



SOIL AND WATER CONSERVATION DISTRICT OF PERRY COUNTY

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**Meetings the First
Monday Night
of Each Month**

1003 North Main

547-4077

Extension 3



OUR SOIL ★ OUR STRENGTH

NEWSLETTER

Perryville, MO 63775

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Spot Check Policy

Most of you receiving this newsletter have received Soil and Water Conservation District (SWCD) cost-share funds to complete at least one erosion control practice. In conjunction with receiving those funds, you agreed to maintain the practice for the lifespan of the practice.

The practice lifespan is 10 years for the following practices: ponds, water and sediment control basins (dry dams), vertical drains (sinkhole practice), terraces, grassed waterways and diversions. The practice lifespan is 5 years for critical area treatments (grading, shaping & seeding an area). Maintenance includes, but is not limited to: controlling woody development, maintaining grass stand, fixing settled areas around sinkhole pipes, maintaining 25' grass filter strip around vertical drain pipes, etc.

The SWCD Board policy requires a 5% spot check of completed practices for the previous 10 years. Letters will be sent annually to those whose practices were selected for spot check that year. The letter will show you what practices will be checked and allow you to make an appointment if you would like to accompany us during the check. If a practice needs maintenance, we will send you a letter letting you know what needs to be done and in what timeframe. If no action is taken to properly maintain the practice, initial cost-share funds will be required to be refunded.

Improving Water Quality Makes Economic Sense?

What do Soils Tests, Filter Strips and Cover Crops all have in common? They all make economic sense and in turn also improve water quality! First, make the time to take soils tests! At \$12 a sample, the savings in excess fertilizer will more than pay for the test. Secondly, marginal cropland adjacent to creeks and sinkholes would make more money enrolled in a CRP grass filter strip. With the increase in crop prices, soil rental rates have also increased. Therefore, payment rates for filter strips are in the \$100/acre range. Lastly, cover crops are getting more and more attention. While there is a cost associated with planting cover crops, their benefits are priceless. Not only do cover crops and filter strips protect valuable top soil, but they help alleviate compaction, scavenge residual nitrogen, increase soil organic matter and improve water quality. This information is based on results from field trials completed in Perry County through the SWCD 319 Grant. There are programs available to assist you financially with trying these management methods. Contact the NRCS office for more

Soil Health: Farming in the 21st Century

A practical approach to improve Soil Health

What is Soil Health? Why Should I Care?

Soil health is *the capacity of a soil to function*. How well is your soil functioning to infiltrate water and cycle nutrients to water and feed growing plants?

Soil is a living factory of macroscopic and microscopic workers who need food to eat and places to live to do their work.

There are more individual organisms in a teaspoon of soil than there are people on earth; thus, the soil is controlled by these organisms.

Tillage, fertilizer, livestock, pesticides, and other management tools can be used to improve soil health, or they can significantly damage soil health if not applied correctly.

Managing for soil health (improved soil function) is mostly a matter of maintaining suitable habitat for the myriad of creatures that comprise the soil food web.

Managing for soil health can be accomplished by disturbing the soil as little as possible, growing as many different species of plants as practical, keeping living plants in the soil as often as possible, and keeping the soil covered all the time.

Manage More by Disturbing Soil Less

Tilling the soil is the equivalent of an earthquake, hurricane, tornado, and forest fire occurring simultaneously to the world of soil organisms. Simply stated, tillage is bad for the soil.

Physical soil disturbance, such as tillage with a plow, disk, or chisel plow, that results in bare or compacted soil is destructive and disruptive to soil microbes and creates a hostile, instead of hospitable, place for them to live and work.

The soil may also be disturbed chemically or biologically through the misuse of inputs, such as fertilizers and pesticides. This disrupts the symbiotic relationship between fungi, microorganisms and crop roots.

By reducing nutrient inputs, we can take advantage of the nutrient cycles in the soil to supply crop nutrients and allow plants to make essential associations with soil organisms.

Diversify with Crop Diversity

Sugars made by plants are released from their roots into the soil and traded to soil microbes for nutrients to support plant growth.

The key to improving soil health is assuring that the food and energy chains and webs includes as many different plants or animals as practical.

Biodiversity is ultimately the key to success of any agricultural system. Lack of biodiversity severely

limits the potential of any cropping system and disease and pest problems are increased.

A diverse and fully functioning soil food web provides for nutrient, energy, and water cycling that allows a soil to express its full potential.

Grow Living Roots Throughout the Year

There are many sources of food in the soil that feed the soil food web, but there is no better food than the sugars exuded by living roots.

Soil organisms feed on sugar from living plant roots first. Next, they feed on dead plant roots, followed by above-ground crop residues, such as straw, chaff, husks, stalks, flowers, and leaves. Lastly, they feed on the humic organic matter in the soil.

Healthy soil is dependent upon how well the soil food web is fed. Providing plenty of easily accessible food to soil microbes helps them cycle nutrients that plants need to grow.

Keep the Soil Covered as Much as Possible

Soil should always be covered by growing plants and/or their residues, and soil should rarely be visible from above. This is true regardless of land use (cropland, hayland, pasture, or range).

Soil cover protects soil aggregates from 'taking a beating' from the force of falling raindrops. Even a healthy soil with water-stable aggregates (held together by biological glues) that can withstand wetting by the rain may not be able to withstand a 'pounding' from raindrops.

A mulch of crop residues on the soil surface suppresses weeds early in the growing season giving the intended crop an advantage. They also keep the soil cool and moist which provides favorable habitat for many organisms that begin residue decomposition by shredding residues into smaller pieces.

Soil Health for Your Fam, Ranch... for You!

Soil health is improved by disturbing the soil less, growing the greatest diversity of crops (in rotation and as diverse mixtures of cover crops), maintaining living roots in the soil as much as possible (with crops and cover crops), and keeping the soil covered with residue at all times.

Drills, planters, seed, fertilizer, pesticides, livestock, fences, water, farm implements, etc. are all tools that can be used to manage the soil habitat for the benefit of living members of the soil food web.

Many soils have a water infiltration problem that causes a water runoff problem. If soil health is improved, the structure of the soil results in greater water infiltration, less runoff, less or no erosion, and reduced incidence of flooding and sedimentation.

Agricultural Field Day

Alternative Cropping Practices:

Protect Your Profits & Your Resources!

Date: Friday, November 4, 2011

Time: 9:00 am – 2:00 pm

Location: Hwy V to PCR 916. Follow signs to farm on the left before Ball Mill Resurgence. Follow signs.

Learn more about:

- ***Cover Crops (Cereal Rye, Tillage Radish, & Oat Plots)***
 - o ***Michael Plumer, Cover Crop Consultant***
- ***Benefits of Grass Filter Strips***
- ***Improving Water Quality & Wildlife Habitat***

Registration required!

Workshop limited to 50 guests.

Lunch provided for registered guests.

Call the Perry SWCD at 573-547-4077 Ext 3 ASAP
to reserve your spot or for more information!

Sponsored by:

- **Perry County Soil and Water Conservation District**
- **Department of Natural Resources**
- **Natural Resources Conservation Service**
- **Missouri Department of Conservation**

2 - GREAT PLAINS NO-TILL DRILL

10 ft. - 7 1/2 inch spacing

(will do soybeans, milo, wheat, alfalfa, clover, fescue, orchard grass)

\$8.50 AN ACRE

(\$100.00 Minimum Charge)

or

7 FT. GREAT PLAINS NO-TILL DRILL

with warm-season grass box

\$8.50 AN ACRE

(\$35.00 Minimum Charge)

FINN MULCHER

NEW - TAILGATE MULCHER

Trailer mounted, ideal for yards, conservation practices and road cuts.

\$75.00 - 1/2 Day • \$100.00 - 1 Day

To schedule call Karen at
Perry County Soil & Water Conservation District
547-4077

Not Ready For A Harvest?

If you are a landowner who is not currently thinking about a timber harvest, it does not mean you should forget about your woods until you are approached by a logger. Ideal sustainable forest management is done through planning and harvesting when the trees are at economic maturity and when markets are good, not when someone knocks on your door, or when land is being bought or sold. Some light was shed on this in the recent wind storms. The storms forced many landowners into action. Many landowners were unsure of what they had; how many trees, what kind of trees, what is the quality of these trees, what young trees are developing for the future? These questions should be known to make informed management decisions. Therefore, take the time to get a plan together to determine direction for the future. It may be a great time to do a forest stand improvement to prepare your woods for your next harvest or to make improvements after a recent harvest.

Trees are a long term crop that can help diversify the family farm income. In tough economic times every acre is important. Good timber doesn't just happen in today's world, especially with smaller woodlots, invasive species, high-grade cutting of all good trees, no removal of undesirable trees, lack of good oak regeneration and the list goes on and on. Just like any crop, it takes planning. What your grandfather did or didn't do effected what kind of woods you have today. What are you going to leave your grandkids? To get a plan contact your local NRCS or MDC office.

PERRY COUNTY
SOIL AND WATER
CONSERVATION DISTRICT
1003 North Main St.
Perryville, MO 63775
(RETURN SERVICE REQUESTED)



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