

## Sarah - A farmer in Iowa, USA



Sarah is a corn farmer, farming over 700 acres. One day, fall army worms attacked her cornfield and her crop was devastated. She lost her entire field.

## Sarah consults her neighbors



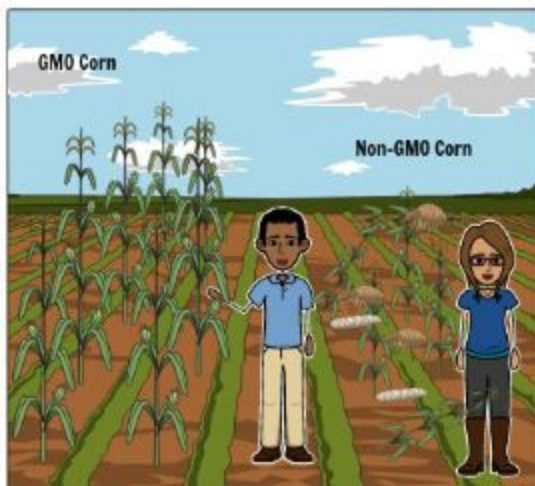
Sarah asks some neighboring farmers for advice. They tell her that the only solution is to apply lots and lots of insecticides, which Sarah knows are harmful to the environment and very expensive.

## Sarah talks to an Extension Agent



Sarah reaches out to her local university's extension agent, Paul, for help. He tells her that through genetic engineering, insect resistant crops are possible!

## The extension agent explains:



Paul takes Sarah to an experimental field. He tells her that GMO corn has a genetic change that makes them resistant to insects. Paul tells Sarah that if she uses the GMO corn, she won't have to spray harmful insecticides at all!

## Sarah likes these ideas.



Sarah starts thinking seriously about planting GMO corn. She wants to know: How can adopting GMOs help her situation? Could GMOs be a useful tool for her and other farmers?

## Let's brainstorm:

How can GMOs be used as a tool to solve problems in food, agriculture, and environmental science?

GMOs work by changing the DNA of the crop to make it different than before. Can you think of other ways we can use this technology?