination for breeding of turkeys. Schools should discuss any breeding with local Animal industry representatives or Veterinarians to develop an animal management and breeding plan prior to commencing these activities. Turkeys can no longer breed without artificial insemination due to the enormous size of male compared to females, which results in injuries to the female turkey.
Resources:	**Primary Industries and Regions South Australia** Poultry movements www.pir.sa.gov.au/biosecurity/animal_health/poultry/poultry_movement **Land Transport of Livestock Standards and Guidelines 2012 – Australian Animal Welfare Standards and Guidelines** www.animalwelfarestandards.net.au/land-transport/ **Turkey breeds - Oklahoma State University** afs.okstate.edu/breeds/poultry/turkeys/turkeys.html/ **Turkeys (including turkey meat industry information)- Australasian Turkey Federation** www.turkeyfed.com.au/ **Turkeys and Biosecurity – Farm Biosecurity** www.farmbiosecurity.com.au/wp-content/uploads/2019/04/Turkey-fact-sheet.pdf
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