TILLAGE REDUCTION INNOVATIONS

Session Chair: Heather Bryant, UNH; Co-moderator: Becky Maden, UVM
Approved CEUs: 2 soil & water | Pesticide Credits: 2 for New England states; 1 for New York (1A, 10, 22, 23)

Small Scale Tarping/Solarization – Ryan Fitzbeaufchamp & Daniel Mays

Growing No-Till Fall Vegetable Crops Using Rolled and Solarized Cover Crop Residue.
Ryan will discuss his experience implementing no-till planting practices into roller crimped cover crops on small plots. Ryan has experimented with rolling and solarizing winter rye and directly transplanting into the cover crop. In 2021, he built a custom tool bar to help mechanize the process. He’s also been tracking soil nitrate in the plots to better understand how to manage nitrogen in the no-till scenario. Ryan will share his successes and lessons learned developing no till practices on a small commercial scale.

About Ryan Fitzbeaufchamp - Ryan and Kara Fitzbeaufchamp own Evening Song Farm, a certified organic CSA farm in Shrewsbury, Vermont.

Integrating Cover Crops into No-Till Vegetable Production
Daniel will discuss his farm’s approach to planting vegetables into no-tilled cover crops. He’ll share the experience he’s gained over many years of utilizing this method by discussing efficiencies, benefits, and drawbacks to no-till growing.

About Daniel Mays – Daniel and his family operate Firth Farm, a no-till organic farm on 14 acres of Wabanaki land in what is now called Scarborough, Maine. The farm’s mission is to build soil, increase biodiversity, and strengthen community through the growing of wholesome food. Daniel is also the author of The No-Till Organic Vegetable Farm.

Larger Scale No-Till – Jamie Jones & Nic Cook

No-Till Pumpkin Production Utilizing a Long-term Rotational Strategy
Jamie Jones will detail the farm’s long term rotational strategy for growing no-till pumpkins which includes a series of cover crops in addition to pumpkins. He will talk about his experience with this system and its benefits and challenges over time.

About Jamie Jones – Jamie is a sixth-generation farmer with a degree in Plant Science from Cornell University. Jones Family Farms is located in Shelton, CT and specializes in berries, pumpkins, a vineyard, and Christmas trees. The majority of the farm products are direct marketed to guests who visit the farm.

Notes From Year Four of Cedar Circle’s Planned Five Year Transition to No-Till Strawberries
Cedar Circle is implementing a 5-year plan to transition many of their crops to no-till production. The 2021 growing season will be the first year that side by side no-till and conventional strawberries will be harvested. Nic Cook, Director of Agriculture at the farm, will describe the results of the project thus far in terms of yield, quality, weed pressure, soil moisture, and costs of production.

About Nic Cook – Nic is the Director of Agriculture at Cedar Circle Farm and Education Center in Thetford, VT. He has been at the farm since 2003 and his work focuses on soil management.
Research Roundtable – Natalie Lounsbury, Sonja Birtheseld & Ryan Maher

**Tarping and Solarization**

The speakers will share current research and application of tarping and solarization in no-till and reduced-till vegetable farming systems. They have been working with farmers throughout the Northeast to better understand and refine the use of tarps in no-till production to manage pests including weeds and soil borne diseases and investigating the impact the use of plastics has on soil ecology. This team will also share their newly released “tarping manual”, a detailed how-to guide to tarping.

**About the Speakers**

**Dr. Natalie Lounsbury** has been conducting research to help many small-scale farmers improve soil health through cover cropping and reduced tillage for over a decade in Maryland, New Hampshire, and Maine. Her practical experience managing farms combined with her scientific training guide her approach.

**Dr. Sonja Birthisel** is the director of the Wilson Center at the University of Maine in Orono. Her focus is on adaptation to and mitigation of climate change, ecological weed and pest management, farmland food webs, and ecosystem services.

**Ryan Maher** is a research and extension specialist in the Cornell Small Farms Program working in vegetable cropping systems. He works to support farmers in adopting reduced tillage, cover cropping, and other practices to improve soil health on their farm.