



HATCH PATCH: MICROIRRIGATION

The Wenzel Farm is located in Conewango, Glade, and Sugar Grove Townships in Warren County. The farm focuses on fruit and vegetable production, but also grows hay and corn, and raises beef. Owner, Scott Wenzel has continued the tradition started by his father, to run a productive farm with a conservation mindset. This philosophy protects the soil, water, and wildlife and also keeps the farm sustainable. And the vitality of the farm, that is celebrating 25 years in 2008, is testament to that.

The main fruit and vegetable production is at the farm in Glade Township which is also home to the Hatch Patch farm stand. There are approximately 165 acres of cropland at the Hatch Patch that are used to grow strawberries, sweet corn, peppers, tomatoes, potatoes, and pumpkins.

In order to better utilize water resources on the farm, Mr. Wenzel installed a microirrigation system in 2007. This system consisted of extending the underground water transfer pipeline, a filter system, and in-field distribution lines. The underground pipeline transfers the water from a farm pond to the filters. The filters in this system are mounted on carts, so they can be moved from field to field as crops are rotated year to year. A

filter is critical in a microirrigation system to purify the water. The distribution lines in the field have microscopic holes, so the water must be very clean in order to prevent clogging. Once the water is cleaned in the filter system, it is pumped through the distribution lines in the field. These distribution lines have emitters that place water directly next to the plant.

The purpose of microirrigation is to maximize the amount of water that is used by plants and to minimize the amount that is lost to evaporation. By placing the water directly on the plant, or next to it, less water evaporates and less is wasted on bare soil. A microirrigation system only disperses the water that the plant needs so the potential for surface runoff and nonpoint source pollution is also reduced.

The system installed in 2007 was funded, in part, by the

federal Agricultural Management Assistance Program (AMA).

Under this program, the following practices were installed:

- 2150' of plastic pipeline
- 420' of aluminum pipeline
- 2 filter systems
- 34 ac. serviced by system

The system was extended by another AMA grant awarded in 2008. This system will include the following practices:

- 3000' of plastic pipeline
- 32 ac. serviced by system

The filters secured under the first grant will also service this additional acreage, so no more filters are required.

A microirrigation system is only practical for certain crops. However the underground pipeline can be connected to the existing sprinkler irrigation system. The sprinkler irrigation is used to water crops in the summer, and also for frost protection of strawberries in the spring.



Pipeline laid out in field during construction



Cart mounted filter component of the microirrigation system