St. Joseph County Soil & Water Conservation District

CONSERVATION KALEIDOSCOPE

Today's Visions for Tomorrow's Future

Jan/Feb/Mar 2002 | 5605 U.S. 31 South, Suite 4 *South Bend, IN * | Telephone (219) 291-2300 Ext. 3 | Editor: Troy Manges
Volume 4, Issue 1 | Website: www.iaswcd.org/stjoseph | Fax (219) 291-0284 | Tonia Albright

Calendar of Events

January 1
New Year's Day
Office Closed

January 21
Martin Luther King Jr.'s Birthday
Office Closed

January 22
SWCD Monthly Board Meeting
7:30 – Farm Bureau Mtg. Room

February 9
Science Alive
St. Joseph Co. Public Library

February 18
George Washington's Birthday
Office Closed

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

March 1
Tree Order Forms Due

March 15, 16, 17
Ag Days – Scottsdale Mall

March 18
SWCD Monthly Board Meeting
7:30 – Farm Bureau Mtg. Room

42nd St. Joseph County SWCD Annual Meeting

January 18th, 2002
6:30 p.m.
St. Adalbert's Heritage Center
Entertainment Provide by;
Buckeye n' Hollow Bones
Reservations Due: January 11th, 2002

trees

Tree Order Forms Due
March 1st, 2002

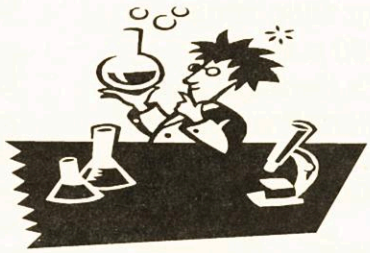
Pick Up Date
April 13th, 2002

What's Inside . . .

Science Alive
February 9, 2002
10:00 a.m. — 4:00 p.m.

South Bend Library

This is a great family day. Join over 50 exhibitors, all with hands on displays. Geologist, Dentist, Doctors, Area Parks and local TV stations are just some of the groups that will have exhibits. And the best part, it is FREE.



AGRICULTURAL DAYS
SCOTTSDALE MALL
MARCH 15, 16, & 17

Another great family outing. If you can't go to the farm, the farm will come to you. Horses, cows, rabbits, chickens, tractors and much, much, more can all be found at Ag Days. Bring the family and enjoy the flavor of the farm, without the mess.

Portrait of an Animal
The Short-tailed Shrew

Length — 3 – 4 inches
Color — Dark metallic gray
Weight — About the same as a quarter.
What to look for — short tail, pointed nose, small feet.

The legend goes that Mother Nature created the animals by molding them from clay, from the earth itself. When she was finished, she saw a small piece and never one to waste anything, she molded the Short-tailed Shrew. When times turned hard on earth and large animals began to eat the smaller animals, Teeny Wienie, as he was called, was quite scared, thinking everyone would want to eat him. Instead he found that his size was a benefit. One day while making her rounds, Mother Nature was met with nothing but complaints and whining about the state of the world. When she stopped to talk to Teeny Wienie, he was happy and just glad to be alive. She was so happy that he was just grateful to be alive, that she made the shrew smell bad, so no other mammal would eat him.

The Short-tailed Shrew is a common backyard species. It eats insects and earthworms and it occasionally digs small holes in loose soil, in its search for food . It does have a foul odor. A strange fact about them, when frightened, their heart rate can exceed 1200 beats per minute. And yes, other mammals do not eat shrews.

THIS HOUSE IS FOR THE BIRDS

This is the perfect time of the year to build bird houses. Many species of birds will actually begin scouting for nesting places in March, so January and February are great months to build houses and get them out in your yard. Nest boxes are becoming increasingly more important as we humans destroy the natural nesting cavities that the birds and mammals would normally be using. By putting out a variety and multitude of boxes you will see an increase of animal life on your property.

Much has been written about the specific size of nesting box for different species, but in all my years I have yet to see two hollow trees of the same size. The animals may indeed have a preference but any nest box will be used by some animal. Hole size is probably the most important because this helps to reduce competition from other species and predators. Another important consideration when adding nest boxes to your property is location of the box. This is where a little research can help. Every bird prefers a different habitat and by knowing this you can be more successful in attracting wildlife.

The bottom line, getting nest boxes as part of your property is more important than dimensions.

Ok, you want the best nesting box for a specific species, just go to our web page and e-mail me. I have a great book in the office and will mail you complete information for that species.

WOODLAND TIMES

Forestry News Updates for St. Joseph County

TORNADO DAMAGED WOODLANDS

Salvage, protection, and improvement work are the keys to restoring tornado ravaged woodlands. With the aid of a professional forester, woodland owners should make an on-the-ground inspection of the woods to determine the total area affected by the high winds.

If the inspection indicates there is a reasonable quantity of salvageable material of either pulpwood size (8" to 20" DBH) or sawlog size (12" and up DBH), the landowner may wish to seek marketing assistance from a professional forester. The forester may mark the boundaries of the affected area, as well as additional mature trees outside the affected area. These additional marked trees may increase interest among timber buyers.

Trees that are broken off or badly twisted will have little or no salvage value as sawlogs. Pulpwood markets are scattered, and there is little or no market north of US 40 east of Indianapolis, or north of I-74 west of Indianapolis. Even in those areas that do have a pulpwood market, a sufficient volume of pulpwood must be located in each affected area to attract pulpwood buyers.

Trees over 12" DBH along the fringe of the main tornado path that have been simply pushed over can be salvaged for lumber. If the downed trees are crisscrossed, or if excessive debris clogs access,

logging will be more hazardous and more expensive. At a minimum, the logger should be able to recover at least 1,500 board feet of sawlogs per acre of harvested area in order to have an economical cut. This figure should be increased when extensive road building is required for the logger to reach the affected area. It might also be lowered if the logs are of very high quality, such as veneer logs.

CLEARCUTTING

Clearcutting is the only sound silvicultural approach to harvesting the areas that lie within the destructive path of a tornado. All remaining trees over 2" DBH will be damaged so badly that they will never develop into merchantable trees. Trees that are not made available for harvest should be deadened to prepare the site for natural regeneration. Where desirable natural regeneration does not occur, prepare the site for tree planting or direct seeding.

The condition of tornado damaged trees is so unpredictable that after a forester has evaluated the condition of the woods, a landowner will frequently find it necessary to depend upon a reputable buyer to cut out as many logs as possible and settle for a price after the logs are cut. This practice is definitely not recommended for good standing timber, but in tornado damaged trees, it may be necessary to take what you can get or lose it all.

Once the immediate problem of salvage has been solved or it has been determined that no salvage is practical, the landowner should contact a professional forester to provide an evaluation of timber lost (not salvageable).

PROTECTION IS ALWAYS NEEDED

Protection of woodlands from livestock grazing and from fire is of utmost importance during the recovery period after a tornado.

The spring and fall of the year are the times of greatest fire danger, and it is important to keep access roads and fire trails clear of debris. With many trees down, the burnable fuel on the ground will be at an all-time high during the first year after the damage occurs. Quick access to a fire can mean the difference between a small, easily controlled fire and a raging inferno.

REBUILDING A STAND OF TIMBER

The landowner should follow up any salvage cut with the forest improvement work necessary to make a complete clearcut of the affected area. This will mean deadening and or removing all trees, shrubs, vines, etc. that can compete with natural regeneration.

WOODLAND TIMES

Forestry News Updates for St. Joseph County

Care and good judgement must be exercised to fit this practice to the soils and sites that will respond favorably to this treatment.

If desirable regeneration in sufficient densities does not take place within the first growing season after this improvement work, plantings of desirable species should be made.

Once the new stand has started to grow, continue to protect from fire and livestock grazing. The new growth should not need thinning for 10 – 15 years after the clearcut treatment.

If the clearcut treatment is not applied, the woods will become a "junk" forest as long as a majority of the damaged trees occupy the site. Then, as the "junk" trees gradually succumb to insects, disease or old age, there is a strong possibility they will be replaced by extremely slow growing, shade tolerant species such as hickories, dogwoods, ironwood and beech. As competing uses gradually deplete the forest resource base in Indiana, we cannot afford to leave the tornado damaged woodland in its present condition.

For more information about restoring tornado damaged woodlands, contact your district forester or the Division of Forestry at:

402 W. Washington St.
Room W296
Indianapolis, IN 46204
(317) 232-4105

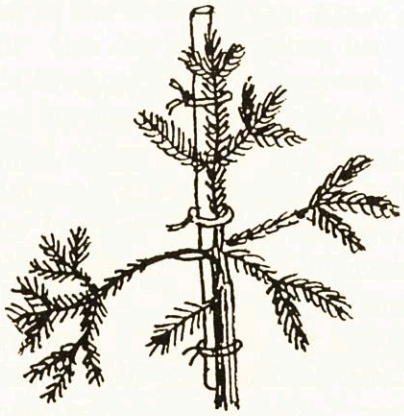
Or contact the DNR online at:
http://www.ai.org/dnr/public/index.htm

When a Storm Strikes

(The following information can be found in the Tree City USA bulletin No. 2, published by the National Arbor Day Foundation.)

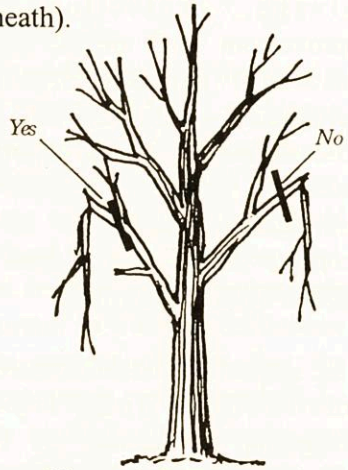
Broken Conifers

Occasionally the top of a young conifer will be broken by falling trees or limbs. You can restore form to your tree by helping a branch in the top whorl become the new leader. Select the best, and perhaps longest, and carefully bend it upward. Tie it to a pole that is securely fastened to the trunk. Check every few months to make sure the ties are not cutting into the new leader, and remove the pole in two to three years.



How To Prune Storm-Damaged Trees

Cutting flush against a larger limb or the trunk was once believed to be the best way to prune. We now know that such a method is improper because it weakens a tree's natural defense against the invasion of disease organisms. The possibly harmful effects of pruning wounds can be minimized by making all cuts just outside of the raised areas at branch intersections. These features are called bark ridges (above) and branch collars (underneath).

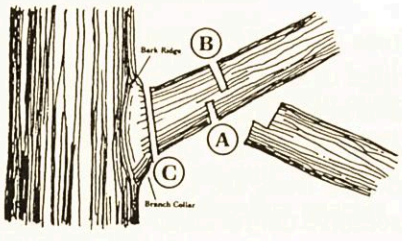


Because of its weight a large limb could tear loose during pruning, stripping bark and creating jagged edges that invite insects and disease. That won't happen if you follow these steps:

A. Cut part way through the branch from beneath at a point one or two feet from the trunk.

B. Make a second cut on the top of the branch, at a distance of 1/3 to 1/2 the diameter of the limb from the first cut. This should allow the length of the limb to fall from its own weight and be safely removed.

C. Complete the job by making a final cut next to the trunk, just outside the branch collar, with the lower edge farther away from the trunk than the top.



FIELD NOTES

USDA NRCS

Natural Resources Conservation Service

Management Ideas for Farmers To Protect Water Quality

Why should we be concerned about water quality? Everyone depends on water for crops, livestock and household uses.

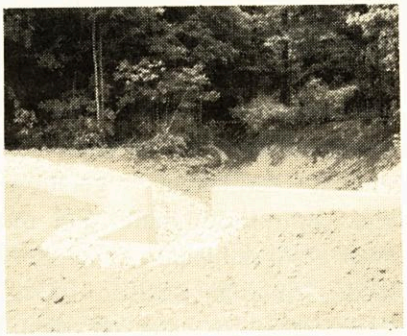
You can protect the water on, under and around your farm by applying management practices that show effective and practical means of preventing or reducing water pollution. Generally, water quality problems attributed to farm operations come from five sources: sediment, nutrients, pesticides, animal wastes and naturally occurring elements in soil.

Sediment is composed of particles of eroding soil carried by runoff or wind into streams, ponds, lakes and wetlands. Sediment carries nutrients and pesticides and muddies receiving waters. Reducing erosion helps maintain soil productivity and water quality. Farmers can reduce erosion with many practices including conservation cropping systems, conservation tillage, cover crops, critical area plantings, grassed waterways, pasture/hay planting, tree planting, filter strips and windbreaks.

Nutrients supply the essential elements for crop growth. Nutrients however, can affect water quality. Proper management of nutrients optimizes crop yields, reduces movement of nutrients to surface and ground water and improves the soil. Farmers can manage nutrients with the following practices: above mentioned erosion and sediment control, soil testing and plant analysis, split applications of nitrogen, spring application of nitrogen, correct timing and placement of fertilizers, waste utilization, precise application rates, properly calibrated equipment, proper management of irrigation equipment and manure analysis.

Pesticides help control weeds and pests that can affect crop yields. Pesticides, however, may be carried into surface water by runoff an into ground water by leaching. Managing pesticides protects water quality and reduces health hazards. Farmers can manage pesticides with less persistent pesticides, biological and cultural controls, crop rotations, knowledge of weather conditions, integrated pest management, precise application rates, proper mixing and storage, mechanical weed control, and proper container disposal.

Animal wastes such as manure and other by-products of livestock operations can supply nitrogen, phosphorus, potassium and other micronutrients necessary for plant growth. Animal wastes can also pollute nearby waters with organic matter, bacteria and nutrients. Animal waste management provides a source of fertilizer, reduces the cost of producing crops and protects water quality. Farmers can manage waste with composting, planned grazing systems, roof runoff management, waste storage structures, waste utilization, filter strips, and livestock management.



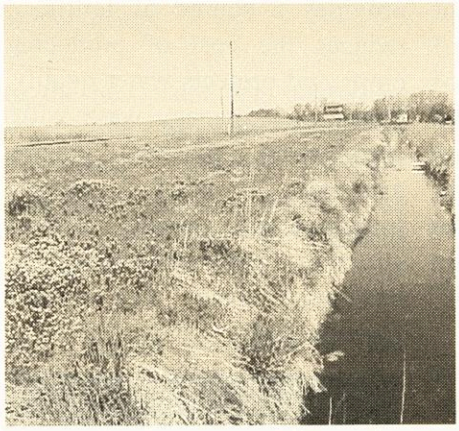
Certain salts and minerals in soils can affect water quality. The leaching of trace minerals and concentrating salt can be influenced by crop production, irrigation, and waste application and management. Farmers can manage naturally occurring pollutants with irrigation water management, conservation cropping sequences, subsurface drains and waste utilization.

For help with any of these practices or to find out more on what you can do to protect water quality on your farm, contract our office at 291-2300, ext. 3.

FIELD NOTES

PROTECT YOUR LAND
PLANT BUFFERS

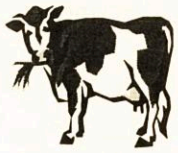
Conservation buffers are a simple way to help you stay profitable and protect your most valuable asset – your land. You can use buffers along streams and around lakes and wetlands. They can also be installed within fields or at field edges.



Conservation buffers are best described as strips or other areas of land in permanent vegetation that help control pollutants and manage other environmental concerns. Filter strips, riparian buffers (trees and shrubs next to water courses), field borders, grassed waterways, and field windbreaks are all examples of conservation buffers.

Buffers can be especially helpful to you in maintaining a productive, profitable and responsible farming operation. Today, America's farms do more than produce crops and livestock. They play an important role in maintaining the environmental quality enjoyed by all citizens. Conservation buffers can help you protect soil, air and water quality and improve fish and wildlife habitat. Buffers slow water runoff, trap sediment and enhance water infiltration in the buffer itself.

They also trap fertilizers, pesticides, bacteria, pathogens, and heavy metals, lessening the chance these pollutants will reach surface or groundwater sources. They protect livestock from harsh weather, offer a natural habitat for wildlife and improve fish habitat.



Sometimes, buffers help simply farming operations by squaring off field boundaries and they may add a measure of safety to field operations where crops are planted and harvested adjacent to steep streambanks.

Conservation buffers work economically because they are generally less expensive to install than practices that require extensive engineering and costly construction methods. Buffers also tend to be more economical to maintain than many other practices. Right now there are higher financial incentives under the Conservation Reserve Program (CRP) That makes buffers more attractive economically than ever before. There is no waiting period with the continuous CRP sign-up and you need not compete against others to see who gets in.

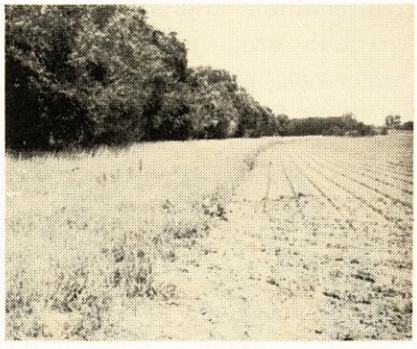
Under the continuous CRP sign-up, the incentives for conservation buffers include:

- an up-front incentive of $100 to $150 per acre (depending on contract length) for certain high-priority practices such as filter strips, riparian buffers, grassed waterways and field windbreaks.

- a practice incentive payment equal to 40% of your eligible practice cost. This is in addition to the 50% cost-share paid by USDA for establishing approved buffers.

- increases in maintenance payments per acre for certain activities like tree planting.

- Annual rental payments to maintain the practice for the life of the contract.



URBAN MEANDERINGS

URBAN WATER QUALITY

Water quality seems to be the major environmental topic of the new century. Pollutants of concern typically include; pesticides, nutrients, sediment, oxygen-demanding materials, and bacteria.

Historically, the agricultural community has been blamed for much of our nations water degradation. We frequently hear claims that farmers over-apply chemicals and nutrients. Well folks, the urban community is just as much to blame as the farmers. Did you know:

- 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% of water in Western cities is used for lawns: as much as 30% 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.

SOURCE: 1993 – "REDESIGNING THE AMERICAN LAWN," THE LAWN INSTITUTE.

Many of the pollutants found in urban runoff are similar to pollutants found in rural runoff. These are "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. This polluted, untreated runoff is generally carried directly to nearby streams and lakes via storm sewer systems.

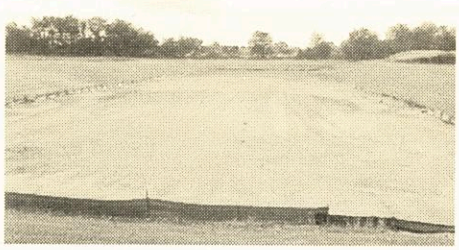
At this juncture, you may be wondering how can these pollutants be removed from storm water runoff. The best solution would be to stop the pollution at its' source. But where treatment is needed, the most widely recognized and used best management practice for treating polluted runoff is the detention pond or basin. The way these ponds work is simple. They are designed to hold storm water runoff long enough to allow sediment to settle out. Because many pollutants are attached to sediment particles, most contaminants are removed when the sediment settles to the bottom of the pond. Additionally, pollutants are removed by microorganisms that grow in the ponds.

Detention ponds come in many forms, shapes, and sizes. For example, they may take on the form of a dry pond which is designed to collect storm water runoff and then release it slowly, over a period of 24 to 48 hours, until the pond is dry. On the other hand, they may be designed as wet ponds or wetland areas that have a permanent water level. Wet ponds and wetland areas may or may not release some of the collected storm water runoff. Wet ponds and wetland areas are much more efficient at removing pollutants from storm water runoff.

Regarding pollutant removal, the best design is an oblong pond with the inlet and outlet at opposite ends. With this design, incoming storm water runoff displaces water that has been standing in the pond since the previous storm. If the inlet and outlet are located too close to each other, the incoming runoff may flow right through the pond without displacing the standing water. Then the runoff does not stay in the pond long enough for much sediment to settle out.

Detention ponds are becoming a common site on urban construction sites. Many land developers are using these ponds not only as storm water treatment ponds but also as flood control ponds to help minimize flooding of persons who live lower in the watershed. The next time you are traveling through an urban area and see a pond, remember it is there for more than just aesthetic purposes.

If you would like to learn more about detention ponds or any other urban soil conservation best management practice, contact your local Soil and Water Conservation District office.



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.