

Between the Rows

Winter 2011



A Newsletter of the Nebraska Agriculture in the Classroom Program

Join Us in Fort Lauderdale

Join us in Fort Lauderdale, Fla., June 22-25 for the 2011 National Agriculture in the Classroom Conference which will feature engaging, interactive workshops that show educators how to incorporate real-life agricultural applications into their language arts, math, nutrition, science and social studies lessons.

Tours of a tropical fruit packing house, tropical plant nurseries, a tropical fish farm and other stops will show everyone unique agricultural operations in South Florida. Professional development points and college credit are available for attendees.

WHO SHOULD ATTEND

- Educators of all grade levels & subject areas
- Administrators
- Curriculum Developers
- Career Guidance Counselors
- Teacher Aides
- Substitute Teachers
- AITC Volunteers
- State AITC Contacts
- Agricultural Science Teachers
- Extension Educators
- AITC Board Members
- Agricultural Industry Representatives

TRAVELING WORKSHOPS

Experience firsthand all that Florida agriculture has to offer in these traveling workshops.

- Traveling Workshop 1 – Beef and Dairy
- Traveling Workshop 2 – Tropical Plants, Palm Trees, Rice Packinghouse
- Traveling Workshop 3 – Bougainvilleas, Palm Trees, Vegetables



Discover Education's Hidden Treasure: Agriculture
2011 National Agriculture
in the Classroom Conference

- Traveling Workshop 4 – Orchids, Tropical Wine, Bromeliads
- Traveling Workshop 5 – Bromeliads, Tropical Wine, Orchids
- Traveling Workshop 6 – Tropical Fruit, Spices, Tropical Fruit Trees
- Traveling Workshop 7 – School Greenhouse, Spices, Tropical Fruit
- Traveling Workshop 8 – Ecosystem, Tropical Plants, Hurricane House
- Traveling Workshop 9 – School Animal Program, Aquarium Plants, Herb Farm

Other highlights of the conference include workshops; roundtable presentations; make and take fair; exhibits from states and educational companies; and a state breakfast and themed table interaction.

PAST TEACHER ATTENDEES

Nebraska's Teacher of the Year winners are awarded a trip to this conference, read their thoughts about the conference.

Sandy Dorn, 2007 Nebraska AITC Teacher of the Year winner and fourth grade teacher at Meadowlane Elementary School in Lincoln said "Attending the AITC National Conferences strengthened my belief that there is value in teaching students about agriculture. The tours, workshops and themed dinners

were very exciting and enjoyable. The opportunity to meet my peers in education and exchange lessons was also very valuable. Adding innovative ideas to the curriculum develops agricultural literacy and creates a positive impact on our future. Agriculture is the common bond that brings us all together."

Berni Crow, 2010 Nebraska AITC Teacher of the Year winner and fourth grade teacher in the Arnold Public School District said "I've been to dozens of conferences in 26 years of teaching and grew up on a farm. At the AITC conference I learned more, had more fun and received more free materials than any other conference I've attended."

HOTEL AND MEETING SITE

The Conference will be held at the Marriott Harbor Beach Resort & Spa. For reservations visit www.marriottharborbeach.com. Single, double, triple or quad occupancy standard rooms are \$159 per night plus taxes.

REGISTRATION

Full conference registration is \$400 and is due by April 15. For single day registration information, please visit www.agclassroom.org and click on the National Conference tab.

HOW TO WIN A FREE TRIP IN 2012

Win an all-expense-paid trip to the 2012 National Agriculture in the Classroom Conference June 26-29 in Loveland, Colo., by applying for the 2012 Nebraska Teacher of the Year Award. Applications will be available late summer on www.agclassroom.org/ne.

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NFAA Offering Competitive AITC Mini-Grants

WHAT IS A MINI-GRANT

The Nebraska Foundation for Agricultural Awareness will be offering competitive Agriculture in the Classroom Mini-Grants of up to \$400 for the school year 2011-12 for kindergarten through 12th grade teachers.

A total of \$2,000 is available each school year and one mini-grant application per teacher will be considered.

The project for the mini-grants should enhance students' knowledge of the importance of agriculture in their lives. Innovative and in-

ter-disciplinary programs will be encouraged. Field trips and assemblies must be linked to classroom learning objectives and should outline specific pre- and post-event activities.

Applications will be evaluated by a panel of judges (educators and agricultural leaders). The criteria for selection will be based on the completeness of the application in each of the following areas: strong agricultural message, alignment with state content standards, method of assessment and quality of resources.

FOR ADDITIONAL INFORMATION

Contact Ellen Hellerich at:

Phone: 402-421-4408

Email: ellenh@nefb.org

Fax: 402-421-4761

Mail:

Nebraska Agriculture in the Classroom
P.O. Box 80299, Lincoln, NE 68501

Future applications can be found on the teachers link of the AITC website:

www.agclassroom.org/ne

Summary of the 2010-2011 Mini-Grant Winners

SANDY DORN LINCOLN

Sandy Dorn and her 4th grade students at Meadow Lane Elementary School in Lincoln have been involved in the Ag Pen Pal Program for many years and have used the Learning Barn. Other students in her school were interested in the books that are in the Learning Barn, so Sandy wanted to share agriculture books with the other students. She applied for the mini-grant to purchase agriculture books for the school media center. This was a great way to spread the word about agriculture through the purchase of books and DVD's. To let the teachers in her school know that the books and DVD's were available to them, she organized a Books, Bagels and Beverages celebration for the teachers to attend and see the new resources in the media center.

ERIN RATHE ASHLAND/GREENWOOD

Erin Rathe and her 4th grade students at Ashland/Greenwood are interested in the Science of Agriculture. Many of the students were not aware that science plays a role in a farmer's job. Erin used the science of agriculture to meet State Science Standards. Her students were amazed to learn all the science concepts related to agriculture. One of the experiments showed how farmers can reduce and conserve the

amount of water needed to grow plants during droughts. Through this interdisciplinary approach, Erin's students will learn how important science concepts play a role in producing their food.

CARMA WEISBROOK KIMBALL

Carma Weisbrook's project will involve her students at Mary Lynch Elementary School in Kimball and the local FFA Chapter. The FFA students will share their knowledge of agriculture with Carma's 5th grade students. With the grant money, the FFA students will celebrate National Agriculture Week with the elementary students by reading books and other organized educational activities. During this week-long celebration nutritious snacks that correlate with the books/activities will be shared with all the students. The main goal of the FFA student's participation in National Agriculture Week with the 5th graders is for them to understand and appreciate that farmers and ranchers produce the food that's on their table.

ANGELA HOLDREN OMAHA

Angela Holdren, a 1st grade teacher at Martin Luther King Jr. Elementary School in Omaha wanted her students to experience a working farm. Her grant enabled the students to participate in a 1½ hour farm program to learn about

animals, crops and equipment. The students were able to be up close and personal with the animals, crops and equipment. The students used their 5 senses to experience all the sights, sounds, smells, touch and feel all the farm had to offer them. The students discussed the similarities and differences between rural and urban communities throughout the year. These students are involved in the Ag Pen Pal Program and shared these experiences with their Ag Pen Pal family. Many of the state standards are met through the field trip, Ag Pen Pal Program and the Learning Barn.

JULIE WALLING OMAHA

Julie Walling's focus on Soil Conservation to Present Erosion was the theme for her mini-grant. Her 5th grade students at Crestridge Magnet Center in Omaha wanted to learn the effects of one type of soil conservation technique against wind and water erosion in agriculture. Small groups of students worked together to set up a mini-farm with no conservation practices to show what wind and water would do to the farm. The next step was to incorporate conservation practices on their farm to see if this practice would cut down on wind and water erosion. The students took before and after photos to show the results of their science experiment.

Teachers of the Year Selected for 2011

Nebraska Farm Bureau's Ag Promotion Committee and the Agriculture in the Classroom Program have selected two teachers as their 2011 Nebraska Agriculture in the Classroom Teachers of the Year.

Kathy Wilke, a fifth grade teacher at Randolph Public School, and Jill Walters, a fourth grade teacher at Cody Elementary School in North Platte, were honored.

"These teachers demonstrate how agriculture can be used to meet state standards. Each of these teachers provides her students with real hands-on learning experiences in such a manner that it relates to their students' everyday lives," Ellen Hellerich, state coordinator of the Nebraska Agriculture in the Classroom program, said Feb. 8.

HANDS-ON AG ACTIVITIES

As a fourth grade teacher at Cody Elementary School in North Platte, **Jill Walters** believes that agriculture brings the most enthusiasm from her students. When former students come back to visit they always have positive comments about agriculture. They remember the specific projects that they enjoyed doing – that is the key word, doing. Jill's students were actively involved in the learning process and most of the time the lessons included hands-on activities. Each student could pursue their own interests to learn more about our food system and the important role Nebraska agriculture is to the economy of the state.

"It is imperative that our students of today understand agriculture's importance so that as adults they will continue to help make our great state and country thrive," Jill said.

One of Jill's famous projects to reinforce knowledge about the state's physical features is the Nebraska Cookie Project. Each student

has a sugar cookie in the shape of Nebraska and the students decorate the cookie with food products to show the till plains, grasslands, sand hills, rivers and other aspects of their state. The learning continues as they enjoy eating the cookie while engaging in a discussion of the many agricultural products that were needed to make the cookie.

Jill's students learn the steps involved in getting a product from a farm or ranch to the dinner plate and understand each step – production, processing, marketing and distribution. Their favorite step is marketing as each student invents a new food item. Each year

Jill is convinced that one day she will see a former student's product in a grocery store.

Through Jill's variety of activities and lessons, she is preparing her students to have an understanding and an awareness of the essential role agriculture plays in their state and throughout the world. Her students know that agriculture is vital to their lives and the future of our country.

AG YEAR-ROUND

If you could visit **Kathy Wilke's** fifth grade classroom at Randolph Public School, you would see agriculture concepts on the bulletin board, students using a Smart Board to take a virtual trip to the farm and perhaps a community leader showing a core sample of soil from the playground. Kathy incorporates agriculture throughout the school year in all the basic subject areas.

In the fall, the local FFA Chapter presents the students with a resource on Farm Safety. This is not just for students that live on a farm, but for urban students when they take

a field trip to a farm. The FFA students also help the fifth graders decorate grocery bags with farm scenes or farm safety messages to be placed in the stores to help consumers be aware of agriculture in their community.

A Resource Soil Scientist speaks to the students about different kinds of soil, causes of erosion and farming techniques to control erosion. The next step is for the fifth graders to stimulate erosion on soil. They use paint trays of soil to show how water, wind and ice can move soil by using a spray bottle with water, hair dryer and ice cubes. How do you stop erosion? Try planting grass seed on the soil.

To help the students understand the Nebraska aquifer they constructed "edible aquifers." This showed the process of how well water can be affected by drought and pollution. To further understand the water system, a field trip was planned to visit the local water treatment plant. Students were able to see first-hand how water and sewage is processed. In each of Kathy's lessons, the students always had a hands-on activity,

community leader or a field trip to help them understand a science and agriculture concept.

Kathy would always emphasize to her students that they must make good decisions about the use of the water and land, because of its importance to our food system.

"Each individual is responsible for their choices that can affect the quality of life for everyone and each one of us must be good stewards of our natural resources," Kathy said.

Both teachers will be presented with an award recognizing their achievement and will receive an all-expense-paid trip to the 2011 National Agriculture in the Classroom Conference, set for June 22-25 in Fort Lauderdale, Fla.



Jill Walters
4th grade
teacher at
Cody Elementary
School in
North Platte



Kathy Wilke
5th grade
teacher at
Randolph Public
School



Celebrate National Agriculture Day March 15

National Ag Day, March 15, marks the first day of spring and falls during National AgWeek, March 13-19, 2011. Ag Day is about recognizing – and celebrating – the contribution of agriculture in our everyday lives.

The National Ag Day program encourages every American to:

- Understand how food, fuel, clothing, shelter and other essential products are produced.
- Value the essential role of agriculture in maintain-

ing a strong economy.

- Appreciate the role agriculture plays in providing safe, abundant and affordable products.

- Many employment opportunities exist across the board in agriculture. Career choices include farm production, agribusiness management and marketing, agricultural research and engineering, food science, processing and retailing, banking, education, landscape architecture, urban planning, energy and other fields.

Download more helpful tools at www.agday.org!

2010 Children's Agriculture Book of the Year Selected

Nebraska Farm Bureau's Ag Promotion Committee has selected "Seed, Soil, Sun: Earth's Recipe for Food" as the 2010 Children's Agriculture Book of the Year.

"Seed, Soil, Sun," by Wisconsin author Cris Peterson, describes the seemingly miraculous process by which air and water combine with seed, soil and sun to create nearly all the food we eat. Using the corn plant as an example, she takes the reader through the story of germination and growth of a tiny corn seed into a giant plant reaching high into the air with roots extending over six feet into the ground.

The book also discusses the make-up of soil and the creatures who live there – from microscopic one-celled bacteria to moles, amoebas and earthworms. Peterson brings both wonder and clarity to the subject of agriculture, celebrating the cycle of growth, harvest and renewal.

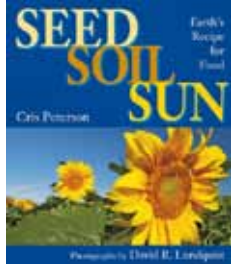
This is the third year one of Peterson's books has won this award. "Fantastic Farm

Machines" was selected as the 2006 Nebraska Farm Bureau Book of the Year and "Clabelle: Making Milk and So Much More," was selected as the 2008 Nebraska Farm Bureau Book of the Year.

Publishers across the nation submitted about 25 books for review. Selection committee members were elementary teacher Kathy Schellpeper (third grade); Ag Promotion Committee Chair Erma McGill; Ag Promotion Committee member Becky Graham; Nebraska Foundation for Agricultural Awareness Board of Directors members Dawn Kucera and Nancy Eberle; and Nebraska Agriculture in the Classroom State Coordinator Ellen Hellerich. Each voted for the books she thought deserved the honor.

The Ag Promotion Committee donated a copy of each book for County Farm Bureau Learning Barns.

To purchase a copy of the book, visit the resources page of our website, www.agclassroom.org/ne.



Cris Peterson

Books

The Vegetables We Eat

By: Gail Gibbons
Grade Level: 3-6

Glossy red peppers, lush leafy greens, plump orange pumpkins, and delectable little peas: vegetables come in many shapes, sizes, and colors. Leaf . .



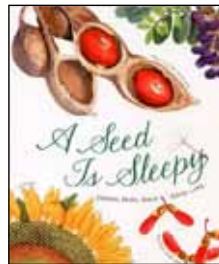
. . . root . . . stem . . . These are three of the eight groups of vegetables. From how they are planted to how they get to stores, here is a wealth of information about them, including how to plant and tend your own vegetable garden.

A Seed is Sleepy

By: Dianna Hutts Aston
Grade Level: K-5

From tiny redwood seeds to giant coconut seeds, from bright red-orange mountain laurel seeds to pods of fluffy milkweed

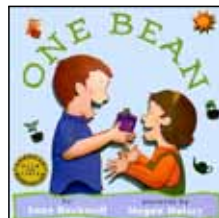
seeds, an incredible variety of seeds are celebrated in all their beauty and wonder. The book introduces children to an intriguing array of seed and plant facts. It's sure to inspire lively questions and observations.



One Bean

By: Anne Rockwell
Grade Level: Pre-K-2

An inviting, accessible introduction to the common classroom activity of growing a bean plant. Starting with a bean seed, the book explains what you need to grow a plant.



Agriculture in the Classroom is a nationwide educational program to help students develop an understanding that agriculture is our source of food, clothing, shelter and other essentials of life.

Nebraska's Agriculture in the Classroom Program is funded and administered by the Nebraska Foundation for Agricultural Awareness.

The program provides:

- Educational resources
- Teacher/student workshops
- In-service and Pre-service presentations
- Ag Pen Pal Program and the Learning Barns

www.agclassroom.org/ne

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Website

www.myamericanfarm.org

Take a journey and experience this interactive, online game which educates as it entertains.



Activity One

Have You Seen My Seeds?

GRADE LEVEL

First – Third

SUBJECTS

Reading in the content area, science and language arts

OBJECTIVES

By the end of these activities, the students will be able to:

- Read for understanding
- Understand the science of seed germination
- Record and interpret data
- Apply knowledge of seeds, soil and sun to the larger concept of agriculture
- Answer questions and make predictions based on given data

NATIONAL LEARNING STANDARDS

- NL-ENG.K-12.2 Reading for Understanding
- NS.K-4.1 Science as Inquiry
- NS.K-4.3 Life Science
- NM-REP.PK-12.1 Create and Use Representations to Organize, Record, and Communicate Mathematical Ideas

MATERIALS

- Clear plastic cup (6"-12"), black construction paper, paper towels (1 each per student)
- Pea or Bean Seeds
- Additional Seed packets
- Magnifying Glass (hand lens)

BOOK

SEED SOIL SUN: Earth's Recipe for Food
– by Cris Peterson ISBN# 978-1-59078-713-7

GENERAL INTRODUCTION

Option 1: If volunteer producers are conducting this lesson, introduce yourself and describe your farm or agricultural business.

Option 2: If classroom teachers are conducting this lesson, proceed to activity introduction.

ACTIVITY ONE



INTRODUCTION

Read the entire book *SEED SOIL SUN: Earth's Recipe for Food* and show students the pictures. Refer back to the first page that shows all the hands holding different types of seeds (as pictured above). This page starts the section of the book that deals with seeds and how much of our food comes from seeds planted in the spring by farmers and what it takes for a seed to germinate.

ACTIVITY BACKGROUND

A great amount of the food that humans and animals eat starts from seeds. Every spring farmers plant millions of seeds in the soil. Inside each seed is a new plant waiting for the right conditions to grow. With moisture from water or rain and heat from the sun those seeds swell and split open. From the seed a root grows down into the soil

cont. →



and a shoot (or primary leaf) grows up to the sun. The soil provides a home for the seed to grow into a plant. There are many types of seeds that grow into the food we eat.

ACTIVITY INSTRUCTIONS:

Have You Seen My Seeds?

Make sure each student has each of the following:

- clear plastic cup (6"-12")
- half sheet of black construction paper
- paper towels, pea or bean seeds
- magnifying glass (hand lens)

Use a clear plastic cup that is 6-12 inches tall. Cut black construction paper so that it fits inside, up against the cup walls. The black construction paper serves as a background to show the seed's germination. Fill the center with wadded up paper towel. "Plant" bean seeds between the cup walls and construction paper, about 1/2 - 2/3 of the way down. Water the paper towels and keep moist. Bean seeds will grow and you can view root growth, what happens to seeds, etc. They can grow quite large and will be fine as long as you keep the paper towels moist.

PLANTING SEEDS

Plant a variety of seeds including pea and bean seeds and keep track of their daily growth. Plant them in clear plastic cups so the root system can be observed. Chart how many days it takes each type of seed to sprout.

SEED OBSERVATION

Using a magnifying glass, observe a variety of sizes of seeds.

LESSON EXTENDER:

1. Show students the different types of seeds you have provided, but do not tell them which kind of seed/plant they are. Give each student one seed. Allow the students to examine the seeds for physical characteristics.
2. Discuss that different seeds have certain characteristics. Some seeds are round or oval, some brown, black or even striped, etc.
3. Have students stand up as you describe their seed. Example: How many of you have a seed that is round in shape? Ask students to get into groups, according to the characteristics of their seeds. You may do this by using a Venn diagram where characteristics overlap like round and black. You may also choose to form a simple human (student) bar graph, for example, students with black seeds all line up in one row, white or striped seeds in another, side by side.
4. Finally, allow the students to make an educated guess as to which plant this seed will grow into. Then reveal the answers and observe how even though the seeds may look the same they grow into many different plants.

For a copy of the entire Educator's Guide to go with the book *Seed, Soil, Sun: Earth's Recipe for Food*, contact American Farm Bureau Foundation for Agriculture at 800-443-8456.