

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD**

FENCE

(Feet)

CODE 382

DEFINITION

A constructed barrier to animals or people.

PURPOSE

This practice is applied to facilitate the application of conservation practices by providing a means to control movement of animals and people.

CONDITIONS WHERE PRACTICE APPLIES

This practice may be applied on any area where management of animal or people movement is needed. Fences are not needed where natural barriers will serve the purpose.

CRITERIA

General Criteria Applicable to All Purposes

Fencing materials, type and design of fence installed shall be of a high quality and durability. The type and design of fence installed will meet the management objectives and topographic challenges of the site.

Fences shall be positioned to facilitate management requirements. The fence design and installation shall follow all federal, State and local laws and regulations.

Height, size, spacing, and type of materials used will provide the desired control and management of animal and people of concern. [Follow Vermont Construction Spec 50 for proper installation.](#)

[Farm border fences must be constructed of at least two wires, with the total height to the top wire not less than 36 inches.](#)

[Permanent roadside fences should be constructed at least 15 feet from the road edge where snow plows or snow banks will compromise the effective life of the fence. Further distances should be considered for highways where snowplows traveling at high speed will throw snow much further.](#)

[Temporary or flexnet type fence may be installed with the total height of the top wire not less than 36 inches where:](#)

- [1\) a roadside fence will need to be removed due to winter conditions,](#)
- [2\) annual flooding and ice flows will potentially destroy the fence,](#)
- [3\) the livestock are trained to temporary fence, and](#)
- [4\) all safety issues are considered by the farmer.](#)

[Temporary fence and polywire is not appropriate along busy or dangerous roadways.](#)

[One and two wire electric fences may be used for within-farm uses such as streamside fencing and subdivided pastures. Two or more electric wires may be used for within-farm uses depending on class of livestock for protecting restricted use areas \(woodland, cropland, ponds, and streams\) and for human and predator control.](#)

[Cross fences can be constructed of one or more wires, with the fence height being 2/3 of the shoulder height of the grazing animal.](#)

[Line post installation requiring soil excavation by digging or augering may require an on-site archeological assessment. Where line posts can be driven, except for corner and gate posts, an on-site visit is not required but the practice](#)

Conservation practice standards are reviewed periodically, and updated if needed. To obtain the current version of this standard, contact the Natural Resources Conservation Service [State Office](#) or visit the [electronic Field Office Technical Guide](#).

must still be submitted for a cultural resources review.

CONSIDERATIONS

The fence design and location should consider: topography, soil properties, safety and management of livestock, wildlife movement, location and adequacy of water facilities, development of potential grazing systems, human access, landscape aesthetics, erosion problems, moisture conditions, flooding potential, stream crossings, and durability of materials.

Where applicable, cleared rights-of-way may be established which would facilitate fence construction and maintenance

Fences across gullies, canyons, or streams may require special bracing, designs or approaches.

Fence design and location should consider ease of access for construction, repair and maintenance.

Training areas should be used to condition livestock to electric fences. Select a well-fenced area and construct electric fence within it. Allow animals to come in contact with the electric fence. Generally an animal will be fully trained in 12 to 48 hours. When introducing sheep and goats make sure they are clean shorn prior to introduction to the well-charged fence.

When live trees are used as posts, avoid trees that are dead or dying. Also, avoid trees with the potential to be valuable for timber production (e.g. straight stems of white ash, oak, maple, etc.).

Consider soil erosion potential when planning and constructing a fence on steep slopes.

Consider raising lower wire of fences located in the floodplain.

Wire should be attached on the side of the post receiving the most animal pressure.

Where moose activity commonly causes damage to fencing, consider high tensile fence with high tensile wire, in combination with a high charge energizer.

PLANS AND SPECIFICATIONS

Plans and specifications are to be prepared for specific sites based on this standard.

Plans and specifications for installing fences shall be in keeping with this standard and shall describe the requirements for applying the practice to achieve all of its intended purposes.

OPERATION AND MAINTENANCE

Regular inspection of fences should be part of an ongoing maintenance program. Inspection of fences after storm events is necessary to insure the continued proper function of the fence. Maintenance and repairs will be performed in a timely manner as needed.

Retain and properly discard all broken fencing material and hardware. All necessary precautions should be taken to ensure the safety of construction and maintenance crews.

Electric fences will be regularly checked to determine the voltage on the fence. If voltage is not sufficient, determine the cause and correct it. During dry weather, ground rods may need water applied to soil around them. Clear brush from fence lines to reduce voltage loss.

Construction and maintenance safety is a primary concern. Wire that is overstretched may break and recoil. Eye and hand protection should be worn.

REFERENCES

Vermont Livestock Laws, Title 24, Part2, Chapter 109, *Fences and Fence Viewers*, <http://www.leg.state.vt.us/statutes/sections.cfm?Title=24&Chapter=109>

Vermont Regulations for Control of Pesticides, <http://www.state.vt.us/agric/vermont%20regulations%20for%20control%20of%20pesticides.htm>

Fences, USDA Forest Service Technology and Development Program, USDI Bureau of Land Management.

Missouri Agronomy Technical Note MO-19 Installation of Electrified Hi-Tensile Fence Systems by James R. Gerrish.

Specifications for Farm Fence Construction,
ASAE Standard EP250.2.

<http://www.wa.nrcs.gov/Eng/DesignAids/Drawings/Standard/LivestockFac.htm>

<http://www.attra.org/attra-pub/paddock.html>

High-Tensile Wire Fencing, NRAES-11.

Revised 1987, Cooperative Extension
Northeast Regional Agricultural Engineering
Services.

Gallagher Power Fence Manual. 11th Edition

<http://gallagher.co.nz/aus/pf.manual.aspx>

Material Specification 585, NRCS National
Engineering Handbook, Part 642

<http://www.epa.gov/oppad001/reregistration/cca/acq.htm> Info on Pressure Treated wood.

New VT deer fencing rules -

<http://www.vermontagriculture.com/animal.htm#rules>