



# Manistee Conservation District


## Spring 2010

# Nature's Way Catalog



### Manistee Conservation District

8840 Chippewa Hwy (U.S. 31)  
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 Web site: [www.manisteedc.org](http://www.manisteedc.org)

 **Printed on 100% Post-Consumer Paper**

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 John Urka, Vice Chair  
 Jeanne Crampton, Secretary  
 Carol Pasco, Treasurer  
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 P. Sam Robey, Honorary Member

### Staff

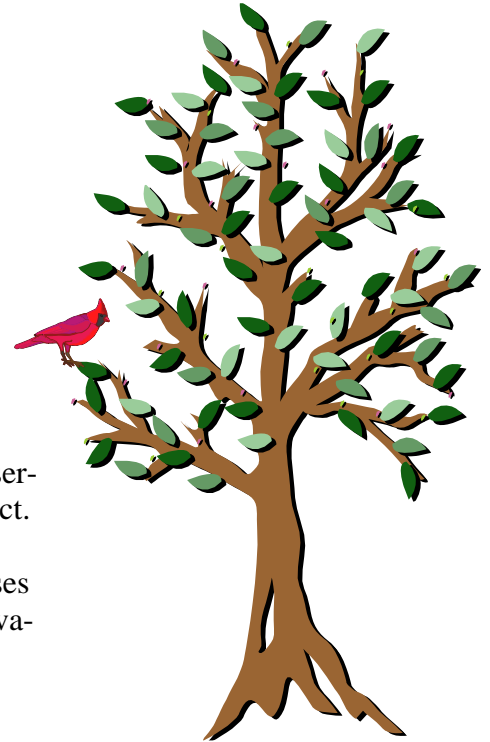
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 Tom Williams, Forester  
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 Ray Johnson, Volunteer  
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**Natural Resources Conservation Service**  
 Scott Hughey, District Conservationist

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**Manistee Conservation District will strive to:**

**P**romote good stewardship,  
protect the natural resources, and  
provide the education necessary to achieve  
these goals in partnership with our community



**Your support is important**

Thank you for ordering from this catalog. The sale of seedlings and other conservation products is one of the fund-raisers for the Manistee Conservation District. Proceeds help the District promote conservation efforts throughout Manistee County. We appreciate your support, and the support offered by local businesses through their advertising in this publication. Please help the Manistee Conservation District by supporting these local businesses.

*Some Important Information - Please Read*

- **Cut-off Date: orders must be received by Friday, April 2, 2010 by 3 p.m.**
- Payment Policy: we now accept cash, checks, Visa, Master Card and orders from our web site ([www.manisteedc.org](http://www.manisteedc.org)); however to process the order, full payment is required.
- In case of the occasional shortage of a species the orders placed first are filled first. Please Order Early!
- Please remember: PA 189 of 1931 prohibits you from selling plant stock with roots attached.
- **Order pick-up days are Friday, April 16, 2010, 8 a.m. until 4 p.m., and Saturday, April 17, 2010, 8 a.m. until 2 p.m. at the "Urka Farm - Strawberry", 16919 Pole Road, Brethren. If you cannot pick up your order on those dates, please arrange for someone else to pick up your order on those dates. If your order is not picked up on those dates the plants will be donated to a local organization.**
- Important: The District does not guarantee plant survival. Our liability ceases when you pick up your order.
- The District does not ship plants.
- Planting Instructions will be available at the pick-up location.

**Do You Need Assistance Planting Your Trees?**

*The Manistee Conservation District is sharing this information as a public service and is in no way endorsing any of the following listed contractual services*

**Only Machine Planting**

Neil Nystrom	889-4101	Onekama
Richard Cooper	325-2175	Honor

**Only Hand Planting**

Brian Jarvinen	590-9198	Manistee
Jim Grabowski	864-3357 / 590-7284	Bear Lake
Richard Runnels	231-266-5102	Irons

**Machine or Hand Planting**

Steve Redman                      689-0423 / 414-0044    WhiteCloud

**Beach Grass Planting**

Jim Grabowski	864-3357/590-7284	Bear Lake
Paul Swidorski	723-7244/510-8375	Manistee
George Schafer	864-2020	Bear Lake
Jason Thompson	231-464-5908	Free Soil
Paul Hanus	889-3015/233-3267	Manistee
Deane Wassink	616-218-2474	Holland

# NRCS Local Soil Survey

by Scott Hughey, NRCS District Conservationist

There is a tool available to you in assisting with decision making on your land. That tool is Manistee's Soil Survey. The Manistee Soil Survey was completed in 2004 and is available to you from the Manistee Conservation District or online at <http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>. No matter if you manage a 1 acre or a

1000 acres there is information in a soil survey that will benefit you and your land.

Farmers can obtain a wealth of information from the survey in analyzing the yield potential of their land. The soil survey can tell you the amounts of silt, sand, and clay you have in your soil. The survey can also tell you the yield potential for major crops grown in our area, including forage grasses.

Soil survey data helps in the planning management and conservation practices and can be used in appraising the productive capacity and the value of land for forest. Soil surveys provide evaluations of soils for specific trees.

When looking to purchase a new piece of land soil surveys hold key information and can be a great help in evaluating a piece of land before you buy it. Soil maps show soil-related hazards that may damage structures or installations, or alternate sites that may have favorable soil properties which can be selected. Structural designs can also be changed to compensate for some of these hazards. Soil maps and descriptions of the soils also can help in planning development in accordance with soil capabilities and limitations.

Many soil properties affect the construction and maintenance of roads, pipelines, buildings, and other structures. Among the important soil properties described in soil surveys are:

- Natural soil drainage
- Permeability
- Infiltration rate
- Flood hazard
- Depth to water table
- Seasonal wetness
- Depth to bedrock, stoniness
- Erodibility
- Acidity and alkalinity
- Load bearing capacity
- Slope
- Content of sand, silt, and clay
- Shrink-swell potential
- Risk of Corrosion
- Soil structure.

Soil surveys can help in evaluating routes for roads and pipelines and in anticipating soil-related hazards for construction. They also help in locating sources of sand and gravel and determining the kind of material in areas where excavation is required.

---

## Household Hazardous Waste/Clean Sweep Pickup in Manistee County

by Jay Raupp, Administrator

This August all the residents in Manistee, Mason, and Oceana Counties will again have the opportunity to properly dispose of unwanted Household Hazardous Waste (HHW) and Pesticides. The date each year is the third Saturday of August, this year being August 21, from 9am-2pm. The location in Manistee County is again the Manistee Road Commission located in Bear Lake at 8946 Chippewa Highway.

HHW are materials that if disposed of incorrectly can cause damage to our environment by contaminating ground water and surface water threatening human health and the wildlife. Take paint for example, if you have latex paint you can use it until it's gone or let it dry and then throw it in the garbage. Latex paint does not damage the environment like oil based paint does. Therefore, oil base paint is one of the items that you would bring to the Household Hazardous Waste / Clean Sweep Pick-Up Day, but latex will not be accepted.

What other items would be considered HHW? Look for the following signal words: Toxic, Warning, Reactive, Danger, Corrosive, Biohazard, Flammable, Caution and Poison. If these words appear on a product, chances are it is considered hazardous toward the environment.

Items to dispose of are:

- automotive products and fuels (antifreeze, brake fluid, car wax, contaminated oil, diesel fuel, fuel oil, gasoline, kerosene, oils, oil/gas mixtures, transmission fluid)
- Paint products
- Yard and Garden (Pesticides and Fertilizers) Cleaners

The following items are not accepted:

- Radioactive materials
- Smoke detectors
- Latex paint
- Fire extinguishers

2009 Results prove this project was necessary and very successful. The Household Hazardous Waste / Clean Sweep Pickup will be continued in our county. Three hundred fourteen households were involved in the outstanding collection efforts which collected 25,873 pounds of household hazardous waste and pesticides.

A breakdown of this past year's collection was:

Household Hazardous Wastes	12,729 pounds
Pesticides	2,429 pounds
Oil	7,390 pounds
Household Batteries	1,005 pounds
Auto Batteries	2,320 pounds
Total collected	25,873 pounds

Once again this program is being planned and organized by a combination of people in the three communities including the Conservation Districts of Manistee, Mason, and Oceana Counties. The HHW Committee is represented by employees and commissioners from all three counties, people from the Health Dept #10, OxyChem, MSUE, township officials, members of AFFEW, and the Little River Band of Ottawa Indians. The disposal team from Drug and Laboratory Disposal, Inc is from Plainwell Michigan.

The program is still in the planning stages and a complete list of items to be accepted and not accepted will be finalized in the near future. Updated notices and advertising will be appearing throughout the summer and on our web site ([www.manisteeccd.org](http://www.manisteeccd.org)).

So now is the time to analyze the products in your home and determine if they are safe for the environment or not. If they are hazardous and need special disposal, you now can take advantage of a safe way. Making that decision to properly dispose of these products is a positive step in protecting our water resources and environment.

For further information and any questions you may have, you can contact the Manistee Conservation District at 231-889-4761.

## Plant Descriptions - Conifers

### **Red Pine**

*Pinus resinosa*

*Full sun, range of soils*

Native to Manistee County. Valuable for timber, reforestation, windbreaks, and wildlife habitat. Plantations are first thinned between 20 & 30 years. Does well on dry sandy sites.

### **White Pine**

*Pinus strobus*

*Full to partial sun, range of soils*

Native to Manistee County. The "Michigan State Tree" is suitable for under plantings in moderate shade. Fast growing, used for timber, Christmas trees and wildlife habitat. Do not plant in pure plantations because of insect infestation.

### **Jack Pine**

*Pinus banksiana*

*Full to partial sun, range of soils*

Native to Manistee County. Fast growing. The best for infertile, dry, and sandy sites. Jack pine will succeed even where red pine fails!!

### **White Spruce**

*Picea glauca*

*Full to partial sun, range of soils, and will tolerate moderately wet soils*

Native to Manistee County. Moderate growth, excellent for wildlife cover, windbreaks, and visual screening. Tree has limited timber value due to excessive branching.

### **Blue Spruce**

*Picea pungens*

*Full to Partial sun, range of soils*

Drought resistant once established. Beautiful ornamental and Christmas tree. Will turn bluish color after 4-5 years. Excellent for windbreaks, soil stabilization, and wildlife cover.

### **Norway Spruce**

*Picea abies*

*Full to partial sun, range of soils*

Fast growing, graceful pendulous branches, large "cuckoo clock cones". Used ornamentally and for windbreaks or wildlife habitat. Does well on a variety of sites.

### **Black Hills Spruce**

*Picea glauca densata*

*Full to partial sun, range of soils*

One of the most tolerant spruces as it withstands wind, heat, cold, and drought. Not a favorite on the deer menu. A favorite for windbreaks, privacy screens and accent plantings.

### **Douglas Fir- Shuswap Lake**

*Pseudotsuga menziesii*

*Full to partial sun, range of soils*

Planted widely for Christmas trees because of its naturally full form and needle retention quality. Moderately fast-growing, long-lived tree that reaches 60-80'. Other uses include ornamental, hedges, and windbreaks.

### **Eastern Hemlock**

*Tsuga canadensis*

*Shade tolerant, moist to wet soils*

Native to Michigan. The graceful, short needled, slow growing, long lived native tree reaches 70-100'. Deer enjoy browsing this soft-needled Michigan treasure. Used to provide winter and nesting cover for wildlife.

### **Fraser Fir**

*Abies fraseri*

*Full to partial sun, range of soils*

Needles dark green on top and light green underneath. Delightful fragrance and attractive purplish cones. Good ornamental and Christmas tree.

### **Balsam Fir**

*Abies balsamea*

*Prefers full sun and cool, moist, well drained soils*

Native to Michigan. A popular Christmas tree because of long-persistent needles that are not shed readily. Aromatic needles are dark green above, pale green underneath. A slow growing tree, which does well in a variety of sites.

## FAWNCREST FARMS FEED & SEED

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# Manistee Conservation District 2010 Nature's Way Spring Order Form

**Orders must be received by Friday, April 2, 2010 at 3 p.m.** Orders must be **paid in full when ordering.** Orders are filled on a first come first served basis when the occasional shortage occurs with a species. **Please Order Early.** Orders may be picked-up from **8 a.m. until 4 p.m. on April 16<sup>th</sup>** and from **8 a.m. until 2 p.m. on April 17<sup>th</sup>** at the "Urka Farm - Strawberry", located at 16919 Pole Road, Brethren, Michigan. These 2 days are the only days for the tree distribution. **Note:** that PA 189 of 1931 prohibits Conservation District customers from reselling rooted planting stock. The District does not guarantee plant survival and limits its liability to the distribution of the plants.

For plant descriptions and information, on line at [www.manisteedc.org](http://www.manisteedc.org) or please call (231) 889-4761.

Name: \_\_\_\_\_ Date: \_\_\_\_\_ First page purchases: \$ \_\_\_\_\_  
 Address (mailing): \_\_\_\_\_ Daytime Phone: \_\_\_\_\_ Second page purchases: \$ \_\_\_\_\_  
 City/State/Zip: \_\_\_\_\_ Total taxable purchases: \$ \_\_\_\_\_  
 6% Sales Tax: \$ \_\_\_\_\_

### Now accepting Visa or Master Cards

Type of card Visa \_\_\_\_\_ Master Card \_\_\_\_\_  
 Credit Card # \_\_\_\_\_ Expiration Date \_\_\_\_ - \_\_\_\_  
 Dried fruit purchases: \$ \_\_\_\_\_  
 Conservation District Donation: \$ \_\_\_\_\_  
**Total Amount Paid: \$ \_\_\_\_\_**

Signature of card holder \_\_\_\_\_

Or Make checks payable and mail to:

**Manistee Conservation District  
8840 Chippewa Highway (US 31)  
Bear Lake, Michigan 49614-9400**

Note: **Orders must be paid in full to be processed**  
and there is a \$16 fee assessed on any returned check

Office Use Only			
Order # _____	Date Paid _____	Check # _____	Cash _____ Credit MC V Notes _____

All District programs and services are offered on a nondiscriminatory basis without regard to race, color, national origin, religion, sex, age, marital status, or handicap.

### Conifer Seedlings

Quantity	Species	Age	Size	Prices per				Total
				50	100	500	1000	
_____	Red Pine	2-0	4-8"	\$23	\$38	\$94	\$175	\$ _____
_____	White Pine	2-0	4-8"	\$23	\$38	\$94	\$175	\$ _____
_____	Jack Pine	2-0	6-12"	\$19	\$32	\$80	\$150	\$ _____
_____	White Spruce	2-0	5-10"	\$23	\$38	\$94	\$175	\$ _____
_____	Blue Spruce	2-0	5-10"	\$23	\$38	\$94	\$175	\$ _____
_____	Norway Spruce	2-0	5-10"	\$23	\$38	\$94	\$175	\$ _____
_____	Black Hills Spruce	2-0	4-8"	\$23	\$38	\$94	\$175	\$ _____
_____	Douglas Fir	2-0	6-12"	\$24	\$40	\$97	\$180	\$ _____
_____	Eastern Hemlock	2-0	3-6"	\$35	\$60	\$150	N/A	\$ _____
_____	Fraser Fir	3-0	6-12"	\$35	\$60	\$150	N/A	\$ _____
_____	Balsam Fir	3-0	6-12"	\$35	\$60	\$150	N/A	\$ _____

### Specialties

Quantity	Species	Age	Size	Prices per			Total
				10	25	50	
_____	Northern White Cedar Transplant	2-1	5-10"	\$15	\$31	\$52	\$ _____
_____	Dawn Redwood	3-0	1-2'	\$20	\$43	\$75	\$ _____

### Fruit Trees (Wildlife Habitat)

Quantity	Species	Age	Size	Quantity/Price		Total
				Quantity	Price	
_____	Apple tree package	1-0	4-6'	3 seedlings	/\$35	\$ _____
_____	Cherry tree package	1-0	4-6'	3 seedlings	/\$35	\$ _____
_____	Pear tree package	1-0	4-6'	3 seedlings	/\$35	\$ _____

## Hardwoods / Wildlife Shrubs & Vines

## Prices per

Quantity	Species	Age	Size	10	25	50	Total
_____	Native White (Paper) Birch	1-0	8-15"	\$12	\$25	\$37	\$_____
_____	Northern Red Oak	1-0	1-2'	\$13	\$27	\$40	\$_____
_____	White Oak	1-0	5-12"	\$12	\$25	\$37	\$_____
_____	Poplar-Rooted cuttings	1-0	1-2'	\$10	\$20	\$30	\$_____
_____	Black Walnut	1-0	1-2'	\$10	\$20	\$30	\$_____
_____	Black Cherry	1-0	1-2'	\$10	\$20	\$30	\$_____
_____	Golden Raintree	1-0	6-12"	\$23	\$50	\$87	\$_____
_____	Sugar Maple	2-0	4-8"	\$16	\$34	\$58	\$_____
_____	Red Maple	1-0	1-2'	\$13	\$27	\$40	\$_____
_____	American Mountain Ash	1-0	6-12"	\$12	\$25	\$37	\$_____
_____	Hybrid Willow	1-0	1-2'	\$10	\$20	\$30	\$_____
_____	American Chestnut	1-0	10-18"	<b>\$3.00</b> each, minimum 2 recommended			\$_____
_____	Nanking Cherry	1-0	1-2'	\$10	\$20	\$30	\$_____
_____	Sand Cherry	1-0	1-2'	\$10	\$20	\$30	\$_____
_____	Sargent Crabapple	1-0	6-12"	\$20	\$43	\$75	\$_____
_____	Butterfly Bush	1-0	1-2'	\$10	\$20	\$30	\$_____
_____	Rosa Rugosa	1-0	6-12"	\$10	\$20	\$30	\$_____
_____	Common Lilac	1-0	1-2'	\$10	\$20	\$30	\$_____
_____	Highbush Cranberry	1-0	3-8"	\$10	\$20	\$30	\$_____
_____	Red-Osier Dogwood	1-0	6-12"	\$5	\$10	\$15	\$_____

## Variety Pacs

Quantity

Prices per each

**Environmental Package**— includes 20 plants (2 each) of; Colorado Blue Spruce, Lilac, Silver Maple, White Birch, Forsythia, Nanking Cherry, Red Bud, Rosa Rubrifolia, Rosa Rugosa, and Ninebark

\_\_\_\_\_pkgs @ \$16.00 each \$\_\_\_\_\_

**Bird and Butterfly Package**— includes 10 plants from; Butterfly Bush, Rosa Rugosa, Trumpet Vine, and Rose of Sharon

\_\_\_\_\_pkgs @ \$10.00each \$\_\_\_\_\_

## Wildflower Seed

weight / Prices per Packet

\_\_\_\_\_ Wildflower Seed Mix Packet 1 ounce/ **\$4.00** - 4 ounces/ **\$16.00** - 8 ounces/ **\$30.00** or 1 pound/ **\$55.00** \$\_\_\_\_\_

## Ground Cover

Age

Size

Quantity/Price

\_\_\_\_\_ American Beach Grass 1-0 18"+ 500 / **\$53** \$\_\_\_\_\_

\_\_\_\_\_ Periwinkle 1-0 3-6" 10/**\$10** 25/**\$20** 50/**\$30** \$\_\_\_\_\_

## Planting Products & Animal Repellant

Price

\_\_\_\_\_ Planting Bar (all steel) \$25.00 \$\_\_\_\_\_

\_\_\_\_\_ Planting Gel—1 oz. (Covers 1000 plants) \$3.50 \$\_\_\_\_\_

\_\_\_\_\_ Tree Planting Signs \$1.75 or 6 for **\$9.50** \$\_\_\_\_\_

\_\_\_\_\_ Treessential Tree Shelters \$20.00 for 5 shelters \$\_\_\_\_\_

\_\_\_\_\_ Plantskydd—powder 2.2 Lbs. (Covers 400 to 600 plants) \$39.95 \$\_\_\_\_\_

\_\_\_\_\_ Plantskydd—liquid 1.06 Qt. or powder 1 Lb. (Liquid covers 100 plants powder 200 to 300 plants) \$22.95 \$\_\_\_\_\_

## Other Products (nontaxable)

Price per:

1/2 lb

1 lb

4 lbs

\_\_\_\_\_ Dried Cherries *Not Taxable* \$3.00 \$5.50 \$21.00 \$\_\_\_\_\_

\_\_\_\_\_ Chocolate Covered Dried Cherries *Not Taxable* \$3.00 \$5.50 \$21.00 \$\_\_\_\_\_

\_\_\_\_\_ Dark Chocolate Covered Dried Cherries *Not Taxable* \$3.00 \$5.50 \$21.00 \$\_\_\_\_\_

\_\_\_\_\_ Dried Mixed Fruit *Not Taxable* N/A \$7.50 N/A \$\_\_\_\_\_



## Plant Descriptions - Specialties

### **Northern White Cedar (American Arborvitae)**

*Thuja occidentalis*

*Full to partial sun, range of soils*

Native to Manistee County. A beautiful, straight, dense, dark-green symmetrical tree. Prefers wet areas but will also grow on upland areas. A small tree, good for windbreaks and privacy screenings. Must be protected from deer.

### **Dawn Redwood**

*Metasequoia*

*Full sun, range of soils*

An ancient tree from the dinosaur era. A fast growing, unique tree, grows to 70'to 100' with a 25' spread. A deciduous conifer, which is considered a shade tree that enjoys moist soil conditions and grows in loamy, sandy, or clay soils.

## Fruit Trees

### **Apple Tree**

This is a generic species of this fruit tree which is compatible to the soils and weather generally found in Manistee County. The intent of offering these fruit trees is to enhance the wildlife habitat in Manistee County.

### **Cherry Tree**

This is a generic species of this fruit tree which is compatible to the soils and weather generally found in Manistee County. The intent of offering these fruit trees is to enhance the wildlife habitat in Manistee County.

### **Pear Tree**

This is a generic species of this fruit tree which is compatible to the soils and weather generally found in Manistee County. The intent of offering these fruit trees is to enhance the wildlife habitat in Manistee County.

## Plant Descriptions - Hardwoods (Trees)

### **Native White (Paper) Birch**

*Betula papyrifera*

*Full sun, range of soils*

Native to Manistee County. Medium sized tree with brilliant white bark. Does well on a wide variety of soil conditions, including moderate to wet. Fast growing, and short lived.

### **Northern Red Oak**

*Quercus rubra*

*Full sun and drought tolerant*

Native to Manistee County. Beautiful oak of rapid growth with stout, spreading branches forming a broad round topped head with large leaves turning dark red in the fall. Often planted as a shade or street tree.

### **White Oak**

*Quercus alba*

*Full to partial sun, well-drained soils*

Native to Michigan. This large, majestic, slow to medium growing, long-lived, with wide spreading branches produces delectable acorns for wildlife.

### **Poplar – Rooted Cuttings**

*Populus androscoegin*

*Sun to partial shade in most soil types*

“Popple” is the affectionate name for this fast growing (6' plus in one season!), short lived (50-60 years) non-native hybrid. Excellent for windbreaks. Mix with evergreen species for year round protection.

### **Black Walnut**

*Juglans nigra*

*Full sun, loamy soils*

This heavily branched tree does not tolerate soils that are dry, acidic or excessively wet. Commonly grows to 70-80 feet. Nuts eaten by squirrels. Valuable timber tree.

### **Black Cherry**

*Prunus serotina*

*Full sun, range of soils*

Native to Manistee County. It is the largest of the cherries, typically growing to 50-80' tall with a narrow-columnar to rounded crown. This deciduous tree is noted for its profuse spring blooms. The fragrant white flowers in slender pendulous clusters appear in the spring. The flowers are followed by drooping clusters of small red cherries that ripen to black in late summer.

### **Golden Raintree**

*Koelreuteria paniculata*

*Full sun and grows in soils that are well drained*

Introduced in the United States. The Golden Rain tree is medium to fast growing reaching a height of 30'to 40' and a crown width of 35'. The leaflets close up at night or when under heavy cloud cover, allowing rain to pass easily through the crown. The tree grows pods which contain a sweet edible pulp that supplies food for animals.

## **Plant Descriptions - Hardwood Trees *continued***

### **Sugar Maple**

*Acer saccharum*

*Full sun to partial shade, range of soils*

Native to Manistee County. Sturdy shade tree growing from 60 to 120'. It is excellent for large shade or lawn locations. Largest native maple having commercial value for its syrup and wood. Gorgeous fall color of yellow to scarlet.

### **Red Maple**

*Acer rubrum*

*Full sun to partial shade, range of soils*

Native to Manistee County. Gorgeous red, early spring flowers. Rapid growing, moderately long lived tree which can reach 90' at maturity. Leaves turn bright red in fall.

### **American Mountain Ash**

*Sorbus americana*

*Full sun, fertile moist soils*

Is native to Michigan. One of the most beautiful flowering trees 12-20' tall which is moderately growing. American Mountain ash with showy white flowers and bright orange fruit. Birds love them.

### **Hybrid Willow**

*Salix hybrid*

*Full sun in a variety of soils*

Native to Manistee. Has a rapid growth rate and will reach 70+' being considered a hardy upright erect tree with red bark. This is not a weeping willow. Very good application for this tree is a windbreak or visual hedge due to its fast growth rate which can reach 20' tall and 15' wide within 3 years.

### **American Chestnut**

*Castanea dentate*

*Full sun, range of soils*

The Chestnut is fast growing with white flowers and large, edible nuts. A minimum of 2 trees are needed for pollination if the harvesting of nuts is desired.

## **Plant Descriptions - Shrubs & Vines**

### **Nanking Cherry**

*Prunus tomentosa*

*Full sun, variety of soils*

Excellent privacy hedge while producing 1/2 inch red cherries eaten by woodpeckers, catbirds, brown thrashers, robins, cedar waxwings, blue jays, and cardinals. Also edible for humans with a taste between a tart and sweet cherry.

### **Sand Cherry**

*Prunus pumila*

*Good on sandy, dry rock sites*

Native to Manistee County. Reddish stems, small white flowers, low growing (under 3') shrub with purple-black fruit. Can be eaten, very tart fruit. Important as grouse, bird, bear, and chipmunk food.

### **Sargent Crabapple**

*Malus sargentii*

*Full sun and is adaptable to moisture and soils*

A dwarf, broad growing tree with fragrant white flowers that are followed by a small bright red fruit (which birds enjoy). The foliage in the summer is green.

### **Butterfly Bush**

*Buddleia davidii*

*Drought tolerant*

Butterfly bush is a popular shrub, flowering from July until frost. It has long spiked flowers. The shrub dies back in the winter, shoots up again, and bears flowers on the growth that year. Deer do not like to eat them.

### **Rosa Rugosa (Rugosa Rose)**

*Rosa Rugosa*

*Full sun, variety of soils*

A shrub with stems usually prickly, leaves compounded. When in flower, wild roses are easily recognized by their 5 large, pink, rose colored petals and 1" red fruit. These shrubs are very hardy, do spread, and are excellent for hedges.

### **Common Lilac**

*Syringa vulgaris*

*Full sun to part shade*

Deciduous shrub grown for its very fragrant flowers, produced in dense panicles in mid to late spring. Height to 15'.

### **Highbush Cranberry**

*Viburnum trilobum*

*Full sun to part shade*

Native to Manistee County. New foliage has a reddish tint and turns a yellow/reddish-purple color in the fall. This bush has brilliant white flowers with bright red fruit.

### **Red-Osier Dogwood**

*Cornus sericea*

*Prefers full sun to moderate shade, moist to wet soils*

Native to Manistee County. A spreading shrub featuring white flowers and berries. Red twigs contrast beautifully against the snowy winter.



## Plant Descriptions - Variety Pacs

**Environmental Packet** (2 of each species, total of 20 trees) 12-36" plants—Colorado Blue Spruce, Lilac, Silver Maple, Cranberry, Forsythia, Nanking Cherry, Red Bud, Rosa Rubrifolia, Rosa Rugosa, and Ninebark

**Bird/Butterfly Packet** (A total of 10 trees) From the following species; Butterfly Bush, Rose Rugosa, Trumpet Vine, Rose of Sharon, and Liatris Spicata Bulb

## Plant Descriptions - Wildflowers

**Wildflower Seed Mix**

(packaged by 1 ounce / coverage 125 square feet; 4 ounces / coverage 500 square feet; 8 ounces / coverage 1,000 square feet; and 1 pound / coverage 2,000 square feet)

This seed mix includes annuals, biennials, and perennials. This selection of Mid-West wildflowers includes: Partridge Pea, Plains Coreopsis, Illinois Bundleflower, Black Eyed Susan, and Yellow Cornflower.



## Plant Descriptions - Ground Cover

**American Beach Grass**

*Ammophilas breviligu*

*Full sun, sandy soils*

Native to Manistee County and the Great Lakes. A very durable cover for dunes and eroding sandy spots with a spreading root system. Can be planted in harshest dune conditions. Will provide cover and control sand movement within a year. Space 18" x 18" for severely eroded areas or 24" x 24" for other areas.

**Periwinkle**

*Vinca minor*

Plant 12-18" apart to cover large areas. Evergreen foliage will mound up to 6" tall. Versatile ground cover. Good cover for bulb beds. Effective on slopes or banks to stabilize soils and prevent erosion. Easily grown in most soils in full sun to full shade.



## Planting Products

**Planting Bar** - excellent tool used for planting tree seedlings.

All steel construction.



**Signs** - "Trees Planted Keep Off"



7 1/2" x 11 1/2" orange or yellow metal signs.

**Planting Gel** - Treating up to 1,000 seedlings

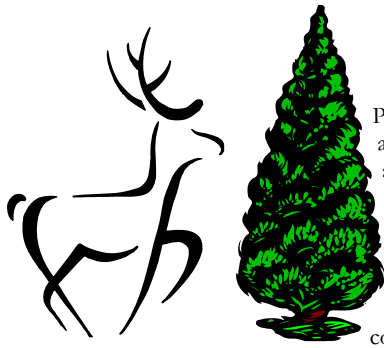


requires 1 oz. mixed into 1 or 2 gallons of water.

**Tree Shelter** - Protection that is 4' tall



for hardwood, nut, fruit, or ornamental trees (seedlings)



## Plantskydd Animal Repellent

Plantskydd is effective, 100% natural and safe for deer, rabbit, and other animals browsers. Domestic and wild animals are not harmed by Plantskydd. Plantskydd repelling by odor will last up to six months. Ingredients are all natural materials and safe in your vegetable garden. The main ingredient is bloodmeal with a vegetable fat binder. Animals avoid plants before they bite, not after. Treat mainly green parts of plants, new growth, and blossoms. Plantskydd really sticks and you don't want appreciable residue on fruits and vegetables, so avoid applying to fully formed fruit and vegetables. We handle Plantskydd in a 1 lb or 2.2 lb powder containers which when mixed with water (coverage is 200 to 300 plants for 1lb or 400 to 600 plants for 2.2 lbs) or in a liquid form which is in a 1.06 quart container (coverage 100 plants). Complete instructions with more detailed information comes with the product.

## 2010 Census Takers Needed

If interested call 866-861-2010



## West Central Groundwater Stewardship Program 2009 Highlights

The West Central Groundwater Stewardship Program (WCGSP) includes the geographic areas of Manistee, Mason, Oceana, and the west 1/2 of Lake Counties. The WCGSP is administered by the Mason-Lake Conservation District and has offices in Bear Lake, Scottville, and Shelby Michigan. Local groundwater stewardship team met in October of 2009 to determine priorities for fiscal year 2009. The team determined the highest priority of the program would be groundwater education and encouraging producers to become verified in the (Michigan Agriculture Environmental Assurance Program) MAEAP. During February of 2009 a phase 1 educational MAEAP was held in Hart, MI. with over 60 producers attending from several different counties. There were also 22 MAEAP verifications in either farmstead or cropping systems throughout the 3 1/2 county area.



Kistlercrest Orchard MAEAP verified Oct 2009



Water collection for Ag-Expo

Groundwater technicians conducted 67 farm\*a\*syst, crop\*a\*syst, orchard\*a\*syst, livestock\*a\*syst, and Christmas tree\*a\*syst risk assessments for producers during the year. They also worked closely with the Natural Resource Conservation Service (NRCS) promoting the EQIP and CSP programs with producers. There are more irrigation systems being installed each year in the area. Groundwater technicians are conducting uniformity checks for producers with these systems. These system evaluations determine if accurate amounts of water are being applied and if the applications are being uniformly distributed which may result in less water usage. In July the technicians collected and delivered 386 water samples to Ag-Expo in East Lansing, MI. for screening of Nitrates, Nitrites, and Atrazine. This service is available to all residents of the WCGSP on a yearly basis.



Proper fuel tank signage & loading pad

Other activities of the program included assisting producers to install proper fuel storage and loading facilities, pesticide storage buildings and mix/load pads, and proper fertilizer storage and handling at their farmsteads.



Summer Tour in Northern Mason County

On September 25, 2009 the WCGSP held its annual field day and tour in Mason County. The afternoon tour included stops at a MAEAP verified farmstead, a no-till alfalfa field, a wetland restoration site, a new pesticide storage facility, and a dairy farm where reusing plate cooler water was demonstrated. The field day was attended by more than 70 persons and concluded with a complimentary lunch sponsored by Crop Production Services of Bear Lake, MI.

Persons interested in learning more about the groundwater stewardship program are encouraged to contact the Manistee Conservation District, phone 231-889-4761.

## The Trip Home

Most (if not all) of the seedlings you have purchased are bare rooted. The bare roots are surrounded by moist moss or shredded paper and then wrapped in nursery paper. This will keep the roots moist for your trip home, but the plants should be planted within 48 hours. You can store your seedlings in a cool, shaded location, such as a cool basement or a garage. The roots must be kept moist not wet.

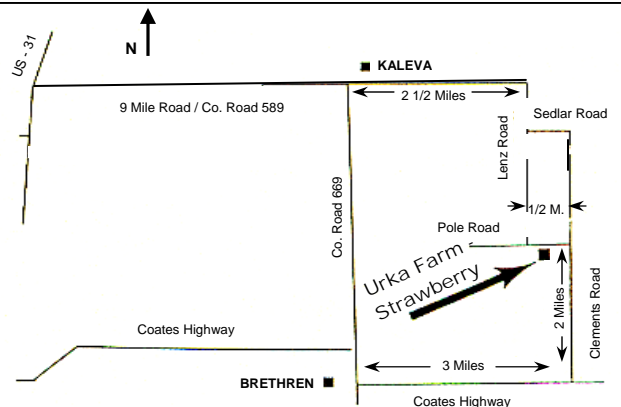
- Do not leave plants in the hot trunk.
- Do not let the plants freeze.
- Do not stack the bundles or leave them open.
- Do not store plants in buckets of water.

Oops! Too busy to plant your seedlings right now. Heel the seedlings into a trench, cover with soil, and then add water (keep moist).

## Tree Spacing Guide

Planting Purpose	Conifers		Deciduous	
	Spacing	Trees/Acre	Spacing	Trees/Acre
<b>Reforestation:</b> Good Management (thinning & weed control)	6' x 8'	900	12' x 12'	300
No Management Plan (Trees growing to maturity)	7' x 9'	700	12' x 12'	300
<b>Erosion Control</b>	5' x 5' or 7' x 7'	1742 or 889		
<b>Windbreaks</b> 3 rows recommended 2 rows conifers / 1 row shrubs	10' x 8' between trees 10' x 12' between shrubs		12' x 10' between trees 12' x 15' between shrubs	

- Remember Tree Pick Up **Friday, April 16<sup>th</sup>**, & **Saturday, April 17<sup>th</sup>**, at “**Urka Farm - Strawberry**”, 16919 Pole Road, Brethren. Orders are available to be picked up between **8 a.m.** until **4 p.m.** on **April 16<sup>th</sup>** or between **8 a.m.** until **2 p.m.** on **April 17<sup>th</sup>**.





**P**romote good stewardship, protect the natural resources, and provide the education necessary to achieve these goals in partnership with our community

Manistee Conservation District will, strive to:

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