

# TEXTILES AND APPAREL NEWSLETTER

## Contents

### Announcing

Sign Up for Summer Fun 1

### Engaging Youth

TXA Youth Calendar 2

Great Ideas from NY Counties 2

### Enhancing Safety

Allergens in Indoor Dust 3

### Emerging Technology

Smart Clothing 4

### Browsing Websites

Cranston Print Works 4

## Announcing

### Sign Up for Summer Fun

CHARLOTTE COFFMAN

#### Free Supplies from In-Touch Science

To encourage use of In-Touch Science in camps and other summer programs, we are offering free supplies for one session for up to 30 children. **Applicants must agree to complete and return one evaluation form per 10 children.** See enclosure for details.

#### Testing Textile Arts & Science Activities

A new curriculum to help youth connect the art and science/technology of textiles was introduced at the March TXA Youth Inservice. Draft materials exist for Fabric Structures and Resist Patterns. If you are willing to test these activities with young people, we will provide supplies. **Completion of the feedback forms is expected.** See enclosure for details.

#### Hands-on Activities at the 2002 NYS Fair

TXA will offer \$75 to counties willing to promote In-Touch Science, The Fabric/Flight Connection, or Simple Gifts through experiential activities at the 2002 New York State Fair. Applications were mailed from the 4-H Office. For more information, contact Celeste Carmichael, Tel: 607-255-0886, Fax: 607-255-3767, Email: [cjc17@cornell.edu](mailto:cjc17@cornell.edu). To discuss program activities, contact Charlotte Coffman, Tel: 607-255-2009, Fax: 607-255-1093, Email: [cwc4@cornell.edu](mailto:cwc4@cornell.edu).

## ENGAGING YOUTH

### TXA Youth Calendar

CHARLOTTE COFFMAN

#### June 26-28

##### Career Explorations: Focus for Teens

Once again, TXA combined forces with Space Sciences to offer *The Fabric/Flight Connection* during Focus for Teens on campus. Youth from across New York worked with Nancy Breen, Beth Davis, and Laura Blau as they tested fabrics in the laboratory, built kites, designed parachutes, made nylon, and talked with skydiver John King.

#### July 13

##### Western District Clothing Revue

Charlotte Coffman is collaborating with volunteers and educators to present *Clothes that Flatter* at the Western District Clothing Revue. This gathering of youth, educators, parents, and volunteers will be held at St. Bonaventure University in Cattaraugus County.

#### September 21

##### Textile Expo & More

Beth Davis will illustrate textile structures with a workshop on *Woven and Crocheted Baskets*. Charlotte Coffman will offer workshops on *Simple Gifts* and *Fabric 'Toys' for Youth Group Activities*. The goal is to train adults who will use these programs with young people. Textile Expo is an annual CCE event sponsored by Cayuga, Livingston, Monroe, Ontario, Seneca, Steuben, Wayne, Wyoming, and Yates counties. It takes place at the Canandaigua Middle School in Canandaigua, NY.

#### September 21-22

##### The Finger Lakes Fiber Arts Festival

After Textile Expo, you might take a group of young people to the Finger Lakes Fiber Arts Festival in Hemlock, NY. They will enjoy the demonstrations and seminars on handspinning, weaving, felting, knitting, lace making, dyeing, and other related topics involving many types of fibers. For more information see [www.gvhg.org/fest.html](http://www.gvhg.org/fest.html)



*In 1661 a Danzig man built a power loom, but the Polish Government had him drowned, and destroyed the loom "to protect the poor."*

### Great Ideas from NY Counties\*

PRISCILLA VANGORDER, CCE - Oswego

For more information on these programs, contact Priscilla VanGorder at Tel: 315-963-7266, Fax: 315-963-0968, or Email: [plv1@cornell.edu](mailto:plv1@cornell.edu).

#### Textile Weekend

Every fall, Priscilla organizes a textile weekend for Oswego 4-H'ers. The 2001 event linked textiles and nutrition with the holiday theme, "Let's Give a Party." Youth (ages 10-19) and leaders discussed the important factors for efficient and enjoyable entertaining. Participants planned the menu, learned about the food triangle, designed table settings, cooked a nutritious meal, sewed table linens, created a welcoming atmosphere and even practiced table manners. Their menu – appetizers, lasagne, salad, vegetables, and rolls – linked to the textile activities of making a bun warmer, casserole carrier, and dinner napkins. Participants offered their wares in three venues: family-style dinner, buffet dinner, and sit-down dinner as they assumed the different roles of host, family member, honored guest, etc. Fees included one yard of a holiday print and \$15. Definitely a bargain weekend!

RESULT- approximately 45 young people and 10 adults learned about nutrition and textiles, improved collaboration between the two programs, and enjoyed a wonderful evening of dining out. They shared this program at Career Explorations on campus in June, 2002. Textile weekend for fall 2002 will focus on winter fabrics such as Polarfleece.

#### Oswego County Creative Dimensions

Taking a page from history when home-demonstration or homemaker groups were popular, 63 women assemble in small neighborhood groups to learn from each other and to share their own skills and talents. Popular textile topics include making stuffed animals, braiding rugs, and quilting. They also tour interesting sites such as a swimsuit factory in Dexter, NY. RESULT - In addition to learning useful skills, these women provide firm support for many of the youth programs at Oswego CCE.

#### Annual October Trip

4-H key clothing leaders, other 4-H volunteers, the Creative Dimensions (above), and even the general public jumps on board when the Oswego tour bus hits the road. In the past, the group has attended the Textile Expo in Toronto, Canada and focused on quilts in the Amish area of Pennsylvania. October, 2002 will find the group headed to Massachusetts where they will visit Malden Mills, Wrights Notions, and the American Textile Museum. RESULT - Increased collaborations between youth and family and consumer educators, expanded horizons with regard to textiles, and a lot of happy people.

*\*At a recent inservice, several great ideas for youth involvement were shared. Upcoming TXA issues will feature some of those ideas and others that you submit. Thanks to Priscilla VanGorder our June contributor.*

## ENHANCING SAFETY

### Allergens in Indoor Dust

NANCY BREEN

This article, the third in a series on indoor pollutants, is based on a presentation of Dr. Alan Hedge given at the April 2002 inservice, Carpets and More.

A research project of Cornell University Departments of Design & Environmental Analysis and Textiles & Apparel analyzed indoor environments in 42 homes in central NY. Results of pesticide residues were reported in the November 2001 and April 2002 issues. This article discusses allergens found in the indoor dust in these homes.

Indoor environments that are comfortable for humans are also ideal for many other organisms that may contribute to allergic reactions and asthma. These organisms include:

- Bacteria — need moisture and food to grow and are in heating, ventilating, and air conditioning filters and cause allergic reactions.
- House Dust Mites — eat dead skin cells that we constantly shed and are implicated in asthma. These mites like warm, moist dark conditions often multiplying in mattresses and upholstered chairs.
- Cockroaches — cause allergic reactions and are associated with asthma.
- Cats — can contaminate a room in 30 minutes and be detected in a carpet at least 20 months after pet removal.

The study analyzed amounts of these allergens in indoor dust of active farmers, rural residents not involved in farming, and urban residents. Samples were taken in summer and winter and in carpeting and on smooth flooring during an initial visit and one week later in a follow-up visit.

*Conclusions were as follows:*

1. Fungi counts were higher in smooth floor dust samples than in carpet dust and it did not matter whether it was summer or winter.
2. Cat allergens were much higher for cat owners, but were unaffected by floor type.
3. Dust mites were found in higher levels in carpet dust but only in the summer.

*To reduce indoor allergens:*

1. Keep surfaces clean and dry to prohibit growth of allergens.
2. Use effective source controls such as:
  - a. Encapsulations — mattress covers
  - b. Chemical Treatments — acaracides for killing dust mites
  - c. Microfiltration Vacuum Bags — for your regular vacuum cleaner or a HEPA (High Efficiency Particulate Arrester) filter.
  - d. House and Room Air Cleaners — Most filters used in furnaces are only 45% effective, but these can be replaced with improved filters that are up to 95% effective. Furnace or room cleaners with HEPA filters are best, followed by electrostatic filters and negative ionizers.
3. Choose carpet fiber carefully and maintain properly. Although some are concerned that carpeting in homes and schools may increase allergies and asthma, studies show that carpeting traps contaminants. In contrast, dust and allergens on a smooth floor can become airborne. If the carpet is vacuumed with a vacuum that has a HEPA filter or a microfiltration bag, the allergens are removed before becoming airborne. Synthetic carpeting will not promote microbial growth if it is kept clean and dry. Dust mite exposure rather than coming from carpeting is most likely to come from pillows, bedding, mattresses, sofas, and clothing — items in frequent/prolonged contact with the face.
4. Be aware of cleaning methods. The usual method of cleaning smooth floors may increase contaminants. When washing smooth flooring, reused bucket water quickly accumulates biological contaminants that are further spread on the floor. To reduce this problem, vacuum floor first, change water frequently, and let floor dry before walking on it.

## EMERGING TECHNOLOGY

### Smart Clothing

LUCY DUNNE\*

Built-in heat? Air-conditioning? Computing power? These things are no longer limited to space suits and science fiction. The technology and apparel industries are joining forces to create a new generation of electronically-augmented clothing. It all started in the labs of a few computer scientists in places like MIT Media Lab and Georgia Tech, in the early 80's. But smart clothing has come a long way since those days of bulky, ugly machines that were far from "wearable." Today's smart clothing can do anything from keeping you warm to telling you where you are and what might interest you in the area, all integrated into a garment that hardly looks different from everyday clothing.

In Finland, the Clothing + designers have produced a protective smart system for the arctic environment. Intended for snowmobilers and skiers, the full-body suit monitors its wearer's body temperature, location and environment. It sounds an alarm if it detects a dangerous situation, sending an emergency message with its exact GPS location. It also keeps the wearer warm and provides information about the weather and conditions in the surrounding areas.

At Georgia Tech, the "Wearable Motherboard" Smartshirt has been developed as a physiological monitor. This shirt has the look and feel of a normal undershirt, but contains conductive and optical fibers that process signals from a network of sensors. Using the sensor data, it can detect things like bullet penetration (for military applications), location (via GPS), and medical problems. It can be configured to communicate with doctors and healthcare providers, alerting them to changes in the patient's status. The infant-sized model monitors babies to prevent SIDS and other infant medical emergencies.



Here at Cornell, my Honors Thesis research was to develop a smart jacket for recreational athletes in winter. This jacket monitors the wearer's temperature and pulse, and the external light level. Based on sensor input, it heats up in the cold, lights up in the dark, and gives the wearer information about time and activity level.

Electronic technologies offer clothing designers new solutions to old problems, and open up a whole new realm of

possibilities. And the world of high-tech clothing is not so far away. Already clothing companies such as the North Face, Levis, and Nike have unveiled plans for smart clothing products. Garments with electronic capabilities such as the North Face MET 5 heating jacket and the ICD+ line of mp3/cell phone

jackets from Levis are already on the market. The technologies to facilitate smart clothing are readily available, and consumers are eager to try new gadgets. The apparel industry will serve as the link between the two, creating technology products that are wearable, fashionable and functional.

\*Note: Lucy Dunne is a 2002 TXA graduate

## BROWSING WEBSITES

### Cranston Print Works

<http://www.cranstonvillage.com>

Cranston Print Works is the oldest textile printing company in the United States, known for quality fabric printing since 1824. Cranston maintains interesting WebPages that allows viewers to tour their plant site. From the Visitor Center, one can "walk" to the Library, Village Gallery, Village Herald, Craft Corner, or Quilt Corner. The library offers a reference desk with practical entries such as How to Read a Label and Buying Fabrics. 4-H volunteers and others looking for quick sewing projects should check the archives for instructions for making book covers, beach bags, aprons, puppets, wall hangings, and more. The Village Gallery showcases the latest print designs from V.I.P. by Cranston. The Village Herald encourages viewers to subscribe to a monthly newsletter. The Craft Corner and Quilt Corner both offer monthly projects that delight both beginner and professional sewers. The Quilt Corner also includes informative articles on the history of quilting, quilt designs, and fabric dyes.

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