

How can I climb this tree? How can I ride my bicycle without it tipping over on me? How can I reach the cookies mom keeps on the top shelf? Ever since I was little I've been looking for ways to figure out how to get things I've wanted, and I've done so by asking myself the question "How can I". Today, I'm looking to discover how our generation can utilize technology to conserve our land and build an even stronger nation by asking the question "How can I facilitate in making the connection between these two generations?"

From the typewriter to the computer, from the newspaper to the internet, from teams of horses to large John Deere tractors, inventions have been made to make things easier and better for us. The inventors of these advancements asked themselves the question "How can I develop something that will conserve people's time and money?" Today that same question continues to be asked and many people are responding with ideas like applying precision agriculture, agronomic management, and precision farming techniques to their fields.

Precision agriculture, also known as site specific crop management is a system used to identify, analyze, and manage variability within fields to maximize production. Fields often vary in soil types, elevations, fertility, and productivity. By applying precision agriculture producers are able to cut their production costs and save energy by using yield monitoring, zone soil sampling, and infrared imaging. In addition to reducing production costs and saving energy, precision agriculture also eliminates environmental pollution and improves water quality by reducing nutrient runoff.

Precision agriculture, although it has been around for years, is improving steadily, and farmers are beginning to embrace the new technology that has boosted yields and profits, by providing farmers with the ability to plant and fertilize their crops more efficiently. In 2010, many families added an irrigation control and monitoring system. Farmers may inquire, "How can I use this system?" They can do so by downloading an app on their smart phones. Through this app farmers are able to turn their systems on and off, adjust speeds, and see how well they are working, all from miles away.

Agronomic management focuses on many areas of conservation from practicing reduced-tillage methods, which lessens the need to till the soil before each crop, to managing planting populations, which ensures crops are not over, or under crowded and therefore

are in optimal growing conditions. However, many of these methods need to be done personally by the farmers in order to yield success, thus they take more time. So if farmers use new technological advancements such as multi-hybrid planters, yield monitors, and new software to analyze the data, the process will be much quicker and more efficient. If farmers ask themselves the question, "How can I incorporate these small changes in my routine?" it will provide a major difference in the ultimate success when it comes time to harvest.

Another question that needs to be asked is "How can I convince older farmers, that they too, should apply these techniques to their own farms?" Many older farmers may be skeptical of these new technological advancements; however, the results are undeniable. With new breakthroughs such as auto steer, farmers' fatigue is reduced, while accuracy and efficiency improves, because farmers are able to spend more time closely monitoring applications. In addition, new advancements such as section control technology increase the potential for savings by reducing input costs for seed, fertilizer, and crop production. These methods can be easily applied, require no extra analysis of data, and can help extensively in conserving resources.

So, I find myself left with the question of "How can I help bridge the conservation generation gap?" Although we should always respect our elders, whose experience offers a wealth of wisdom, we realize that introducing new ideas and change can be beneficial to both generations and provide the needed connection on which to grow. President Barack Obama once said, "Change will not come if we wait for some other person or some other time. We are the ones we've been waiting for. We are the change that we seek." Technology is constantly changing, and ideas are constantly being thought of to help make our lives easier.

Let us then communicate, discuss, and share ideas, to encourage cooperation for the sake of continued improvement and growth. We can do so, as generations working together, combining the best of yesterday with the potential of today, for the good of tomorrow.

Topic: