

Why is the Food System Changing?

Investments in new technologies for food production have the potential to address the three most critical and interconnected challenges of our time: deteriorating public health from poor diets of processed foods, rapidly rising healthcare costs, and mounting environmental pressure. If healthy food can be produced close to where it is consumed at the local level, that also creates a circular economy that helps create jobs closer to home.

As the American diet continues to fuel epidemics of obesity, diabetes, cardiovascular disease, and cancer, U.S. healthcare spending hit \$5.3 trillion in 2024 and is projected to grow to \$8.6 trillion by 2033. In terms of U.S. GDP, this represents growth from 18% to 20.3%. The question now is whether better nutrition can bend the healthcare cost curve, or are we locked into a healthcare spiral of downstream treatment of disease. Locally produced whole foods are the answer to the highly processed foods from far away.

And importantly, the industrial food system is also highly destructive to the environment. The massive overuse of chemical fertilizers and pesticides are destroying soils, waterways and biodiversity around the planet. Unfortunately, the foods most consistently linked to poor health outcomes tend to carry the highest environmental impacts. The whole foods most linked to improved health outcomes tend to carry the lowest environmental impact.

To compete with cheap processed food, local, whole foods must become price competitive. Improved efficiency and reduced cost of producing whole foods have the potential to address the three interconnected challenges.

On farm efficiency, or what economists call “Total Factor Productivity”, is the key to a more vibrant, productive and profitable local food system. Mechanization, and the reduction in the laborious and time-consuming use of hand tools on small farms is part of the solution. So is data driven precision agriculture, which comes with a suite of technological applications from satellite imaging to robotics to ground sensors to better predictive weather forecasting. Tried and true processes for improving soil health, such as cover crops and crop rotations, can be augmented with new solutions in AgTech to improve yields and reduce inputs (including labor) and cost.

Creating a space for collaboration and innovation in agricultural technologies is important to finding the right solutions to the human and environmental health problems we face. Western North Carolina is uniquely positioned for such an AgTech hub because of our local food-centric community and the number of diverse farms already producing a large variety of specialty crops in varied micro-climates. In the wake of Hurricane Helene, WNC can be a guidepost for resilience and show the world not just how we bounce back, but how we bounce forward.\

As the developer of The Blake Meadows AgTech complex, we choose to build for and attract bright people focused on changing the world.