

Erosion and Sediment Control Guidelines

Description

Water ponding is a technique used for reclaiming scalded and unproductive country. U-Shaped earth banks are constructed to pond water, improving soil conditions and enabling vegetation to establish.

Application and Function

The banks of water ponds are designed to catch surface runoff and create conditions ideal for the re-establishment of vegetation on scalded areas. Water ponding can also be used for pasture improvement.

Limitations

Ponding banks, as they are often called, are designed to be used on fairly gentle slopes. They should not be used on steep slopes because they are not designed to catch fast flowing surface runoff or intercept watercourses. Ponding banks are only designed to pond 10 centimetres of water.

Advantages

Due to their size, ponding banks are relatively easy to construct using almost any type of earthmoving machinery (e.g. bulldozer, grader, tractor with blade, bobcat, etc).

Alternatives

Scalded and unproductive country can also be reclaimed using various other techniques, including ploughing, pitting and ripping. These techniques improve water infiltration and provide conditions for vegetation to establish in otherwise hard setting soils.

Construction

There are some important points to remember when construction ponding banks:

•All banks need to be surveyed and banks should be constructed on the survey lines.

•Construct banks with a single crest (double crested banks will catch water and increase the chance of tunnel erosion in the banks).

Avoid sharp corners.

•Banks should only be constructed when soil is dry.

•Maintain an even height and width.

•The survey lines need to be ripped for the complete width of the bank's base as this helps to marry (bind) the soils together so the banks cannot be undermined.

•Maximum bank length is 220-240m. Longer banks are not recommended as breaching of the banks will occur.

•Ponding banks are not designed to be dams and they should never be constructed across major drainage lines.

Contact details

For further information contact the DLRM Land Management Unit in your region. Additional Technical Notes and Erosion and Sediment Control Guidelines are available on the website: http://www.lrm.nt.gov.au/soil/management

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