ABSTRACT: National Geographic—The New Food Revolution, May 2014
http://www.nationalgeographic.com/foodfeatures/feeding-9-billion/
Authored by Madison Region Economic Partnership

"When we think about threats to the environment, we tend to picture cars and smokestacks, not dinner. But the truth is, our need for food poses one of the biggest dangers to the planet. Agriculture is among the biggest contributors to global warming, emitting more greenhouse gases than all our cars, trucks, trains and airplanes combined. Farming is the thirstiest user of our precious water supplies. Agriculture also accelerates the loss of biodiversity as we clear areas of grasslands and forest for farms." Forty-five percent of crop production goes toward feeding livestock and biofuels production leaving 55% of crops grown for human consumption. Couple this with the world's population projected to reach 9 billion by 2050 and the growing middle class in India and China that is increasing food demand (especially for crop fed meat), what's a planet to do? National Geographic's solution is to roughly double the amount of crops we grow on this planet by mid-century and sets out a plan in an 8-month series called the "New Food Revolution."

The debate over food in the May 2014 issue is polarizing, as it pits conventional agriculture and global commerce against local food systems and organic farming. But National Geographic argues that both are crucial to a joint solution and provides a five-step solution. ***Step One:*** Freeze agriculture's footprint on earth. The expansion of agriculture's footprint through deforestation must stop for both growing crops and livestock grazing. ***Step Two:*** Grow more on the farms that already exist. Increase the yields on less productive farmlands by using both high-tech and organic farming systems. ***Step Three:*** Use resources more efficiently to increase "crop per drop." Reduce the unsustainable use of water and fossil fuel-based chemicals through high-tech applications that preserve the environment. Organically, use nature to build up nutrients in the soils and better irrigation models to conserve water. ***Step Four:*** Shift diets. Find more efficient ways to grow meat and shift the population to a less meat intensive diet. ***Step Five:*** Reduce waste. In richer companies, major food (calories) are wasted as we throw out food in our homes, restaurants and supermarkets. In developing nations, food is wasted due to unreliable storage and transportation systems.

In the end, this article will may make you think differently about where our food in south central Wisconsin food comes from (it's not from the supermarket!) and may change some of the decisions you make when you acquire it. It will also help you understand why technologists working in cellulosic biofuels designed to use non-food agriculture inputs for ethanol production think they could increase the percentage of crops available for human food consumption. As a side note, Urban Agriculture is not addressed in this article.