Do You Have Problems With:

- Cows knee deep in mud
- Muddy areas around watering troughs or feed bunks
- Muddy areas around buildings from equipment traffic
- Muddy and eroded walkways used by livestock

Heavy Use Area Protection Can Help by

- Providing safe and stable access to frequently used areas
- Keeping your animals cleaner and healthier
- Improving safety on your farm
- Improving efficiency on your farm

Purposes and Benefits of Heavy Use Area Protection:

- Improves the appearance of your farm
- Reduces accidents
- Reduces odors
- Reduces flies and mosquitoes
- Reduces equipment maintenance

Cows in mud and manure

Gravel protection around a watering facility

Costs and Benefits

The costs for Heavy Use Area Protection will be different depending on what you use to build it and how large an area needs treatment Some of the costs to think about are:

- Removing mud
- Finding and Moving Fill dirt
- Buying Fabric
- Buying Stone or chips

Heavy Use Area Protection

How to Install the Practice:

A heavy use area is protected by first removing all the mud and muck then replacing it with something that will last for a long time such as gravel or clam shells. A layer of filter fabric placed on the ground before you place the gravel or shells will help to keep it clean. (Filter fabric is a light weight cloth made out of plastic that has very small openings which allows water, but not soil to pass through it.)

You can sometimes correct problems by changing the way you manage your operation. For example you can change the travel lanes used by your tractor and other equipment when you see mud beginning to appear, or you can block animal walkways so that they will walk in other areas. You can eliminate a muddy area around watering facilities in your pasture by using a portable watering trough and moving it to a new location often. You can also eliminate muddy areas by fencing the animals out temporarily while the area is re-graded, seeded and mulched, and allowed to grow. Later you can allow the animals back to this area, being careful not to allow them to stay too long or in wet weather.

Mud is often associated with wetlands. Work with the NRCS office to make sure wetland rules are not violated when you clean up a muddy mess.

Water trough with heavy use area protection

Other Benefits:

- Reduced erosion
- Improved water quality
- Less time spent pulling stuck animals and equipment out of the mud

A protected livestock path

Protection using Pavement

If you have an area on your farm where heavy trucks make frequent visits, or areas that need to be scraped to remove manure or other materials, paving may be the best solution. Materials such as concrete, asphalt, soil cement, fly ash and paving blocks can be used for paving.

To install paving you need to get rid of the mud and add some gravel to make a base.

If you use concrete, you will need to have forms constructed, woven wire steel reinforcement and expansion joints. Make the edges where heavy trucks will enter thicker to prevent cracks.

Asphalt is not as durable as concrete, but its cheaper and faster to install. An asphalt contractor will be needed to install the asphalt.

Other Materials:

Soil cement and fly ash can both be used to make pavements that are cheaper to build although they are not as durable as concrete or asphalt. Soil cement is made by mixing Portland cement with soil and compacting. It will harden to make a fairly durable surface.

If your farm is near a coal fired power plant, fly ash may be available at a low cost. Fly ash can be used to form a paved surface when properly prepared. Typically fly ash is mixed with sand and water in a cement mixer and poured into forms and allowed to harden, which may take a few weeks. Fly ash pavement is more likely to crack than concrete, and is more easily damaged by scraping.

Scraping manure from a paved area

A portable watering tank

How to Maintain the Practice:

Heavy use areas should be checked regularly to repair any problems that occur.

- Areas using vegetation for protection should be mowed periodically
- Fertilize and lime yearly
- Move portable water troughs often
- Move fences when mud appears
- Add gravel or wood chips when needed
- Check pavement for cracks and repair them
- Fill pot holes before they get big

Help is Available

NRCS Natural Resources Conservation Service

SMALL SCALE SOLUTIONS FOR YOUR FARM

Technical Help Is Available

Your local Natural Resources Conservation Service (NRCS) office has experienced conservationists that can assist you with a heavy use area protection. They can also help you develop a Conservation Plan to solve other problems you have identified on your farm.

There is no charge for our assistance. Simply call your local office at the number listed below to set up an appointment and we will come to your farm.

You may also be eligible to receive financial assistance, through a state or federal program. Your NRCS office will explain any programs that are available so you can make the best decision for your operation. All NRCS programs and services are voluntary.

Helping People Help the Land

For More Information Contact the:

Natural Resources Conservation Service

60 Quaker Lane, Suite 46
Warwick, RI 02886
(401) 828-1300
Web Address: www.ri.nrcs.usda.gov
E-mail Address: NRCSInfo@ri.usda.gov

NRCS accepts applications on a continuous basis throughout the year.

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