MANAGEMENT PRACTICES *(Health)*

**Health and Well-being of the flock:** Sheep & Goats shall be observed for any signs of poor health or injury on a regular basis. Regardless of where Sheep & Goats are being held (pastures, pens), they should be checked on according to what stage of life they are in (parturition, lactating, weaning, breeding, etc). Unscheduled checks are also encouraged. Examples of unscheduled checks are feeding time, passing through the Porter Barn, while checking fences, while checking pastures, etc. Any time a staff member is in the vicinity of the Sheep or Goats, the staff member should take the initiative to check on the animals’ well-being. Animals should be alert, calm, eating, drinking, be able to rise, lay down and to move about. See “Animal Health Protocol” for a more detailed explanation of what to look for in a sick or injured animal.

If a sick or injured animal is observed, either the Livestock Technician or Farm Manager should be contacted immediately. See “Management Practices (Illness or Injury)” for a detailed description of how to proceed with a sick or injured animal.

**Steps To Healthy Sheep and Goat Management:**

- Provide a healthy environment to the flock/herd
  - Provide adequate space for the animals
  - Allow airflow inside of the barn to prevent upper respiratory infections and pneumonia.
- Provide shade and shelter
  - Hot weather
  - Wind
  - Rain
- Always practice good sanitation
  - Provide clean bedding in barn and clean often
  - Provide Fresh/clean water available at all times and offer clean feed
  - Use proper sanitation techniques on lamb bottles, aseptic techniques with needles, etc
- Manure Removal
  - Manure removal keeps well maintained pens
  - Manure removal keeps sheep and goats healthier by reducing flies and parasites
  - Manure removal provides a good working environment
- Maintain good fences and shelter
  - Sheep and goats are prey animals, therefore, predators should be fenced out
  - Coyote-proof fencing and guardian animals such as donkeys or llamas work well
  - Well maintained fences will decrease injuries (lacerations, getting stuck, etc.)
MANAGEMENT PRACTICES *(Health)* continued

**Steps To Healthy Sheep and Goat Management** - continued:

- Provide appropriate nutrition for all stages of life and establish regular feeding times
  - At certain stages of life, the animal may need additional nutritional supplementation
  - Animals with higher quality nutrition will have a stronger immune system, resulting in a decreased number of ill animals within the flock/herd
  - Feed twice per day (once in the morning and once in the evening)
  - Feed change: Add new feed and reduce the old feed over a period of several days
- Feed well balanced rations
  - Base the sheep’s diet on body condition, nutritional requirements and feed analysis
  - Rule of thumb: animals receiving nutritional requirements through quality hay or pasture, do not need additional supplement such as grain
- Providing fresh water at all times
  - Water is a necessary part of an animal's good health
  - It is very important to keep water troughs well maintained and clean
- Always be observant with Sheep and Goats
  - It is important to visually observe the sheep and goats daily
  - Pay close attention to normal behavior, body stance, and pelleted manure
- Maintain a closed flock whenever possible
  - Breed healthy and thrifty animals
  - Cull unthrifty animals to develop a healthy flock
  - Refrains from exposing new animals to prevent the spread of disease within the flock
- Immediately isolate any animals showing clinical signs of illness or injury
  - Upon isolating an ill or injured sheep or goat, make an assessment by palpating, visually inspecting and checking vitals
  - After assessment, determination should be made whether the animal can be treated by staff or needs the veterinarian
  - Medicate and treat appropriately
- Treat all new sheep and goats
  - Process new animals with an appropriate dewormer, trim hooves and vaccinate, if needed
- Protect the flock/herd and facility with proper quarantine protocols
  - Isolate sheep and goats for 14 days and observe for any clinical signs of illness
- Vaccination
  - With advisement from the veterinarian, a vaccine protocol has been created for the best outcome of the operation and the animal’s overall optimum health to prevent illness.
  - Sheep and Goats are vaccinated by classes and by staff
MANAGEMENT PRACTICES *(Health)* continued

- **Steps To Healthy Sheep and Goat Management:**
  - Dewormer
    - With advisement from the veterinarian, a deworming strategy has been determined to maintain the sheep and goats in good health
    - Sheep and Goats are dewormed by classes and by staff
  - Practicing good hoof care
    - Trim as needed
    - Hoof trimming is coordinated with classes and performed by staff
  - Shone Farm works closely with the veterinarian
    - To prevent illness and to treat ill and/or injured animals
    - To obtain advice on care to give to sick or injured animals
  - Postmortem examination
    - When an animal dies suddenly or under any suspicious circumstances, it is appropriate to ask your veterinarian to perform a postmortem necropsy to find the cause of death and prevent other sheep and goats from the same cause of death
    - The Farm Manager makes the determination of whether or not a necropsy is necessary
Animal Health

Signs of Illness / Injury:

- Observe the animal for respiratory problems
  - Coughing
  - Labored breathing
  - Nasal discharge
  - Lesions or inflammation of the muzzle or nostrils

- Observe Lactating animals for obvious signs of mastitis
  - Inflammation of the udder and/or teats
  - Red or Blue in color

- Check for injuries
  - Lesions and/or contusions on the skin

- Check for lameness
  - Limping / Stiffness in legs and feet
  - Foot rot
  - Unwillingness to stand
  - Reluctant to move

- Check the eyes
  - Discharge / Conjunctivitis
  - Inflammation around the eyes
  - Cloudiness or whiteness

- Look for signs of edema
  - Legs
  - Lower jaw / Neck region

- Look for any signs of unthrifty appearance
  - Diarrhea and / or blood
  - Dehydration
  - Depressed / Weak
  - Rough hair

- Look for animals with lowered head and/or drooping ears
MANAGEMENT PRACTICES (*Health*), continued

**Body Condition Score:**

- Sheep and Goats should be in optimum condition for production (i.e. breeding, late pregnancy, and lactation)
- The purpose of the body condition score is to assess the fat and muscle around the vertebrae in the loin region of the sheep
- The score ranges from 1-5, with 1 being emaciated and 5 being obese
MANAGEMENT PRACTICES (Health), continued

Description of Body Condition Score (BCS):

1. **Emaciated (1.0)**
   - The spine is sharp and prominent. It is possible to feel upon palpation between each transverse process.

2. **Thin (2.0)**
   - The spine is sharp and prominent. The muscles are full, but have little fat cover. With little pressure, you can pass fingers under both ends of the transverse processes.

3. **Average (3.0)**
   - The spine is smooth and rounded. The muscles are full with moderate fat cover. You need to press hard to find the ends of the transverse processes.

4. **Fat (4.0)**
   - You need to apply pressure to detect the spine as a hard line. The muscles are full and the fat cover is thick. The transverse processes cannot be palpated.

5. **Obese (5.0)**
   - The spine cannot be detected. There is a fat “dimple” over the spine. The muscles are very full and dense with fat cover. The transverse processes cannot be palpated.
Animal Health

*Body Condition Score (BCS)*:

Palpate for accurate BCS (Body Condition Score)

1. **Spine:**
   - Feel for the sheep's lumbar spine (in the loin area).

2. **Transverse Process:**
   - Feel for the hip on the transverse process on either side.

3. **Muscle:**
   - Feel for the fullness of the fat cover and muscle.
Health
Anatomy and Weight:

- **Basic Sheep & Goat Anatomy:**

- **Estimating Weight:**
  - Measure the circumference (C)
    - With a measuring tape, measure around the sheep’s body just behind the front legs.
  - Measure Length (L)
    - Next, measure the length of the sheep’s body from the point of shoulder to the rump.
  - Calculate the weight:
    - Weight = \( \frac{C \times C \times L}{300} \)
~ STANDARD OPERATING PROCEDURE ~

Animal Health

Vital Signs:

Sheep -

  a. Temperature ~ 100.9 – 103° (degrees fahrenheit)
     - Mild Fever ~ 103.1 – 103.5°
     - Moderate Fever ~ 103.6 – 103.9°
     - High Fever ~ 104 - 105°
     - Very High Fever ~ 106° - ↑

  b. Heart Rate ~ 70 – 80 beats per minute

  c. Respiration ~ 12 – 20 breaths per minute

Goats –

  a. Temperature ~ 101.5 – 104° (degrees fahrenheit)
     - Mild Fever ~ 104.1 – 104.5°
     - Moderate Fever ~ 104.6 – 104.9°
     - High Fever ~ 105 – 105.5°
     - Very High Fever ~ 106° - ↑

  b. Heart Rate ~ 70 – 80 beats per minute

  c. Respiration ~ 12 – 20 breaths per minute
~ STANDARD OPERATING PROCEDURE ~

Animal Health

Taking a Temperature:

1. The sheep or goat’s head should be held so that the animal cannot move
   - Holding one side of the animal against a wall, fence or other stationary object is helpful in securing it further
2. Moisten the thermometer on the end that will be inserted into the anus
3. Either shake the thermometer (if it’s a mercury type) or turn it on
4. Insert the thermometer rectally - slowly
5. If there is a string and clip on the end of the thermometer, clip it to the animal’s wool or hair – otherwise hold onto it.
6. DO NOT let the animal go
7. Optimum time to keep thermometer in place is 2 – 3 minutes or until it beeps
8. Remove the thermometer and read the temperature
~ STANDARD OPERATING PROCEDURE ~

Animal Health

Administering a Subcutaneous (SQ, SC) Injection:
- Pinch a “tent” folding loose skin
  - Properly restrain the animal
  - Pinch the skin and pull up
  - Insert the needle under the skin, pull back the plunger (check for blood) and push the plunger all of the way to administer the medication
  - Release skin

Note: if there is blood in the syringe when you pull back on the plunger, withdraw the syringe back and find a different spot to inject medication

Administering a Intramuscular (I/M) Injection:
- Locate the appropriate injection site
  - Properly restrain the animal
  - Thrust the needle quickly into the muscle
  - To make sure that you have not entered a vein, pull the plunger back and look inside of the syringe to make sure that there is not any blood
  - Once the needle is in the muscle, administer the injection with the medication
  - If you have to administer medication that exceeds the proper amount for one site:
    - pull the needle out of the muscle without exiting the skin
    - redirect the needle and push it into another location in the muscle

Note: if there is blood in syringe, pull syringe out and use another site