

HEAVY USE AREAS FOR LIVESTOCK

Why Manage Mud?

Muddy conditions can make chores more difficult and expose livestock to animal health risks that often bring higher feed and veterinarian bills. Mud is also damaging to the environment. Runoff of sediment contaminates surface water and is detrimental to water quality, fish and aquatic wildlife.



Mud harbors bacteria, fungal organisms and other pathogens that cause livestock diseases such as abscesses, scratches, rain scald or thrush.

Tips

Create A Confinement Area

A **confinement area** is a gravel, concrete or hogfuel area that is used to contain animals and keep them off pasture from late fall through early spring (October through March). During the rainy months, soils become soggy and easily compacted by the weight of livestock. This causes plant roots to suffocate and reduces the soil's capacity for holding water. Keeping livestock off pastures during the wet winter months will keep grass healthy and prevent mud.



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A **sacrifice area** is a small enclosure, such as a corral, run or pen, which is meant to be your animal's outdoor living quarters. It is called a sacrifice area because you are giving up the use of that small portion of land (previously a grazing area) for the benefit of the rest of your pastures. Animals should be confined to the sacrifice area(s) during the rainy season and when your pastures become overgrazed. It is also useful for separating or confining animals to control the amount of grass consumed on a daily basis.

Keeping animals off saturated and rain soaked pastures is critical during winter months in the Pacific Northwest as pastures cannot survive continuous grazing and compaction. Horses can be particularly hard on pastures because the pounding of their hooves compacts the soil and suffocates plant roots. In addition, their hooves act like plungers by loosening fine particles of topsoil which are then washed away by the rain. Even cattle, sheep and goats can compact the soil. Pigs can do significant damage to grass and other plants and trees just by the nature of the way they forage.



Choose the Right Location

Careful consideration should be given to the location of the confinement area. It should be located on higher ground and away from wetlands or any surface water flows. For chore efficiency, it should be convenient to your barn, manure storage, and feeding area to make it easy for you to care for your animals and to maintain your sacrifice area. You may want to locate your sacrifice area so grassy strips, lawn, pasture or other vegetative buffers surround it. The vegetation in these buffer areas will act as a natural filtration system to reduce sediment and contaminants washed from the sacrifice area. The size of a sacrifice area can vary from that of a generous box stall, such as 20' x 20', to that of a long, narrow enclosure where animals can move about to get some exercise. The size and shape of the sacrifice area will depend on the types of animals needing to be confined and their temperament. Also the amount of land you have available and your soil type(s) may have a bearing on the size of your sacrifice area.



Fencing

Remember, the smaller the enclosure the greater the chances are of animals getting hurt or testing/damaging the fencing of the confinement area. Be sure to choose the very safest fencing for your sacrifice area. Whatever type of fencing you choose, you want to reinforce it with some type of hot wire. While horses are hard on fences and will test most types, they tend to have more respect for electric fencing. Gates on fences should be adequately sized for the types of equipment that need to access the area, such as trucks to deliver footing or feed and tractors for maintaining the area. Be sure that corners are safe and there are no protruding objects (like bolt ends, nails, boards, or the tops of metal t-posts), which could hurt animals. Also watch out for the corners of roofs and the bottom edges of metal buildings. There should be no wires or hanging cords and absolutely no junk, garbage or machinery in the sacrifice area.



Add Footing Materials

Footing is an important consideration for sacrifice areas. Hogfuel or wood chips can provide an excellent surface and are good environmental controls. Through the composting process, this footing can contribute to the breakdown of the nitrogen in urine and manure. Gravel or sand work well in some situations. It's recommended to avoid feeding animals on these surfaces as ingesting sand or mud with hay may cause digestive problems, resulting in expensive vet bills. Trying a combination of footing types may also work well, such as using gravel in high traffic areas and hogfuel in the rest. Hogfuel on top of sand or pea gravel may also work well.

Both the hogfuel and the roof runoff system reduce mud. Mud management is an important aspect for the health of your livestock and the health of the environment as well as for your convenience. Animals standing in mud for long periods of time can develop fungal and bacterial problems. Footing such as gravel (3/8" or 5/8"), hogfuel and sand can be used to help keep confinement areas dry. Different site preparations and footing materials are appropriate for different soil and livestock types. For assistance in choosing the best option for your situation, contact SCD staff.

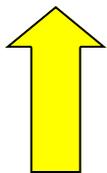
This sacrifice area for horses has a hogfuel footing



This sacrifice area for horses has a gravel footing



Hogfuel is organic material that will break down over time. Every 2-3 years it will need to be removed and replaced with new material.



Keep It Clean

Use of a sacrifice area confines manure and urine to a smaller area where you can manage it better. Picking up the manure everyday to every couple of days will help reduce your animals' parasite load, as well as reducing habitat for flies. This will also help prevent runoff from becoming contaminated with manure. Manure can then be composted and applied to your pastures in the dry months. Composting of manure is recommended to prevent parasite reinfestation.

Cleaning manure in the confinement areas every one to three days is one of the simplest and most important things you can do to prevent mud. Most livestock manure contains 70-80 percent moisture. If manure is left to be trampled on by livestock, it will quickly turn into mud. Cleaning manure from confinement areas is also important for preventing parasite reinfestation.

Reap the Rewards

Once your sacrifice area is ready, the way to integrate it into your pasture management program is to take your animals off the pasture when the majority of the grass is grazed down to about 3" or when pastures are saturated and rain soaked. By utilizing the sacrifice area, you will be creating a healthier pasture. Healthier pastures mean more productivity, which means less money spent on supplement feed. This has an added benefit of making your animals happier and creating a prettier place for you and your neighbors to enjoy as well as a healthier environment.