

School Garden Project

How do you bring lessons about agriculture to life? How do you help elementary school students better understand food production? How do you make learning fun while still meeting the state's Standards of Learning (SOL)? The answer to all these questions is the School Garden Project. This project is a joint effort between the Virginia Foundation for Agriculture in the Classroom and Southern States Cooperative, Inc. to encourage and support gardens in Virginia elementary schools.

Virginia Agriculture in the Classroom (AITC) will provide SOL-based lessons for teachers that relate to the garden project. Southern States will provide each elementary school teacher with six packets of vegetable seeds. Each class will receive vegetable gardening handbooks to start the project. All materials will be supplied to teachers **free of charge**. Gardens offer dynamic settings from which students can apply math, science, reading, environmental studies, nutrition and health. They

can help to cultivate students' decision-making and observation skills and provide a solid bridge from classroom lessons to applications of ideas and concepts. A gardening project in your school is a wonderful way to teach children about the science and art of agriculture while meeting the SOLs. For information on registering for the School Garden Project, look on the web at www.vafb.com/aitc.htm or call Wendy Strong at 1-800-768-8323 ext. 1143 or in the Richmond area,

804-290-1143. Supplies of garden packages are limited. Please call now to reserve your materials. Orders will be accepted until Friday, December 15, 2000. Garden packages will be shipped directly to teachers in late winter.



What's Growing On In Virginia?

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Beef up your knowledge

Did you realize that cattle were first introduced to the Western Hemisphere by Christopher Columbus on his second voyage to the New World in 1493? He set anchor at Hispanola and unloaded his cattle after a two-month, 3400-mile voyage. The cattle were Spanish Longhorns, described as "a wild fierce breed with huge horns, long legs and worth little or nothing to their owners." In the New World, the cattle thrived. However, the leathery texture of the meat prevented it from being eagerly consumed.

there were 30,000 head. Colonists counted livestock as their most important possessions. Cattle provided the early colonists with meat, milk and leather.

As pioneers traveled West to stake claims in Texas, they found more diverse cattle bloodlines brought by Spanish missions. These cattle were advantageous in their ability to subsist off wild grasses that had no other purpose for the settlers. Soon ranching became a prominent business; for the first time, these longhorn cattle were used for more than work, milk and hides.

Cattle were brought to Jamestown, Virginia in 1607, but none survived. More cattle arrived in 1611, at which time Governor Thomas Dale issued a proclamation: "No man shall dare kill any bull, cow, calf... whether his own or appertaining to another man." Due to this conservation plus additional imports, cattle became established in Virginia. By 1620 there were 500 head in Virginia; in 1639

Here in Virginia, cattle rank third for commodity annual income. Sale of cattle and calves totals \$294 million for annual income, ranking third among Virginia agricultural commodities behind broilers and milk. The top five cattle counties in order of cattle numbers are Rockingham, Augusta, Fauquier, Washington and Bedford.

More Than Hamburger
But cattle are more than hamburger on the hoof. Beef by-products enable us to use almost 99% of every beef animal. These products touch our daily lives in a myriad of ways. The marshmallows you roast over the camp fire to make "so'mores," the yogurt you chose to eat for lunch instead of fattening french fries, the chewing gum you don't allow your students to consume at school and finally, the ice cream cone you ate on the way home from work are all edible treats that may contain beef by-products.

Humans may ingest beef and beef by-products but there are more ways it is included in our lives. The fabric softener you added to you your laundry is a beef by-product. Insulin, a medication that aids people with diabetes, is a beef by-product. The asphalt road you drove on this morning to get to work may contain a binding agent made from the fat of cattle.

About this Newsletter

What's Growing On In Virginia is a semiannual publication for Virginia school teachers, published by the Foundation for Agriculture in the Classroom.

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What's growing on in YOUR area?

Share your AITC stories, comments and suggestions with us for possible publication in the next newsletter! For information, contact Wendy Strong at 804-290-1143 or e-mail aitc@vafb.com.



What's Growing On In Virginia?
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Did you know...?

Protein helps provide stamina by building and maintaining strong muscles? A constant supply of protein is needed by the body to repair body cells and regulate body processes. Foods from the "Meat, Poultry, Fish, Dry Beans, Eggs and Nut Group" of the Food Guide Pyramid are some of the best sources of protein, as are milk and other dairy products. One three-ounce cooked hamburger patty supplies about 42 percent of the Daily Value of protein for most people.

Information provided by National Cattlemen's Beef Association at www.beef.org.

Reasons for ruminants

Cattle are ruminants or grazing animals. Ruminants are important for their grazing abilities. The complex stomachs allow cattle to convert all types of vegetation, some which humans can't digest, into energy. Potentially this vegetative resource would be wasted if we didn't get the energy from cattle and other ruminants. Almost half of the land in the contiguous 48 states is classified as grazing land. This allows more land to be wisely used for grazing that isn't appropriate for crop production. Therefore, cattle provide an essential link in the food chain by converting otherwise unusable plants into a safe, abundant food source.

Cow Trivia and Cow Jokes

- A cow has about 207 bones in body.
- A cow will eat about 100 pounds of grass daily.
- A cow doesn't bite the grass – instead they curl their tongue around it.
- What has four legs and flies? A cow in summer.
- When do cows wear bells? When their horns don't work.

Check it out on the web!

Be sure to check out these web sites for the latest information from the beef industry:

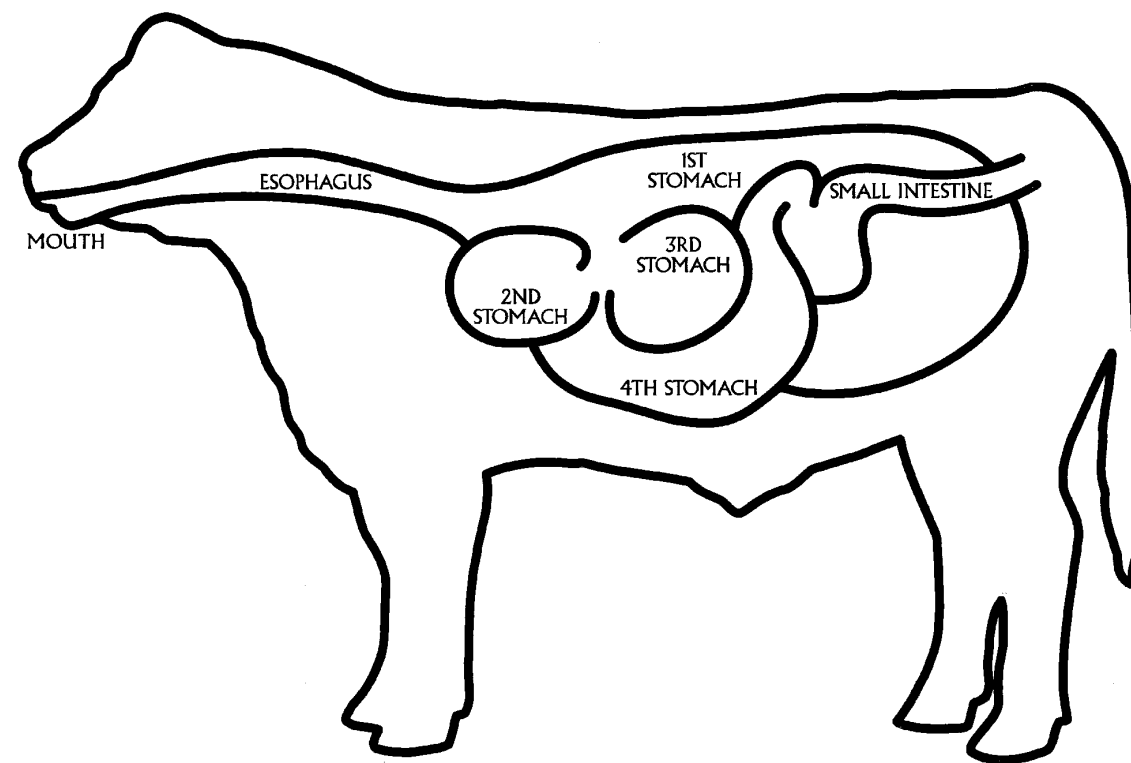
www.teachfree.com This site is specifically for educators teaching preschool through senior high school who need high-quality supplemental materials. Many

of the teaching kits are free. Look to this site for: video kits; blackline masters and activities.

www.vabeef.org This web site, developed by the Virginia Beef Industry Council has information on new products, food safety, and beef preparation and recipes. Additionally, teachers will find the SOL correlation to the teaching kits. (Click on Consumer Information and then Teacher's Corner.)

www.beef.org The web site of the National Cattlemen's Beef Association covers the latest on the beef industry. Find out what it's like to live on a cattle ranch or farm by reading real diaries from beef producers around the country.

Can you stomach this?



A united venture

Beef production is found throughout the United States. According to data all fifty states have beef production. The top ten states include Texas, Nebraska, Kansas, Oklahoma, California, Missouri, South Dakota, Iowa, Wisconsin and Colorado. Investigate the total production and create a graph of the data by visiting the USDA National Agricultural Statistics Service at www.usda.gov/nass/pubs/agr00/00_ch7.pdf.

Virginia Foundation for Agriculture in the Classroom C. Wayne Ashworth Teacher's Award

The Virginia Foundation for Agriculture in the Classroom C. Wayne Ashworth Teacher's Award is open to any K-5 teacher in Virginia. To enter, you must describe the most innovative way that you use or would like to use agriculture to teach math, science, English or social studies SOLs. The winner will receive a trip to the National Agriculture in the Classroom Conference in Chicago, Illinois (June 27-30, 2001). Reimbursable expenses include and are limited to airfare, conference registration, and hotel room rate. You can learn more about the conference from the conference Web site at <http://www.agintheclassroom.org>. (Click on What's New.)

The United States Department of Agriculture and the Illinois Farm Bureau Agriculture in the Classroom will host the 2001 National Agriculture in the Classroom Conference. Last year over 400 participants came from all over the United States and Canada to learn new ways to use agriculture to enhance K-12 lessons.

To be eligible, applications must:

- Be submitted by a K-5 teacher (public or private school)
- Be postmarked by December 15, 2000
- Include the form found at www.vafb.com/aitc.htm
- Not exceed 3 pages (including pictures)

Submit your application and response to:
Virginia Foundation for Agriculture in the Classroom
P.O. Box 27552
Richmond, VA 23261
Attn: Wendy Strong

Do your students try to chew gum like a cow chews cud? Cud is another term for regurgitated feed. The grasses a cow consumes contain cellulose, which a human's digestive track can not break down. This cellulose is tough material. A cow's digestive track has special features, which allow the breakdown of cellulose. These special features include four different and distinct chambers in their stomachs. Following are six steps the feed goes through from the beginning to the end of digestion.

1. Teeth tear and chew food in mouth
2. Food travels down esophagus

3. Cud (swallowed food) mixes and softens in stomachs 1 and 2

4. Cud returns to mouth for more chewing by rear molars

5. Cud passes through stomachs 1, 2, 3 and 4 as it is digested and nutrients absorbed

6. Waste materials pass through intestines and exit body as manure.

Compare a cow's digestive track to a human digestive track. Using a Venn diagram, list the similarities and difference between the two.

Special Thanks . . .

What's Growing On In Virginia?

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