

Feedlot Plan for Odor Control

Goals:

To reduce odor nuisance for workers, neighbors and local communities

Instructions: Check off the areas below that describe operational procedures in your feedlot and delete the procedures which you do not perform. Refer to your provincial environmental regulations and feedlot development permits. Edit as required and fill in the blanks and answer the short questions. Ensure supporting records are available.

Procedures

- o Personnel responsible for odor control: _____
- o Pen management
 - o Pens are sloped between ___ to ___% away from the feed apron to facilitate water shedding and pen drying
 - o There is no pen to pen drainage
 - o Bedding packs are maintained (frequency) _____
 - o Manure additives are added to bedding packs to reduce odor (describe)

 - o Manure is removed from pens _____ (frequency)
 - o Manure is removed by o feedlot personnel or o custom corral cleaner
 - o Records are stored _____
 - o Manure is harvested as necessary to maintain a pen surface that is hard, smooth and dry, with an intact gleyed layer and 2-5 cm compacted manure base
 - o Manure is cleaned from under the fences i.e. manure ridges are knocked down, spread out to dry and removed
 - o Pen surface is maintained by filling gouges or eroded areas with dirt; else pen surface is re-leveled to prevent ponding
 - o Spilled feed in feed mills, spilled during unloading of feed at mill or around feed bunks is cleaned up (frequency) _____
 - o Feed bunks are cleaned (frequency) _____
 - o Waterers and water distribution systems e.g. irrigation sprinklers in pens are maintained to prevent water overflow and leakage
 - o The amount of water used to control dust in pens by water truck or irrigation is balanced to reduce odor emissions (e.g. corral moisture is between 25-45 percent)
 - o Other (describe)

- o Short term manure storage (i.e. in a location other than in the feedlot pen)

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- There is no short-term manure storage
- There is no long-term manure storage other than for composting
- Short-term manure storage is less than 6 months in a consecutive 3 year period
- Short-term manure storage is more than 150 m from residences not owned by the feedlot operator
- Short-term manure stockpiles are minimized in size to increase exposure to oxygen and reduce odor
- Stockpiles are located upwind relative to prevailing winds, the center of the feedlot, and neighboring residences
- Manure additives are added to stockpiles to reduce odor (describe)

- Other (describe)

- Composting of manure and/or carcasses
 - Compost piles are located more than 150 m from residences not owned by the feedlot operator
 - Supplemental carbon, aeration, and moisture is provided as necessary during composting to encourage faster composting and reduce odors
 - Other (describe)

- Runoff channels and catch basins
 - Are regularly maintained to prevent clogging, backwater or poor drainage
 - Excess sludge is removed and used _____
 - Catch basins are pumped out soon after storm events
 - Additives are added to reduce odor (describe)

 - Other (describe)

- Run-on
 - Clean rainfall runoff is diverted around corrals and manure storages

- Feeding strategy
 - Rations are balanced for nitrogen and sulfur and matched to animal requirements to avoid excess nutrient excretion

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- Water is tested for sulfate _____ (frequency) and rations are adjusted accordingly
 - Water test results are stored _____
- Nutrient use is improved to reduce nutrient excretion. Feed efficiency is improved by
 - Addition of ionophores
 - Use of growth implants
 - Implementation of a preventive herd health program to reduce disease risks
 - Other (describe)

- Deodorizing products are added to the ration (e.g. zeolite, describe)

- Other (describe)

- Land Application of Manure
 - Manure is incorporated into arable land within 48 h or _____ (time following application)
 - Manure is incorporated by (describe) _____ e.g. harrowing, plowing . . .
 - Composted manure is used on land near residences
 - Manure is not applied on very hot summer days, statutory holidays, evenings, weekends, during strong winds or other time periods which may pose a nuisance to neighboring residences
 - Manure is applied when the wind is blowing away from neighboring residences
 - Neighbors are informed when manure application will occur
 - Manure spilled on roads during transport from the feedlot to land is cleaned up _____ (when)
 - Spilled manure on roads which has the potential to cause an adverse environmental impact is reported to _____ e.g. Alberta Environment
 - Other (describe)

- Barn management
 - Persons responsible are _____
 - Manure is removed from processing and treatment barns _____ (frequency)

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- Garbage is disposed of _____ (frequency)
- Other (describe)

- Livestock trucks
 - If trucks are empty of livestock when they arrive, they arrive in clean condition; else they are cleaned out at _____
 - If trucks arrive full of cattle, manure and bedding is emptied at a designated location at the feedlot (describe) _____ or elsewhere (describe)

 - If trucks arrive full of cattle, they do not empty manure and bedding at feedlot and they keep the tail gate of the empty liner closed during transport from the feedlot so that manure and bedding is not spilt on roads
 - Other (describe)

- Conifer and deciduous tree and bush shelterbelts are strategically located around the feedlot as windbreaks and shelterbelts to promote dispersal of odors and dust
- Carcasses are disposed according to provincial regulations
- Procedures for pen cleaning, manure storage and transportation and land application are communicated to custom corral cleaners and recorded on training records
- Other (describe)

- If the odor control plan is not followed or problems occur, _____ (who) is contacted, corrective actions are implemented, personnel responsible, including contracted labor, are retrained, plans are updated if necessary, and actions are recorded.

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