St. Joseph County Soil & Water Conservation District

CONSERVATION KALEIDOSCOPE

Today's Visions for Tomorrow's Future

Apr/May/Jun 2002 | Volume 4, Issue 2 | 5605 U.S. 31 South, Suite 4 *South Bend, IN * | Website: www.iaswcd.org/stjoseph | Telephone (574) 291-2300 Ext. 3 | Fax (574) 291-0284 | Editor: Troy Manges | Tonia Albright

Calendar of Events

April 13
Tree Pick Up
St. Joe Co. 4-H
Fairgrounds

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

April 18
Compost Seminar
7:00 – Farm Bureau Meeting Room

April 20
Field Day – Kosciusko Co.
Bart Culver Property
8:30 AM to 2:00 PM

May 20
SWCD Monthly Board Meeting
7:30 – Farm Bureau Mtg. Room

May 27
Memorial Day
Office Closed

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

TREE SALES & PICK UP
APRIL 13TH, 2002
ST. JOSEPH COUNTY
4-H FAIRGROUNDS
ESTHER SINGER BUILDING
8:00 AM TO 12:00 PM

FORESTRY – WARM SEASON GRASS
WETLAND FIELD DAY
APRIL 20TH, 2002
Kosciusko County
Bart Culver Property
8:30 AM TO 2:00 PM
Lunch will be provided

Sponsored by: *Kosciusko SWCD*
St. Joseph Co. SWCD
Elkhart Co. SWCD
Purdue Cooperative Extension Service

Call the office for reservations by April 12th at 574-291-2300, ext. 3

Spring

What's Inside . . .

COMPOST WORKSHOP

THURSDAY, APRIL 18TH
7:00 P.M. - 8:30 P.M.
FARM BUREAU
MEETING ROOM

CALL FOR RESERVATIONS
574-291-2300
EXT. 3

ALL PARTICIPANTS WILL RECEIVE A FREE COMPOST BIN AND CONSERVATION TREE.

PINE CONE BIRDS

MATERIALS — pine cones of different sizes, large nut — flexible wire — pipe cleaners — clay — tacky glue — paints or markers — construction paper – pictures of birds

Look at the pictures of the birds and select a model. Owls, chickadees, cardinals, titmice and finches make good models.

Choose a small pine cone and using glue and clay attach the nut as the bird's head.

Wrap wire or pipe cleaners around the cone to make legs and feet.

Break off pieces from large pine cones to make the wings and tail and glue them on pine cone.

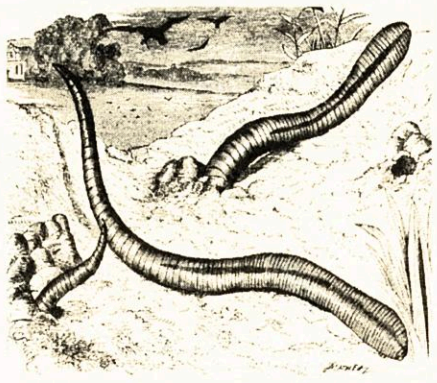
Use the paper to make the beak.

Paint or draw on the face. Experiment and have fun.

PORTRAIT OF AN ANIMAL

THE EARTHWORM

Many of us consider the earthworm nothing more than a slimy creepy crawler. While it is true that they are slimy, the fact remains that without the earthworm, we may not be able to exist on this planet. If you have ever wondered why an earthworm is slimy, it is because they breathe through their skin but only when it is wet and slimy. Aristotle called the earthworm "the intestines of the earth". Earthworms basically recycle the soil. Using their lip and small mouth, they can literally eat their way through the soil. The soil is made up of small pieces of minerals and organic material (plants and animals). The organic material is digested, breaking down the cells and releasing the nutrients found inside. Some of these nutrients are used by the earthworm, the rest are released, yes they go to the bathroom, in the soil. This new soil is excellent for growing plants. Plants that give us our food and oxygen. So the next time you see an earthworm on the sidewalk or parking lot, pick it up and return it to the soil, where it will continue to recycle the soil for the benefit of all plants and animals.



EARTHWORM FACTS

**Earthworms are segmented worms and each segment has tiny hairs, called seta, that help them move through the soil.
**Earthworms have 10 hearts
**Earthworms can live to be 10 years old.
**Earthworms have no eyes, ears or bones.
**There are over 5,000 different kinds of earthworms on planet Earth.
**Our largest earthworm is the nightcrawler and can get to be 12" long.
**The largest earthworm, a giant gurgling earthworm of Australia can be up to 12 feet long.
**If the soil is good, there could be over 1 million earthworms in the area of a football field.

CELEBRATE EARTH DAY APRIL 22

It is time again to save the earth, remember that you do not have to do the big things but if all of us do the little things it adds up to a big beautiful earth.
**Turn the water off, while you brush your teeth.
**Never litter, and please pick up litter .
**If you fertilize your yard, know how many square feet it is, so you do not over fertilize.

*** Recycle ***

*** Plant a tree ***

WOODLAND TIMES

Forestry News Updates for St. Joseph County

Tree Sales Pick-up Day

The pick-up day is set for April 13th from 8 A.M. to Noon. Trees can be picked up at the Esther Singer Building at the St. Joseph County 4-H Fairgrounds. We will have any extra trees, groundcovers, and wildflower packets on sale that day. They will be on a first come first serve basis so you will want to get there early. Also on the 13th the Northwest Territory RC&D will be selling Siberian Irises. If you have any questions about the Saturday Tree Pick-up please call us at the St. Joseph County Soil and Water Conservation District office at (574)291-2300 ext. 3.

Carbon Sequestration Trees Get It

Carbon Dioxide (CO^2) is one of the most common gases in our atmosphere, formed as a waste product from humans and animals and is expelled through breathing. It is also formed as a byproduct of fermentation and decomposition and during the burning of fossil fuels. Plants need CO^2 in the assimilation process, so it can therefore be used as a fertilizer to enhance plant growth.

Carbon dioxide is a major green house gas and is linked to changes in global climate. This greenhouse gas could contribute to increase in global temperatures, which could cause climate change. As climates change, all our lives will be affected. Some ecosystems stand to become cooler and wetter and others would become arid. Some water levels could rise sufficiently to inundate current land masses while the glaciers and pack ice of the Arctic could decrease.

This would not happen as a catastrophic event over a small span of years, but rather over decades. Scientists have been studying the subject for many years and many are warning of such an occurrence. As years go by, more evidence is compiled that builds the case that climate change is happening at an accelerated pace compared with historical change.

Carbon sequestration is the removal of CO^2 from the air and using it or placing it where it will not get back into the air in the near future (150-300 years). The easiest and most environmentally friendly way to sequester CO^2 is simply the natural process of trees growing and removing CO^2 from the air and storing it in their mass. There are other technical ways to mitigate CO^2 emissions, such as more efficient fuel burning, and subsequent efficient use of the energy produced. Also there are ways to capture the CO^2 and store it underground or use it to assist in the removal of oil and gas reserves.

Reforestation projects for mitigating CO^2 emissions have the potential to offset about 15 to 30 percent of annual U.S. greenhouse gas emissions, although it will take time to reach those levels, according to Janine Bloomfield, a scientist with the Environmental Defense Fund. Management techniques can be tailored to ensure the optimum carbon benefit for each individual locale. Preservation of old growth forests to tree plantations, is an important option. Still another is planting trees on unused farmland (afforestation), according to Bloomfield.

Forests are the world's second largest carbon reservoirs after oceans. Unlike oceans, however, we can grow forests. Planting new trees remains one of the cheapest, most effective means of drawing excess CO^2 from the atmosphere. One acre of forestland will sequester between 150-200 tons of CO^2 in its first 40 years, says Bloomfield.

While forests store CO^2, they can also be a source of CO^2 emissions. When a forest fire occurs, CO^2 is released back into the atmosphere. When a forest is harvested and there is a prescribed burn to clear the site for the next planting, CO^2 is released. When leaves fall and decompose, carbon is released. The net accumulative effect is about 1/3 of all CO^2 emissions come from forests. This is second only to the burning of fossil fuels. When trees are harvested and used for building materials, furniture, and other long-term uses, the CO^2 continues to be stored. Books store CO^2 but newspapers decomposing in a land fill do not.

Being more attentive to recycling can reduce the numbers of trees that need to be harvested for wood products. Planting trees on open land, in parks and around your neighborhood can increase carbon sequestration. Volunteer with a local tree planting project and help improve your environment for now and the long term.

(This article was written by Barbara White and was printed in the National Tree Trust News)

WOODLAND TIMES

Forestry News Updates for St. Joseph County

Pruning Young Trees

(The following information can be found in the Tree City USA bulletin No. 1, published by the National Arbor Day Foundation.)

Keys To Good Pruning

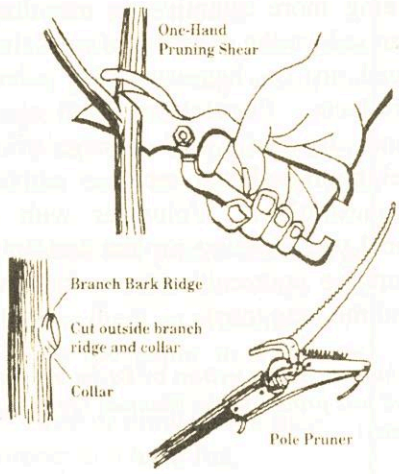
1. Prune early inthe life of the tree so pruning wounds are small and so growth goes where you want it.

2. Begin your visual inspection at the top of the tree and work downward.

3. Identify the best leader and lateral branches (scaffold limbs) before you begin pruning and remove defective parts before pruning for form.

4. Don't worry about protecting pruning cuts. For aesthetics, you may feel better painting larger wounds with a neutral – color tree paint, but evidence is that it does not prevent or reduce decay.

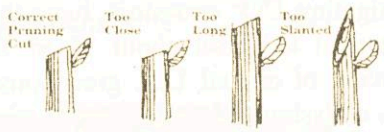
5. Keep your tools sharp. One-hand pruning shears with curved blades (secateurs) work best on young trees.



6. Make safety a number one priority. For high branches use a pole pruner. Some, like the one pictured, have both a saw and shears on the same tool. A major job on a big tree should be done by professional arborist.

7. When you prune back to the trunk or a larger limb, branches too small to have formed a collar (swollen area at base) should be cut close. (Notice in the drawing of the pruning shears that the cutting blade is cutting upward for less effort and a close cut.) Otherwise, follow the rules of good pruning of larger limbs by cutting just outside the branch ridge and collar and at a slight down-and-outward angle (so as to not injure the collar). Do not leave a protruding stub.

8. When simply shortening a small branch, make the cut at a lateral bud or another lateral branch (referred to as a "head" or "headback pruning"). Favor a bud that will produce a branch that will grow in a desired direction (usually outward). The cut should be sharp and clean, and made at a slight angle about 1/4 inch beyond the bud.



When To Prune?

When to prune depends to a large extent on *why* you prune. Light pruning and the removal of dead wood can be done anytime. Otherwise, here are some guidelines, but recognize that individual species may differ.

Winter Pruning during dormancy is the most common practice. It results in vigorous bursts of new growth in the spring and should be used if that is the desired effect. It is usually best to wait until the coldest part of the winter has passed. Some species, such as maple, walnuts and birches, may "bleed" when the sap begins to flow. This is not harmful and will cease when the tree leafs out.

Summer To direct the growth by slowing the branches you don't want; or to slow or "dwarf" the development of a tree or branch, pruning should be done soon after seasonal growth is complete. The reason for the slowing effect is that you reduce the total leaf surface, thereby reducing the amount of food manufactured and sent to the roots for their development and next year's growth of the crown. Another reason to prune in the summer is for corrective purposes. Defective limbs can be seen more easily, or limbs that hang down too far under the weight of leaves.

Fall Because decay fungi spread their spores profusely in the fall and healing wounds seems to be slower on fall cuts, this is a good time to leave you pruning tools in storage.

Flowering Trees If your purpose is to enhance flowering: 1. For trees or shrubs that bloom in summer or fall on current year's growth, prune in winter. 2. For trees that bloom in spring from buds on one-year-old wood, prune when their flowers fade.

FIELD NOTES

NRCS Natural Resources Conservation Service

COST SHARE AVAILABLE FROM SWCD

The St. Joseph County Soil and Water Conservation District is pleased to announce a cost share opportunity for the landowners of St. Joseph County. The District received funds with which they will cost share on conservation practices that directly impacts water quality. If you are interested in solving erosion problems, storing animal waste or in any other way improving water quality through conservation, please contact our office for details. You will need to submit an application to be considered. Funds are limited so contact us early.

CLEAN WATER INDIANA

Forestry – Warm Season Grasses – Wildlife Field Day

A forestry and wildlife field day will be held in eastern Kosciusko County on Saturday , April 20, 2002. Learn about woodlot management, wetlands, warm season prairie grasses, enhancing wetlands for amphibians and reptiles, and pond management. Registration begins at 8:30 a.m. and the program will run from 9:00 a.m. to 2:00 p.m. Depending on weather conditions, a section of warm season grasses will be burned. Wagon transportation between stops and a free lunch will be provided. For more information, Contact Wanda Bruner at (574) 267-7445. The field day is sponsored by the Kosciusko SWCD, Elkhart SWCD, St. Joseph SWCD, and Purdue Cooperative Extension Service.

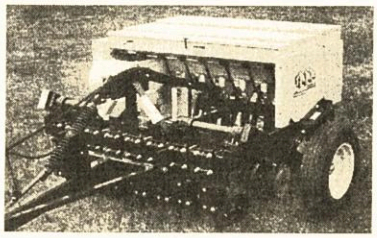
The field day will be held at Bart Culver's property. Here are directions on how to get there: from SR 13, turn east on Backwater Road (South of North Webster) and follow to CR 1000 E (County Line Road), turn south on CR 1000 E and park along side of the road; form SR 5, turn west on CR 200 S (Noble County), turn south on County Line Road.

Warm Season Grass Drill Available

The St. Joseph County and Elkhart County Soil and Water Conservation Districts will once again be offering the use of a Warm Season Grass Drill free of charge to anyone who wishes to plant native grasses. Each year, more and more landowners are planting Indiangrass, Big Bluestem, and Switchgrass in their fields and wildlife areas. The plants you choose can provide food and shelter and will determine the wildlife species that will visit the habitat you have created. By using a variety of plants, you will attract more species of wildlife.

Native grasses generally provide the best overall food sources for wildlife. These plants have also adapted to the soils and climate of our area and therefore grow better. They generally require less water and fertilizer plus have fewer disease and pest problems.

Pheasants Forever and Quail Unlimited will be working with the Soil and Water Conservation Districts this year to get native grass plantings completed with little or no cost to the landowner. Contact our office if you are interested in using the Warm Season Grass Drill or if you want additional information of planting native grasses.



Truax Warm Season Grass Drill

GOOD SOIL IS KEY FOR IMPROVED FARM PROFITS AND ENVIRONMENT

Productive soil is the foundation for any successful cropland operation. Good soil is the key ingredient in the Core 4 Conservation recipe for improving farm profitability, clean water, cleaner air and working toward a brighter future. The Core 4 Conservation effort is a project of the Conservation Technology Center, your Soil and Water Conservation District and its cooperating agencies. Core 4 is a simple way to refer to the four basic soil management practices of conservation tillage, nutrient management, pest management, and conservation buffers. Soil quality is a way to talk about and measure the improvements being made in the soils ability to carry out its function. Soil quality is a lot more than a soil test.

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FIELD NOTES

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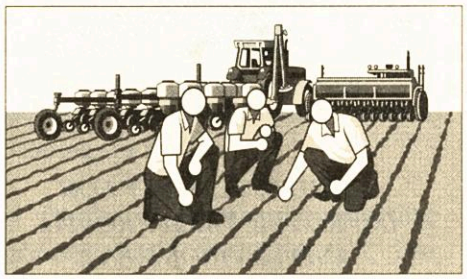
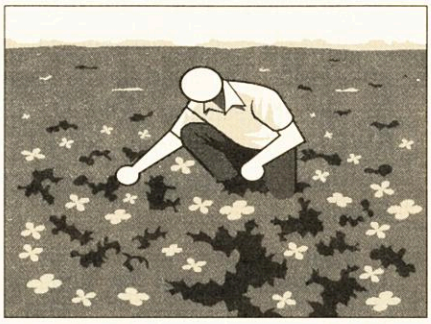
In addition to knowing the chemical fertility level of the soil, farmers need to consider their soil's physical and biological characteristics. Many of these characteristics are affected by management practices. Organic matter content, degree of compaction and infiltration rate are dynamic soil properties and will respond to manipulations near the soil surface. Other inherent soil properties, such as texture, mineralogy and depth to bedrock are relatively fixed.



All soil breathes. The rate of respiration, which is determined by measuring the carbon dioxide production in the soil, indicates biological activity. High respiration or breathing does not always indicate good soil quality. For example, when a soil is plowed, biological activity increases temporarily and microorganisms rapidly decompose organic matter. This high rate of biological activity in a system of low residue inputs decreases soil organic matter.



A high residue system such as no-till, balances decomposition with organic matter inputs form crop residues and roots, providing a more stable system. The result - organic matter content is stable or increased, and overall biological activity is improved. High respiration, with high residue inputs, indicates good soil quality. Crop rotations, cover crops, and no-till or conservation tillage improve soil respiration and soil quality.

Earthworm activities in the soil improve water movement, break down and distribute residues, improve nutrient availability and enhance soil structure and soil stability. While not essential to high quality soil, earthworms usually indicate a healthy system with favorable moisture conditions.

On the physical side, aggregate stability measures a soils vulnerability to erosive forces of wind and water. Soil stability is also correlated with organic matter levels. Heavily tilled soils will lose integrity or fall apart quickly and crust when exposed to rainfall. Soil with more organic matter and surface residue will remain stable and will not crust. Infiltration rates are also much greater on stable soils. Good infiltration reduces erosion and helps keep vital topsoil and organic matter in place. In addition, water that infiltrates in to the soil is less likely to run off fields, carry soil, nutrients and chemicals to nearby water sources. High residue no-till systems can have infiltration rates four to eight times greater than conventional tillage systems.

Understanding soil quality is the first step to making management decisions that maximize soil productivity, provide, maximum protection for water supplies, and reduce the amount of carbon dioxide being released into the atmosphere. The St. Joseph County Soil and water Conservation District, and its partners, are the place to go for more details on improving soil quality.

Stormwater and Sediment Control Issues – 2001

Provided by DNR, Division of Soil Conservation Stormwater and Sediment, Control Program Staff

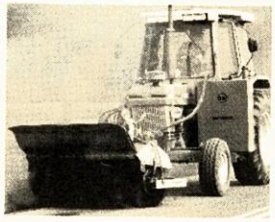
Clean Water. Whether you are working on a farm or in the middle of a city, the issue is the same.

During 2001, Soil and Water Conservation Districts (SWCDs) and communities across Indiana began to learn about Phase II of the National Pollutant Discharge Elimination System (NPDES) program, which is part of the National Clean Water Act. In Indiana this program is administered by the Indiana Department of Environmental Management (IDEM).

As part of the new NPDES Phase II program, Municipal Separate Storm Sewer System communities (designated areas are referred to as MS4s) are required to develop and implement comprehensive stormwater management plans. The plans must include best management practices and measurable goals for the following six minimum control measures:

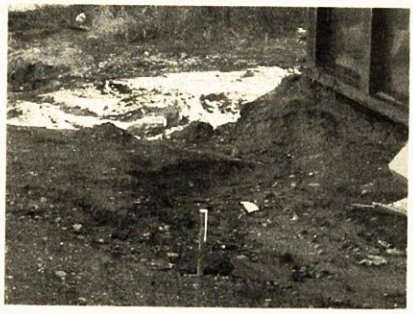
1) Public education and outreach
2) Public participation

3) Good housekeeping/pollution prevention



4) Illicit discharge detection and elimination

5) Construction site storm water runoff



6) Post construction storm water management

The IDEM and Division of Soil Conservation are encouraging MS4s to form partnerships with other MS4s and governmental agencies, such as but not limited to, SWCDs, the Cooperative Extension Service, and Solid Waste Management Districts, to provide consistency in programs, avoid duplication of efforts, and minimize the cost of implementing the six minimum control measures in their respective jurisdictions. SWCDs are likely partners in this effort because of their authority to address natural resource issues within their boundaries. SWCDs have existing programs and work cooperatively with individuals, citizen groups, and local agencies to prevent resource problems and correct existing soil and water conservation problems.

Division of Soil Conservation, Stormwater and Sediment Control program staff has been meeting with SWCD Supervisors and staff to help them understand Phase II and the minimum control measures. Much discussion is taking place to determine what level of involvement each SWCD should seek.

Natural resource issues have been around for years. Historically, most SWCDs have specialized in agricultural issues. In recent years, however, SWCDs, have become more active in stormwater issues associated with non-agricultural land through their involvement with the NPDES Phase I program. In 2002 SWCDs will be challenged to consider their level of involvement in implementing the Phase II NPDES program and working in cooperation with MS4s.

St. Joseph County Soil and Water Conservation District
5605 U.S. 31 South, Suite 4
South Bend, IN 46614

St. Joseph County Soil And Water

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.