



# FACT SHEET

## Initiating Seed Production for Effective Establishment of Native Plants on Roadsides in New England

### RESEARCH PROJECT TITLE

*NETC 21-3: Initiating Seed Production for Effective Establishment of Native Plants on Roadsides in New England*

### STUDY TIMELINE

June 2022– August 2024

### PRINCIPAL INVESTIGATOR

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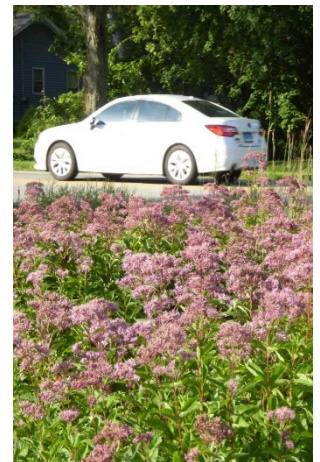
### MORE INFORMATION

<https://www.newenglandtransportationconsortium.org/projects/netc-21-3/>

The New England Transportation Consortium, a cooperative effort of the transportation agencies of the six New England States, funded this research. Through the Consortium, the states pool professional, academic and financial resources for transportation research leading to the development of improved methods for dealing with common problems associated with the administration, planning, design, construction, rehabilitation, reconstruction, operation and maintenance of the region's transportation system.

### Introduction

Since 2013, the Federal Highway Administration has recommended that DOTs use native plants for roadside revegetation because they provide sustainable environmental benefits, promote ecological health, and can provide economic benefits through reduced maintenance and better adaptation to local conditions. However, after decades of revegetating roadsides using turfgrass seed, New England DOTs have struggled to transition to the relatively more complicated practices of establishing and maintaining biodiverse native plant communities. In addition, since roadside native vegetation will significantly impact existing native plants, DOTs want to use locally sourced and grown native species seed, which currently does not exist on a scale large enough for DOT use.



### Methodology

Focus groups with DOT employees revealed the departments' progress toward implementing roadside practices that prioritize native plants, as well as the difficulties they have faced and suggestions for solutions. Communication with the project Technical Committee helped translate research materials into language that DOT personnel could better use. Literature review, common garden research, and consultation with experts who use and research native plants helped with the development of seed mixes DOT could use for various roadside conditions. Roundtables with stakeholders who produce and use native plants helped catalyze efforts to coordinate, strengthen, and accelerate the production of native plant material in the Northeast.

### Conclusions

Tools were developed for DOTs to easily compose seed mixes for four roadside conditions that would develop ecologically appropriate roadside native communities from available genetically appropriate seed sources. Three demonstration plots in CT, MA, and VT were established along U.S. Rte. 91 to cater to monarch butterflies and other pollinators. Each step of the establishment process was recorded to provide DOTs guidance concerning possible challenges they may encounter. Conservation mowing guidelines were outlined to assist with proper timing and illustrate its benefits. Fact sheets aimed at DOT personnel and the public communicated topics related to new roadside practices. The Northeast Seed Network originated from the roundtables held with stakeholders, resulting in concerted, coordinated efforts to increase and accelerate the production of regional native plant material. Dialogue between DOTs and regional native plant material producers was initiated to meet the needs of DOTs.

### Potential Impacts

A final report was formatted into a user-friendly manual that DOT personnel could consult to properly implement, accelerate adoption, and explain the benefits of roadside revegetation practices using native plants.