St. Joseph County Soil & Water Conservation District

CONSERVATION KALEIDOSCOPE

Today's Visions for Tomorrow's Future

Oct/Nov/Dec 2001 Volume 3, Issue 4
5605 U.S. 31 South, Suite 4 *South Bend, IN * Website: www.iaswcd.org/stjoseph
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Calendar of Events

October 8
Columbus Day – Office Closed

October 11
Compost Seminar 7:00 – 8:30 pm
Farm Bureau Meeting Room

October 15
SWCD Monthly Board Meeting
7:30 – Farm Bureau Mtg. Room

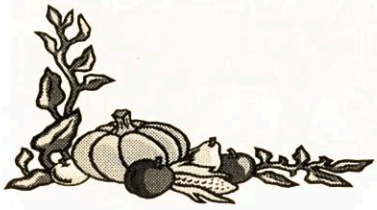
November 12
Veterans Day Holiday
Office Closed

November 19
SWCD Monthly Board Meeting
7:30 – Farm Bureau Mtg. Room

November 22 & 23
Thanksgiving Holiday
Office Closed

December 17
SWCD Monthly Board Meeting
7:30 – Farm Bureau Mtg. Room

December 25
Christmas Day
Office Closed



ANNUAL MEETING

The 42nd Annual Meeting of the St. Joseph County SWCD has been set for January 18th, 2002.

The Meeting is scheduled to take place at St. Adalbert's Hall

Plan now to attend.

What's Inside . . .

EDUCATION TRUNKS

The St. Joseph County Soil & Water Conservation District will be offering education trunks for educators to use, free of charge. One trunk will be a mix and match game of native mammals using fur samples and informational sheets about the animal. The other trunk will be about bats.
If you are interested in borrowing a trunk, contact Rick at the office at 219-2300, ext. 3.

MULCHING – GREAT FOR PLANTS AND THE ENVIRONMENT

Fall is a great time to mulch and help protect plants for the winter time. Mulching helps to retain moisture, cutting down on watering cost. It helps prevent weeds, saving labor time and herbicide cost. Mulching protects the soil from erosion, thus stopping pollution and maintaining soil fertility, saving you fertilizer cost. And it also helps moderate temperature, helping to keep plants from freezing in the winter. Finally, it can keep fruits cleaner and protects plants from soil borne diseases.

There are many types of mulches that you can use, but each one requires a different amount to achieve the same results:

Grass clippings.....2 inches
Bark, straw or
woodchips.....2 – 4 inches
Compost.....3 – 4 inches
Dry leaves.....6 inches

DO YOU WANT A GREAT LOOKING LAWN ? THINK FALL!

Yes, that is right. This is the time of year to help create the perfect summer time lawn. The reason for this is because the November 1st winter feeding of your lawn is the most important for a thick rich lawn. Even though the top of the grass does not really grow during the cold months of the year, the roots do. The roots do not need Nitrogen, N (the first number on a bag of fertilizer) but need Phosphorus, P (second number) and Potassium, K (third number). By putting down a good fertilizer that is high in P & K, in November you will be stimulating the roots to grow, thus giving you a thicker lawn in the summer.

SOME OTHER HINTS

The next best time to fertilize is about September 15th. A good weed and feed at this time will help your lawn recover from summer's heat and control weeds.

May 15th would be the next time to fertilize. A high nitrogen fertilizer at this time will really green up your yard.

Do not fertilize before May 15th. The yard is really not prepared for a quick growth yet and you can actually weaken the grass, causing diseases.

A pure Crabgrass preventer, not fertilizer, can be applied in April. Notice this is only a three step program.

SAVE THE EARTH – KNOW HOW BIG YOUR YARD IS

One of the leading causes of water pollution today is run off from our lawns. Most of us do not know the square footage of our lawn and usually over fertilize. This extra fertilizer ends up in our streams, rivers, and groundwater as pollution. So if you want to help the earth, grab a tape measure and go out and measure the square footage of your yard. You might be amazed at how much money you can save on fertilizer cost by applying the correct amount. If you really want to do it right, Red Hen Turf Farm puts out a great little handout on evaluating a fertilizer program, which you can get by calling our office.

BREAK THE TIMER ON YOUR SPRINKLER SYSTEM!

Your yard needs about 1 inch of water a week. By putting on a small amount every day, the roots never grow deep, inviting disease and animal damage. Use a rain gauge and apply about 1/2 inch of water at a time. Let it soak in and water again about 3-4 days later, if it is needed. Use the rain gauge to keep track of natural rain. Your yard will look great and you will save money.

Indiana Woodlands Play an Important Part in the Natural Ecosystem

Forest management puts dollars in woodland owner's pockets and protects the quality of Indiana's soil, water, air, plants and animal resources. Indiana's 92 Soil and Water Conservation Districts (SWCD's) place a high priority on helping land users understand the value of woodland resources and learn how to improve woodland management. Soil Surveys prepared by cooperating partners of SWCD's identify soil types and serve as a basis for determining growth potential.

The most basic management practice is forest stand improvement. The purpose of this practice is to improve the stand composition for maximum growth and profit. This is done by leaving the best trees and getting the right spacing for optimum growth. Additional benefits are soil protection for erosion control and water quality improvement, improving the natural beauty of the site, wildlife habitat improvement, and improved recreational values.

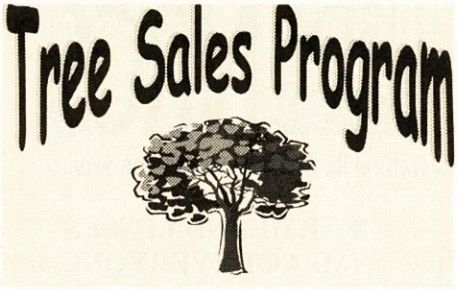
Forest stand improvement is most important when the stand of trees is overstocked or where desirable trees are overtopped by defective, deformed or less desirable trees. Shrubs and vines may also be a problem as they sap up moisture needed by the trees or smother out the sunlight in the treetops.

Forest stand improvement is best carried out with the guidance of a state or consultant forester. The process involves removal or deadening the hollow, deformed, fire scarred, non-saleable trees, shrubs and vines. The cutting or killing of vines should be done where the vines are interfering with growth of trees that have commercial value. Some vines have high wildlife values and should not be removed from dead, cull trees and ones being chemically killed.

It is important to leave a 50-foot strip of woodland adjacent to open fields, highways, or open water areas. This strip will provide wind protection for the rest of the woods, serve as a great food and cover site for wildlife, and contribute much to the beauty of the community. Plants such as dogwood, redbud, viburnums, black gum, sugarmaple, serviceberry, sassafras, sumac, Virginia creeper, and bittersweet should be in the woods border area for wildlife and natural beauty.

Which tree do I keep and why?

Indiana's farm woodlands are an important part of the natural ecosystem and can be a source of valuable income for the farm operation. Contact the St. Joseph County Soil and Water Conservation District to begin the process of realizing their value to you.



The St. Joseph Soil and Water Conservation District would like to announce the beginning if its 16th Annual Tree Sales Program. We would like to extend a big "Thank You" to everyone that has purchased trees from our program and have helped support the SWCD.

This year we are offering a variety of evergreen, deciduous, and flowering trees. Our sale will also include groundcovers and wildflower seed packets. The items being sold provide the following conservation benefits: providing shade, attracting wildlife, controlling erosion, and blocking the wind. They also can enhance the beauty of your property. The order forms will be mailed out in October. If you are not on our mailing list, then please call us and request that an order form be mailed to you. Ordering will end on March 1st and the items will be available for pickup on April 13th. We should have a list of available species on our website soon.
www.iaswcd.org/stjoseph

The Indiana DNR's Division of Forestry's tree sale is also underway for 2001-2002. They have a minimum order of 100 trees per species. Contact our office for order forms and other ordering information.

USDA NRCS
Natural Resources Conservation Service

FARMLAND LOSSES IMPACT EVERYONE

Indiana is losing nearly 90,000 acres of farmland each year. That is the amount of land being converted to other uses. Land use decisions are made at the local level and it is important for all Hoosiers to understand the importance of agricultural land to our economy and way of life. Agricultural and food processing accounts for 17 billion dollars in the Hoosier economy and supports over 500,000 jobs.

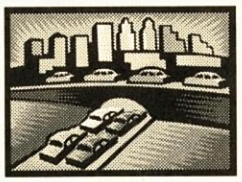
A good way to get an understanding of the limited amount of farmland in the world is to use an orange as a demonstration tool. Think of the orange as representative of the overall surface of the earth. First cut the orange peel with the tip of a knife blade into quarters from the stem end to the flower end. Then peel three of the sections away from the orange. That three quarters of the earth's surface is covered with water.

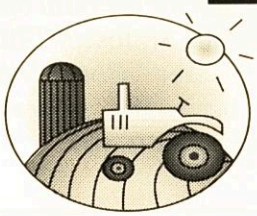
Now again using the tip of the knife, cut the remaining one-quarter of the peel in half from the stem end to the flower end and remove it. That one-eighth's of the earth's surface is not habitable by man because it is too cold, too dry, too steep, or too rocky for man to live there.

You have one-eighth of the orange peel left in the orange. Cut and remove the peel from three fourths of that piece. It works best to cut this cross wise rather than from the stem to the flower end. Of the original peel only one-thirty second remains. That represents the arable portion of the earth on which man can live and produce food.

The lesson to learn from this little demonstration is that very little of the earth's surface is available for us to produce food and live on. The pressure on this limited resource is dramatic. Consider the way this land is being used and how fast much of it is being converted from food production to roads, housing, shopping centers and other nonreversible uses. Take time in your daily life to get a better understanding of the issues related to farmland conservation so that you will be better able to be a part of the local decision making process. The St. Joseph County Soil and Water Conservation District can provide you with information about the community, its soils, amount of farmland conversion and some of the local impacts.

Notice there is also a second lesson in that the peel is very thin in comparison to the size of the orange. That layer represents the thin layer of topsoil that produces our food. Soil erosion from wind and water can reduce the productive potential of the topsoil unless conservation measures are practiced.

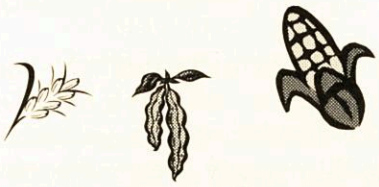




CONSERVATION PLANS PROVIDE A ROAD MAP FOR SOIL AND WATER CONSERVATION

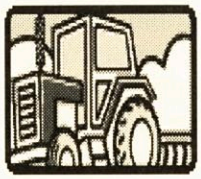
When most of us decide to take a vacation or other trip, we pull out the maps, travel and attraction guides, and other reference material. We have family discussions about what everyone wants to see and do. All this results in a general plan to serve as a guide for the trip. Good planning results in fewer bottlenecks and lost opportunities to have fun.

The same is true of natural resource management on the farms and in the woods across Indiana. Almost ninety percent of Indiana is privately owned. Each tract of land is different, and each owner's desires and objectives are different. Soils vary in depth, drainage, erodibility, natural productivity, slope, texture and stoniness. Other resources – water, plants, and animals – also vary from one property to another. These characteristics affect how the owner or manager uses the land. Since the land and its related resources are unique, so should be the planning for its use. Other variables are equipment, management knowledge and skills, crops, fertility programs and especially the goals and objectives of the farm family.



Short-term plans may include what crops to grow and livestock to raise or sell. Long-term plans may consider protecting and improving soil and water resources. The latter is where the St. Joseph County Soil and Water Conservation District and its conservation partners come in. As you think about how to farm more efficiently and how to protect the soil from wind and water erosion and improve soil quality so that it will continue to produce good crops year after year, you are doing conservation planning.

The first step in conservation planning is a good inventory of the land and its current condition. Soil information is basic to the process and includes the soil map and a description of the soil in terms of texture, characteristics, capabilities, limitations, and erosion potential.



When you are ready to start, you and the conservationist discuss the soils, your goals and objectives, the kinds of crops and livestock you want to grow and other special interests like wildlife or forestry that you have for the farm operation. Together you discuss the ways to meet your goals while protecting the land from erosion and other problems. The conservationist offers ideas on conservation practices and management techniques to overcome any problems. You decide which is best for you and how to carry out the conservation measures. The result is a conservation plan, or your road map, to successful soil and water management.

Contact the office for help in conservation planning and installing the measures in your conservation plan at 219-291-2300, ext. 3.

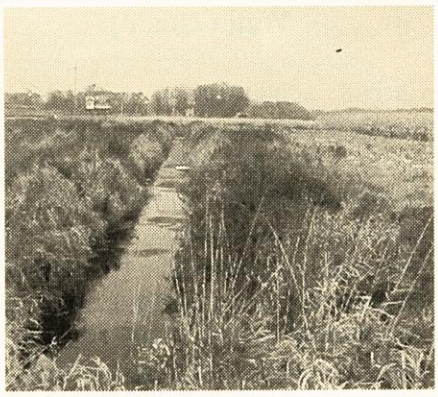
WARM SEASON GRASS MAY NOW BE PLANTED IN GRASS WATERWAYS & FILTER STRIPS

The new NRCS Grassed Waterway and Filter Strip standards now have warm season grass options available to producers. A warm season grass mixture and Redtop can be used in grass waterways where the watershed drainage area is less than 10 acres. Redtop is a cool season grass that germinates very quickly and provides early initial vegetation to control soil erosion while the warm season grass (WSG) becomes established. WSG varieties (or native prairie grass species as they are sometimes referred to) are slow in their establishment. These native prairie grass varieties will crowd out the Redtop over time. This new seeding mixture option must be seeded before June 30th. The Quail Unlimited (QU) five or seven variety mix or Pheasants Forever (PF) five variety "Prairie Mix" are acceptable WSG mixes for CRP.

In all applications using warm season grass in water construction, the addition of Redtop to the WSG planting mix is required. The planting of warm season grass of any variety or blend is limited to spring or early summer seeding (seeded by June 29th). The warm season grasses must **not** be planted in the early fall (the normal fall cool season grass seeding period). The addition of Ladino clover at 4 oz. per acre or annual lespedeza or partridge pea at 2 oz. per acre will also improve the wildlife habitat value.

The new NRCS Filter Strip practice standard is divided into two function groups: filtering and wildlife habitat improvement with some filtering. The filtering group has a WSG and Redtop option. The second function group (wildlife) does not require the addition of Redtop to the WSG seeding mixture. It is for sites that have reduced levels of sediment or other contaminants. Because the need for water quality filtering is not as great on these reduced level sites, the wildlife benefit becomes more important than filtering the storm water runoff. In this wildlife group, the Redtop may be left out. The prepackaged QU or PF mixes are also acceptable WSG mixes for CRP.

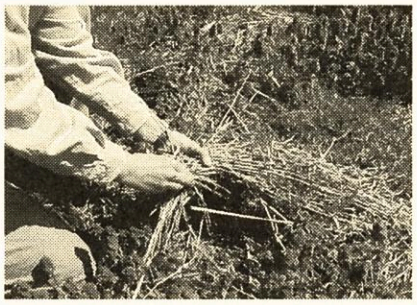
Filter Strip



In considering the planting of WSG, after the grass is established, the need for burning at least once every three years should be addressed. The establishment of WSG can be very challenging and requires considerable effort during the establishment period. At least three years will be required on most sites. Warm season grass must not be planted on organic muck or muck soil because of the danger of a prairie fire causing a muck fire. WSG plantings need to be surrounded by some type of fire break (a 20 foot cool season grass strip, gravel road, tilled field) to reduce the fire danger. A crop field only offers protection during the period of growth. A corn field ready to harvest or hay field ready to bale does not provide the fire protection of a 20 foot strip of cool season grass. There are several cool season grasses that are acceptable choices for fire breaks. Please contact the St. Joseph County Soil and Water Conservation District Office for details, additional information and help in planning and considering these new WSG options for waterways and filter strips.

Carbon Storage Increases Profits for Agriculture, Improves Air and Water Quality

Carbon sequestration adds to the farmer's bottom line and improves air quality for all Hoosiers. Carbon dioxide from the atmosphere can be stored or "sequestered" in the soil as soil organic matter. The result is improved soil quality, improved agricultural productivity and overall improvement in the quality of life.
There is growing concern about global warming and its potential impact on the environment and agricultural production. Scientists agree that an increase in greenhouse gases can cause an increase in long term temperatures. Carbon dioxide is one of the six gases involved in the greenhouse effect. Atmospheric carbon dioxide levels have risen thirty percent since the industrial revolution, primarily from the burning of fossil fuels. Agricultural practices can be an important method for storing carbon in the soil, thus reducing the amount of carbon dioxide in the atmosphere.

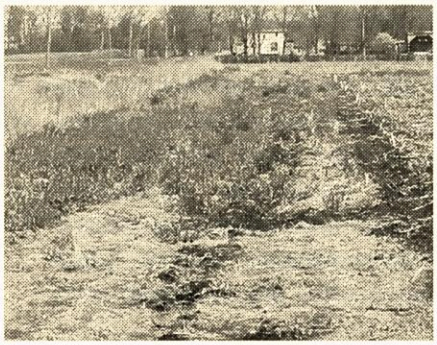


Soils with high levels of organic matter exhibit improved nutrient absorption, water retention, texture and resistance to erosion. Nutrient absorption and water holding capacity are directly related to the soil organic matter content. Therefore, increasing soil organic matter improves water quality as well as air quality. Plants extract carbon dioxide from the atmosphere during photosynthesis. Oxygen is released back into the air and the carbon is captured or sequestered in plant tissue, primarily in the roots. When a field is plowed, air and crop residues are mixed into the soil. When this happens, soil organisms begin to break the substances down. The residue is a food source for the organism and oxygen is needed to help them function. Since crop residue is nearly forty percent carbon, one of the breakdown products is carbon dioxide, which is free to escape into the atmosphere.

Conservation tillage, especially no-till, greatly slows the plant residue decomposition process and keeps much more carbon stored in the soil. Compared to plowing, no-till reduces the amount of carbon dioxide that escapes into the atmosphere by nearly ten times. Farmers are among the first to recognize the value of soil organic matter. A recent Illinois study showed that land with 4% soil organic matter sold for $900 more per acre on average than soils with 1%.

An important point of all this is that no matter where you stand on the current discussions of global warming, storing carbon in the soil is profitable for agriculture and great for air and water quality.

Local Soil and Water Conservation Districts can help farmers convert to conservation tillage and improve their farm's bottom line through carbon sequestration. Soil and Water Conservation Districts in Indiana will soon have the results of a study which will show the potential for carbon sequestration in Indiana soils.



URBAN CONSERVATION

Erosion on Indiana's cropland has always been a concern. However, the agricultural community is not the only one that should be concerned with controlling erosion. Erosion can also occur when land is converted to urban use.

Erosion on urban land is a concern because much of the land that undergoes development is subject to a major land use change. This change in land use is usually accompanied by grading and other earth moving activities. Major changes like this often leave the soil bare and subject to erosion. The processes of erosion and sedimentation can result in economical as well as environmental problems to the developer and the local community. Erosion damage on the construction site results in loss of topsoil which often makes reestablishment of vegetation difficult, rilled and gullied slopes, washed out roads and streets, and undercut pavements. It is also a fact that protected homesites absent of erosive rills and gullies are more salable. Sediment almost always has a diverse effect on areas where deposition occurs. Sediment fills storm sewers, culverts and drains, and reduces the storage capacity of lakes. Sediment is also a pollutant.

It lowers water quality, can be injurious to aquatic life, increases the cost of water treatment, and can reduce recreational use.

Many of these concerns can be reduced or possibly avoided through good land use and conservation.

Although a development site is only disturbed for a short period of time, erosion and sedimentation can be a severe problem. Rates of erosion on urban sites are generally several times those occurring on cropland, until proper measures are undertaken to stabilize the area.

What measures can be taken to reduce erosion from areas undergoing urban development? The key is to implement practices before problems arise. Many of the principles used on agricultural land can be adapted to urban sites. Plans which incorporate existing topography, soils, and natural vegetation provide less potential for erosion hazards and off-site sedimentation. Streets and buildings should conform to the natural topography in order to reduce land disturbance. During the planning process, one should incorporate existing cover, such as woods, grassed areas, and water courses into the plans. These areas, left in their natural state, will reduce erosion and sedimentation and will increase the aesthetic value of the property. This is especially true where the soils and landscapes are unsuitable for development.

Areas which will be disturbed should be adequately planned to reduce erosion and sedimentation. Erosion control can be achieved by exposing small, workable areas of land for short periods of time and by timely seeding of unvegetated areas.

Vegetation should be used to stabilize bare areas as soon as possible. Temporary seeding should be used in areas where a permanent seeding cannot be completed because of season or delay of final grading.

The first step in preventing off-site sedimentation is to control erosion on the construction site. The second step is to trap sediment before it leaves the site. To trap sediment, storm water runoff must be detained for a sufficient time to allow soil particles to settle out. There are several ways to achieve this goal. Best management practices commonly used to trap sediment before it leaves the construction site include vegetative filter strips, straw bale barriers, silt fences, and temporary or permanent sediment traps.

There are many solutions for controlling erosion and sedimentation associated with urban development. Many of those solutions employ vegetation and common sense. In some situations structural measures may be necessary to achieve these goals.

The benefit of reducing erosion and sedimentation is two-fold. Not only does the developer reduce the effect of off-site problems, but the cost associated with plugged culverts, sediment laden roads, eroded slopes, and other problems occurring within the development site are also reduced.

St. Joseph County Soil and Water
Conservation District
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St. Joseph County Soil And Water

Supervisors:
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Dale Stoner, Member

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Randy Matthys
Eugene Myers
Beverly Riddle
Richard Schmidt

MISSION

To provide guidance and education to the youth and adults of St. Joseph County and to administer programs to preserve, protect and improve soil, water, air, plant, and animal resources for future generations.

Honorary Members:
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Al Gostola
Harold Mutti

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Debbie Knepp, NRCS
Jerome Daugherty, IDNR
Rick Glassman, SWCD
Troy Manges, SWCD
Tonia Albright, SWCD

Farm Service Agency Staff:
Mike Hoskins, CED
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Cindy Philhower
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