

PRINCE WILLIAM  
Soil and Water  
Conservation  
DISTRICT

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Notes from the field  
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**Spring/Summer 2009**

The spring of 2009 was WET! The rainfall was fantastic for the renovation of our southern pasture and streamside buffer.



Above, streamside buffer just after fencing the horses away. To the right, the buffer after 5 weeks of rest and growth.



But it caused some problems in our northern sacrifice area paddock. The rainwater was washing across the paddock and in heavy storms running into one of the stalls. It wasn't happening every time it rained but with so many very heavy rainstorms it was happening often enough to cause concern for us and frustration for Edith Kennedy the owner of Oakwood. Water runs downhill. Even though we had eliminated the mud through the installation of our bluestone paddocks we had not graded the paddocks well enough to direct the stormwater flow.

In the photo you'll see the "before" conditions. Notice there is a lip in front of the stall that is preventing some of the muddy water from getting into the barn. When we removed the muck and replaced it with bluestone we made the paddock level with the stall opening – thinking that it would be easier to get the wheelbarrow over the threshold. Well, that was true, but the level surface was also allowing rainwater to enter the stall more easily.



We removed more than a foot of organic muck and replaced it with bluestone gravel dust.



"Before" the bluestone paddock was installed water pooled in front of the stall.



Bluestone dust was placed on top of the filter fabric, level with the door to the stall.



We used a felt-like material called filter fabric in front of the barn that will allow rainwater to soak through but will keep the soil from rising up and mixing with the bluestone.



...rainwater traveled into the stall...



...and pooled in front of the barn.

When the spring rains arrived, water pooled in a low spot in front of the barn or traveled into the stall.

We worked with Barry Lubar, Construction Coordinator, with one of our partners [Angler Environmental](#) to develop a solution. We discussed installing a drain grate but decided it could be a hazard to the horses in icy weather conditions or if the horses had shoes on. We also knew it would require regular maintenance to remove gravel that would wash in.

Instead we opted to try a simple solution of creating a couple of drainage swales across the paddock. The swales would direct the rainwater to the adjacent hayfield and reduce the volume and velocity of the rainwater moving toward the barn and stall door.

Three months later this solution is working fairly well except in very heavy storms. We will probably make the swale a little deeper during the next construction phase of the project.



This was one type of drain we considered installing



This is one of two swales installed to re-direct the rainwater.

On July 8<sup>th</sup>, 2009 we held the first tour of the farm for [Nokesville Horse Society](#) (NHS). Attendees were able to see all the Best Management Practices installed to-date and visit with grant partners. Representatives from the following partner organizations attended:

[Angler Environmental](#)

[B&R Contracting & Fencing](#)

[Blue Top Farm](#)

[CFC Farm & Home](#), Marshall

[Kencove Farm Fence Supplies](#)

[Luck Stone Corporation](#)

[Nokesville Horse Society](#)

[Mistfield Farm](#)

[USDA Natural Resources Conservation Service](#)

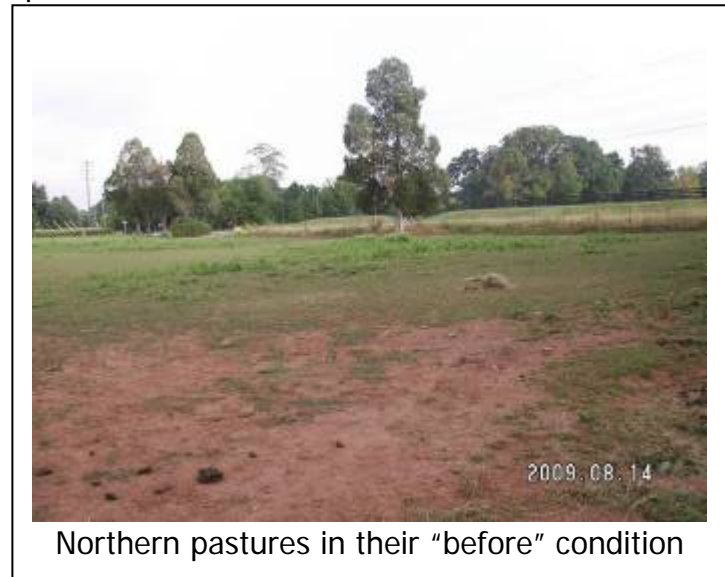
[Virginia Department of Conservation and Recreation](#)

Our staff and the present partners discussed each practice installed and answered questions. Attendees were able to walk through the pasture we renovated in the spring and then see the "before" condition of the northern pastures. The tour of the "before" pastures gave us an opportunity to talk about the process for pasture renovation. This was the most timely topic because attendees could plan ahead to care for their pastures beginning in late summer just as we planned to do.



Nokesville Horse Society Members learn about the sacrifice area paddock

During the tour our staff also discussed upcoming projects on the farm including the replacement of barbed-wire fencing through partnerships with [Kencove Farm Fence Supplies](#) and [Crawford Fencing](#).



Northern pastures in their "before" condition



Old barbed-wire fencing left the farm looking Less than horse-friendly

Thanks to this partnership we were able to remove the old barbed-wire fencing and replace it with [Kencove's](#) HorseCote and HotCote high-tensile fencing. We installed 5-strands of wire, electrifying the top and third strands with solar chargers. The farm now demonstrates 5 different types of fencing that horse farms may consider using on their properties.

The installation of the fencing was completed over a couple of weeks. The old fencing was removed and some fence lines had to be cleared of overgrowth. We called Miss Utility to mark any

lines. Our and were as functional. result.

We had rather conditions is a the

a more stable post which is especially important in any type of tension fence like ours.

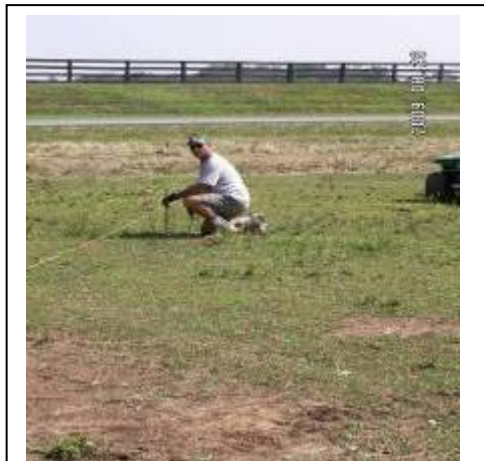


Make sure you contact Miss Utility!

underground utility lines and laid out the fence contractor [Curtis Crawford](#) is very detail oriented wanted to make sure the fence and fence lines aesthetically pleasing as they were safe and It's best not get in a hurry but to opt for a quality

hoped to be able to drive the posts into the ground than dig post holes and use concrete. The soil didn't always cooperate with us so the final product mixture of both. "Driven posts" are hammered into ground with a driver and are supposed to result in

a more stable post which is especially important in any type of tension fence like ours.



Planning fence lines is an important part of the construction process



We dug the posts where necessary



We drove the posts where possible



Where necessary the post holes were dug and concrete was used to add stability





This photo during construction shows the use of round corners

The lines of the fence are generally curved instead of having right-angle corners which require extra labor and posts. Curved fence lines are believed to be safer for horses. The curved fence lines look great.

Curtis taught us about high tensile fencing throughout the process. Periodically we were quizzed on which direction the bracing should be pulling. I had to visualize a giant hot air balloon in the sky pulling the fence with the cross bracing wire as the tail end of the rope attached to that balloon. Looking at the photo below, that hot air balloon would be pulling the fence from the sky to the right of Curtis and crew.

Once the posts were secure, the insulators installed, the wire strung, and the bracing braced it was finally time to add tension to the fence.



Adding tension to the strands of wire



Properly installed bracing gives high tensile fencing its strength



3-strand interior fencing, changed to...



5-strands of high tensile fence were installed on the farm as a perimeter

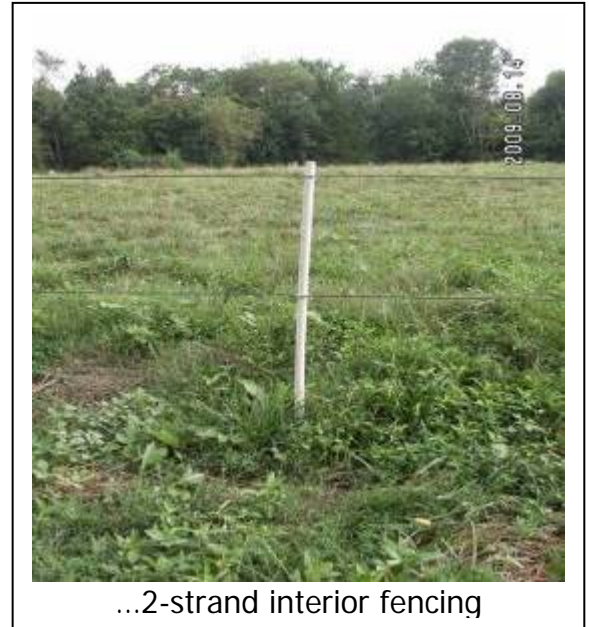
The finished product is a beautiful, horse-safe fence worthy of any model horse farm.

While supervising the installation of the high tensile fencing we took some time to check the previously

installed practices for any maintenance issues. We decided to remove one strand of electrified rope from an interior fence line. A low strand of electrified fencing can easily become grounded by tall grasses or weeds and cause your electric fence to fail. As you can see from the photos we really didn't need the lower strand to confine the horses.

As soon as the fencing improvements were complete it was time to return our attention to the renovation of the northern pastures. The very best time to do fall pasture seeding is actually late summer in August or September. Our goal was to have our pasture seeded by September 30<sup>th</sup> and we were pretty close...

**The next phase of construction is Fall 2009**



...2-strand interior fencing