Real-world problem solving

Last year, an association of scientists published a report listing 80 specific actions people can take to reduce global warming, ranked in order of impact.

Surprisingly, No. 3 is reducing food waste. A third of the food raised or prepared on this planet doesn’t make it from farm to fork.

But even some of that is wasted. As Pottstown High School students have discovered, much of the healthy food served to students goes directly from trays to trash.

Based on internet research and their own observations, Pottstown juniors Asgar Ali and Shane Duncan reported that students throw out an enormous amount of fruit they are required to take by federal “healthy options” regulations but don’t want.

It’s a huge amount of waste.

The students calculated that if just 10 percent of Pottstown students, grades K-12, discard an uneaten apple each day, 79 pounds of usable food is wasted daily. Over the school year, that adds up to nearly 7 metric tons. That’s just Pottstown!

A typical adult reaction would be to blame wasteful kids or idiot federal regulations and leave it at that.

But our Pottstown students researched why students behave the way they do and sought solutions that can be implemented right here in the school district.

The students found studies showing that kids love to eat fruit in ready-to-eat bite-sized pieces, but in most school settings, the fruit is served whole.

They reviewed a pilot project conducted by Cornell University in 16 elementary and middle schools in Wayne County, New York, that compared serving fruit whole or serving it in slices.

In school cafeterias using slicers, the percentage of students who ate more than half their apple increased by 73%.

Clearly, slicing the fruit increased consumption.

Not satisfied with commercial slicers, students and Ali and Duncan enlisted their STEM engineering class to design and build a slicer that is safe, sanitary, and efficient to use.

The students documented their work in a 25-page report and 16-minute YouTube video they submitted to Dow, the chemical company, for its “We are Innovators” competition. The competition challenges students across the country to apply chemistry and science to solve global challenges.

The Pottstown students were awarded a scholarship to a non-profit program called ME to WE that sends American students abroad to help communities in developing countries.

Ali, Duncan and their engineering teacher/advisor, Andy Bachman, will join students and engineers from all over the country for a 10-day service trip to Ecuador in July.

The group will help villages along the Napo River, east of Tena, in the Amazon region of the country.

Bachman says the trip will be a “life-changing experience” for his students and him as they work to improve the quality of life for others.

There’s a lot of talking about the problem. These students are doing.