

Name of Practice: DAIRY LOAFING LOT MANAGEMENT SYSTEM
DCR Specifications for No. WP-4B

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's Dairy Loafing Lot Management System best management practice which are applicable to all contracts entered into with respect to that practice.

A. Purpose and Description

This practice is designed to prevent those areas exposed to heavy livestock traffic on dairy operations from experiencing excessive manure and soil losses due to the destruction of ground cover. Unimproved loafing lots that are used for dairy herd exercise and loafing are usually denuded of vegetation and harbor undesirable plants.

The intent of this practice is to prevent manure and sediment runoff from entering watercourses and sensitive karst areas and to capture a portion of the manure as a resource for other uses such as crop fertilizer. This is accomplished by dividing the area into lots. The dairy cattle are rotated from lot to lot as is necessary to maintain a vegetative cover. One lot is designated as a sacrifice area for use in periods of wet weather. If a sacrifice area is impractical due to soil and/or topographical conditions, a loose housing structure may be substituted for the sacrifice lot. The sacrifice lot or covered facility includes a feeding area as well as a bedded area with a manure storage area if needed. This practice is for dairy cattle only.

B. Policies and Specifications

1. A management plan and practice design are to be developed with consultation from a qualified consultant, VCE, NRCS and/or District.
2. A minimum of three grassed loafing paddocks are required. Each grassed loafing paddock will be sized based on soil type, topography and herd size, not to exceed a stocking rate of twenty cattle (1,000 lb. EAU) per acre, and be maintained in permanent forage.
3. All live streams must be fenced from livestock use in the loafing paddocks and sacrifice area. A minimum 35 foot buffer must be maintained.
4. Concrete walkway(s) with curbing or other hardened walkway(s) may be installed to facilitate herd movement from the barn to the loafing lots. Crusher run is not an acceptable surface material. Slope shall be no greater than 8%. See VCE publication on installing dairy lanes.
5. A sacrifice area is required unless adequate housing facilities are available (e.g. free stall barns):
 - i. Sacrifice area (if needed) must be scraped periodically.
 - ii. The sacrifice area should be sized between 600 and 650 square feet per animal (1,000 lb. equivalent). It should be sloped between 1% minimum to 8% maximum.

- iii. Divert surface water away from the sacrifice area.
 - iv. Provide filter strip per NRCS Standard 393 to filter runoff from the sacrifice area.
6. In order for the forage to take up nutrients such as nitrogen, it must be managed for growth and harvested for hay when possible. Dry cows or other grazers can be used to remove forage growth.
7. Critical eroding and sensitive areas will be fenced out and permanent cover established.
8. If a sacrifice lot is impractical due soil and/or topographical conditions, a loose housing structure may be substituted for the sacrifice lot:
 - i. All other potential more cost-effective approaches to reducing the water quality impact from the unimproved loafing lot must have been explored and rejected due to economic inefficiency or lack of space for relocation before cost-share or tax credit can be approved for constructing a loose housing structure.
 - ii. Cost-share funding for a loose housing structure will only be authorized if a *Risk Assessment for Water Impairment from Concentrated/Feeding/Loafing Livestock Areas* has been completed and a score of 120 or greater has been obtained.
 - iii. General Design guidelines for Loose Housing Structures
 - a) Bedded pack space requirements:
 - 60 sq. ft. per heifer minimum
 - 100 sq. ft. per lactating cow minimum
 - 120 sq. ft. per dry cow
 - b) If the loose housing structure is to have a roof, wind and snow loads shall be as specified in NRCS 367 Roofs and Covers or ASAE EP288.5 Agricultural Building Snow and Wind Loads. A Professional Engineer shall certify roof designs. If the facility is to serve as part of a foundation or support for a building, the total load shall be considered in the structural design.
9. A Nutrient Management Plan developed in accordance with requirements for Nutrient Management Plan content and procedures, as stipulated in the Virginia Nutrient Management Training and Certification Regulations, is required for either land application or a planned waste management system for any other uses of manure produced. The Nutrient Management Plan should address all the acreage that the participant farms onto which manure from the loafing lot system will be applied. The Nutrient Management Plan should be implemented and maintained for the life of the practice. Storage capacity of animal waste facilities should be coordinated with the Nutrient Management Plan so that adequate storage capacity is installed for the specific cropping system.

10. If a loose housing structure is included as part of the practice, manure storage associated with the manure collection area of the feed lane should be considered as an eligible component of the practice.
 - i. The applicant is required to sign a Dry Manure Storage Structure Agreement (DCR199-86, Revised 03/18) or similar District agreement which addresses the minimum criteria prior to receiving any funds.
 - ii. When a feed lane is utilized, manure storage shall be sized based upon livestock time at feed bunks, up to six (6) months storage of existing need.
11. Cost-share is authorized for watering facilities in the loafing lots.
12. In order to be eligible for cost-share or tax credit, producers must be fully implementing a current Nutrient Management Plan (NMP) on all agricultural production acreage contained within the field upon which this practice will be implemented (including all associated production acreage). The NMP must comply with all requirements set forth in the Nutrient Management Training and Certification Regulations (4VAC50-85 et seq.) and the Virginia Nutrient Management Standards and Criteria (revised July 2014); must be prepared and certified by a Virginia certified Nutrient Management Planner; and must be on file with the local District before any cost-share payment is made to the participant. Plans shall also contain any specific production management criteria designated in the BMP practice (4VACV50-85-130G).
13. This practice is subject to NRCS Standards 313 Waste Storage Facility, 342 Critical Area Planting, 362 Diversion, 356 Dike, 367 Roofs and Covers, 382 Fencing, 391 Riparian Forest Buffer, 393 Filter Strip, 412 Grassed Waterway, 512 Pasture and Hay Planting, 516 Livestock Pipeline, 533 Pumping Plant, 558 Roof Runoff Structure, 561 Heavy Use Area Protection, 574 Spring Development, 575 Trails and Walkways, 578 Stream Crossing, 614 Watering Facility, 620 Underground Outlet, 632 Solid Liquid Separation Facility, 633 Waste Recycling, 634 Waste Transfer, and 642 Water Well.
14. All practice components implemented must be maintained for a minimum of 15 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of certification of completion. By accepting either a cost-share payment or a state tax credit for this practice, the participant agrees to maintain all practice components for the specified lifespan. This practice is subject to spot check by the District throughout the lifespan of the practice and failure to maintain the practice may result in reimbursement of cost-share and/or tax credits.

C. Rate(s)

1. The state cost-share payment, alone or if combined with any other cost-share payment, will not exceed 75% of the total eligible cost.
2. As set forth by Virginia Code, the Commonwealth currently provides a tax credit for implementation of certain agricultural best management practices as discussed in the Tax Credit Guidelines of the VACS Manual.

D. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and District staff in consultation, where appropriate and based on the controlling standard, with DCR, Virginia Certified Nutrient Management Planner(s), NRCS, DOF, and VCE. Individuals certifying technical need and technical practice installation shall have appropriate certifications as identified above and/or Engineering Job Approval Authority (EJAA) for the designed and installed component(s). All practices are subject to spot check procedures and any other quality control measures.

Revised April 2022