Testimony of Suzanne Boedeker, 4th Grade Science Teacher at Miami Trace ElementarySchool before the Senate Agriculture and Natural Resources Committee

Chairman Schaffer, Vice Chair Koehler, Ranking Member Hicks-Hudson and members of the Senate Agriculture and Natural Resources Committee:

My name is Suzanne Boedeker and I am a fourth grade teacher at MTES. Our grow chamber is centrally located to 4th and 5th grades, but we do have to share the space and times among both grade levels and the 9 classes in each grade. We've been very flexible, ensuring that each teacher (5 total) gets to take kids each week to observe and conduct a lesson. Each teacher has access to the data dashboard, and it's generally on our clever boards so that kids can monitor the plant everyday, even if they don't get to see it in person that day!

The Farm-Ed team has created lesson plans to go along with the use of the grow chamber. These are Middle School and High School lessons, but we have been able to adapt some to meet our Elementary student needs. For example, while teaching the Law of Conservation of Mass, we used the Daily Slides from the middle school Conservation of Mass lesson. Although the students didn't complete the entire lesson, including the Exploration and Research portion, they were able to make meaningful connections between what we were learning in the classroom and how that applies to growing our plant in the grow chamber. These lessons are easily adaptable, which allows us to differentiate for our different learners. We have gotten to spend a lot of time in fourth grade letting student inquiries guide the next lesson. As we learn and become more familiar with the grow machine, students have had so many questions. We generally write the questions down and use those questions to guide our next lesson. We have learned about photosynthesis, the different growing cycles of each plant, general hydroponics, and most recently root systems and growth. The kids have been fascinated by the root systems of both of our plants, and they've been comparing the one plant we're growing to the number of plants in their gardens and even the fields.

At the end of each growing cycle students get the opportunity to harvest and try the food they have grown! The Farm-Ed grow chamber ties in with our building's greenhouse initiative. This summer we will be constructing a greenhouse where we can grow fruits and vegetables that students can be hands-on in growing and harvesting, and ultimately serving to our students in the cafeteria. Having both the Farm-Ed grow chamber and the greenhouse will allow our students to see the benefits of the AI technology and compare the rapid growth of the plants growing in the chamber to the plants grown in soil.