Excerpted from <u>Rural Landscape Management Program: Environmental Impact Statement,</u> Cuyahoga Valley National Park (September, 2003), Appendix G, Section F

Preferred Modern Types of Fencing for CVNP

[The preferred landscape management alternative in this EIS] assumes that among the great strengths which farmer-lessees bring to CVNP's effort to preserve and protect its rural landscape are creativity, ingenuity, technical knowledge, and practical farming experience. They will be expected to focus their talents and skills on numerous issues, including fencing for their own farm enterprises. Farmers are best suited to make most of the detailed decisions about fence types, materials, etc. The guidance that follows is intended to provide a general framework of understandings, assumptions, and expectations which park managers and farmers can work within – together, effectively, and efficiently.

It is not the intent of the NPS to be unnecessarily restrictive or prescriptive relative to farm fencing. CVNP staff will work closely with farm lessees to solve particular fencing needs on the farmstead and in farm fields. It is a requirement that farm lessees receive NPS approval for fence characteristics (i.e., types, styles, materials, applications, and locations) prior to their installation. Additional compliance work may also need to be completed.

A brief discussion of the factors new farmers will need to consider as they plan new fencing for the adaptive reuse of farmsteads follows. With such factors in mind, the solutions preferred by the NPS for various fencing problems are presented.

Fencing around farmhouses will be treated differently than fencing around barns, outbuildings, and fields. Fencing around farmhouses was historically more decorative than functional in nature and it is expected that this will be the same for rehabilitated farmsteads. As it is more decorative in nature, fencing around farmhouses is not considered to be essential to the profitability or efficiency of rehabilitated farms and it is not expected that a large amount of fencing in these locations will occur. Thus, the following discussions do not apply to farmhouses and the NPS will look at these limited fencing proposals on a case by case basis.

In the field and around barns and outbuildings the situation differs. Fencing in these areas will be critical to the profitability and efficiency of rehabilitated farms. Thus, a large amount of fencing in these locations is expected. However, what is required to keep one animal in or out may not do for another. Fences that will ordinarily stop most dairy cattle, frequently are not equal to the task of stopping beef breeds. Cattle fences often will not contain sheep or goats – although good sheep and goat fences normally will hold cattle. Fences that will keep coyotes and dogs out will usually keep sheep and goats in, but the reverse is often not true. Fences that keep ewes in, will not necessarily keep lambs in. Some breeds of each species are taller, stronger, and flightier than other breeds – and their fencing must respond to their relative strength and agility. Hungry animals put more pressure on a fence than well-fed animals; males more pressure than females. Young livestock and their mothers are always desperate to breach fences at weaning time – fences that normally work, won't work at this time. In short, fences must be conceived and built for their most difficult task. Modern CVNP farm fences will deal with all of these varied issues and factors.

While *livestock* fencing in CVNP will generally be concerned with keeping animals *in*, *predator* fencing will be concerned with keeping wildlife *out* of both a farmers' livestock and crops.

Pastures and field crops are exclusion areas for some wildlife, some or most of the time. Fences will need to keep coyotes, foxes, raccoons, and skunks out of farmers' sheep, goats and poultry. Deer, woodchucks, raccoons, rabbits, and birds must be kept out of crops – at least at certain times. In general, physical exclusion with fencing or netting is more effective and less intrusive than any and all kinds of "scare" devices such as air cannons, tape recordings, reflective tape, or balloons. Fencing – supplemented whenever necessary by guardian animals – is the preferred method of managing wildlife predation on sustainable farms.

Table A2 shows in a simple way the most common wildlife species likely to damage CVNP field crops. It identifies the specific crops threatened by each species, and indicates the basic fencing required to significantly reduce their damage (adapted from Grubinger 1999).

Without getting mired in the myriad details encountered in a modern catalog of fencing materials, preferred general fence types can be described. First, the desire to preserve and protect the general character, scale, and look of the Valley's prior farm landscapes means that, where practical, *permanent fences* should be established around the boundaries of most major fields. These new permanent fences should be functional and modern in type, yet historically compatible to the setting. It is suggested that the fences be built with wooden posts and woven or smooth-wire or a combination thereof with the intention of looking *much* like traditional wire fences built in the Cuyahoga Valley area for well over a century. While barbed-wire was one of the two most commonly built wire fences prior to World War II, its use will be restricted to near-ground-level installations intended to deter digging predators. Smooth, high-tensile, electrified wire is today generally regarded as superior to barbed-wire for controlling livestock without injury and is far superior for discouraging most wildlife predators.

Modern, small-scale farms, which follow sustainable agriculture practices, commonly resort to very intensive management of small areas for both livestock and crops. Hence, they require frequent (often daily) movement of grazing animals, or they need to protect vegetable or flower plots against predators for just a few days or weeks at a time. This is typically achieved with moveable *temporary fencing* made of (relatively) lightweight materials such as plastic or steel. The types and styles of such fencing commercially available are extremely numerous and diverse, and many are acceptable for managing temporary interior subdivisions of farm fields.

Table A2. Controlling Wildlife Crop Damage with Exclusion Fencing

Wildlife	**Crops Typically Damaged**	**Basic Exclusion Fencing**
Deer	Lettuce and other greens, crucifers, legumes, squash, pumpkins, sweet corn, sunflowers, fruit trees	High tensile electric fencing 4′ – 6′; slanted high tensile fence is an effective alternative
Woodchuck	Seedlings, lettuce and other greens, crucifers, legumes, squash and pumpkins, fruits	3′ hardware-cloth fence (plus 1′ buried); hot wire supplements
Raccoons	Mature sweet corn and melons	At least 2 hot wires at 6″ and 12″
Rabbits	Seedlings, lettuce and other greens, carrots, parsnips, beets	2′ woven-wire, or chicken wire is effective

Birds	Corn seedlings and mature corn, tomatoes, melons, and fruits	While netting is relatively expensive, it is far more effective than any form of scare device