

**2020 Northeast Pasture Consortium Conference Proceedings
January 15-16, Lake Morey Resort, 82 Clubhouse Road, Fairlee, VT**

Session 2 – Pastured Pigs – Feed and Grazing Management

This session was moderated by Don Wild, who has raised pigs on pasture. He noted that when pigs were let in a paddock to graze reed canarygrass, they stopped grazing the grass in 3 to 4 minutes. This happened three different times with the same effect. Pigs did not like the alkaloid found in high alkaloid reed canarygrass that is prevalent in naturalized stands of it. Biofeedback is rather immediate with them and they will not graze it any further.

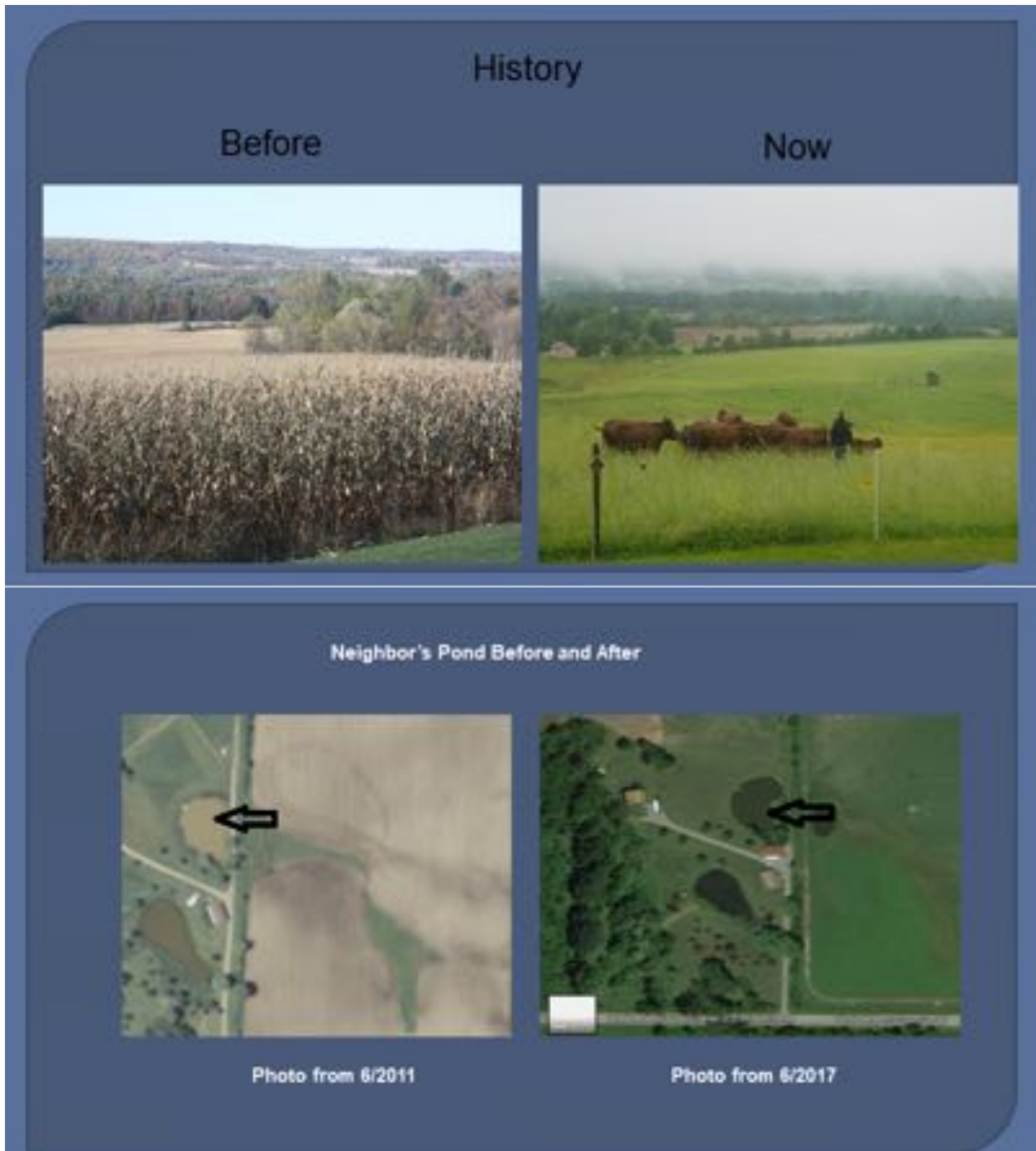
He then introduced **Phil Race**, our featured speaker for this session. Don recruited Phil to speak about his pastured pig operation. The title of his presentation was “Harnessing the Instinctive Behaviors of Pigs on Our Farm”. Phil Race, co-owner of Valley View Devons with Sharon Pierce in Nunda, NY is new to farming having started just 6 years ago. Before this, he owned and operated an optical molding company for 25 years and opened and operated an archery shop for 10 years. Phil and Sharon aspire to be a regenerative farming operation with a touch of homesteading. They raise 100% grassfed/finished beef, pastured/woodlot pork, and egg layers.



The practices that they employ on their farm are based on their overall goals, climate, and the time and resources available to them. After their initial decision to undertake this challenge, they traveled to farms that were using methods they thought they wanted to employ, attended conferences and pasture walks, and did extensive reading. Among the publications they read regularly and continue to refer to are *The Stockman Grass Farmer* and *Acres USA*. They also subscribe to the on-line publication, *On-Pasture*. Over time they have also realized that personal observation of the animals and the land is extremely vital. Take the time to reflect and adjust.

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Their farm is 250 acres located in western New York, 50 miles south of Rochester, nearby Letchworth State Park. Valley View Devons has been in existence for 6 years. Phil has owned the land for 35 years as a recreational property. It has 40 acres of pasture and 210 acres of hardwoods. They lease 25 acres to produce hay for their Devon cattle. For 60+ years prior to their commitment to regenerative farming practices, the 40-acre pasture was in a soybean/corn rotation. It was plowed annually and treated with herbicides and pesticides. Its fertility was derived from petrochemical-based fertilizers.



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The two photos above show the difference in water clarity in a neighbor's pond after the cropland on the Valley View Devons farm was converted to permanent pasture. Muddy pond water in the June 2011 photo versus clear water in the June 2017 photo.

During the grazing season, they employ Managed Intensive Grazing practices. Their cattle are moved at least once daily in order to avoid overgrazing and distribute fertility evenly throughout the pastures. There is now life in the soil. Their soils are recovering from many decades of destructive practices and the healing process is still in progress, but they feel their land is becoming more resilient.



With background laid on how they got their farm in shape to raise beef, hogs, and chickens on pasture, Phil went into detail on his hog enterprise. They chose to raise a heritage breed of hogs

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called the Large Black Hog after some initial experimentation with Tamworths. They settled on these priorities for selecting a hog breed that can be raised and thrive on pasture:

- Hardiness and ability to thrive in our particular environment/weather conditions
- Meat quality
- Good maternal instincts (to raise lots of piglets to weaning)
- Ability to forage
- Docility (for ease of handling and moving around pasture), and
- Maintain genetic diversity using heritage breeds (member of the Livestock Conservancy).



Large Black Hog sow with suckling piglets shortly after birth in November



Large Black Hogs on red clover pasture

The Large Black hog is known for its large size and ability to thrive on pasture and forest foraging. This talent is put to full use on this farm as they are on pasture and used in managing the many wooded acres on the farm. The Large Black hog has remarkable maternal instincts. The sows can give birth to and wean large litters successfully. Their piglets have the highest survival rate among hog breeds because of the sow's mothering abilities. Due to their docility, they also move easily when moving them with an electrified break

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fence or other means.

Feeding hogs on pasture essentials:

- Vital to supply fresh, clean water
- Supplemental feed required daily

Hogs are not ruminants, but are monogastrics (one stomach). Therefore, there is a limit to how much forage they can eat even among hog breeds that are genetically more disposed to foraging. This is why supplemental feed is required daily. In this operation, only one farrowing of pigs is done per year. The young pigs grow over a year's time before going to slaughter. This means daily supplemental feed amounts can be small compared to farms where 2 litters per sow are normally raised yearly. (Editor's Note: Spring and fall farrowing were common place in mid-20th century whether the hogs were on pasture or raised in total confinement. This requires a full grain supplement for pastured growing pigs. Sows can survive on mostly pasture alone, if legume based, unless suckling pigs. A small A-frame hut could house a sow and her litter when farrowed on pasture. The A-shape kept the sow from laying on her piglets when laying down to nurse or rest.)



Note how polywire is positioned over the water trough to keep hogs from using it as a way to stay cool.

Supplemental Feed (Total cost per ton- \$520.00):

Per ton:

- 200 lbs. of corn
- 850 lbs. of barley
- 850 lbs. of triticale
- 50 lbs. of diatomaceous earth
- 50 lbs. of hog mineral

Hogs consume 3 percent of their body weight (BW) in food per day. When finishing them for 3 weeks, they can eat 5-6 percent of their BW. Supplemental feed and pasture grasses/hay are available year-around. In addition:

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- ❖ May - September
 - Woodlot forages
- ❖ May – November
 - Garden vegetables grown on the farm
 - Sweet corn
- ❖ September – January
 - Apples
 - Pumpkins (natural dewormer)



Pig Feed from farm grown pumpkins and neighbor's apple orchard rejects. Pumpkin patch in right picture.

Phil had three different methods of moving pigs depending on the circumstance.



Under 400 pounds, with front-end loader & crate



Over 400 pounds, walk them to distant point.



Moving pig herd to adjoining paddock by providing some good stuff

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When on pasture, fencing for pigs is a permanent high tensile electric fence perimeter with a single strand poly line, set at 12" to 14" on step-in posts inside the high tensile perimeter fence. A strand set at 6" is used for predator control to protect piglets. See picture below.



In the woods, the fencing is poly line strung on step-in posts. This single strand is at approximately 12"-14" in height. Electricity is provided using a marine battery. See picture below.



The piglets are trained at 3 to 4 weeks of age to respect electric fencing. At first, they jump forwards until they learn to back-off instead.

Their breeding program is set up to accomplish the following:

- Litters are timed to take advantage of when forage is most plentiful - April to December.

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- Boar and sow breed on a July 1st timeframe.
- Farrowing is at the beginning of November.
- In April, piglets weighing 30-40 pounds are moved into an area where grasses are more readily available.

A well-thought out infrastructure is needed to farrow (give birth to) piglets. They use a 5 x 8 ft. metal Quonset type hut made by Port-A-Hut. A farrowing bar is installed along the wall in the interior to prevent, or at least reduce the possibility of, the sow from lying on piglets. A “pig safe” heating pad is installed off-to-the-side under the farrowing bar for the piglets to keep warm since they are born in November. For the first couple of weeks, they leave a light on as another safeguard.



Interior of farrowing hut showing farrowing bar and the red heating pad with piglets taking a nap on it.

Phil outlined some hog duties and responsibilities to remain on the farm.

- Must breed yearly for farrowing in November,
- Compost aerators from April 1st to May 15th (animal instead of machine),
- Manage woodlot for regeneration (must be 80 lbs.): May 15th- September 15th, and
- Till undesired areas of pasture for reseeding from September 15th to November when processing is scheduled.



Pigs aerating waste hay while foraging in beef cattle winter sacrifice lot. Note leanness of pigs.

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On April 1st, their hogs move into a 1 ½ acre winter cattle sacrifice area. Their main purpose is aerating the waste hay and loosening up the soil to prepare it for seeding. On May 15th, the pigs are moved into the woodlots and the area is reseeded.

Aside from raising healthy animals to provide healthy, tasty pork for the table, woodlot management has become an important purpose for having pigs on the farm. They have a 200-acre woodlot that has been in the New York state 480A program for 30 years. Property taxes on these acres are reduced by 80 percent. The major obstacle with putting livestock in the woods was the 480A forestry program. When housing animals in a woodlot environment:

- It must be good for the timber.
- It must be good for the soil.
- It must be good for the water.
- And, It must be good for the animal.

Ordinarily the program does not allow animals in the woods. Cattle can damage the bark on trees especially at the ground line where their hooves can cause wounds there, allowing insects to invade and rot to develop. They can damage the bark further up by using the trees as rubbing posts. They also can severely damage small saplings if they rub against them and even break off the leader. However, Phil worked with a professional forester to plan to use hogs as timber stand improvement (TSI) facilitators. Hogs root up the soil, making seed to ground contact more sure. They also consume seedling beech and ironwood trees that are undesirable species growing in their woodlot. The hogs are moved quickly to avoid compacting the soil and tree damage.



In the middle of the photo, a tread-in post fence divides a before and after hog rooting event. Unwanted tree seedlings are destroyed and a good seedbed for oak regeneration is left.

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A May time frame is used to begin stocking hogs in the woodlot for two reasons: Young pigs are now around 80-90 pounds, and it is the most effective way of controlling undesirable species (beech and ironwood) when their energy is above the ground.

Observations made in the first year:

- The pigs were much happier in the woods because it was so much cooler (upwards of 20° F.).
- Weight gains were better.
- Need for supplemental feed decreased.
- Better ground to seed contact caused better germination of acorns.
- The pigs were spreading their fertility.
- And, one negative, a solution was required to prevent tree damage. (They found that hogs go for the moss growing on the base of white oaks (primarily) that damages the bark if they are allowed enough time to do extensive rooting and feeding at the base.)



Pigs lying in the shade of woodlot trees on recently rooted ground to cool off.

They have made two changes to their woodlot program from the initial year:

- Perform TSI work **AFTER** pigs have rooted an area (They use the trimmings to protect new seedlings from deer browsing).
- Once the seedbed is created, pigs should not enter this area again for a significant period.



Photo to the left shows several oak acorns lying on bare soil caused by the rooting of hogs earlier in the year. Only wildlife will have access to these acorns as the hogs will not return to this area for several years. With 200 acres of woodlot, the hogs have a lot of work to do to improve timber stands by weeding out the undesirable trees and preparing a good seedbed for the favored species here, oaks.

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They return their pigs to pasture from September 15th until harvest on November 15th for these reasons:

- Hunting season (bow and then rifle season for deer, too unsafe in woodlot)
- Temperatures have moderated and sunlight more accessible to keep pigs comfortable.
- And, it is not a desired time for TSI work.

In closing, Phil went back to his presentation title: “Harnessing the Instinctive Behaviors of Pigs”. Pasturing is a very difficult process with an animal that likes to root, especially a breed that was selected for rooting behavior. Pasture pigs in areas that need to be reseeded. They prepare the ground for the following spring without using herbicides. This is why he chose to keep them in the woodlot most of the summer. It was good for the woodlot and the pigs. Meanwhile, most the pasture acreage is left unrooted except for areas in most need of being renovated. Hence, their pig schedule:

- Breeding - July 1st
- Farrowing - November 1st
- Composters - April 1st- May 15th
- Woodlot - May 15th- September 15th
- Pasture - September 15th- November 15th
- Harvested - November 15th

They love to do farm tours to build community and educate young people about pasture farming.



The editor is deeply gratified with the great graphics used in putting together the PowerPoint presentation by Sharon Pierce. It was very good documentation of pigs on pasture and woodlot.