# Building Soil Health in Maryland through Agricultural Service Provider Education (NEUMD14-001)

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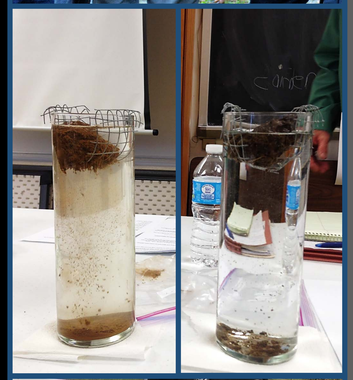
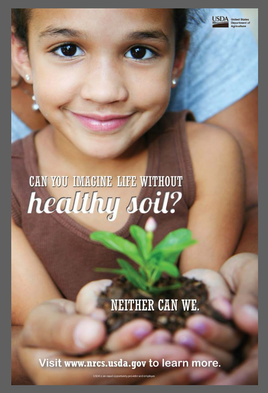
NORTHEAST SARE Sustainable Agriculture Research & Education

UNIVERSITY OF MARYLAND EXTENSION



**The Maryland Northeast Sustainable Agriculture and Education (Northeast SARE) Professional Development Program (PDP) designs and coordinates educational programs for agricultural service providers (ASPs). The presenter conducted a needs assessment to determine a focal topic for a three year project and designed a program to address that topic: Soil Health.**

**Field days, demo workshops, and one-day meetings were the highest rated methods for learning new information, and therefore served as the base for this project's outreach efforts. These findings were supported by results with similar trends from polls at workshops, conferences, and focus groups.**



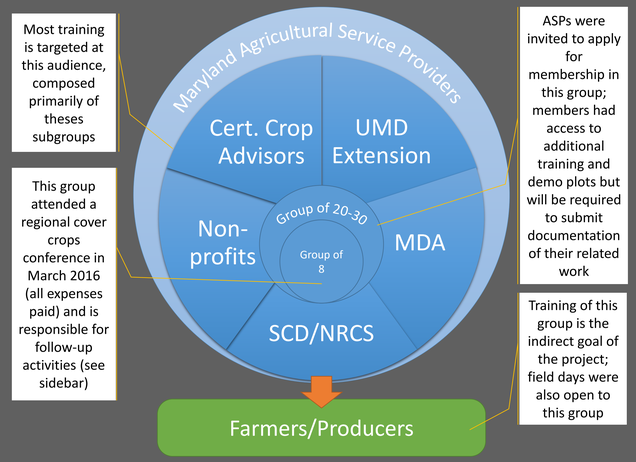

Follow four basic soil health principles to improve soil health and sustainability:

1. Use plant diversity to increase diversity in the soil.
2. Manage soils more by disturbing them less.
3. Keep plants growing throughout the year to feed the soil.
4. Keep the soil covered as much as possible.

While the importance of soil for crop production has long been known, this project is part of a movement to look beyond the basic physical and chemical properties of soil and use a holistic approach that includes biological components and additional physical and chemical factors. These education and outreach activities enable ASPs to help farmers understand the value of healthy soil and adopt the best production practices for increasing the health of farm soil. This project dovetails with the USDA Natural Resources Conservation Service Soil Health campaign.

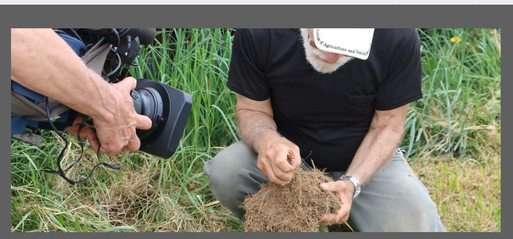
| Project Activities (FY 2015-2017) | Number |
|---|---|
| Workshops/Field Days | 8 |
| On-farm Demonstrations | 1 |
| Webinars/Talks/Presentations | 9 |
| Individual Consultations | 23 |
| MD Farm & Harvest TV segments | 1 |
| Slake test/rainfall simulator exhibits | 8 |

## Project Audience




**Performance Target: 30 ASPs will incorporate soil health concepts into their current programming and advising, reaching 500 producers farming 37,500 acres. Of those, 10 ASPs will develop and offer in-depth programming in soil health concepts to their clientele for 150 producers farming 11,250 acres.**

| Project Outcomes (FY 2015-2017) | Target | Verified |
|---|---|---|
| **Total Number of Agricultural Service Providers** who incorporated soil health concepts into their current programming and advising | 30 | 72 |
| Workshop/Field Day/On-farm Demonstration | -- | 27 |
| Webinar/Talk/Presentation | -- | 38 |
| Individual Consultations | -- | 70 |
| **Total Number of Farmers** these agricultural service providers reached through their efforts. | 500 | 2,780 |
| **Total Amount of Production** these farmers manage. | 37,500 | 103,001 |



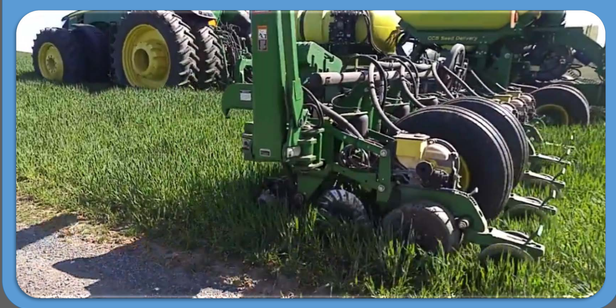
## Related Project: Delay the Burn

### See More Cash Crop Benefits by Keeping Your Cover Crops Alive Longer (ONE16-282c)

No farmer wants their cover crops to grow big enough to interfere with their planting operation, but there are some big benefits still to be had from as few as two more weeks of growth past the average burn-down date. These include moisture retention during dry spells, more organic matter, less compaction, more rainwater infiltration, and an increase in the amount of nitrogen that stays in the soil profile. Most recent model planters can easily handle up to several additional weeks of grass cover crop growth.

This project was developed as part of the Northeast SARE Cover Crops Initiative. In March 2016, teams of 8 farmers, educators, researchers and service providers from each Northeast State met in Baltimore, MD to learn about state of the art cover crop management techniques.

The Maryland team developed a demonstration and education project to address the often-missed benefits of delayed cover crop termination. The project has established 4 privately owned demonstration farms where a strip of cover crops will be allowed to grow 2-4 additional weeks past the normal kill date. Each site hosts a spring field demo and a summer field day for the two years of the project. A related NRCS grant project measures the costs and benefits of this practice.



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