

Now's the Time To Win the Mud Wars of Springtime

by Jim Cotton

It's been a wet early fall in some parts, and while those in the upper Great Plains might look longingly at verdant pastures and lush roadsides, those enjoying such abundant rainfall are reminded of spring and the muddy lots so aggravating that time of year.

If such was your lot last March, it might behoove you to stiffen your resolve and remember that resolution you made then to "get out of this mess."

Building mounds now will help fulfill your vow to never let the cattle stand in belly-deep mud again. Louis Lubinus, extension engineer at South Dakota State University suggests many of our lots are too flat. A slope is essential for not only run-off but to allow the lot surface to dry more quickly by wind and sunshine. He recommends a four to six percent slope. Avoid eight percent or steeper inclines as such will generally erode. Two percent slopes aren't effective.

"If your existing feedlot doesn't have good drainage, consider doing some earthwork including grading and building mounds when the ground is dry," he says, adding better cattle performance is the inevitable pay-off.

Lubinus observes much of the mud in problem feedlots could be minimized if "foreign" water from shelterbelts, fields, farmsteads, and buildings were diverted around or away from the feedlot. Diversion terraces or waterways can keep outside runoff from washing across feedlot areas, he notes. Often, feedlots are located by happenstance or accident, a decision lost over time. As a consequence, what seemed like a good spot decades ago is no longer appropriate today. Aside from re-locating the feeding facility, improvements must be made in the drainage pattern and in the structure of the lot itself.

Lubinus suggests investing in concrete aprons in heavy traffic areas along feedbunks and waterers can prevent deep mudholes from forming.

Such aprons should be at least ten feet wide (12 feet is preferred) with slopes of one-half inch to three-fourths inch per foot and slanted away from the bunks or water trough.

Also, try to arrange or modify the feedlot so cattle can move from paved aprons and past the waterer to their resting area. If possible, place feedbunks on a graded ridge, preferably the highest elevation in the lot. A two-foot ridge height can help provide good slopes on both sides of the bunk.

Expect lot maintenance to be a continual job.

"There's always some erosion and pothole formation where water accumulates," Lubinus says. "This will deteriorate the lot as cattle traffic continues to break down the surface."

When building mounds, try to avoid using soil contaminated with manure. Clay loam and silt soils provide good stability and have reasonably long life, Lubinus points out. Construct your mounds with a height of five to eight feet, trying to achieve a five to one slope, or one foot of vertical rise to each five feet of horizontal run.

Making the top round and smooth is worth the effort to keep potholes from forming. The top width should

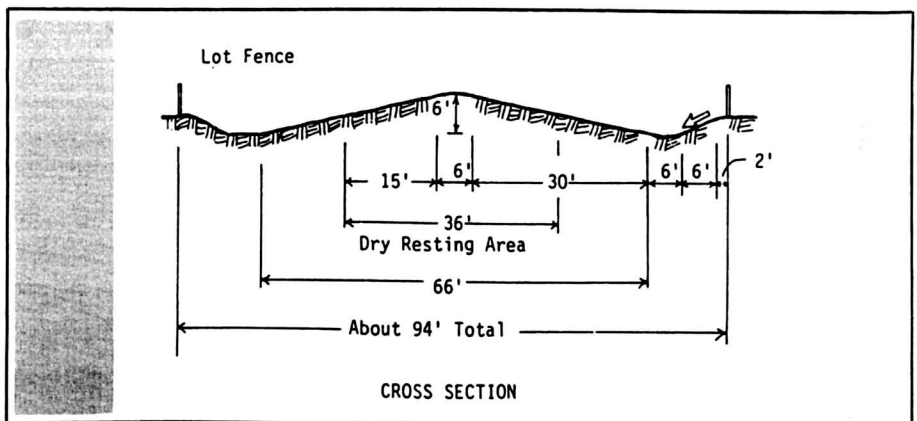
be no more than six feet wide for the same reason—avoiding those flat surfaces sure to catch and pond water. Note the illustration extends out to a 66-foot slope incorporating a six to one dry resting area and an eleven to one total mound area.

Each animal should have at least 25 square feet of mound area. If you're going the extra effort of bisecting the mound with a windbreak, then figure 50 square feet of mound—25 square feet on a side so livestock can move with the sun or wind.

Windbreak fences should be eight to ten feet high and slotted so they're 20 percent open. Building with 1x6's spaced one inch apart would approximate a 20 percent opening.

Location of the mound is critical so as many advantages can be built in as possible. Consider wind direction, certainly, and other factors such as shelterbelts and shade. Most importantly, locate your mounds with the long axis parallel with the drainage direction so they'll not intercept natural runoff drainage. Stabilize the mound's surface by discing in some barn or agricultural lime. Keep up the periodic maintenance.

"It will improve usefulness and increase life," Lubinus says of good mound-building.



From the Midwest Plan Service booklet, "Small Farms—Livestock Buildings and Equipment, NRAES-6MWPS-27, this schematic shows an ideal relationship of height and slope suitable for most feeding lots.