

HOUSING & COW COMFORT (ANIMAL WELFARE) (Level 1)

Topic	Training & information Content
8.1	Farm structures & housing cows/calves/young stock
8.2	Construct small zero grazing unit (SNV handbook)
8.3	Prevention of heat stress in cow barns
8.4	Cow house ground floor plan design (SNV book)
8.5	Best management practice feed fences.....
8.6	Housing & cow comfort (animal welfare)
8.7	Housing & reduction greenhouse emissions
8.8	Use of sensors (activity meter) in dairy herds



1. You will learn about (learning objectives):

- Identify the needs of a cow?
- Identify challenges with housing in relation to cow comfort?



2. Introduction

- Animal welfare considers the wellbeing of farm animals which includes their comfort.
- Animals welfare can be the treatment and/or way of handling the animals (poor treatment may cause discomfort).
- Animal comfort can be monitored by observing animal behaviour and appearance.



3. Farmers and animal welfare

- Farmers have a responsibility towards their domesticated animal.
- Domesticated animals such as dairy cows mostly depend on the farmer for their nutritional needs (the farmer maintains the pastures, grows forages etc.)
- Farmers need to ensure to treat their animals with respect, responsibility and provide them with the necessary comfort to protect them from suffering.



4. Signs of discomfort

- When animals are not comfortable in their own environment they may show signs of discomfort such as:
 1. Cows are dirty.
 2. Lameness.
 3. Panting.
 4. Over crowding of cows.
 5. External injuries (lesion's/wounds/scars).



4.1 Signs of discomfort Cont'd...

6. Too many animals standing and/or cows lying for shorter period.

7. Lying behaviour of the cow, for example:

- Cow lying in walking area.
- Cow lying backwards in the cubicle.
- Part of the cows body hanging away from the cubicle.
- Cow haunching/bedding her back or bending her neck in a cubicle.

} sign of a small sized cubicle for individual cow



5. Animal housing in relation to cow (dis)comfort

- Animal housing needs to be constructed in such a way that the animal can express natural behaviour and provides a comfortable environment for the cow.
- This at times, may be challenging. For example the farmer has to make choices when constructing a cow house in relation to the cost of the building, the cost may at times compromise the best, most comfortable structure for the cow.
- During this process keep in mind whether the structures are temporary or permanent and consider possible expansion of the herd size in future.



6. Purpose of farm buildings

- ✓ Protect, provide shelter for animals against extreme climatic conditions (rainfall, sunshine, extreme heat, strong wind).
- ✓ Protect animals from predators.
- ✓ Protect animals from exposure to diseases.
- ✓ Provide caretakers with efficient and effective working conditions.



7. Needs of a cow

1. Air (ventilation).
2. Light.
3. Water.
4. Feed.
5. Space.
6. Rest.
7. Health



7.1: Needs of a cow: **Air 'ventilation'**

- Cows need free flow of fresh air and the cow barn should be able to allow this.
- The air should be free from poisonous gases.



7.2: Needs of a cow: **Light**

- The cow should be able to see easily for ease in movement.
- Light enables farmers to monitor activities and issues in the cow barn easily.
- Cows should have between 14-18 hours of daylight.



7.3 Needs of a cow: **Water**

- Cows have the freedom to access the right amount of fresh, clean water.
- Water should have no taste, smell or contamination.
- Water access influences feed intake, productivity and helps reduce heat stress in cows.



7.4 Needs of a cow: **Feed**

- Cows should be provided with good quality feed (nutritious & balanced) to keep animals healthy.
- Feeding should be frequent and continuous throughout the day.



7.5 Needs of a cow: Space

- Cows should be kept in an appropriate environment which can be indoors or outdoors.
- The place should have space for cows to express their natural behaviour, ability to stay comfortable without pain or injury.



7.6 Needs of a cow: **Rest**

- Dimensions of the cubicle should be as per animal size for cows to rest.
- Lying area should always be dry this helps keep cows clean.
- When cows are able to rest enough (1/3 of the day) it will contribute in a positive way to animal productivity.
- In resting area place material to offer comfort, this can either be saw dust, sand or cow mattress



7.7 Needs of a cow: Bedding material

- Soft bedding prevents injuries caused on the knee and hock when cows take a rest.
- Material used should be soft and deep enough to ensure that cows do not hurt themselves when resting.
- Farmer should ensure that construction of sleeping area is made in such a way that urine and dung drops away from sleeping area and is easy to clean.



7.7.1 Testing resting area comfort 'knee test'

- To test comfort in the cow barn resting area farmers can carry out this simple knee test.
- A farmer should drop to his/her knees in the sleeping area, if possible at least 10 minutes and if possible 3 times in different places.
- Soft bedding prevents injuries caused on the knee and hock when cows take a rest.
- How rough or soft measure and confirms comfort of resting area.



7.8 Needs of a cow: Health

- Animals health should be maintained and the animals should not be exposed to unhealthy situations.
- Animals that are sick need to be treated, if necessary by a veterinarian, to avoid unnecessary death.
- Farmers should aim to prevent animals from getting injured or sick which may cause discomfort.
- In case of sick cow farmers should provide treatment (provide feed, water, air and rest as much as cow wants).



7.8.1 Cleanliness in resting area

- Example of unhealthy situations is a sleeping area that is dump due to dung and urine build up that creates a risk for pneumonia.
- Maintain cleanliness of animals, housing (lying area), milking area and equipment to avoid spread of diseases such as: mastitis.
- Within the dairy unit ensure adequate biosecurity measures are put in place to protect against infectious disease spread.



7.8.2 Animal health in pastures

- In pastures external injuries are less observed however internal diseases (worm-related issues) and tick-born diseases may be more spread compared to cows in cowbarn.
- This should guide farmers to take up action to prevent this such as:
 - Separate cows in pastures from neighbouring cows to avoid spread of tick-born diseases.
 - Deworming to protect animals.



7.8.3 Injury in relation to animal housing

- Dimensions in the cow house should be such that cows cannot injure themselves.
- There should be enough space for cows to stand up in the cubicles.
- There should not be protruding wires, nails, woods etc.
- Cows should have enough room to flee (flight space).



8. Fear “Handling a cow”

- Any situation that may cause panic to cows should be avoided.
- Do not scream or hit cows, this only makes them panic which is not the intended result.
- A cow in fear is a potential danger to the cow itself, other cows and the handler.
- Cows should walk away at their own quiet pace.



9. Housing and animal mental state

- Cow barn design should facilitate easy access to both farmer and cows for daily routine practices to be carried out.
- It is important for farmers to manage and approach cows in a calm manner without unnecessary force or inflicting pain.
- The transition of animals from indoors to outdoors and vice versa should not be rough and hasty.

