Project Progress – March, 2019

Chatham, Ontario (Roesch Farm)

Site:
A 100-acre farm situated east of Chatham. Crops are seed corn, soybeans, specialty beans and winter wheat. There is a pig barn on the farm, and crops receive manure from it annually, using a 4R (right time, right place, right source, right rate) nutrient stewardship plan.

The 100-acre field is tiled, with a 12-inch outlet on each 25 acre lot that empties into the municipal McKinley drain, and then to the Thames. The soil is a very fine clay loam with phosphorus (P) readings of 50 to 65 ppm. It has a very slow infiltration rate (hydrologic soil group D).

The farm will be used to host the testing of several technologies, to be determined later in 2019.

Partners:
Ontario Ministry of Agriculture, Food and Rural Affairs responsible for the model to calculate P recovery and water flow.
Lower Thames Valley Conservation Authority maintains the 25 acre site, conduct sampling and have the water analyzed.
Thames River PRC providing funding to support sampling.

Research description:
One 25-acre field is being used to measure P removal using a Filtrexx Nutrilock sorption material. Testing began in April 2018. Tile water is channeled through two tanks where P is absorbed. In the fall of 2018, modifications were made to the tile to channel water to the treatment tanks by Gillier Drainage. A weather station will be added in 2019.
Measurements:
Pounds of P removed will be the metric, and calculated using data on total P and dissolved P for the technology’s efficiency.

Progress:
Installation and start-up in April, 2018. Initial results expected in March, 2019.