pH Affect on Zea mays L. and Its Ability to House Nematodes

Lesko, Adam (School: Northwestern High School)

Pesticide destruction is a familiar term in the Midwest. Farmers and corn producers struggle to fight these root killers. The goal is to approach the problem from a different angle and find a solution that allows for healthier crops in the easiest way possible. This project involved 3 different soil solutions, one with a pH of 6, another with 8, and finally a neutral 7. Over a month span I irrigated sweet corn seedlings with their desired pH's. The soil with a pH of 6 was irrigated with a mixture of vinegar, and the soil with a pH of 8 called for a mixture including agricultural lime. I then added the pesticides and the experiment began. After 30 days, I dug up the soil of the three samples and scavenged for root production. After documenting the amount of seedlings we found and the root lengths, I then looked for nematode life in my soil. This project provided significant information. I found that the soil with a pH of 8 was closer to accomplishing the ultimate goal and was deemed more suitable for sweet corn production. Although, no nematode life was examined and the cause is uncertain.

Awards Won: