



Conservation Programs & Practices for: Aerial Cover Crop Seeding

Natural Resources Conservation Service

MASSACHUSETTS

About NRCS

The USDA Natural Resources Conservation Service (NRCS) works with agricultural and forest producers to protect and conserve natural resources on our nation's private lands.

NRCS administers conservation programs authorized through the 2014 Farm Bill (Agricultural Act of 2014), offering financial and technical assistance to landowners to address high priority natural resource concerns through the planning and implementation of conservation practices.

Contact your local office for assistance.

Contact us

Massachusetts USDA Service Centers

Greenfield: 413-772-0384 ext.3

Hadley: 413-585-1000 ext. 3

Holden: 508-829-4477 ext. 3

Pittsfield: 413-443-1776 ext. 3

Westford: 978-692-1904 ext. 3

West Wareham: 508-295-5151 ext. 2

West Yarmouth: 508-771-6476

NRCS is offering an aerial cover crop seeding initiative to improve soil health in Massachusetts. The Environmental Quality Incentives Program (EQIP), provides financial assistance to hire a helicopter, purchase cover crop seed, and spread the seed over your fields while your primary crop is still growing.

By hiring a helicopter to spread cover crop seed – before harvesting your main crop – you'll save time and build healthy soil. Aerial seeding can help you establish a cover crop before our short growing season comes to an end.

How does aerial seeding work?



1 Field boundaries (in yellow) are programmed into the helicopter's guidance system, determining the seed-drop paths (in white).



2 Cover crop seed is loaded into a container attached to a helicopter. Cover crop seed mixes will vary depending on the site.



3 A helicopter releases cover crop seed onto a growing corn field. In this case, winter rye seed is being spread.



4 The aerially-seeded winter rye germinates beneath corn, the main crop. The corn continues to grow while the cover crop takes root.



5 The main crop is harvested after the cover crop is established, eliminating the need to spend time tilling and spreading seed after harvesting.



6 After the corn harvest, the winter rye has time to grow before our short New England growing season ends.



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Why are cover crops important?

Conservation practices such as cover crops, conservation crop rotation and no-till seeding improve a soil's organic matter content, water holding capacity, and resilience to climate change.

Cover crops are one of the most effective ways to improve soil health, reduce off-farm inputs, and protect natural resources. A cover crop is any plant grown for the primary purpose of improving the soil.

Known for preventing erosion, cover crops can help improve soil health in a number of ways. They can increase organic matter, improve soil biology and soil structure, suppress weeds, and help make nutrients more available to plants.

In spite of the positive effects of these practices, many crop and livestock farmers find it difficult to harvest the main season crop and have enough growing degree days left in the season to establish a cover crop. Aerial seeding can help with this problem.

Cover crops let farmers harvest sunlight 365 days a year. If the soil isn't covered with living plants all year, farmers lose an opportunity to sequester valuable carbon in the soil. Carbon, which makes up 55 to 58 percent of organic matter in the soil, feeds the soil life, which in turn builds soil structure and nourishes the crop through the growing season.

If the soil life isn't fed, fields and crops are more susceptible to compaction, drought, excessive rain, disease, pests, and late season nutrient deficiencies.

And finally, years of research have documented that using cover crops correctly can result in higher yields.

Environmental Quality Incentives Program (EQIP)

EQIP helps promote farm and forest production by enhancing the environmental quality of soil, water, air, plants, and animals.

Who can apply?

- Owners of land in agricultural or forest production, or persons who are engaged in livestock, agricultural, or forest production. The land must be considered eligible by NRCS and have a natural resource concern.
- There is no minimum acreage requirement to apply for EQIP, however, projects that address more significant resource concerns are more likely to receive funding.

How and when do I apply?

- Applications may be submitted anytime. All applications will be evaluated periodically in a competitive ranking process as funding becomes available.
 - Farmers who apply for aerial cover crop seeding will only compete for funding with other farmers who apply for the same initiative.
 - Interested farmers should contact NRCS as soon as possible. Applying for NRCS programs and scheduling aerial seeding must be planned in advance.
- To apply, you'll need to file a number of forms, available at our offices and online. You'll prepare and submit your application package with the help of USDA staff.
- If your application is funded, you will be required to install and maintain your conservation practices according to NRCS standards.

Conservation Plans and Conservation Activity Plans

Your program application must be supported by an NRCS approved conservation plan, which provides documentation of the practices that could be used to address your natural resource concerns. We will work with you to develop an approved plan.

You may also apply for financial assistance to hire Technical Service Providers (TSP) to develop a specialty plans called Conservation Activity Plans (CAP) to address certain land use activities or specific resource needs on your land.

Call your local NRCS field office or visit us online for more information.



This strong root system of an aerially-seeded winter rye cover crop will help create resilient, healthy soils.