
WATERSHED AUDIT: COVER CROP SURVEY

Planting harvested fields in rye, barley or other winter cover crops is one of the most effective ways of preserving farm productivity and downstream waters. In Maryland, maximum benefits are obtained if cover crops are planted by October 1st. But later plantings still provide substantial benefits.

In this factsheet we'll show you how to assess the extent of cover crop use in your watershed. We urge you to thank farm owners who make use of this valuable measure and to alert others of the many benefits, including financial incentives, which are described at the [Maryland Department of Agriculture \(MDA\) Cover Crop Program](#) webpage. Finally, sign-up for [Maryland League of Conservation Voters](#) alerts so you can act on opportunities to support this and other essential programs.

The Benefits of Winter Cover Crops

After corn or other crops are harvested, a portion of the fertilizer applied earlier in the year remains in upper soil layers. Cover crops, like rye, wheat or barley, take up this excess fertilizer and prevent it from leaching through the soil to enter downstream waters. Between March 1st and June 1st of the following year, the cover crop is killed and serves as a nutrient source for the spring planting of corn, soybeans, etc.

In Maryland, maximum benefits are achieved when cover crops are planted before October 1st, while nitrogen still remains close to the soil surface. One study indicates that seeding cover crops by October 1st reduces nitrogen losses by up to 45% (*see graph on other side*). Planting as late as November 5th can still reduce nitrogen pollution by about 19%. Some cover crops, like wheat, are intended to be harvested and receive fertilizer treatment. These fertilized cover crops provide no reduction in nitrogen. However, both fertilized and unfertilized crops protect soil over the winter from erosive forces, which greatly benefits soil productivity and the aquatic environment. Presently farmers who plant cover crops are eligible for a payment of \$25 to \$100 per acre.

The Cover Crop Survey

First of all, cover crop surveys are conducted solely from the roads ramifying a watershed. You should never enter onto a farm without permission. Fortunately, most cropfields are visible from public roads. Most of Maryland's 138 subwatersheds can be surveyed in four- to six-hours. Following are the steps involved in this extremely easy survey. Please note your findings from each survey by going to the CEDS Watershed Audit webpage (ceds.org/audit) then click on *Cover Crop Survey*.

1. Print out aerial photos showing cropfields in your watershed from [MERLIN](#). (MERLIN allows you to print aerial photos with watershed boundaries.)
2. Around October 15th drive watershed roads and note whether each harvested cropfield is sprouting new green shoots. If it is then a cover crop was probably planted by the October 1st deadline. Make a note of the percent vegetative cover (*see other side*), take a photo (when a field is unoccupied) and a GPS reading to document the cropfield location and cover crop condition (*or lack thereof*).
3. Drive watershed roads again in late-November. Again document percent vegetative cover on each cropfield.
4. In February repeat the survey a third time when fields are mostly free of a snow cover.
5. In early June, drive watershed roads one last time and note fields where the cover crop is still present. These fields were probably planted in a commercial (fertilized) cover crop.
6. Send a thank you letter to the farm owners who planted cover crops (*see sample letter on other side*). The Parcel Boundaries layer in MERLIN allows you to look up ownership information.
7. Consider informing other farm owners about the benefits of cover crops. But first, check with your local Soil Conservation District. They may've recently made such a mailing. The MDA webpage has an attractive flier you can print and mail. Be certain to get the information to the farm owner by early June while the enrollment period is open.



Near 100% Vegetative Cover



About 75% Vegetative Cover



About 20% Vegetative Cover



About 30% Vegetative Cover

Dear Mr. Smith:

There's an old saying: If you like to eat, thank a farmer. Well, a thank you is also deserved when a farm owner goes the extra mile to protect water quality. Therefore, thank you for planting your field(s) in winter cover crops.

As a member of the North River Watershed Association, I know that your extra effort has made the river a better place for everyone to enjoy. Please let us know if there's ever anything we can do to help make your farm more productive in terms of crops and clean water.

Gratefully,

Sample Thank You Letter

