



2021 FFA Farm Forum UNSTOPPABLE



Plant Systems

Stability and Sustainability with Aquaponics

Nate Calkins, Owner, Lake Orchard Farm Aquaponics

Video Link: youtu.be/757SIJpxOWA

Presentation Description

Stability and sustainability are two reasons why Nate Calkins, owner of Lake Orchard Farm Aquaponics, decided to dive into aquaponics farming. In this video, you will tour the aquaponics farm, learn what makes it a stable and sustainable system, and discover how fish, microbes, and plants work together in a symbiotic relationship to produce fresh produce year-round.

About the Presenter

Nate and his wife, Mary, have been working in agribusiness since 2005. In 2014, they began their adventure into aquaponics by transitioning an old milking parlor into a space for raising fish and produce. Today, Lake Orchard Farm Aquaponics continues to thrive on the over 150 year-old family farm located near Sheboygan.



Supplemental Activities

Aeroponic Engineering and Vertical Farming

Link: agclassroom.org/matrix/lesson/720

Estimated time: 2-3 class periods for preparation and construction followed by 3-4 weeks of observation

Objective: Students will use the Engineering Design Process to develop and construct an aeroponic garden to grow a food crop. Students will develop and apply an understanding of plant anatomy and physiology related to plant growth and ultimately discuss the possibilities and limitations of using vertical farming to produce our food.

Journey 2050 Lesson 7: Technology and Innovations

Link: agclassroom.org/matrix/lesson/716

Estimated time: 1 hour

Objective: Students will explore new technologies that will impact the future of farming, understand the role of developing countries in food security, and explain how consumers influence the production of food.