

Adaptation of no-till transplanting as an innovative method to improve cranberry farm sustainability (SARE FNE18-902)





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Evaluate the use of no-till technology in a bog renovation from a mechanical, horticultural and economic perspective.

No-Till Planter for Renovations

- Roundup applied 5/9/18 and 5/23/18 to kill planted vines, weeds; then mowed with flail mower (Howes): Thick Randall vine required mowing with hay mower and physically removed.
- Two plots: each about .5 acre. One was planted through duff. Second was mowed and 2-3" sand applied over duff.
- Randalls, Howes replanted with Crimson King (Valley Corp.)





No-till Renovation

Mechanically: A traditional transplanter can be modified with a coulter and shank to slice and insert rooted plugs. Same machine utilized on no-till cucurbit and tobacco farms.

<u>Horticulturally:</u> Plants can thrive. Duff buffers irrigation similar to traditional no-till. Perennial weeds require alternative control measures or application timing. Fertilizer needs also different compared to traditional sand plantings. (Higher N rates required)

Economics: No-till about 1/3 the price of traditional renovation. Biggest cost was purchase of rooted plugs.

No-Till Planter for Renovations

- Sawbrier did emerge in the cuts
 - May need to be more aggressive in 1st season weed control and/or during pre-plant
- Fertilizer needs are different than in sand
- 1/3 the price of traditional renovation

Strong upright, runner growth of no-till plugs



