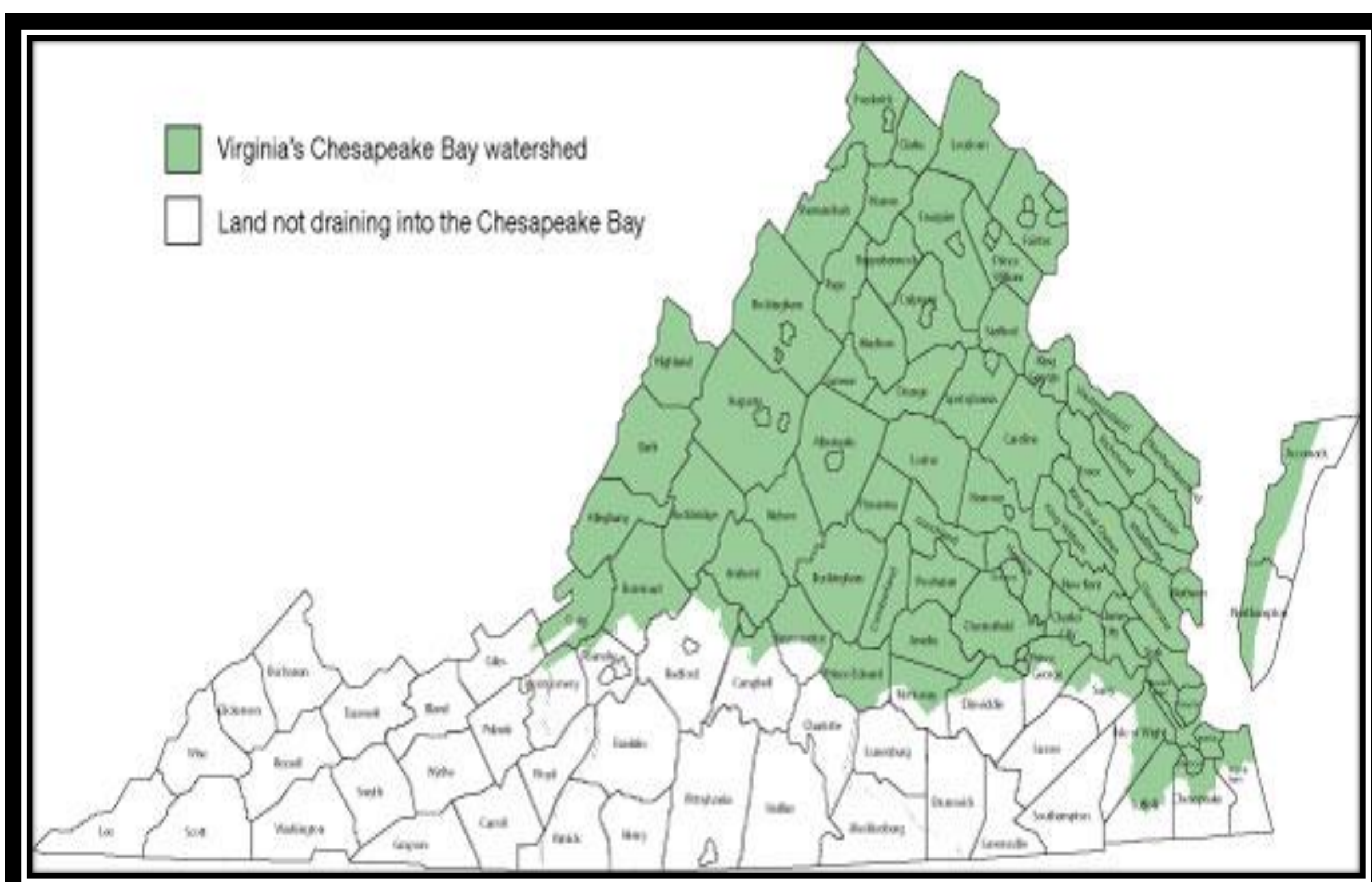


ROADSIDE SURVEY OF CONTINUOUS NO-TILL AND COVER CROP ACRES IN VIRGINIA

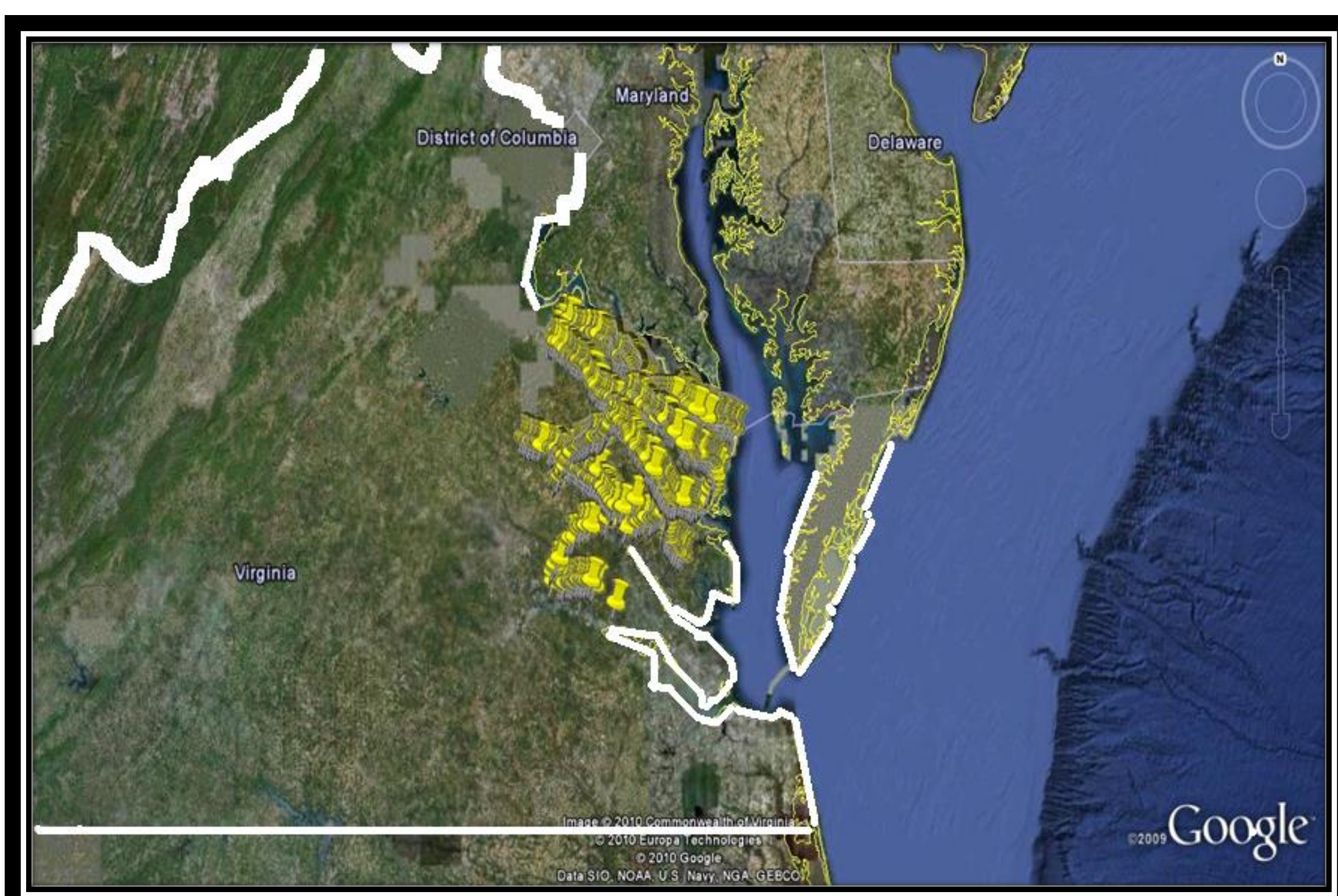
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Virginia Chesapeake Bay Watershed



Yellow =Survey Area: Represents over 750 fields;

Abstract

In 2009, the Chesapeake Clean Water Ecosystem Restoration Act (HB3852/S1816) was passed and was intended to strengthen certain standards for the Chesapeake Bay, particularly, to address nonpoint source pollution. As a result, Total Maximum Daily Loads (TMDL) was put in place to limit nitrogen, phosphorous, and sediment loss from agricultural fields. No-tillage production is a proven practice used to decrease runoff and pollution to the Bay and its tributaries in eastern Virginia. Cover crops and winter crops such as small grain can be used to recover nutrients unused by the summer crop and leached through the soil profile. To estimate the number of acres in continuous no-till, TMDL based the acceptance of the no-tillage practices on the acres enrolled in local cost-share programs, which was erroneous since most no-till acres were not enrolled in such program. Therefore, to better estimate the number of continuous no-till acres in eastern Virginia, a roadside survey was conducted through a 350-mile trek in grain production areas. At every field on the travel route, the following data were acquired: 1) GPS coordinates of the field; 2) crop currently growing; 3) tillage practice: and, 4) presence of growing or senescing cover crops. The route used was the same for each year of the survey (2010-2012) so that a determination could be made as to the continuation of no-till practices. Crops planted in the survey area were identified in the month of May during the survey years. and the crop makeup did not vary significantly. Corn was found in 44.3% of the fields, soybean in 26.5% of the fields, and small grain in 22.5% of the fields. The small grain acres would eventually be in double crop soybeans, a standard practice in eastern Virginia; therefore, the soybean represented 49% of the fields. Fields in continuous crop no-tillage averaged 91.2% of the fields over the three-year period. If small grain was included in the cover crop acreage, 42% of the surveyed acreage had a living or recently killed winter crop in place. In summary, no-tillage is a widely used production practice in eastern Virginia since the late 1960's. Today, most of these fields have converted to continuous no-till as revealed by this survey.

Survey Results

Tillage Method	2010	2011	2012	Average
No-Till %	90.0	92.5	91.1	91.2
Conventional / non-crop %	10.0	7.5	8.9	8.8
Total	100	100	100	100

Conclusion

The data in that this bill (Clean Water and Ecosystem Restoration Act-S1816/HR3852) utilizes to mandate requirements is inaccurate. This survey shows actual acres in continuous no-tillage and using cover crops to be much greater than those captured through sign-up of cost-share programs. Therefore, producers may not be credited for practices reducing runoff and leaching when determining TMDL for each body of water in eastern Virginia and elsewhere.

Importance of Road Survey

- Chesapeake Clean Water and Ecosystem Restoration Act (S. 1816/HR3852)
- Not all farmers sign up for government incentive programs.
- The use of no-tillage is a proven practice dating back to the 1960's and widely used in Eastern Virginia
- Gives a realistic perspective of farmers implementing conservation practices on their farm

Cover Crops?	2010	2011	2012	Average
Yes %	34	47.5	44.5	42
No %	59	45.5	48.5	51
N/A (pasture, hay, etc.)	7	7	7	7

Resources

Virginia AG Statistics Bulletin
DCR, "Bay Total Maximum Daily Load" (TMDL)
Virginia AG BMP Cost Share/Tax Credit Programs
GPSvisualizer.com

Acknowledgements

Stephen Davis-Intern 2010
Micah Owens-Intern 2011
Brittany Moring-Intern 2012
Dorothy Baker-Intern 2014

Funding and Support

Virginia Soybean Board

