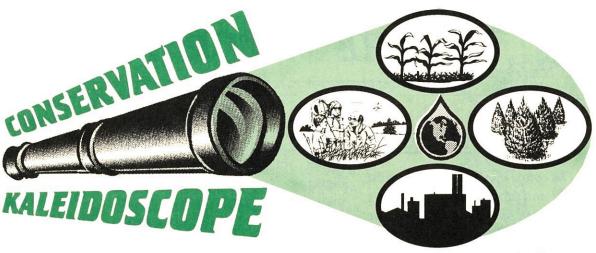


St. Joseph
County
Soil & Water
Conservation
District



Today's Visions for Tomorrow's Future

Mar/Apr/May/Jun 1998 Volume 2, Issue 2 60455 U.S. 31 South \* South Bend, Indiana \* Telephone (219) 291-2300 Fax (219) 291-3726 Editor: Chris Forsyth Beth Gushwa

#### Calendar of Events!

(All times are EST unless otherwise noted)

See our center pull-out for upcoming Natural Resource activities in March!

#### April 18

Tree Order Pickup & Sale Day 8:00 a.m. - 12:00 St. Joe County 4-H Fairgrounds

#### April 21

SWCD Monthly Board Meeting 7:30 p.m. - Farm Bureau Mtg Room

#### April 27 - May 2

Soil Stewardship Week
"Wonders of Wildlife"

#### May 19

SWCD Monthly Board Meeting 7:30 p.m. - Farm Bureau Mtg Room

#### May 25

Memorial Day Office Closed

#### June 16

SWCD Monthly Board Meeting 7:30 p.m. - Farm Bureau Mtg Room



## **Scholarships**

St. Joseph County Soil and Water Conservation District is offering a new scholarship program for high school seniors pursuing a career in the Natural Resource or Agricultural fields. For more information contact the SWCD office.

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## THE NATURAL EDUCATOR

## THE EARTHWORM

The plow is one of the most ancient and most valuable of man's inventions; but long before he existed, the land was in fact regularly plowed and still continues to be thus plowed by earth worms. It may be doubted whether there are many other animals which have played so important a part in the history of the world, as have these lowly organized creatures.

-- Charles Darwin

The earthworm is truly an amazing animal. We often consider it a slimy, creepy crawler. The fact is that without the lowly earthworm, we may not be on this planet.



An acre of soil may house as many as one million earthworms. These little soil plows carry leaves and other organic materials into the ground -- speeding up decomposition -- and bringing nutrients and humus to the top. Earthworms can move soil particles up to 40 times their weight as they burrow through the ground. This movement loosens, mixes, and conditions the soil. The tunnels that earthworms leave behind let air and water, needed by plants and animals, into the ground.

Like all other living things, earthworms are part of different food

chains. Earthworms eat organic matter, such as leaves, grass, or decaying animals. (After organic matter travels through a worm's digestive tract, small pellet-like piles, called casting emerge). In turn, earthworms are eaten by birds, moles, turtles, snakes and other animals. Additionally, people use worms to catch fish to eat. When earthworms die, they are consumed by other decomposers, and their nutrients are released back to the soil.

## **EARTHWORM FACTS**

Earthworms are hermaphrodites, which means one earthworm has both male and female organs in its body. Two earthworms intertwine, head first, and mate with each other at the same time, then both crawl away and lay eggs.

There are over 5,000 species of earthworms in the world. Indiana's largest is the night crawler, which gets to be about one foot long. An Australian earthworm, called the gurgling earthworm, can get to be 12 feet long.

Earthworms can live to be 10 years old.



Earthworms have ten hearts, no eyes or ears and little hairs, called seta, that help them move through the soil.

The earthworms casting is basically pure fertilizer. It is estimated that the earthworms living in one acre of soil can produce up to 18 tons of casting in 45 days.



#### **ACTIVITY** --

#### VERMICOMPOSTING

Vermicomposting is using worms to compost your organic matter, such as food waste. A worm composting bin is easy to build. Usually the bin is about 24" x 24" x 8" deep. It can be made of wood or plastic. Just remember to put some air holes high on the sides and top. Then place a layer of moist newspaper on the bottom. Next comes a little soil, then newspaper, soil, etc. Red worms, which can be purchased at your local bait shop, are excellent to use because they like to be kept at room temperature. Find a quiet spot and start adding food waste (no bones, meat or oils). In no time at all, you will have some of the finest organic matter for your garden or house plants. The worms will reproduce. If you get too many, you can start a new box, go fishing or sell them to the bait shop. The worm box will not really smell, so have fun.

## "WHOO KNOWS BEST"

#### Question:

How do I keep my spring plants from dying?

#### Answer:

Bare rooted seedlings, is probably the most common method of planting for windbreak, wildlife and reforestation purposes. Trees of this type can be purchased from the St. Joseph County SWCD tree sales program, the State Tree Nursery and many private nurseries. This type of tree is generally sensitive, as an ornamental planting, because they start out quite small, and often will not survive heavy traffic and mowers, unless protected.

The first step you will need to take to ensure survival is to select a species of tree that will grow on the soil that you have. Trees are just like people and can experience stress, when planted in a foreign soil type. Even if you match the soil type to the tree, other factors can modify the tree's environment dramatically. Grass, soil compaction, exposure to wind, sidewalks, power lines, roads, salt, gravel, lack of leaf mulch on the ground, mowers, as well as, a host of other factors will create alien conditions for most trees. Find the tree that fits the best on the selected site and attempt to create a natural environment, as soon as possible. The denser you plant the trees, the sooner the natural conditions will be achieved, however, you will need to thin them sooner. Life has many tradeoffs.

## **WOODLAND TIMES**

Forestry News Updates for St. Joseph County

Stress occurs again for the young seedlings when they are pulled from the ground. Your job, as a tree planter, is to reduce the amount of stress they have to suffer. This can be accomplished by keeping the root system moist (but not drowning the trees in a bucket of water), keep the trees cool and dormant (you would not want to wake up in the middle of surgery in a hospital, would you?) minimize the trees stay in a hostile environment such as a bag or paper, possibly exposing their roots. Put them in the ground as soon as possible.

successfully leaf out and begin to grow.



The "OWL knows best!

Natural conditions come in to play again when you are planting the young plants. The root systems should be spread out in as natural of a formation as possible. The tree should be placed at the same depth or slightly greater in its new home. New roots generate from the ends of the larger roots and these should head down or sideways through the soil. Never twist or fold the roots to get a tree in a hole. A poorly planted tree even under ideal conditions may survive and eventually grow, as the problems are naturally corrected, but it will be forever stunted when compared to its properly planted companions.

Please understand that the tender, young seedlings have experienced many traumatic changes before they reached your doorstep. They will be able to use their stored energy reserves to regrow roots and repair minor damage, however, you still need to be gentle and kind to them. You will be able to tell if you have done everything right, when 95% or better of the trees will

## Tree Sales Day

April 18, 1998

8:00 a.m. - 12:00 noon

Esther Singer Building St. Joseph County 4-H Fairgrounds

5117 Ironwood Road South Bend, IN

Public is Welcome First come, First serve For more information call (219) 291-2300

## **WOODLAND TIMES**

Forestry News Updates for St. Joseph County

## Leafing Through History

History was not considered one of my best subjects in school because of the memorization of people, places and dates. However, when I started researching for information to write this article, historic facts took on a new and inquisitive meaning. It was exciting to see how many individuals, from all walks of life, spoke of their true passion for trees, using poems, sonnets, books and music.

The 1800's shared a wide range of poets, philosophers and scientists, who shared their words of wisdom on the importance of planting

scientists, who shared their words of wisdom on the importance of planting trees. Through their variety of works, they also demonstrated the significant impact trees would continue to have on our environment. Henry David Thoreau wrote, "From the forest and wilderness come the tonics and bark which brace mankind. A town is saved, not by the more righteous men in it than by woods and swamps that surround it." John Muir, philosophized about his love of trees as no one else could through his literary writings. "When we try to pick out anything by itself we find it hitched to everything else in the universe." The founder of Arbor Day, J. Sterling Morton, described the importance of trees in 1870 as, "Let there be a campaign of tree planting...a grand army of husbandmen...to battle against the timberless prairies." There was John Chapman, who known became as, "Johnny Appleseed," who carried his message of spreading fruit and gospel throughout the Ohio

Scientists such as George Perkins Marsh, provided us with a more scientific reasoning of planting trees in 1865 with his book called, Man and Nature, Or, Physical Geography as Modified by Human Action. He demonstrated the unique relationship of forests to flood prevention and clean rivers, and that the very prosperity or demise of nations depended upon their stewardship of soil. This specific literary work of Marsh's became the groundwork for conservation in America.

Other great spokespeople who bestowed similar influences upon our forestry history include John Burroughs, Enos Mills, Charles Sargent, Gifford Pinchot, and Frederick Law

Olmstead. Mr. Olmstead, the designer of Central Park, believed that the bodies and minds of city dwellers would be healthier if touched by trees and exposed to the re-creation of rural scenes (parks) in the urban setting.

More current names that you might recognize would be John Denver, who used his music to depict the serenity of trees stated, "City trees add the soft touch of nature to our busy lives. We need to plant more trees and make a commitment to their care." Charlton Heston commented, "It's your tree that clears the air. " Last but certainly not least, Eddie Albert remarked, "If you're worried about the future, plant a tree today. world, and your neighborhood, will be a better place to live in." It is difficult to say it any more eloquently than these words spoken here, on why we should continue to plant trees.

Support information provided by Arbor Foundation

## TREE'K PREVIEW

Sweetgum (Redgum, Sapgum)

(Liquidambar styraciflua L.)

Family: Hamamelidaceae

Etymology: From the latin liquidus, liquid, and the Arabic ambar, amber, from its secretion of an aromatic fluid.

Habitat: Native to the Atlantic areas of North America; moist soils of valleys and lower slopes; in mixed woodlands.

Hardiness zone: 5-9

Mature Height: 50 -100' with a straight trunk and conical crown that becomes round and spreading

Diameter: 1 1/2 - 3'

Leaves: 3-6 long and wide; starshaped with five points or lobes that have tooth margins and grow alternately along the twig.

Fruit: 1 - 1 ¼; a long-stalked dropping brown ball composed of many individual fruits, maturing in autumn and persistent in winter.

Flowers: tiny, greenish ball-like clusters in spring; male in several clusters; female in dropping clusters

**Color**: Excellent fall cover with brilliant shades of yellow, orange, red and purple.

Uses: Timber, shade, wildlife, resin used in perfumes and medicines.

**Soil Conditions**: Grows best in moist but reasonably well-drained soils that contain clay and are slightly acidic. Is tolerant of other soils

Growth rate: Slow to medium





# MARCH IS NATURAL RESOURCES MONTH

On behalf of the St. Joseph County Soil and Water Conservation Partnership, in cooperation with the Board of Commissioners of St. Joseph County, we ask that you help us in celebrating the month of March, as Natural Resources Month for St. Joseph County. With Spring fast approaching, it is time for all of us to rekindle our relationship with nature and strengthen our interest toward our natural resources within the community. By taking an active role, we can discover new ways to protect and preserve our most precious resources (soil, water, plants, animals and air) for ourselves, as well as, for future generations.

### St. Joseph County Conservation Office

For more information call (219)291-2300

- March 4, 1998 -- Lawn Care Workshop, Marshall County Extension Office, 8:30 a.m. 3:30 p.m. Learn how you can reduce pesticides in your watershed, impact of filter strips, water quality risk around your home and so much more.
- March 7, 1998 -- St. Joseph County Soil & Water Conservation District Annual Meeting, St. Hedwig Hall, 7:00 p.m.
- March 13, 14 & 15, 1998 -- Agricultural Days Scottsdale Mall, Mall Hours
  Pet cows, horses, rabbits etc. at Ag Days. See old time tractors, as well as, large new machines.
  You just might be amazed at how diverse and how important the agricultural community is to our county. Ag Days has something for everyone, so we hope to see you there!
- March 14, 1998 -- Compost Seminar, Scottsdale Mall, 1:00 p.m. 2:00 p.m. What do you do with your food scraps? Should you leave your grass clippings on the lawn? How can I improve the soil of my garden, naturally? These are just some of the subjects that will be addressed at this compost meeting. Everyone who attends will receive a free COMPOST BOOK and a chance to win a free compost bin.
- March 19, 1998 -- Irrigation Scheduling Seminar, Silver Palace LaPorte, 8:30 a.m. (c.s.t.) Topics to include why and how to do irrigation scheduling with examples of different methods used for scheduling. Different crop water and nutrient needs will also be discussed. Lunch provided.
- March 24, 1998 -- Tree Care Seminar, South Bend Public Library Main Branch, 7:00 p.m. 9:00 p.m. How to properly plant a tree, so it will live. Fertilizer and water needs of trees. Proper pruning techniques. These are just some of the materials addressed at the Tree Care Seminar Speakers will include District Foresters and professional nursery people. We hope you can join us, for every time we do something good for a tree, it does something good for you.

March 28, 1998 -- Tree Care Seminar, South Bend Public Library - Francis Branch, 9:30 a.m. - 11:30 a.m. (See March 24, 1998) St. Joseph County Parks Department

For more information and fees, call Bendix Woods County Park (219) 654-3155

March 1, 1998 -- Tapping at Home, Spicer Lake Nature Preserve - Wet Lab, 2:00 p.m. Learn what you need to make your own Maple Syrup.

March 8, 1998 -- Cabin Fever, Spicer Lake Nature Preserve - Visitor Center, 2:00 p.m. Meet a naturalist for this walk that will look at signs of winter, losing it's grip.

March 14 & 15, 1998 -- Sugar Camp Days, Bendix Woods County Park Join the celebration! Watch sap cook, eat pancakes, tour the sugar bush and purchase homemade goods. Bring the family and stay for the day.

March 19, 1998 -- Spider Story, Spicer Lake- Wet Lab, 9:30 a.m. - 11:15 a.m. Pre-school (age 3-5) program. Pre-registration necessary.

March 22, 1998 -- Turtle Time, Spicer Lake - Wet Lab, 2:00 p.m. Learn about, meet and make a turtle at this program.

March 29, 1998 -- Plant a Seed Naturally, Spicer Lake - Wet Lab. 2:00 p.m. Make your own natural flower pot and plant seeds in it to take home to your garden.

#### **Rum Village Nature Center**

For more information call Rum Village (219) 235-9455

March 1, 1998 -- Great National Parks - The Grand Canyon, 2:00 p.m.

March 8, 1998 -- Hawks up Close, 2:00 p.m.

March 15, 1998 -- Eyewitness - Pond and River, 2:00 p.m. Eyewitness - The Jungle, 2:00 p.m.

March 22, 1998 -- Winter into Spring, 2:00 p.m.

March 29, 1998 -- The Story of America's Great Volcanoes, 2:00 p.m.

### **Hoosier Farmland Preservation Task Force Forum**

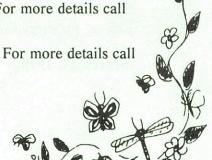
March 16, 1998 - St. Joseph College Core Education Center, C102 Shen Auditorium 7:00 - 9:00 p.m. (local time)

### South Bend Audubon Club

March 8, 1998 - Membership Meeting at Woodlawn Nature Center in Elkhart 2:00 p.m. Dr. Don Whitehead, Professor of Biology, I.U. will present "Neotropical Migrants: Their Status and Conservation."

March 14, 1998 - Field Trip to Pigeon River Fish & Wildlife Area. For more details call Brian Miller, Day (219) 237-2415, Evening (219) 291-0804.

March 28, 1998 - Field Trip along the Lake Michigan shore line. For more details call Brian Miller, Day (219) 237-2415, Evening (219) 291-0804.







## Conservation Moments from the **Past**

The Natural Resources Conservation Service had it's beginning in the Hugh Hammond 1900's. Bennett, regarded by many as the father of soil conservation, received \$5 million to carry out soil conservation projects in 1933. In this new "Soil Erosion Service", Mr. Bennett located soil conservation projects watersheds near erosion experiments. Farmers in the watersheds signed fiveyear cooperative agreements to install conservation measures.

The Soil Conservation Act of April 27, 1935 transformed the soil conservation work from a temporary status to a permanent agency - the Soil Conservation Service, which had the authority to expand work beyond the demonstration projects to a program covering the entire nation. This act also gave birth to the conservation district concept. To encourage participation in the program, President Roosevelt sent all state governors "A Standard State Soil Conservation Districts Law" with a recommendation for enactment of legislation along it's lines. By the late 1940's, all 50 states had adopted a law modeled on the Standard Act. This enabled states to create conservation districts, local governmental subdivisions, who carry out programs for the conservation, use and development of soil, water and related resources.

In 1996, the Soil Conservation Service changed it's name to the

## FIELD NOTES

Natural Resources Conservation Service to reflect the fact that it works with producers to manage, preserve and protect all natural resources including soil. USDA

## Farm the Forests?

Looking for a way to diversify your farm? Would you like to earn income off a wooded area, even if it's not time for a timber harvest? There are certain high-value "non-timber forest products" that have become increasingly hard to find since America's forests have been modified by human activity. products are derived from green plants, invertebrates. and organisms that inhabit forested areas. Some examples of these non-timber products include food (mushrooms and nuts), botanicals (herbs and medicinals), decoratives (floral greenery and dyes) and handicrafts (baskets and wood products).



forest farming A usually practice is established on a small portion of the woods (less than 5 acres). This intensively area is

managed to produce multiple crops simultaneously. appropriate An microclimate is developed by thinning an existing forest or woodlot, to leave the best crop for continued wood production, while creating the appropriate conditions for the understory crop to be grown. Compatibility between understory and overstory plants is essential.

It is very important to research the new product you wish to





**Floriculture** 

produce. Contact the state forestry conservation agencies, the Cooperative

Extension Service the Natural Resources and Conservation Service to obtain necessary technical information on

products you are interested in. Also, make sure there is a market for the crop you want establish.



**Medicinal Plants** 

Forest farming is a great way to generate short-term income from an existing woodlot, while maintaining crucial environmental contributions such as water storage and filtering, soil erosion control, and wildlife habitat. For more information, please above mentioned contact the agencies. USDA







#### Bears Repeating --

#### On activism

Plant a new Truffula. Treat it with care. Give it clean water. And feed it fresh air. Grow a forest. Protect it from axes that hack.

Then the Lorax and all of his friends may come back.

> - The Lorax Dr. Suess









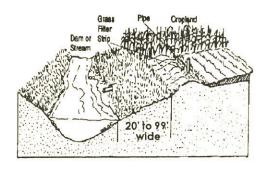
## FIELD NOTES



## **Filterstrips**

The St. Joseph County Soil and Water Conservation District is sponsoring a new filterstrip program.

The District will pay for the fertilizer and seeding of filterstrips. The minimum size will be 20' wide and the maximum 99' wide.



Filterstrips help filter runoff water to reduce the amount of pollutants and sediment entering surface drainageways - ditches, creeks and rivers. Less sediment entering the waterways will also help to keep the cost of cleaning and dredging lower.

So, if your filterstrips didn't qualify for CRP, or if for any reason you don't have filterstrips along your ditches and creeks, stop in at the Soil and Water Conservation District Office. Sign up for another great opportunity to help keep up the county's surface water clear and reduce the sediment build-up in those ditches and creeks.

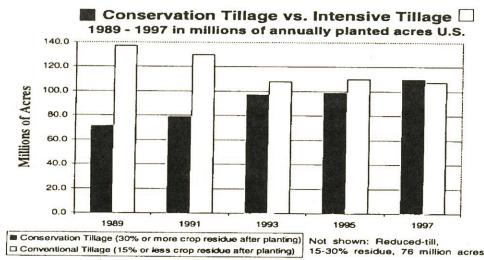
# Indiana Among the Top 5

Results are in! The Conservation Technology Information Center's (CTIC) National Crop Residue Management Survey shows that for the first time ever, U.S. farmers are planting more acres to crops with conservation tillage systems than intensive tillage methods. How does Indiana fare in the study? Very well indeed.

The survey indicates that farmers in five states - Iowa, Illinois, South Dakota. Kansas and Indiana. contributed most to the increase in acres grown with conservation tillage systems. Indiana posted a 682,271 acres gain in 1997. Indiana, also, was 3rd in the nation based on total acres planted with no-till, at a whopping 4.1 million acres. Additionally, Indiana ranked third in acres planted to soybeans with conservation tillage and fifth in acres planted to corn with conservation tillage - 3.6 million 1.8 million acres and acres, respectively.

All conservation tillage systems such as no-till, mulch-till and ridgetill rely on less tillage or less soil disturbance to plant and manage Farmers who use these crops. systems leave plant materials stems, stalks and leaves - on the surface of the fields after harvest. The plant materials, also called crop residues, serve as a blanket to protect the soil from erosion. The crop residues slowly decompose to add organic matter to the soil much like mulching or composting add organic matter to gardens.

If you're not using some type of conservation tillage system, now's the time. Join the producers who already fully appreciate the benefits of planting crops using soil building and pollution fighting farming methods. Information on various environmentally friendly farming systems is readily available. Contact local Soil vou and Water Conservation District and Natural Resources Conservation Service office today.



## URBAN MEANDERINGS

## **Urban Water Quality**

- Larry Osterholz IDNR Urban Conservation Specialist

Water quality seems to be a major environmental topic these days. Typical pollutants found in runoff include the urban conventional pollutants such as sediment, nutrients, oxygen demanding materials, and bacteria. In addition, water that runs off city streets, parking lots, rooftops, lawns and sidewalks is loaded with other kinds of pollutants - bits of metal from cars and roof gutters, hydrocarbons from vehicle and furnace exhaust, spilled oil and pesticides, pet waste, grass clippings and leaves. Untreated, this urban runoff could be carried directly to nearby streams and lakes via the storm sewer system.

One of the best ways to protect the surrounding water courses is to remove these pollutants at their source. A widely recognized best management practice for treating polluted runoff is the detention pond or basin.

These ponds are designed to simply hold storm water runoff long enough to allow gravity to settle out the sediment. Because most forms of pollution attach themselves to these soil, or sediment particles most of the contaminants are removed when the sediment falls to the bottom. In addition, pollutants are removed by vegetation and microorganisms that grow in the ponds.

Detentions ponds can be designed in many forms, shapes and sizes. They can be dry, where storm water runoff is collected and released slowly over a 24 - 48 hour period. Or they can also be designed to maintain a permanent water level. These wet ponds or wetland areas may or may not release the collected water.

The best pollutant removal design is an oblong shaped pond with an inlet and outlet at opposite ends. The incoming runoff displaces water that has been there since the previous storm. Filtering and settlement is most efficient in this situation. If the inlet and outlet are too close to each other, the storm water may not stay in the pond long enough for much settling to occur.

Many land developers are using these ponds, not only as storm water treatment systems, but as a flood control to help minimize flooding of persons, who live lower in the watershed. Flood control is a whole other article, however. If you would like more information about a detention pond in your area, contact the office.

## Did you know?

Source: "Redesigning the American Lawn,"
The Lawn Institute

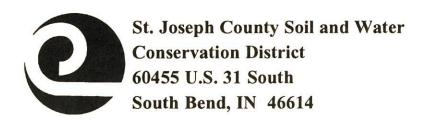
- \* In the United States, lawns occupy more land than any single crop, including wheat, corn or tobacco.
- \* Homeowners use 10 times more chemical pesticides per acre than farmers do.

- \* As much as 60 percent of water in Western cities is used for lawns, as much as 30 percent in Eastern cities.
- \* Of the 34 major pesticides commonly used on lawns, 32 have not been tested for their long-term effects on humans and the environment.

# Become Involved Become Informed

There has been much discussion within the past few months among Farm Bureau, Inc. members and other local interested parties in regards to three different ordinances that have been drafted, at the request of the county health department, to protect ground water resources within the county. The ordinances are in reference to well drilling and water supply systems, wellhead protection and source water protection.

If you have not heard about these ordinances and would like more information, please contact following Farm Bureau Members: Ray Carlson (219) 656-8072; Marilyn Lichtenbarger 272-9257; (219)Bernard Byrd (219) 295-8804; or Mark Catanzarite, St. Joseph County Council (219) 235-9658 or fax (219) 235-5022. Farm Bureau members are encouraging you to take an active interest in these proposed ordinances and become well versed on the information that is provided within the Please take a drafted documents. moment of your time and call one of these individuals to understand the complexity of these ordinances and how they will affect you in the future.



BULK RATE U.S. POSTAGE

**PAID** 

PERMIT No. 225 South Bend, IN

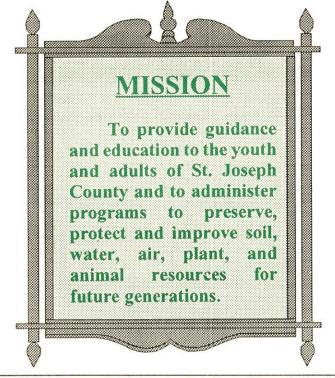
# St. Joseph County Soil And Water Conservation District

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