

Final Report: Enhancing the Competitiveness of Michigan-Grown Christmas Trees through Promotion and Education.

MDA Specialty Crop Block Grant - #791N0200079

Michigan Christmas Tree Association

38-1964008

Contact: Marsha Gray

517-545-9971

marsha@mcta.org

Overview

The purpose of this project was to provide market opportunities for Michigan's Christmas tree growers. Over the last few decades, we have seen a steady decline in the number of Christmas trees harvested in our state. There are many factors that impact the declining harvest; increased competition from other growing regions, the aging population of Christmas tree growers and increased competition from sales of artificial Christmas trees.

The activities undertaken focused on two main objectives: Increasing market share of Michigan grown Christmas trees sold through retail lots, garden centers and other outlets throughout the Midwest and South, and increasing understanding that farm-grown Christmas trees are the best environmental choice and thus removing a significant consumer barrier to purchasing natural Christmas trees.

Performance

Increase Market Share of Michigan-Grown Christmas Trees

Michigan has long been a leader in natural Christmas tree production in the US and currently ranks third among Christmas tree producing states behind Oregon and North Carolina. Michigan is known for its diversity of tree varieties produced – more than any other growing region featuring at least a dozen species available on the wholesale market. With our close proximity to major growing areas, Michigan is in an enviable position for Christmas tree production and distribution. However, overproduction of Christmas trees in the other large growing regions has forced those regions to aggressively market their trees. Some states or regions have large marketing budgets and promotional campaigns with which individual Michigan growers find it difficult to compete.

In order to drive customers to Michigan's wholesale growers, we developed an attractive, four-color, oversized postcard that featured eye-catching photos of Michigan-grown Christmas trees. The postcard emphasized the quality of Christmas trees grown in Michigan as well as our wide selection of tree varieties and close proximity for shipping to many major markets. The association's website was prominently featured on the card and instructed interested buyers to visit the site. Once on the website, prospects could easily view wholesale Christmas tree growers, the species that they offer and complete contact information for each member grower. This postcard was sent to approximately 5,500 retail greenhouse/garden centers in key Midwestern and southern states. A companion four-color, half-page print advertisement was also produced and appeared in two industry journals and the annual MCTA Buyers Guide.

To further enhance the marketing efforts of Michigan grown Christmas trees, funds were used to redesign the Michigan SNOWFRESH logo, banners and marketing materials in an effort to increase the value of this brand to our members and consumers alike. The Michigan SNOWFRESH brand was instituted in the 1980's to help address an overproduction of Scotch Pine in Michigan, but now includes all Christmas tree varieties. Only the highest quality trees qualify for the voluntary program and growers are required to follow certain procedures when harvesting and shipping Michigan SNOWFRESH trees. In addition to the new logo and marketing materials, funds were used to in the development of a website for Michigan SNOWFRESH and to feature a new Michigan SNOWFRESH advertisement in the annual MCTA Buyers Guide.

Educate Michigan Youth on the Environmental Benefits of Farm-Grown Christmas Trees

Based on results of surveys executed by Harris Interactive for the National Christmas Tree Association, the primary reasons that consumers don't select natural Christmas trees are inconvenience and messiness. However, in recent years, another reason has been cited. A majority of consumers feel that artificial Christmas trees are better for the environment than natural trees. In a survey conducted in 2008, 55% of respondents believed that artificial trees were better for the environment where only 33% believed that real trees were better.

This is a source of great concern and frustration for real Christmas tree growers. Individuals from outside the Christmas tree industry and environmental organizations have publicly stated that natural trees are better for the environment than petroleum-based, artificial trees. Unfortunately, consumers are not getting the message. In fact, our youth are bombarded with the "don't cut down a tree" message. Although this lesson is intended to protect rain forests and old-growth forests, it has been damaging to forestry, and now, to the Christmas tree industry.

In an effort to reach students with the message the real Christmas trees are sustainable, completely biodegradable and an environmentally friendly choice, we developed an environmental teaching kit. This kit was designed at a 3rd – 4th grade level and the committee that helped to design the kit included two Michigan elementary school teachers. Each kit included an educational DVD that was produced by the Minnesota Christmas Tree Association as well as complimentary worksheets, experiments and projects. The kit covered a variety of disciplines including math, science and English language arts. State of Michigan educational benchmarks met by the lessons were identified for the convenience of the teachers using the kit. 500 copies of the kit were made available to elementary schools throughout the state.

Additionally, we contracted with two educators to speak to students in 3rd and 4th grade classrooms around the state and provide a simple science and environmental lesson. Elementary principals and teachers were notified of the availability of the guest speaker and the topic. These presentations accommodated one to two classrooms at a time and as often as possible, we attempted to offer multiple presentations per building or community to reduce travel. The educators used the Minnesota Christmas Tree Association produced DVD as well as hand-outs and other interactive materials to present the environmental lesson. Teachers were asked to complete an evaluation following the presentation.

Goals Achieved

As outlined in our plan of work, we anticipated increased awareness of Michigan's wholesale Christmas tree growers and their ability to service new customers in the Midwest and southern states. The emphasis of our marketing and advertising campaign was the availability of wholesale Christmas trees in Michigan and the MCTA website (www.mcta.org) as the place to find growers who could supply those trees.

Our direct mail postcard campaign was aimed at retail greenhouses and garden centers in Florida, Georgia, Illinois, Indiana, Iowa, Kansas, Michigan, Missouri, Ohio, Oklahoma and Texas. Our mailing list of approximately 5,100 was purchased from InfoUSA.com and augmented with some prospect addresses in the association's database. A total of 5,500 postcards were distributed. The postcards were designed by Millbrook Printing and produced and mailed by UPrinting.com.

Our advertising campaign included half page four color display ads that appeared in Garden Center Magazine (July, August) and Today's Garden Center (June, August) as well as the annual MCTA Buyer's Guide. The ads were quite similar to the postcard designs, directing viewers to the MCTA website. These publications also offered a package advertising price that included ad placements in their respective e-mail newsletters. Today's Garden Center reported that we received 108 "click throughs" from their on-line newsletter to the MCTA website. Further, using Google Analytics, we were able to determine that the wholesale search on our website received 487 views during June, July and August, 2010.

We surveyed wholesale growers who appear on the wholesale portion of the MCTA website to determine if they received new customer inquiries or additional sales in 2010. Survey results show that 93% of respondents received new customer inquiries in 2010 and 93% also indicated securing new customers in 2010. 86% of respondents reported that customers or prospects mentioned finding them on the MCTA website. 86% of respondents also indicated that they believed that they received additional prospects through the MCTA website. 36% of those surveyed reported an increase in sales in 2010 and 85% of respondents indicated that repeating a similar marketing program in the future would be valuable.

The Michigan SNOWFRESH committee worked with designers at Millbrook Printing to develop a revised logo for the Michigan SNOWFRESH brand. The new logo provides a fresh design, while incorporating components of the old logo to insure brand continuity. This new logo was featured on a new, larger tree tag and new point of sale banners. The website, www.michigansnowfresh.com, was designed and is maintained by Digital Farming. The website provides another opportunity for participating Michigan Christmas tree growers to promote their available inventory. All Michigan SNOWFRESH participants received new banners to share with their retail customers and sample press releases as well as other printable designs are now available for Michigan SNOWFRESH retailers on the website. All new materials now feature the Michigan SNOWFRESH website address.

Educating Michigan school children about the environmental benefits of farm-grown Christmas trees was another goal of this project. Using a mailing list purchased from Michigan Education Directory, a colorful mailer was sent to more than 2,500 public and private elementary school principals in May encouraging them to register for the free educational kit at the MCTA website. We also reached hundreds of elementary science teachers through an e-blast with the Michigan Science Teachers Association. We were disappointed with the initial response, but were able to distribute a majority of the 500 kits and have a plan to distribute the balance of the kits in 2011. Based on voluntary survey

results of teachers who received the kit, 98% said that they used the student worksheets that were provided in the kit and 98% also indicated that they would use the dvd and kit in future years.

We also were able to reach students with the classroom presentations with our educators. Our educators visited 27 schools, from Redford to Traverse City, making more than 50 presentations. These classroom presentations reached approximately 2,300 students. Our educators reported that the third and fourth grade levels were the right choice for this program as most schools are teaching sections on the environment in these grades. Typically, the information that our educators presented to the third graders was new, where most fourth graders had some familiarity with the topic and such terms as “biodegradable” and “photosynthesis.” Our educators typically started their presentation by asking the students the following question; “Which is better for the environment, a real Christmas tree or an artificial Christmas tree?” Our educators indicated that student responses to this question were always mixed, however at the end of the program when asked this question again, virtually 100% of the students understood that the real Christmas tree was better for the environment than the artificial tree. All students received a “Certified Tree Expert” sticker that they could wear home to encourage discussion with their parents.

Conclusions:

This series of projects certainly provided important information for our industry and definitely created a strong foundation on which we can build. Our growers were pleased with the activity on the association website and leads for wholesale tree sales. We are already working on a plan with our web master to maximize the wholesale section of the website to encourage more traffic, similar to the traffic we see for the consumer Christmas tree season. This project demonstrated the value of the website to our wholesale members.

We are making plans to further promote the Michigan SNOWFRESH brand with our members and encourage more to use the brand now that we have the website established as well as fresh marketing materials. The committee is already working on a plan to make the Michigan SNOWFRESH program more meaningful for choose & cut growers.

The educational segments of the project presented significantly more challenges than we would have foreseen. The greatest challenge that we met in this process was the concern on the part of educators to use any curriculum that included “Christmas” in the title even though it was in the context of an agricultural commodity that is produced in our state. We made great efforts to stress that the lesson taught in this project was an environmental lesson however the use of the word “Christmas” presented a challenge for some educators. One educator commented that she was concerned that the presentation would become a commercial for our product. This definitely reduced the number of students that we could reach.

However, the responses by the teachers and students who participated made it clear that the materials were valuable and hit the mark with this age group. Further, the survey responses from educators who used the kit and dvd were very positive with 98% saying that they planned to use the kit again with another classroom of students. This was our plan in having the kit available in the library for multiple classrooms to use and by making all of the worksheets available to be downloaded from our website.

Additional Information and Attachments

I have attached a number of items from the project:

- 1) Wholesale Christmas tree postcard
- 2) Wholesale Christmas tree advertisement
- 3) Michigan SNOWFRESH tag featuring new logo and web address
- 4) Michigan SNOWFRESH advertisement
- 5) Michigan SNOWFRESH banner design/downloadable care flyer
- 6) Michigan SNOWFRESH downloadable postcard
- 7) Environmental Kit Brochure sent to elementary principals
- 8) Photos of classroom presentations and "Certified Tree Expert" sticker
- 9) Environmental Kit (including all packaging, dvd, handouts and teacher instructions)

Michigan Snowfresh

for purchasing your tree from us!

Share this card with a friend, and they can save

Savings Here

on their purchase of a Christmas Tree at

Your Company Name Here

Hours



featuring **Michigan SNOWFRESH**
Christmas Trees!

(This expires at the end of the 2011 Christmas tree season)

for purchasing your tree from us!

Share this card with a friend, and they can save

Savings Here

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Christmas Trees!

(This expires at the end of the 2011 Christmas tree season)

MICHIGAN

Dear Michigan Educator:

The Michigan Christmas Tree Association would like to offer you a **FREE educational packet** that provides an important lesson on the **environment and sustainable agricultural production** of Christmas trees. The kit includes a professionally produced DVD that uses humor and beautiful photography to teach these lessons. Students will be attracted to the use of a familiar product, Christmas trees, as the focus of this program.

Included in the kit are:

- DVD - "Case #1225"
- Lesson guidelines for your teachers
- Michigan benchmarks in science and language arts
- Printable student worksheets, games and puzzles
- Survey



This program, designed at a third through fifth grade level, could easily be used as a science lesson and also includes important vocabulary to enhance the language arts curriculum in your district. Educators may choose to present this in the fall, prior to the holiday season. Students could apply the information learned to the upcoming holidays celebrated in most of their own homes. The kit could be used any time of the year, including Earth Day/Arbor Day.

We are offering this **FREE packet to the first 500 elementary schools that respond** to this offer by completing a brief on-line request form at www.mcta.org. Select "Educator Reply Page" from the Educator pull-down menu. We will provide one kit per school with the request that you catalog the kit in your school's media center as an environmental reference. Kits will be shipped to your school in September.

Although, we know this is a busy time of the year, **please ...don't delay**; request your **FREE** environmental education kit today!

Have a wonderful summer break!

Sincerely,

Marsha J. Gray
MCTA Executive Director



* The Michigan Christmas Tree Association is an organization of professional growers that supply farm-grown Christmas trees both locally and throughout the United States.

Case #1225

Request Your **FREE**
Educational DVD and
Environmental Teaching
Kit at www.mcta.org!



Get Your **FREE**
Educational DVD and
Teaching Kit!

Providing an Environmental
Lesson featuring Michigan
Farm-Grown Christmas Trees.



Michigan
Department of
Natural Resources
Michigan
Department of
Natural Resources
Michigan
Department of
Natural Resources

Michigan Snowfresh Trees...



- **Guaranteed Fresh**
- **The Highest Quality**
- **Handled with Care**

Fewer than 2% of Michigan-grown Christmas trees are registered as Michigan Snowfresh!

Michigan
SNOWFRESH™

www.michigansnowfresh.com

Banner

Caring for your **FRESH**, Christmas Tree:

- Christmas trees need a fresh cut at the base – whether we do it here or you do it at home – ½ inch is fine.
- Place your tree in water when you get home. If you are not ready to display it right away, you can store it in a bucket of water or plan to re-cut the trunk when you are ready to display your tree.
- Select a tree stand that holds a minimum of one gallon of water.
- Check water levels daily – twice a day for the first few days. Fresh trees drink a lot of water.
- No special additives are needed – just plan tap water.
- Display your tree away from sources of heat, such as heat registers, radiators and fireplaces.
- Only use UL approved lights on your fresh tree.



Your Company Name Here

Address, City and State

Hours

We are proud to feature Michigan **SNOWFRESH** Christmas Trees!

Caring for your **FRESH**, Christmas Tree:

- Christmas trees need a fresh cut at the base – whether we do it here or you do it at home – ½ inch is fine.
- Place your tree in water when you get home. If you are not ready to display it right away, you can store it in a bucket of water or plan to re-cut the trunk when you are ready to display your tree.
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- Place your tree in water when you get home. If you are not ready to display it right away, you can store it in a bucket of water or plan to re-cut the trunk when you are ready to display your tree.
- Select a tree stand that holds a minimum of one gallon of water.
- Check water levels daily – twice a day for the first few days. Fresh trees drink a lot of water.
- No special additives are needed – just plan tap water.
- Display your tree away from sources of heat, such as heat registers, radiators and fireplaces.
- Only use UL approved lights on your fresh tree.



Your Company Name Here

Address, City and State

Hours

We are proud to feature Michigan **SNOWFRESH** Christmas Trees!

Michigan **SNOWFRESH**

YOUR QUALITY GUARANTEE SINCE 1987

Michigan **SNOWFRESH** growers put quality and freshness first — fewer than 2% of Michigan-grown Christmas trees are registered as Michigan **SNOWFRESH**. Our growers are proud to introduce a fresh, new look and a brand new website: www.michigansnowfresh.com.

Michigan **SNOWFRESH**...the look is new, the quality is timeless.

www.michigansnowfresh.com

MICHIGAN
CHRISTMAS TREE ASSOCIATION

Michigan **SNOWFRESH** is a committee of the
Michigan Christmas Tree Association

P.O. Box 377

Havell, MI 48844-0377

800-589-8733

www.michigansnowfresh.com

TREE CARE RECOMMENDATIONS FOR RETAIL LOTS

In Cool, Moist Market Areas

The cool, moist conditions that occur in areas such as the coastal portions of the Pacific Northwest and Northern California provide near optimal conditions for maintaining the quality of cut Christmas trees. The key to maintaining maximum freshness in your trees is to protect them from heat, sun, and wind.

Ideally, trees awaiting sale to consumers should be stored at temperatures from 34 to 50° F with high relative humidity. When these conditions do not occur naturally, there are a number of steps that can be taken to maintain the freshness of the trees on your lot.

Care in Storage

- When possible, arrange for multiple deliveries of fresh trees
- Avoid piling trees on hot parking lots or against south-facing brick or concrete walls
- Store trees upright or in shallow piles.
- Never store trees in the sun and always protect them from drying winds
- Maintain high relative humidity around stored trees. Mist trees or store them in locations where they are exposed to natural rainfall to minimize moisture loss.
- Sell "first in, first out"

Care of Displayed Trees

- If not previously shaken, shake trees to remove dead needles prior to display
- Protect trees from direct exposure to sun and wind.
- Where trees are displayed in tents or other structures, the structures should be well vented to avoid head build-up.
- If unusually dry conditions occur, maintain high relative humidity in the displayed area by spraying water on the surface of the ground or by misting trees at night.
- Monitor tree freshness and discard trees that show evidence of excessive drying and/or needle loss

A Final Recommendation: In all situations, Christmas tree retailers should re-cut the base of the tree for the consumer and emphasize the benefits of displaying trees in water holding stands. Another important step in providing consumers with high quality trees is to give your customers a few tips on how to properly care for their tree once it leaves your lot.

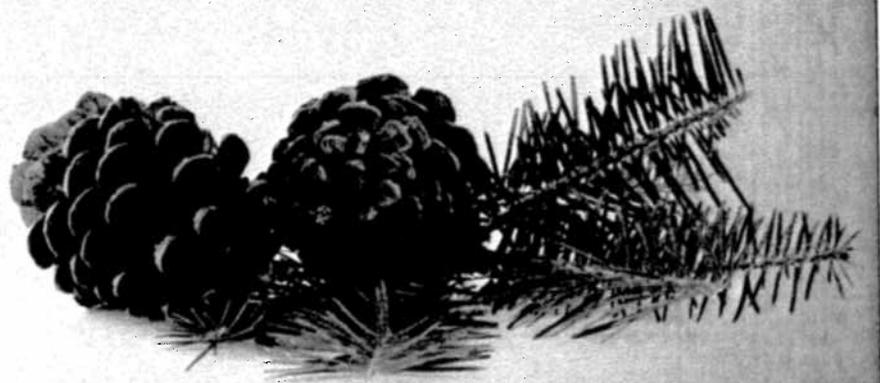
MEET IN MICHIGAN!

MCTA is pleased to be hosting a combined summer meeting of the Mid America, Indiana, Illinois, Ohio and Michigan Christmas Tree Associations.

JULY 23-24

WAHMHOF FARMS, GOBLES, MI

- Field Tours
- Educational Sessions
- Exceptional Trade Show
- Auxiliary Sessions
- Great Food, Friend and Fun!



For the most up-to-date information, please visit: www.mcta.org
All state association and MACT members will receive a registration packet in the mail.

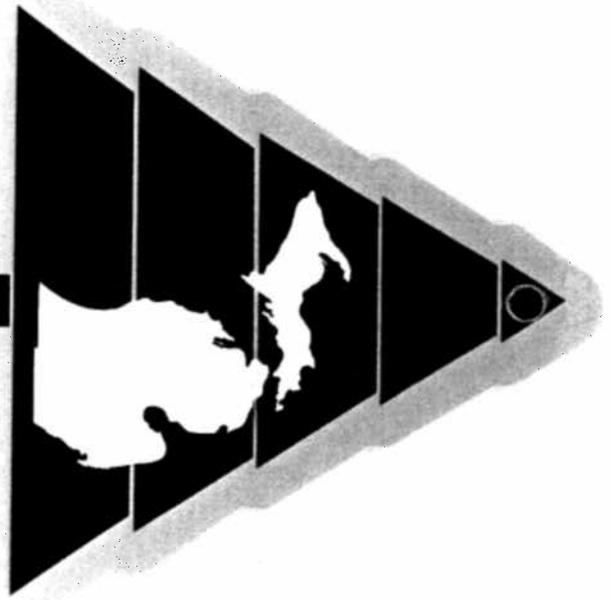
Your Source for Quality Christmas Trees

- Quality • Selection
- Ease of Shipping

Our growers have what *you* want!

www.mcta.org

Or call: 800-589-8733



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SNOWFRESH™

YOUR QUALITY GUARANTEE

www.michigansnowfresh.com



**Guaranteed Fresh
The Highest Quality
Handled with Care**

Fewer than 2% of Michigan-grown Christmas trees are registered as Michigan Snowfresh!

This Christmas tree has received years of care. Now it's your turn to ensure a satisfying, fresh Christmas tree experience....

- Give the tree a fresh cut
- Get the tree into water as soon as possible
- Select a stand that holds at least 1 gallon of water
- Check water levels daily - fresh trees drink a lot of water.
- Display your tree away from heat sources

www.michigansnowfresh.com



RIGHT NOW ON

Today's GardenCenter.com.

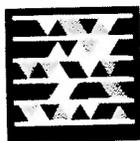
Slideshow: Almaden Valley Nursery

Visit TodaysGardenCenter.com for more photos of Almaden Valley Nursery, the little San Jose garden center that generates big sales numbers in a very compact retail setting.

See It Now: Lowe's Greenhouses

We visited Lowe's Greenhouses this year just before the spring rush. Scan this tag or look for the More Online box at our website to hear owner Jeff Griff on the reasons for Lowe's great start to the spring season.

Use your smart phone to watch the video.



New Products Online

Check out our website for new gifting products and landscape accessories you can offer your customers.

Merchandising At Spring Trials

Lots of new marketing and merchandising came out of Spring Trials 2010. Take a look at photos and video of some of the latest merchandising ideas at TodaysGardenCenter.com.

Speak Out: Are Plant Breeders Listening?

Do you feel plant breeders are listening to you and your customers? Some members at FreshAirForum.com aren't too sure.

Check out the conversation right now by clicking on this tag with your smart phone, or look for the More Online logo on our website.

Use your smart phone to watch the video.



Fresh Air Forum *Take a breath.*

STAPLES®

Michigan

Your Source for Quality Christmas Trees

Michigan growers offer the widest selection of Christmas tree varieties so that your entire seasonal inventory can be shipped from one location. We are centrally located for efficient shipping to many major markets and Michigan's frosty climate encourages needle retention that will satisfy your most demanding customers.

To meet some of our great Michigan growers, simply visit the MCTA website and click on "Wholesale Trees."

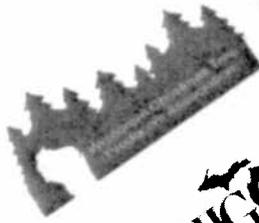
We know you won't be disappointed!

www.mcta.org

Or call: 800-589-8733

STAPLES •





MICHIGAN
CHRISTMAS TREE ASSOCIATION



Land Pride



Kyoto

Case: #1225[©]



**Great New Resource!
Environmental DVD and
Teacher Kit**

**Featuring Christmas
Trees! - Available
in the Media Center**



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in the Media Center**



Educator Introduction

This kit was developed in an effort to assist educators in presenting lessons on sustainable agriculture and the environment. We have provided strands and standards for these lessons in science and English language arts as well as Michigan Department of Education benchmarks. We have also provided worksheets, experiments and crafts that emphasize the lessons presented in the dvd. All student worksheets found in this kit are also available as printable pdfs by visiting our website: www.mcta.org. Simply select the Educator pull down menu and select "Environmental Educational Kit."



Science:

Strand: Constructing New Scientific Knowledge

Science Standards:

- Will generate questions about the world based on observation
- Develop solutions to problems through reasoning, observation and investigations
- Use simple measurement devices to make measurements in scientific investigation

Strand: Reflecting on Scientific Knowledge

Science Standards:

- Develop an awareness of the need for evidence in making decisions scientifically (II.1.e.1)
- Develop an awareness of the sensitivity to the natural world (II.1.e.4)

Strand: Using Life Science Knowledge

Science Standards:

- Compare and contrast or classify familiar organisms on the basis of observable physical characteristics (III.2.e.2)
- Describe life cycle of familiar organism
- Explain functions of selected seed plant parts (photosynthesis) (III.2.e.5)
- Describe the basic requirement for all living things to maintain their existence (III.5.e.2)
- Design systems that encourage growing of particular plants or animals (III.5.e.3)
- Describe positive and negative effects of humans on the environment (III.5.e.4)

Strand: Using Physical Science Knowledge

Science Standards:

- Identify properties of materials which make them useful (IV.1.e.2)
- Identify how materials are useful (IV.1.e.2a)
- Identify forms of energy associated with common phenomena (IV.1.e.3)

English Language Arts:

Strand: Reading

Domain: Word Study

- Know the meaning of words encountered frequently in grade-level reading or oral language contexts. (R.WS.04.04)
- Identify and describe informational text patterns including compare/contrast, cause/effect and problem/solution (R.IT.04.02)
- Connect personal knowledge, experiences and understanding of the world, its themes and perspectives in text through oral or written responses. (R.CM.04.01)
- Retell through concise summarization grade level narrative and informational text (R.CM.04.02)
- Apply scientific knowledge from grade level science, social studies and mathematics texts (R.CM.04.04)

Strand: Writing Genres

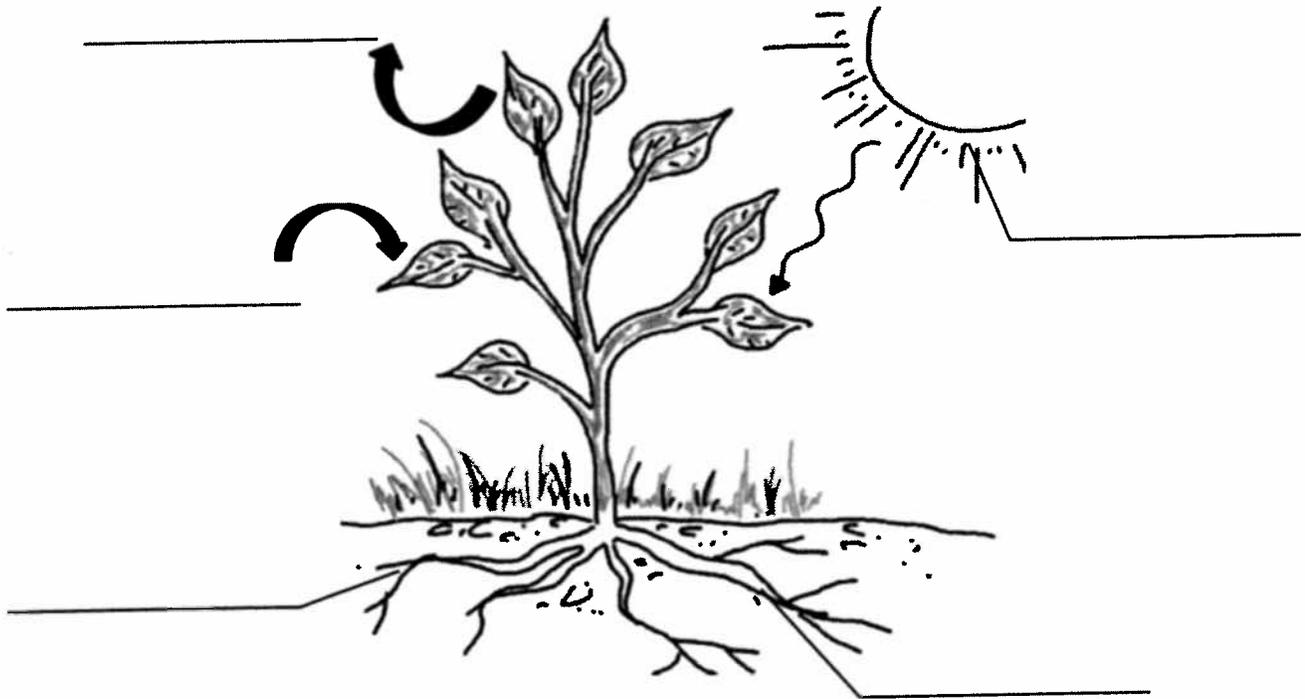
- Write an informational comparative piece that demonstrates understanding of central and supporting ideas using an effective organizational pattern (compare/contrast) and informational text features (W.GN.04.03)
- Apply a variety of pre-writing strategies for both narrative and informational writing (graphic organizer like webs, Venn diagrams) (W.PR.04.02)

***To win a "Red" the cardinal mascot for your classroom, simply visit www.mcta.org and select the Educator pull down menu. Select "Educator Survey" and complete the brief, five question survey by December 10, 2010!**

Photosynthesis: How Does it Work?

Photosynthesis is how plants make their own food. Green plants capture light energy from the sun. They also absorb carbon dioxide gas through their leaves and store carbon in the ground. Plants also take in water and minerals through their roots. They use the light to make food from the carbon dioxide, minerals and water. Then the plants give off oxygen.

Use the words from the list below to fill in the blanks on this diagram:



carbon dioxide

water

sunlight

oxygen

minerals

Experiment: How do Plants Take Up Water?

You will need:

Two celery stalks

Two clear water glasses

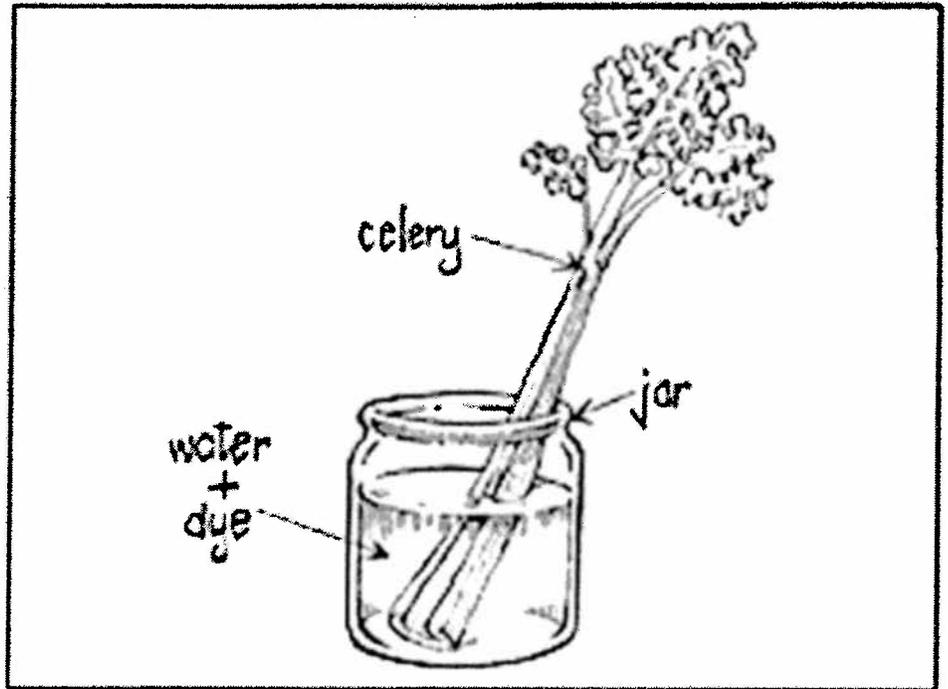
Red food coloring

Water

Vegetable peeler

What to do:

- 1) Add water to each glass, filling it half way. Add 10 drops of food coloring
- 2) Place a celery stalk in each glass.
- 3) Wait an hour and remove one stalk. Examine the stalk and write any changes in color that you observe. Use the peeler to see how deep the changes appear on the celery.
- 4) Check the second stalk of celery the next day. Write down your observations.



Answer these questions:

What made the color in the celery change?

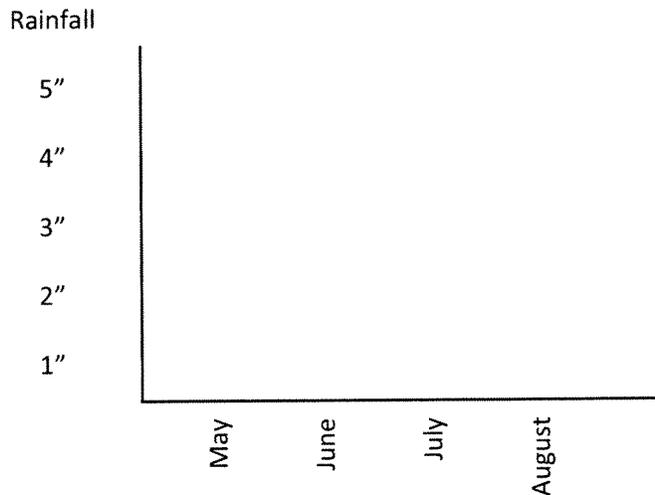
Did the length of time in the colored water make difference in the celery?

How do you think the celery stalk is similar to a tree?

Chart the Rainfall

Friendly Farmer of Happy Christmas Tree Farm would like his trees to receive an average of 1 inch of rainfall each week during the spring and summer months. Using the data below, chart the rainfall received at the Happy Christmas Tree Farm:

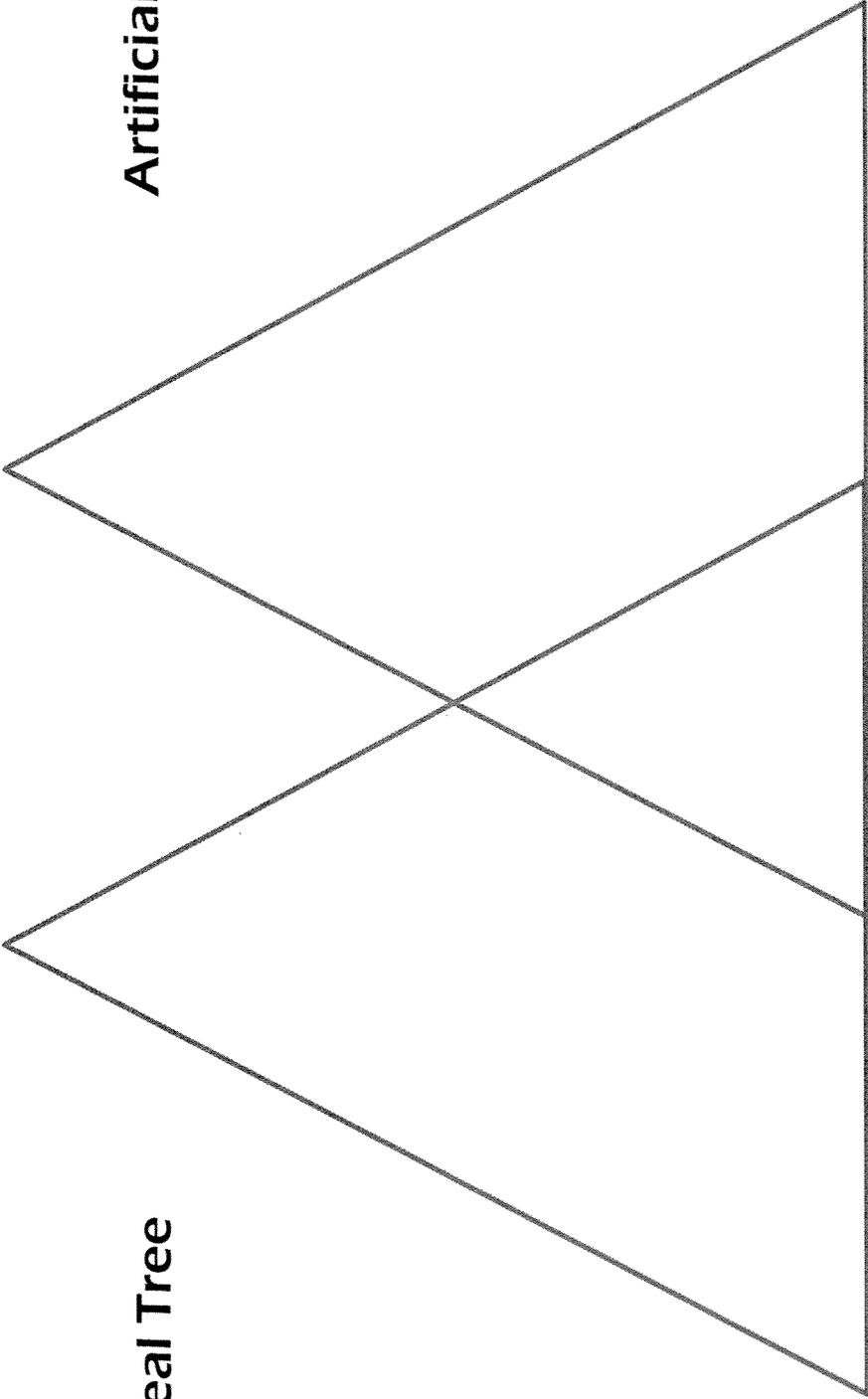
May	3 inches
June	4 inches
July	2.5 inches
August	3 inches



How much water does Friendly Farmer need to supply through irrigation to give his trees 4 inches of water each of the following months:

- May _____
- June _____
- July _____
- August _____

**Compare and Contrast
Real and Artificial Christmas
Trees**



Artificial Tree

Real Tree



How are these two alike?

Word Match

Match these words with their meaning:

biodegradable erosion Detective Columbo nurture
photosynthesis recycling sustainable

The wearing away of soil (or some other substance) by wind or water is _____.

_____ has a mission to help Mrs. Johnson understand what Christmas tree is better for the environment.

Something that is able to be broken down naturally by bacteria is _____.

_____ is how plants use light to make food.

To care for, train, feed and raise something is to _____ it.

_____ is to process something so that it can be used again.

_____ describes how biological systems, such as agricultural crops, remain productive over time.

Trees are a Renewable Resource

Word Search

E H A B I T A T
N U R T U R E L
V L P O P M C R
I R E X O D W V
R E C Y C L E M
O T O G A I R A
N S N E R N O Q
M U O N B P S N
E A M A O J I F
N N Y R N V O R
T S O I L D N U

Find these words:

carbon
economy
environment

erosion
habitat
nurture

oxygen
recycle
soil

Make Your Own "Red" the Cardinal

You will need:

4' x 6 ½" piece of red poster paper/card stock

Pencil

Scissors

Hole punch

5 ½" x 14" piece of red tissue paper

2 reinforcement tabs (round with holes)

String

Instructions:

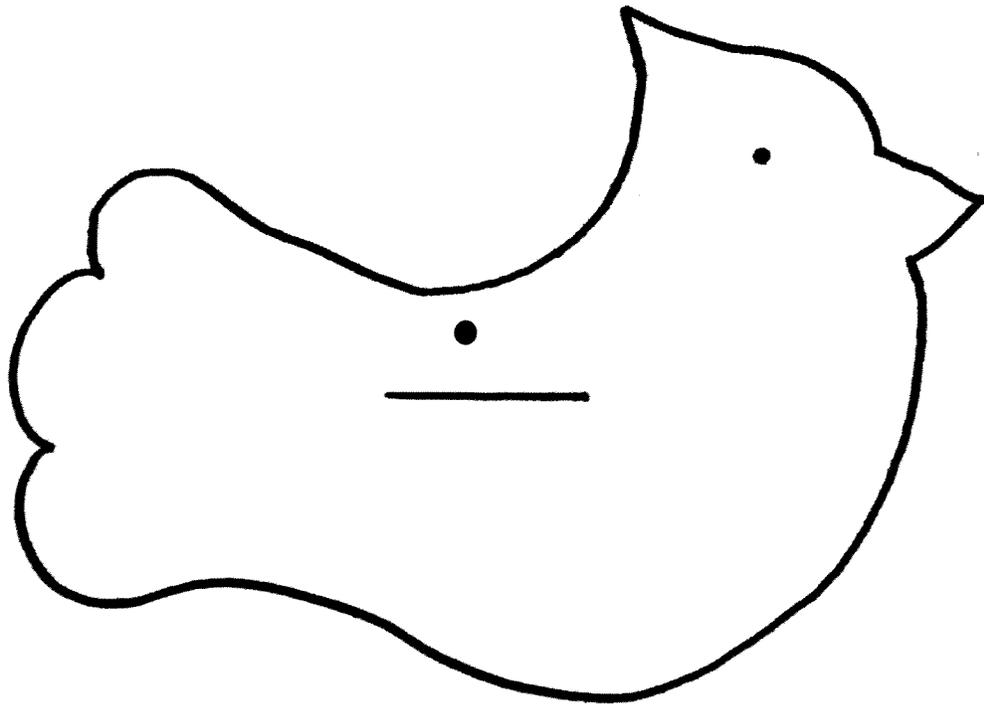
Step 1: Cut out the bird pattern and trace onto red poster paper. Cut out the bird.

Step 2: Ask a grownup to cut the slit in the bird for the wings. Punch a hole above the slit with hole punch.

Step 3: To make the wings, fold the red tissue paper as though you were making a fan. Pull the wings through the slit and spread the wings.

Step 4: Punch a hole for the bird's eye. Stick a reinforcement tab over the hole on each side for the eyes.

Step 5: Pull the string through the hold above the wings. Tie the ends for a hanger.



Thank you for requesting this Environmental Educational Kit!

This kit includes:

- DVD – Case 1225
- Educator Lesson Reference
- Student activity sheets
- List of additional references

The DVD and supporting materials were developed at a 3rd – 4th grade level, but can easily be adapted for other age groups.

Students will enjoy the humorous and bumbling “Detective Columbo” as he investigates the difference between real and artificial Christmas trees. Students will learn about photosynthesis, the life cycle, recycling, agriculture and more. Further, they will apply what they have learned through accompanying experiments, activities, worksheets and crafts.

We request that you catalog this kit in your media center so that all teachers in your school may have access to this resource. We have included flyers that you can place in third and fourth grade teacher mailboxes to announce that the kit is now available.

We do ask each of your teachers who use the kit to respond to a VERY brief on-line survey so that we can see how the kit is being used. All teachers who respond to the survey by December 10, 2010 become eligible to win one of 10 “Red” the cardinal mascots for their classroom!

All of the student activity sheets are also available in pdf format at our website: www.mcta.org. Simply click the “Educator” pull down menu and select “Environmental Educational Kit.” The follow up survey is



also found at our website in the “Educator” menu by selecting “Educator Survey.”

We hope your students enjoy this lesson!

