



## For Immediate Release

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## A Lesson in Environmental Stewardship

### *Career Tech Agriscience Students Monitor Water Use at Local Potato Farm*

**TRAVERSE CITY, Mich.** – With the Great Lakes, 11,000 inland lakes and tens of thousands of miles of rivers and streams, Michigan is a water wonderland. But the state – like most places – also has a vast supply of water in underground aquifers, which is tapped for a number of uses, from drinking water at residential homes to irrigating large-scale farming operations.

How to monitor the use of that valuable resource to avoid negative impacts to the environment was a lesson given recently to students in the Agriscience program at Career Tech, the vocational and technical education arm of Northwest Education Services (North Ed).

Students took part in a two-day course Thursday and Friday to learn about monitoring groundwater and streams. On Thursday, students visited Iott Seed Farms in Kalkaska County to monitor a well that's used to feed the potato farm's irrigation system. On Friday, they conducted testing of a stream near the north branch of the Manistee River in Kalkaska County.

“As educators we hope to inspire our students and real-life, hands-on learning opportunities like this can be incredible experiences for them,” said Agriscience instructor Brian Matchett.

The event was organized by Midwest Water Stewards – a group of farmers and agribusinesses dedicated to responsible stewardship of water resources – and sponsored by Iott Seed Farms and Potato Growers of Michigan Inc.

Ensuring agricultural operations use water resources responsibly is critical to not just protecting the environment, but the livelihood of family-run businesses like Iott Seed Farms, said Kelly Turner, executive director of Michigan Potato Industry Commission.

“These farms have been in these families for generations and they need to make sure they're taking care of them for generations to come,” Turner said. “Their family business stops growing if they harm the water resource in this area, so it's really important for us to have professionals who can help understand and put in these monitoring systems and be able to help watch what our direct impact is on the water in the watershed so that we can make sure that we're staying within the ramifications that Mother Nature has provided.”

Todd Feenstra, owner of Tritium Inc., a hydrogeologic consulting firm that works closely with Midwest Water Stewards, demonstrated to students on Thursday how to measure the depth of groundwater at a well monitoring site at Iott Seed Farms.

“The reason for the field day is, I can come to the classroom and talk about it, or they can come out here and they can measure it for themselves,” Feenstra said, adding that part of the lesson students learn is about testing theories in the real world. “You can have an idea and you can have a model of how things work, but you need to test it and you need to measure it to verify that it’s actually right.”

Through a PVC pipe in the ground, students on Thursday lowered a tape measure equipped with an electronic probe that would emit a loud beep when it came in contact with water. Over time and with enough well monitoring sites, measurements like those gathered last week help determine the impact something like an irrigation system has on the aquifer.

“We’re trying to make sure that we have good data that says either we are or we aren’t impacting the water supply,” said Dennis Iott, owner of Iott Seed Farms, which has been in the region since 1973. “The information that he’s getting out of that hole right there is crucial to what we’re doing. To me, the education opportunity for these kids here is to say we try to be good neighbors.”

Turner said developing an interest in young people for this type of work is important as there could be a greater need for water monitoring professionals in the region, especially if challenges in western U.S. states like drought and limited availability of water for growing operations cause farmers to look more closely at operating elsewhere, possibly in Michigan.

“We’re going to see more and more pressure here in the state of Michigan,” she said. “We’ve got to have well-trained individuals who understand how to monitor, measure and ensure that we’re not causing adverse impacts to the resource that’s going to become more and more scarce.”

Feenstra said his company has been hosting demonstrations for various groups, from students to lawmakers and state regulators, since 2016. This was the first with the Career Tech Agriscience class.

“We’re not giving them opinions on anything out here today,” he said. “We’re just showing them what’s here, and to watch them see it and connect the dots, it’s amazing.”

Jacob Barrett, a junior from Kingsley, said he enjoyed the well monitoring demonstration and is enjoying his first year in the Agriscience program.

“I like it,” he said. “Getting to meet new people and experience agriculture hands-on is pretty cool.”

Onalee Gustafson, a senior at Traverse City West Senior High School, is also in her first year in the class at Career Tech, which offers 21 career and technical education programs to juniors and seniors in the five counties of Antrim, Benzie, Grand Traverse, Kalkaska and Leelanau.

Part of the benefit for Career Tech students is that students build relationships and skills that will carry over after graduation.

“It really helps with the real world as well because, of course, you’re working with a lot of people,” she said. “So just the teamwork ... and having to get to know each other ... is very nice overall.”

Suttons Bay Public Schools senior Wesley Richardson said the Agriscience program has helped him explore other educational and career possibilities, and he enjoys the independence offered to him as a second-year student in the program.

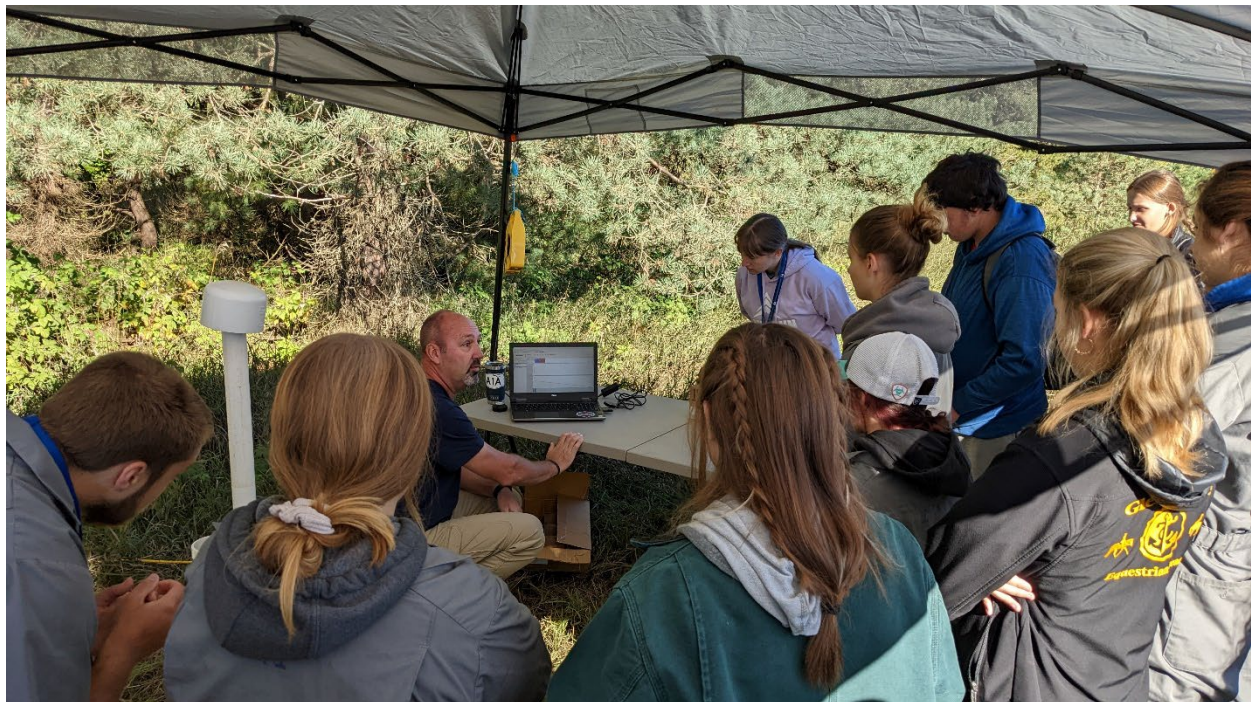
“As a first-year you do a lot of group activities like this (well-monitoring demonstration), but then I like how it’s more self-driven and at your own pace as a second year,” he said.

Second-year Agriscience student Marlen Jackson Rangel, a senior at Suttons Bay Virtual School, said she joined the Career Tech program because she wanted to get away from traditional schooling.

“No other class would we be out hauling tires out of the back of a trailer or out in a field doing different things, and that’s the kind of thing I like about this class and what brought me to it,” she said. “It’s different and it’s always kind of unpredictable.”

For more information about North Ed’s Career Tech programs, visit <https://www.northwested.org/career-tech/>.

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Todd Feenstra, owner of Tritium Inc., a hydrogeologic consulting firm that works closely with Midwest Water Stewards, demonstrates to students how to measure the depth of groundwater at a well monitoring site at Iott Seed Farms in Kalkaska County on Thursday (Sept. 29). Students in the Agriscience program at Northwest Education Services Career Tech had the opportunity to participate in a two-day event led by industry experts that focused on measuring streamflow and groundwater levels as well as responsible use of water for things like irrigation.



Ellie MacKenzie, a senior from Kingsley, uses a tape measure equipped with an electronic probe to measure the depth of groundwater at Iott Seed Farms in Kalkaska County on Thursday (Sept. 29). The probe would emit a loud beep when it came in contact with water. Students in the Agriscience program at Northwest Education Services Career Tech had the opportunity to participate in a two-day event led by industry experts that focused on measuring streamflow and groundwater levels as well as responsible use of water for things like irrigation.



Tim Shubert, a field technician with hydrogeologic firm Tritium Inc., talks to students about irrigation at Iott Seed Farms in Kalkaska County. Students in the Agriscience program at Northwest Education Services Career Tech had the opportunity to participate in a two-day event led by industry experts that focused on measuring streamflow and groundwater levels as well as responsible use of water for things like irrigation.



Potatoes are shown in a field at Iott Seed Farms in Kalkaska County. Students in the Agriscience program at Northwest Education Services Career Tech had the opportunity to participate in a two-day event led by industry experts that focused on measuring streamflow and groundwater levels as well as responsible use of water for things like irrigation.



Dennis Iott, owner of Iott Seed Farms, talks to students Thursday about his farming operation in Kankaska County. Students in the Agriscience program at Northwest Education Services Career Tech had the opportunity to participate in a two-day event led by industry experts that focused on measuring streamflow and groundwater levels as well as responsible use of water for things like irrigation.





Seth Miller, a hydrogeologist with Tritium Inc., leads a demonstration Friday at the north branch of the Manistee River in Kalkaska County. Students in the Agriscience program at Northwest Education Services Career Tech had the opportunity to participate in a two-day event led by industry experts that focused on measuring streamflow and groundwater levels as well as responsible use of water for things like irrigation.



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