



## CLEANER COTTON CAMPAIGN

Building a coalition of manufacturers, farmers and consumers to grow the market for biologically-based IPM and locally-grown organic cotton.

### BASIC

(Biological Agricultural Systems in Cotton)

An Initiative of the  
Sustainable Cotton Project and  
Community Alliance with  
Family Farmers



# The Community Alliance with Family Farmers (CAFF)

Building a movement of rural and urban people to foster family-scale agriculture that cares for the land, sustains local economies and promotes social justice.

## BASIC

(Biological Agricultural Systems in Cotton)  
Enabling cotton growers to adopt farming practices that reduce the environmental impacts of growing cotton while maintaining economic viability.

## Sustainable Cotton Project (SCP)

Founded in 1996 to expand and disseminate knowledge about alternatives to chemical farming systems in cotton, and promote their use in the textile and apparel industry. As a private non-profit (501) (c) (3) organization working under the direction of CAFF, SCP is dedicated to building bridges among cotton farmers, manufacturers and consumers.

The Sustainable Cotton Project's BASIC program (Biological Agricultural Systems in Cotton) is a farmer-to-farmer information-sharing program, which has been active in California's Central Valley for the past eight years.

BASIC is a proven program that enables conventional farmers to adopt organic and other environmentally preferable (biologically-based IPM) farming techniques.

Farmers have successfully adopted BASIC methods on more than eight thousand acres of cotton over the past eight years.

Compared to other farmers in their region, BASIC farmers spray up to 73% less of the most toxic insecticides and miticides used in cotton.\*

BASIC uses non-genetically modified cotton seed

\*Independently analyzed by Dr. Max Stevenson, Agronomist with Yolo County Resource Conservation District, Dr. Minghua Zhang and Adam Hale, Land, Air and Water Resources Department at University of CA, Davis.

Methods for cotton pesticide use analysis and calculation steps are available upon request.

BASIC purposefully recruits CONVENTIONAL farmers who would normally be spraying chemicals intensively, and/or using genetically modified cotton seed.

## WHY?

- Because if we can influence the experience and therefore the mindset of mainstream conventional agriculture....
- Then we can immediately begin to reduce the amount of chemicals released into our environment.

BASIC farmers grow Cleaner Cotton



Cotton is one of the top ten crops in California using the greatest quantity of pesticides



5,849,172  
pounds  
chemicals  
used on  
California  
cotton.



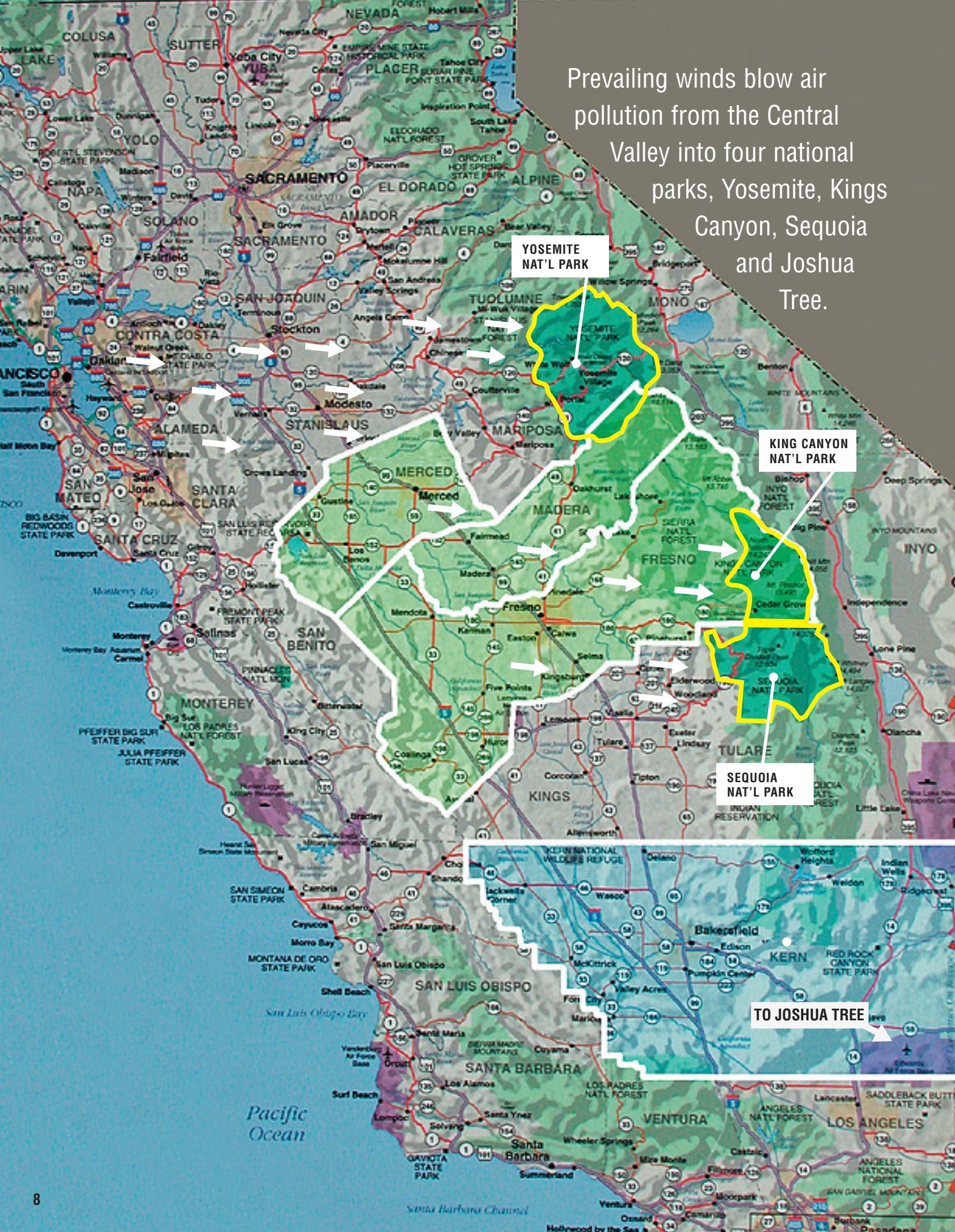
For 2005, latest year data available. Pesticide Action Network.

# Poor air quality in California's San Joaquin Valley is common knowledge

## The Fresno Bee



Prevailing winds blow air pollution from the Central Valley into four national parks, Yosemite, Kings Canyon, Sequoia and Joshua Tree.



## San Francisco Chronicle

# Yosemite Violates New Federal Smog Standards

Yosemite National Park, known for its granite peaks and majestic views, will have the dubious distinction today of joining a growing list of national parks that violate a new and more stringent federal smog standard.

It was disheartening to report that **Yosemite** had joined three other national parks in California—**Sequoia, Kings Canyon** and **Joshua Tree**—that have previously been designated as having **smog problems**.

For Yosemite, the unhealthy air is a mix of tailpipe emissions from cars, trucks and farm equipment from the Central Valley as well as other pollutants blown in from the Bay Area.

The smog situation is more serious at Sequoia and Kings Canyon National Park....Annie Esperanza a resource specialist at Sequoia and Kings Canyon said it was a combination of factors, including high temperatures that provide perfect conditions for forming ozone and **prevailing winds that blow pollution from the Bay Area and Central Valley.**

...The air pollutants have a significant impact on Sequoia and Kings Canyon. Half of the Jeffrey and Ponderosa pine trees are showing levels of ozone damage, and on the park's western slope, which faces San Joaquin County, 90 percent of the trees are damaged.

**...In 2001, the EPA elevated the parks smog situation from "serious" to "severe" and this year it is anticipated it will rise to "extreme".**

# Environmental and Human Health Consequences of Conventional Cotton

Many of the most common cotton pesticides are scientifically linked to serious health problems and toxicity in water, air and soil.

Major Cotton Pesticides in California					
Pesticide Chemical Name (Trade Name)	Agricultural Use	Listed PAN Bad Actor	Toxicity Class	Long Term Toxicity	Average Pounds Per Year Used in California (1992-2005)*
Acephate	Insecticide	Yes	Slightly Toxic	Possible Carcinogen, Cholinesterase Inhibitor, Toxic to Aquatic Animals	78,265
Aldicarb	Insecticide	Yes	Extreme Toxicity	Cholinesterase Inhibitor, Suspected Endocrine Disruptor, Toxic to Birds	303,914
Chlorpyrifos	Insecticide, Nematicide	Yes	High Toxicity	Cholinesterase Inhibitor, Suspected Endocrine Disruptor, May Cause Athsma, Toxic to Birds	449,591
Dicofol	Insecticide	Yes	High Toxicity	Possible Carcinogen, Suspected Endocrine Disruptor, Toxic to Most Animals	256,658
Endosulfan	Insecticide	Yes	High Toxicity	Suspected Endocrine Disruptor, Toxic to Animals	69,904
Metam Sodium	Herbicide, Fungicide, Nematicide	Yes	High Toxicity	Known Carcinogen, Developmental/Reproductive Toxin, Toxic to Aquatic Animals	770,499
Oxamyl	Insecticide, Nematicide	Yes	High Toxicity	Cholinesterase Inhibitor, Developmental/Reproductive Toxin, Toxic to Aquatic Animals	52,443
Paraquat	Herbicide, Defoliant	Yes	High Toxicity	Highly Persistent in Ground Water	266,967
Phorate	Insecticide, Nematicide	Yes	Extreme Toxicity	Cholinesterase Inhibitor, Reproductive/Developmental Toxin, Toxic to Aquatic Animals	56,410
Prometryn	Herbicide	Yes	Slight Toxicity	Developmental/Reproductive Toxin, Toxic to Aquatic Animals, Persistent in Water	172,331
Propargite	Insecticide	Yes	High Toxicity	Known Carcinogen, Developmental/Reproductive Toxin, Toxic to Aquatic Animals	183,828

\* PAN Pesticide Database.

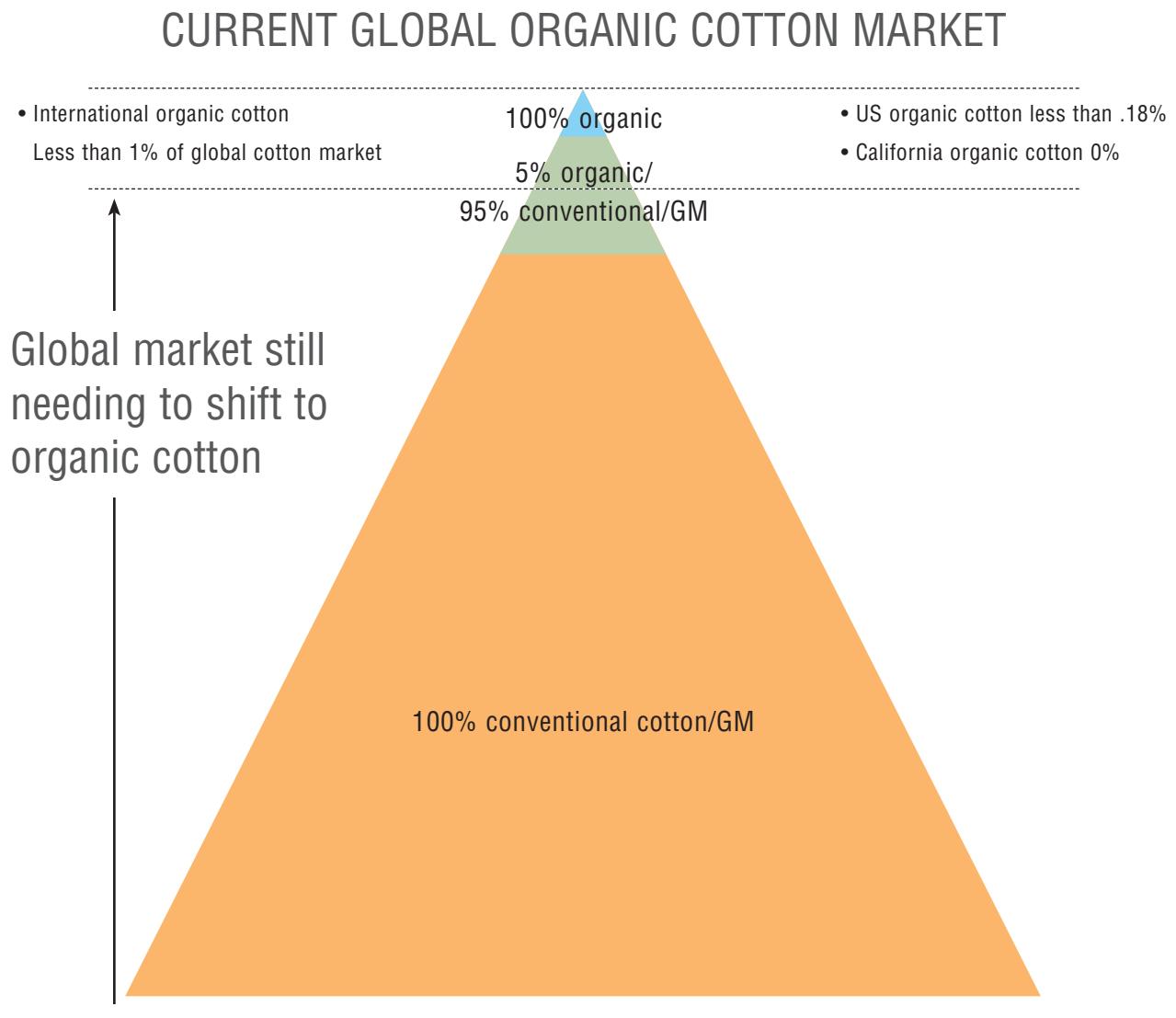
# All San Joaquin Valley rivers carry agricultural waste water into San Francisco Bay



# CURRENT ORGANIC COTTON MARKET

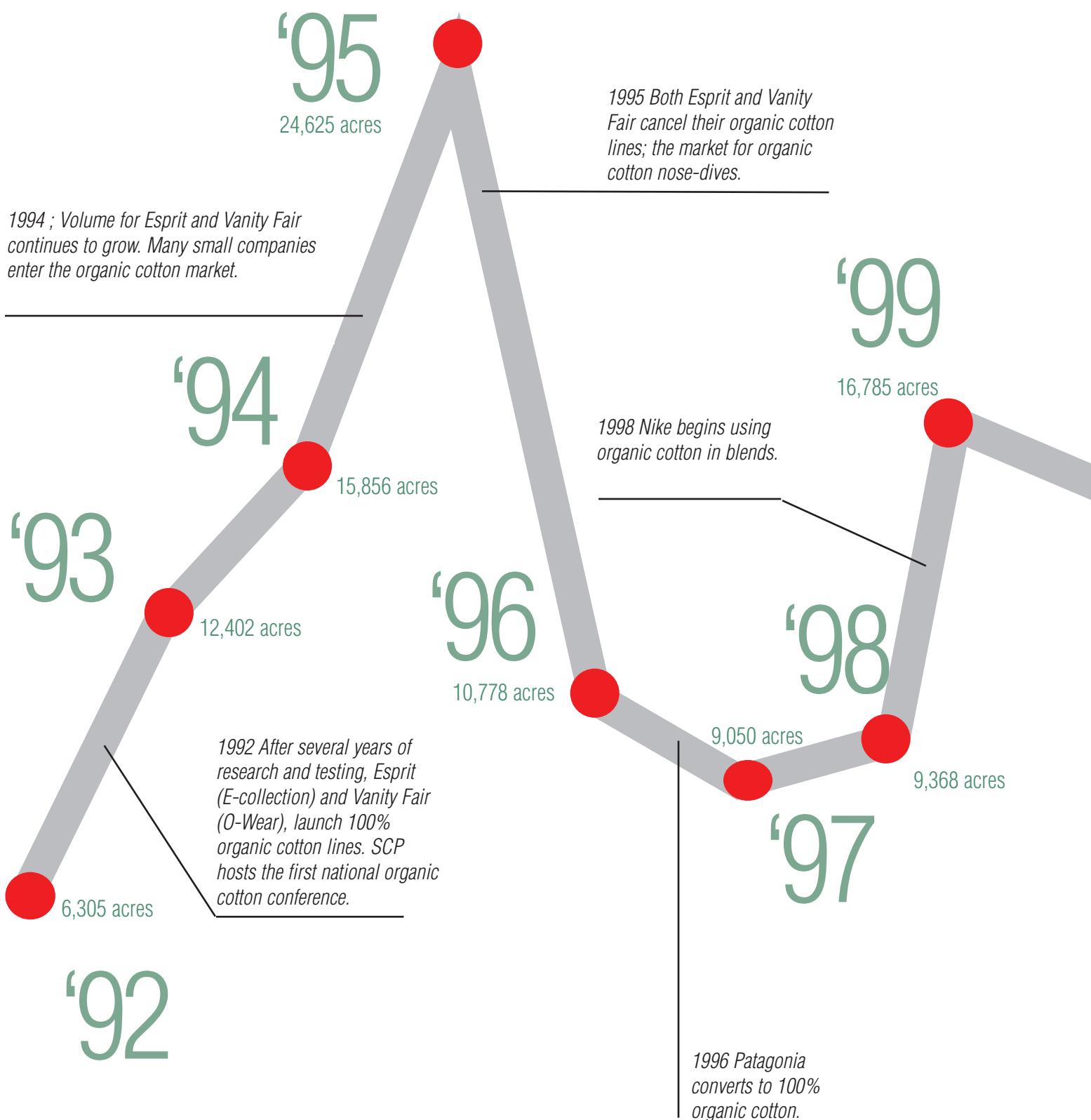
Through a decade of experience, we have found the market for US and California-grown organic cotton very limited for several reasons.

Organic cotton in general still represents less than 1% of the global cotton market.



Many companies are blending 5% organic with 95% conventional and don't need higher quality (and higher cost) California Pima or Acala cotton.

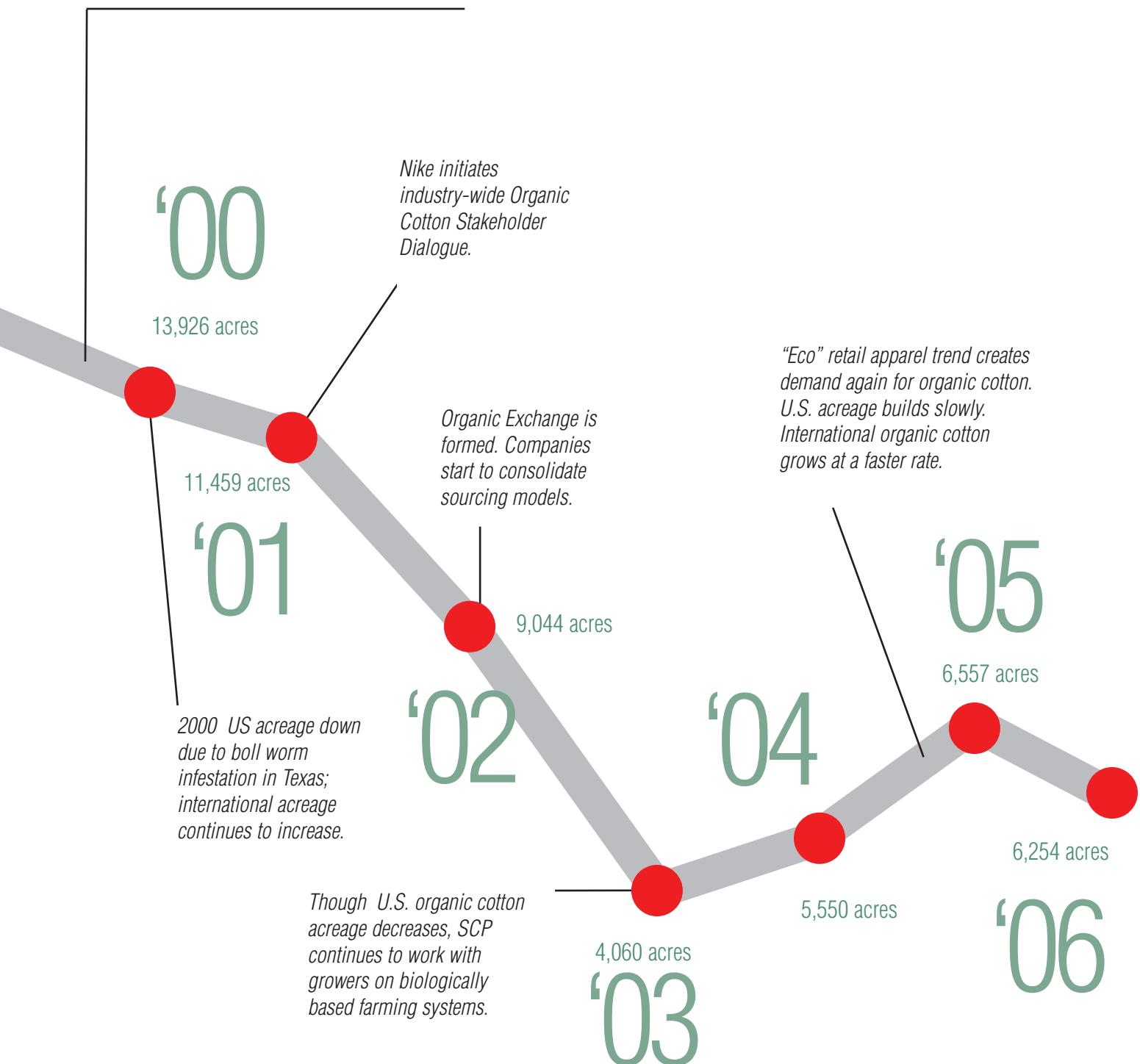
# U.S. Organic Cotton Acreage



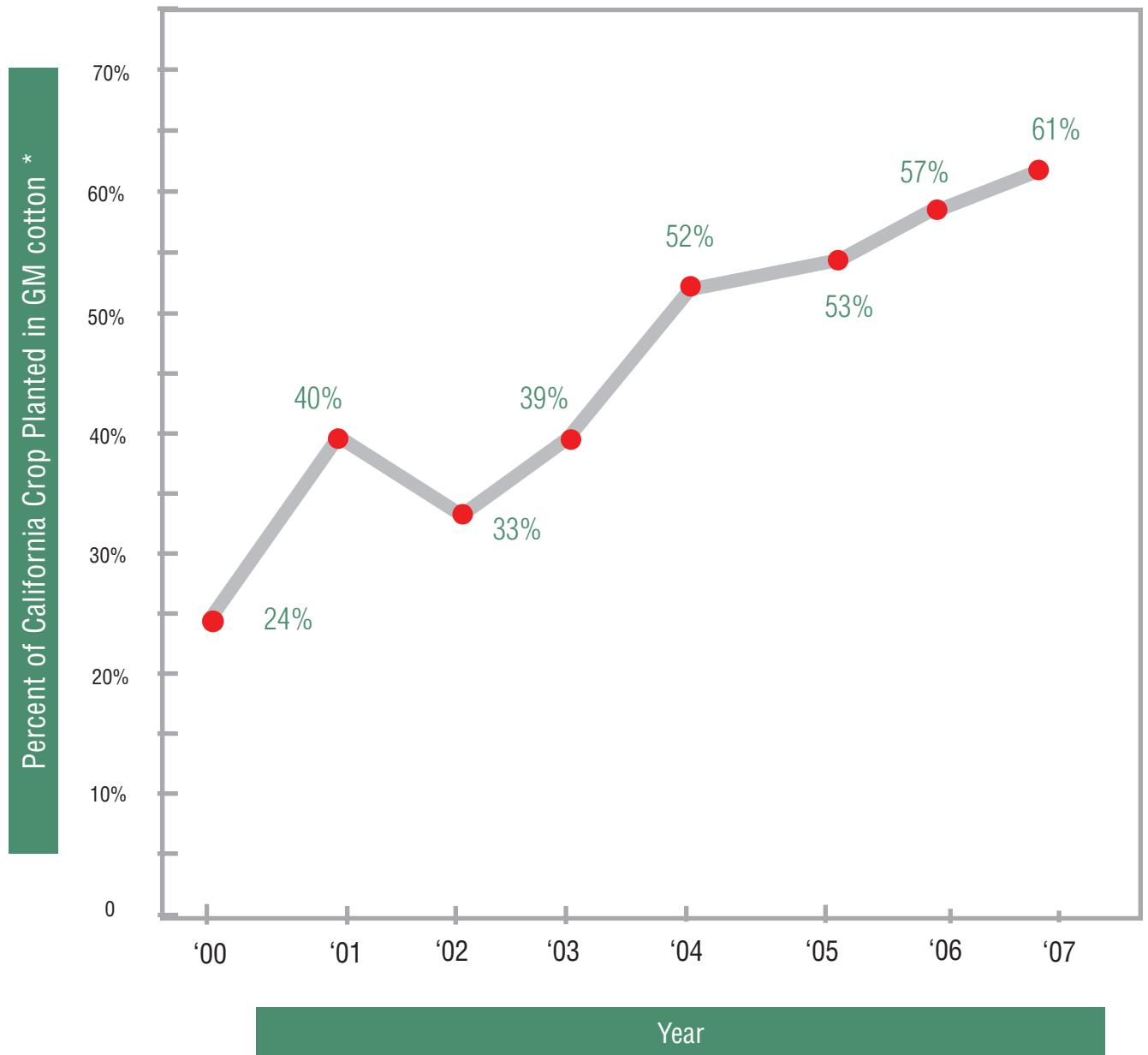
Source: Organic Trade Association

# Many companies are sourcing organic cotton offshore where labor costs are cheaper

1999 Nike's volume builds. Other large companies begin considering organic cotton programs.



While California's organic cotton acres have declined over the last 10 years, the percentage of acres planted with GM cotton continues to increase dramatically in California.

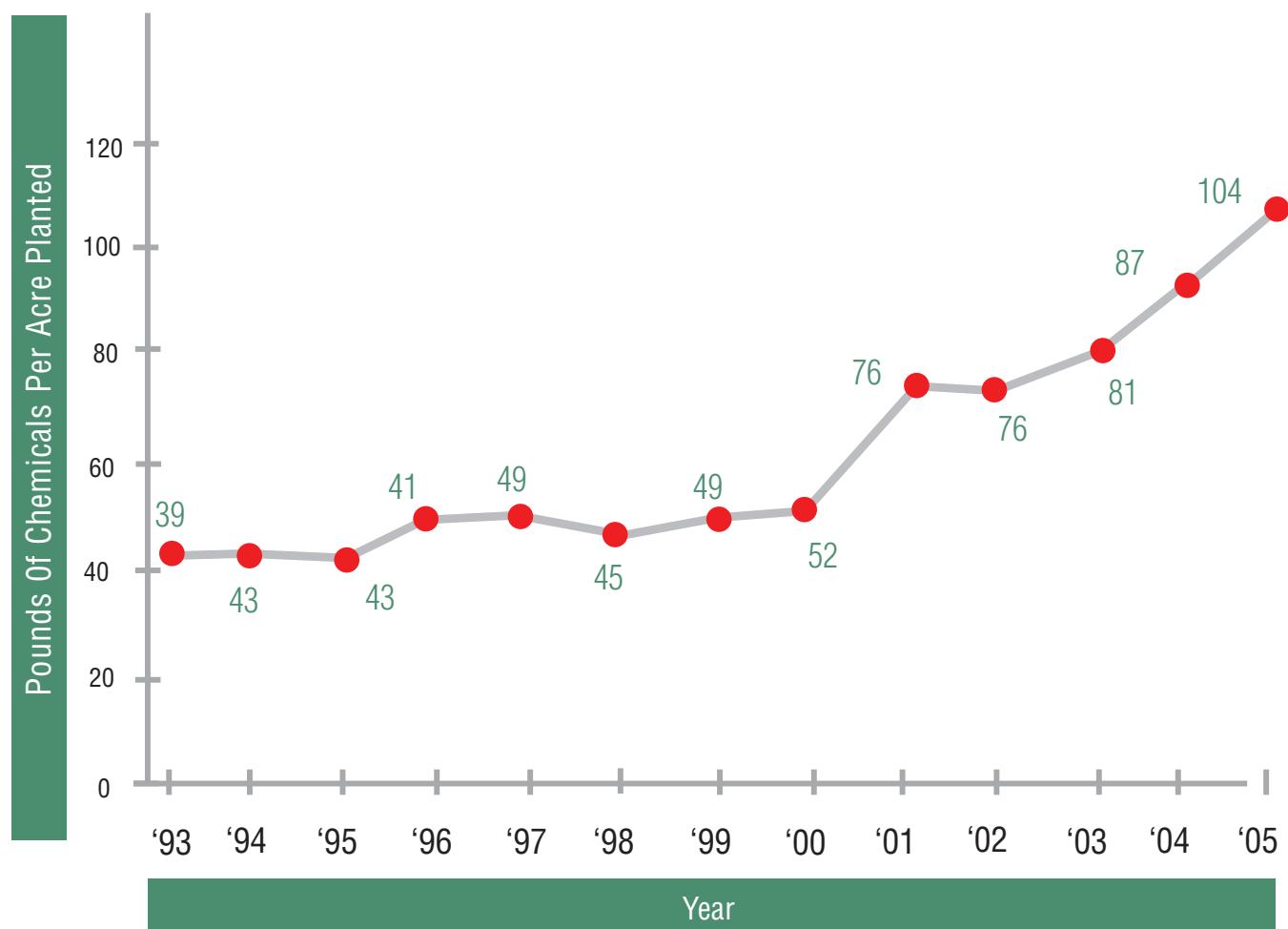


GM now represents 61% of California's total cotton crop \*

\* National Ag Statistics Service acreage reports, 6/00, 6/01, 6/02, 6/03, 6/04, 6/05, 6/06, 6/07.

And the average quantity of the most toxic cotton chemicals used per acre planted in California has risen sharply since 1993.\*

\*\*MOST TOXIC CHEMICALS USED PER ACRE OF COTTON IN CALIFORNIA.



\*Source: Pesticide Action Network database.

\*\*Acephate, Aldicarb, Chlorpyrifos, Dicofol, Endosulfan, Metam Sodium, Oxamyl, Paraquat Dichloride, Phorate, Prometryn, Propargite. Source: Pesticide Action Network database.

So, for California, **organic** has not been a **consistent** vehicle for **reducing cotton chemicals or GM cotton use.**

So, what can we do  
to clean up cotton  
in California?

Despite the decline in California's organic cotton acreage, BASIC is growing at the farm level, because it can consistently reduce chemical use while maintaining yields.

BASIC farmers grow  
Cleaner Cotton

# Cleaner Cotton

COMING SOON TO A MILL NEAR YOU

Number of Acres in SCP's **BASIC** program:



In 2007, **BASIC** growers will produce nearly  
3 million pounds of Cleaner Cotton.

# BASIC TARGETS THE MOST TOXIC CHEMICALS USED ON COTTON

**ACEPHATE**

**ALDICARB**

**CHLORPYRIFOS**

**DICOFOL**

**ENDOSULFAN**

**METAM SODIUM**

**OXAMYL**

**PEARQUAT DICHLORIDE**

**PHORATE**

**PROMETRYN**

**PROPARGITE**

Cotton chemicals targeted by BASIC are based on the following criteria:

Toxicity

Pesticide Action Network ‘Bad Actor’ category

Actual/Potential groundwater contaminant

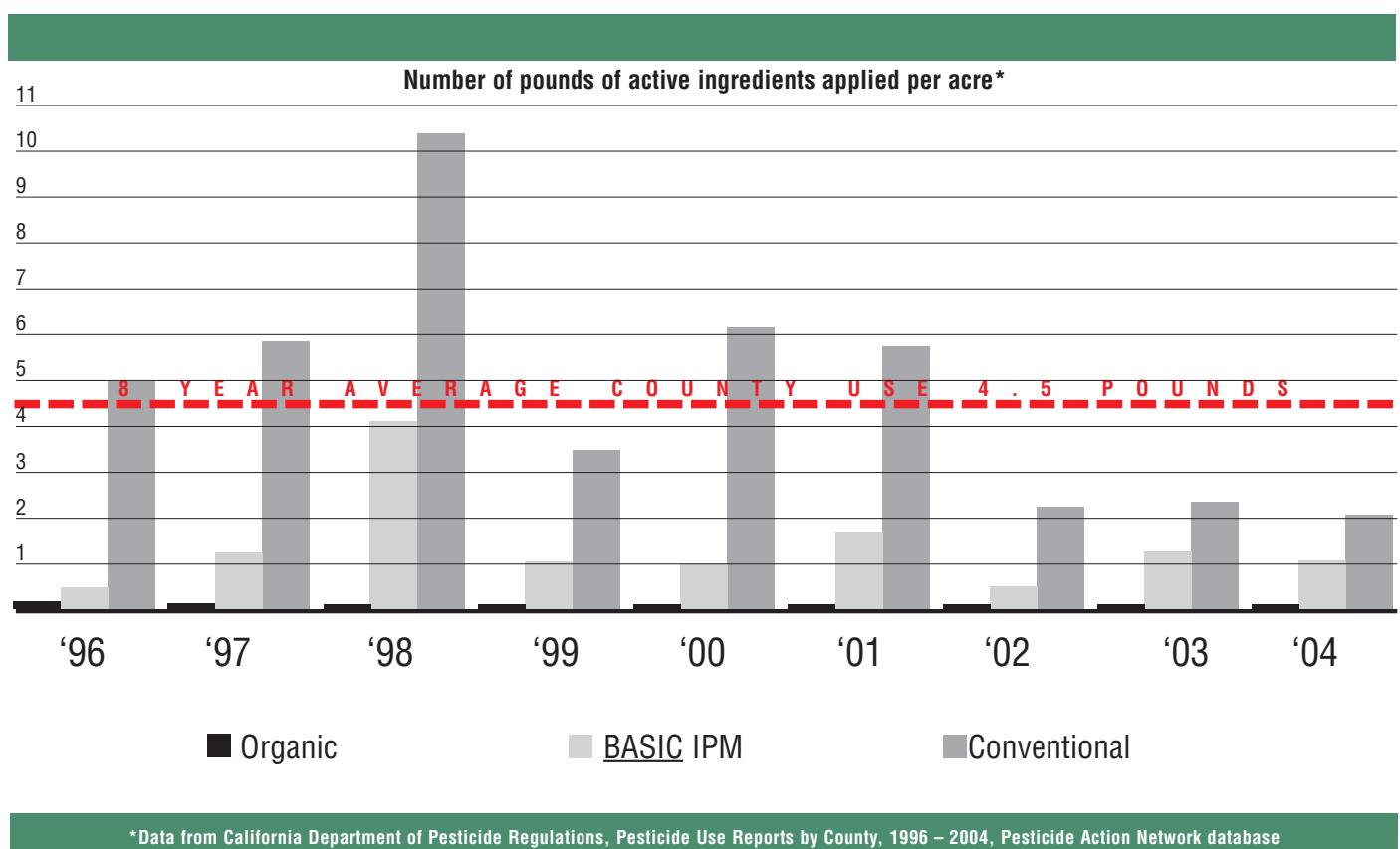
Volume of use

and

Available alternatives

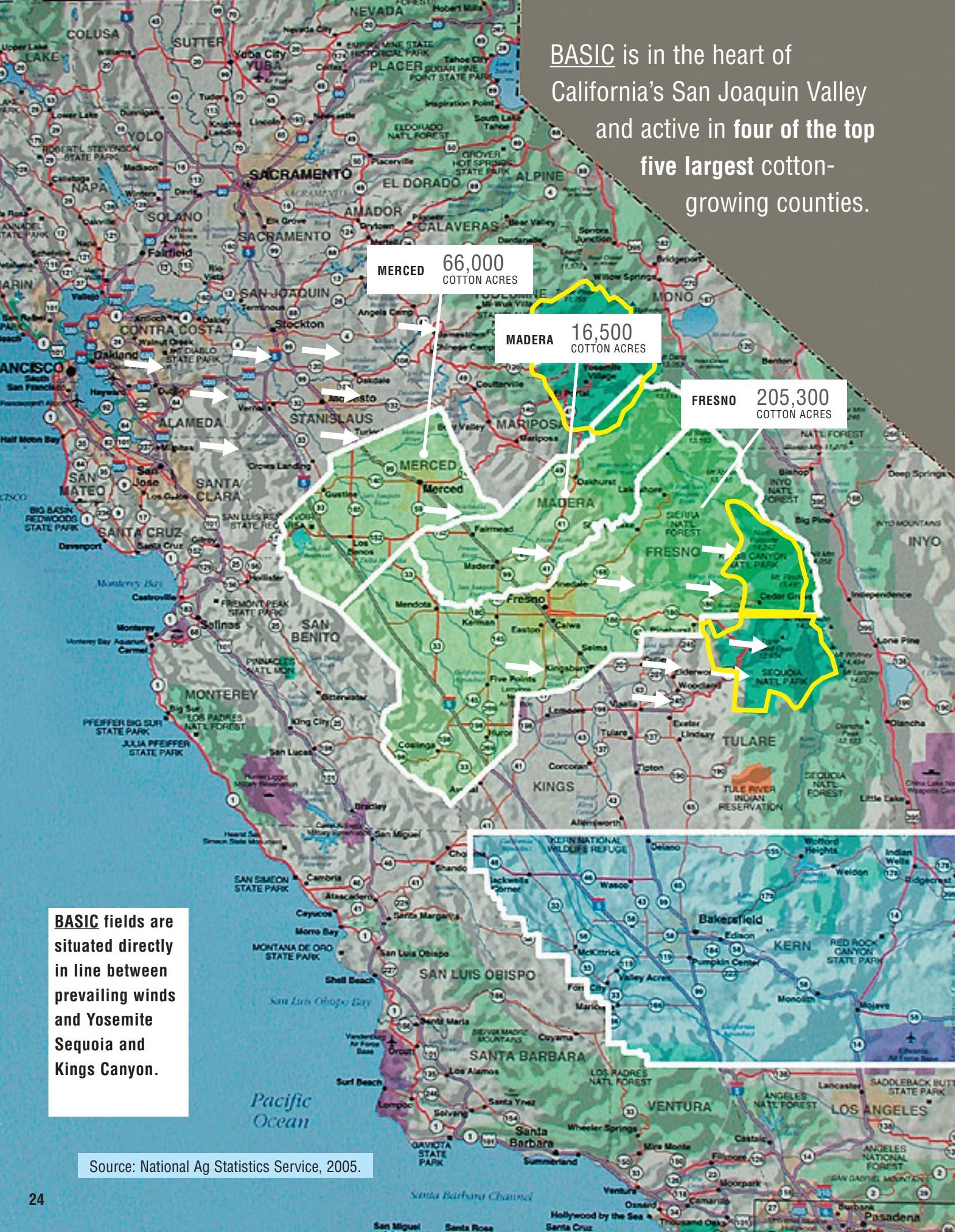
BASIC IS NON GM COTTON

On average, growers in Merced, Fresno and Madera counties use significantly more pesticides than BASIC growers



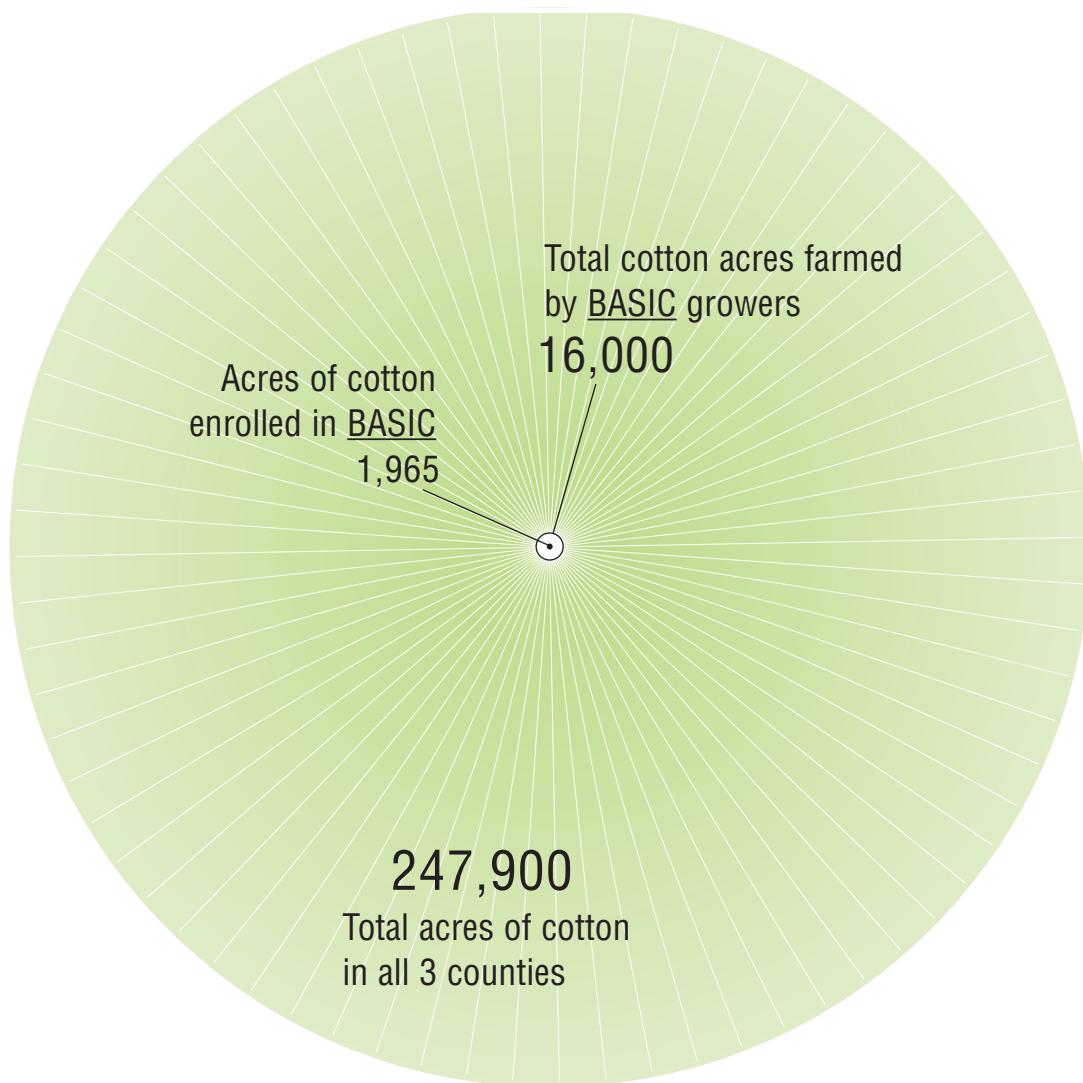
BASIC farmers grow  
Cleaner Cotton

BASIC is in the heart of California's San Joaquin Valley and active in four of the top five largest cotton-growing counties.



# BASIC can DIRECTLY influence over 240,000 acres of cotton

Acres of cotton in Fresno, Merced and Madera counties

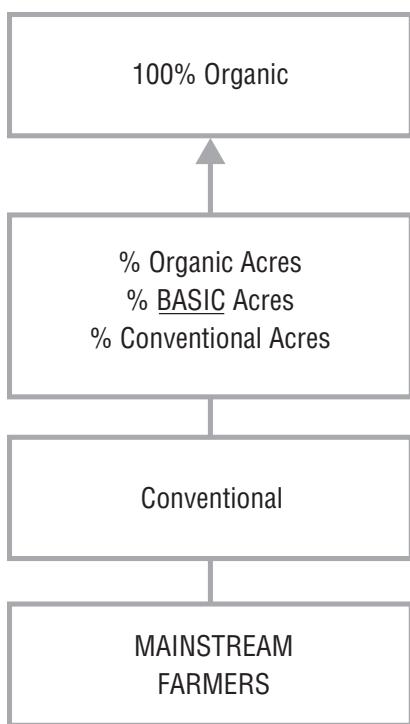


BASIC's monthly newsletter reaches over 300 cotton farmers throughout California.  
Source: National Ag Statistics Service, 2006. SCP, 2007.

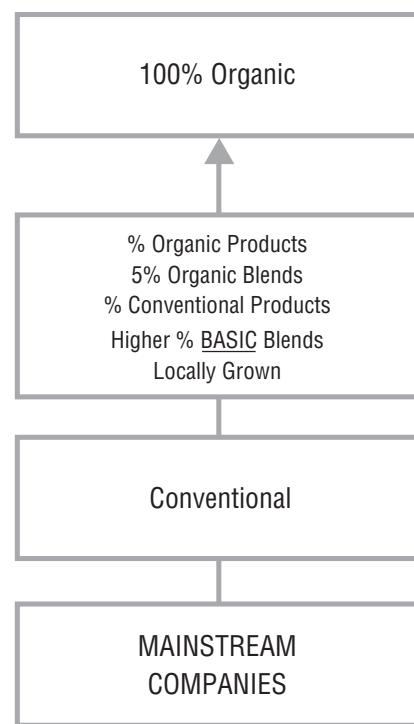
SCP's  
Cleaner Cotton Campaign  
is building a market for  
BASIC cotton

Just as companies are blending conventional cotton with organic to develop economically and environmentally sustainable models, so farmers are growing Cleaner Cotton to provide economically and environmentally sustainable farm models.

#### Moving the Agricultural Industry



#### Moving the Textile Industry



SCP targets mainstream farmers and mainstream companies.

# Farmer Profile



<b>FARMER</b>	John Teixeira
<b>FARM</b>	Lone Willow Ranch
<b>LOCATION</b>	Firebaugh, Madera County, California
<b>SIZE OF FARM</b>	5,233 acres total: cotton, row crops and cover crops Lone Willow: 53 acres organic Treco Farms: 80 acres organic Teixeira and Sons: 5,100 acres conventional
<b>TOTAL COTTON ACRES</b>	2,800
<b>TIMELINE</b>	1995 tested some organic cotton on 60 acres 2003 year grew 60 acres of organic cotton <b>Currently 90 <u>BASIC</u> acres</b>
<b>PHILOSOPHY/DIRECTIVE</b>	Conventional farmer, influenced by earlier <u>BASIC</u> farmer's experiences.

John Teixeira farms in Firebaugh, Madera County, one of the largest cotton growing regions of California's vast San Joaquin Valley. Working on the same land his father farmed before him, he's driving his tractor with his 15 year old son, Will, as we speak.

"It's all about economics," he says. "You look at your budget and want to protect your crop yields to meet that budget. You diversify your commodities to stretch the dollar as far as you can to get the best return."

Growing a combination of cotton, alfalfa, melons, heirloom tomatoes, sweet corn and other row crops, John's farms comprise conventional, non-GM, BASIC and organic products. BASIC represents 3% of his total cotton acreage, and organic 2.5% of his total business.

With costs for farm inputs constantly increasing and commodity prices constantly trending downwards, there's so little profit margin in small scale farming these days that any changes that could 'rock the boat' or increase financial risk are systematically dismissed by most conventional farmers.

Teixeira became aware of BASIC in 1995. My first reaction to it was "They are nuts!" But, persuaded by other farmers who were involved in the program, John registered 60 acres in the BASIC program and started to test biological controls where he would have previously chosen chemical sprays.

"If your making a 10% margin in farming nowadays, you're doing really well. It's a wait and see game with BASIC," he says. "In a buggy year it can be a challenge, but in a milder year BASIC can save input costs. That's why I'm in it."

Chatting with SCP's marketing team at a farm demonstration on Lone Willow Farm one day, John remarked: "Word about the potential cost reductions of BASIC is already out, but if we found a market for BASIC cotton, and could stretch out a small premium for it, we would have farmers lined up around this field to learn more." And so, the BASIC marketing effort was launched.

"Farmers, like everyone" says John, "like a comfort zone...to do what is easy and save money. Just the potential of reducing farm costs, means BASIC 'brings on change' to farmers who would otherwise be reluctant to try out new biologically based techniques because of financial risks."

Through the BASIC monthly newsletters, farm demonstrations and word of mouth, California conventional farmers are becoming informed about biological techniques through actual farm experience. As a result, conversion of conventional cotton acres to biologically based IPM in the San Joaquin Valley is building momentum. Over 1,500 acres in three counties are now enrolled in the program and interest grows each season.

"There are challenges to growing biologically intensive IPM and organic cotton. Lygus and mites are two of the toughest and BASIC is helping conventional farmers to deal with them in a biological way." says John. "Forward contracts (for the fiber) from mills is the biggest remaining hurdle."

"BASIC has made a lot of people think a different way. You ask your pest control adviser more questions and you try to reduce your sprays on all crops. This is a new frontier for conventional farmers and it takes time. Young generations of farmers will come and try new things and BASIC will grow."

## WORD FROM THE FIELD:

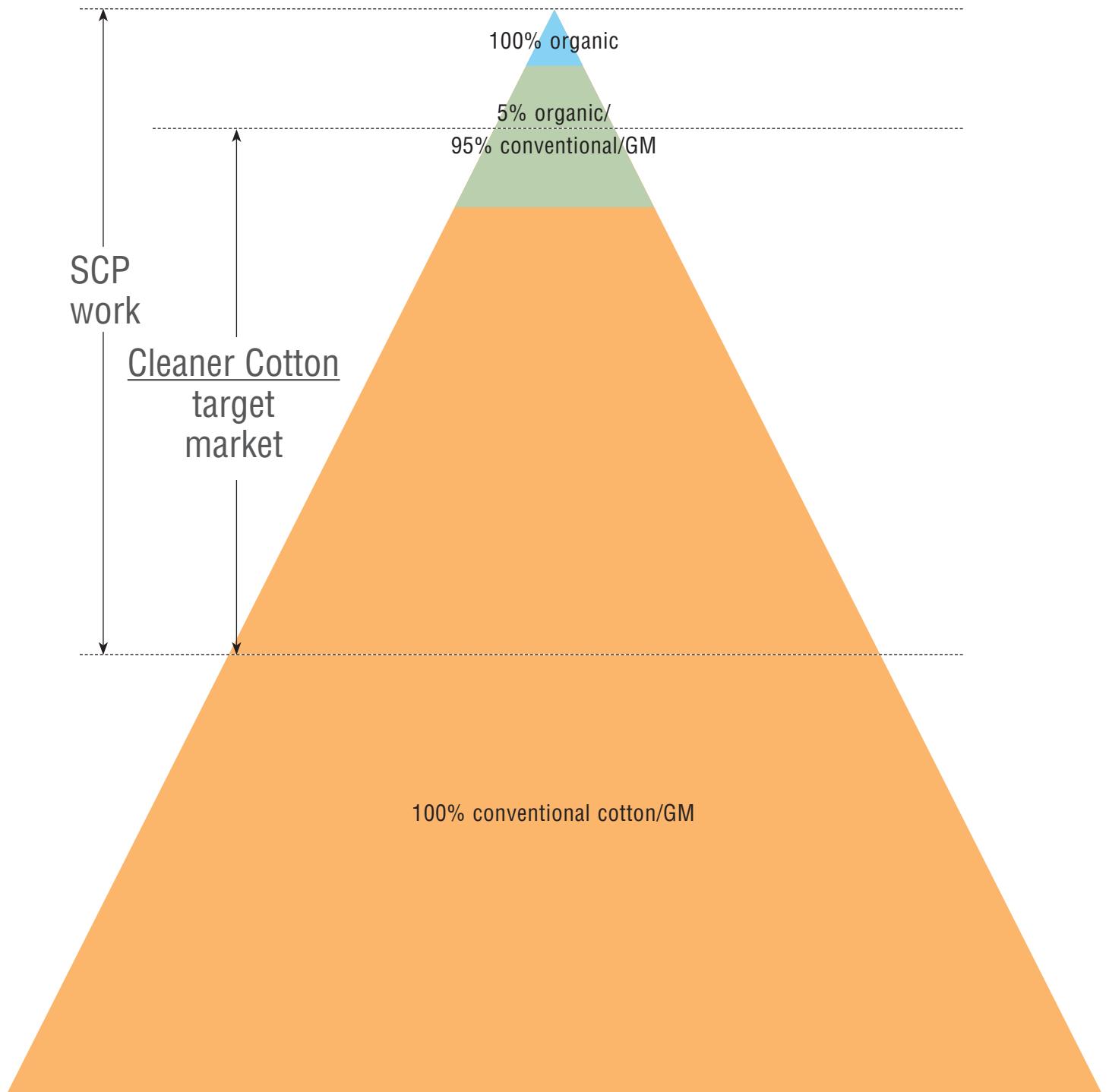
I'd like to feature the progress that Frank Del Papa has made from last year in the next newsletter. Last year he spent \$90/acre on insecticides. This year he planted strips of alfalfa to strip cut. When ants started becoming a problem and the aphid and white fly numbers were increasing, I suggested he plow up the berms on the edges of the cotton to disrupt the ants, which is what he had done. This week the aphids and whitefly numbers were down and I saw increases in aphid predation and parasitism.

Pretty amazing from a 73 year old chemical-only grower!

Talk to you soon,

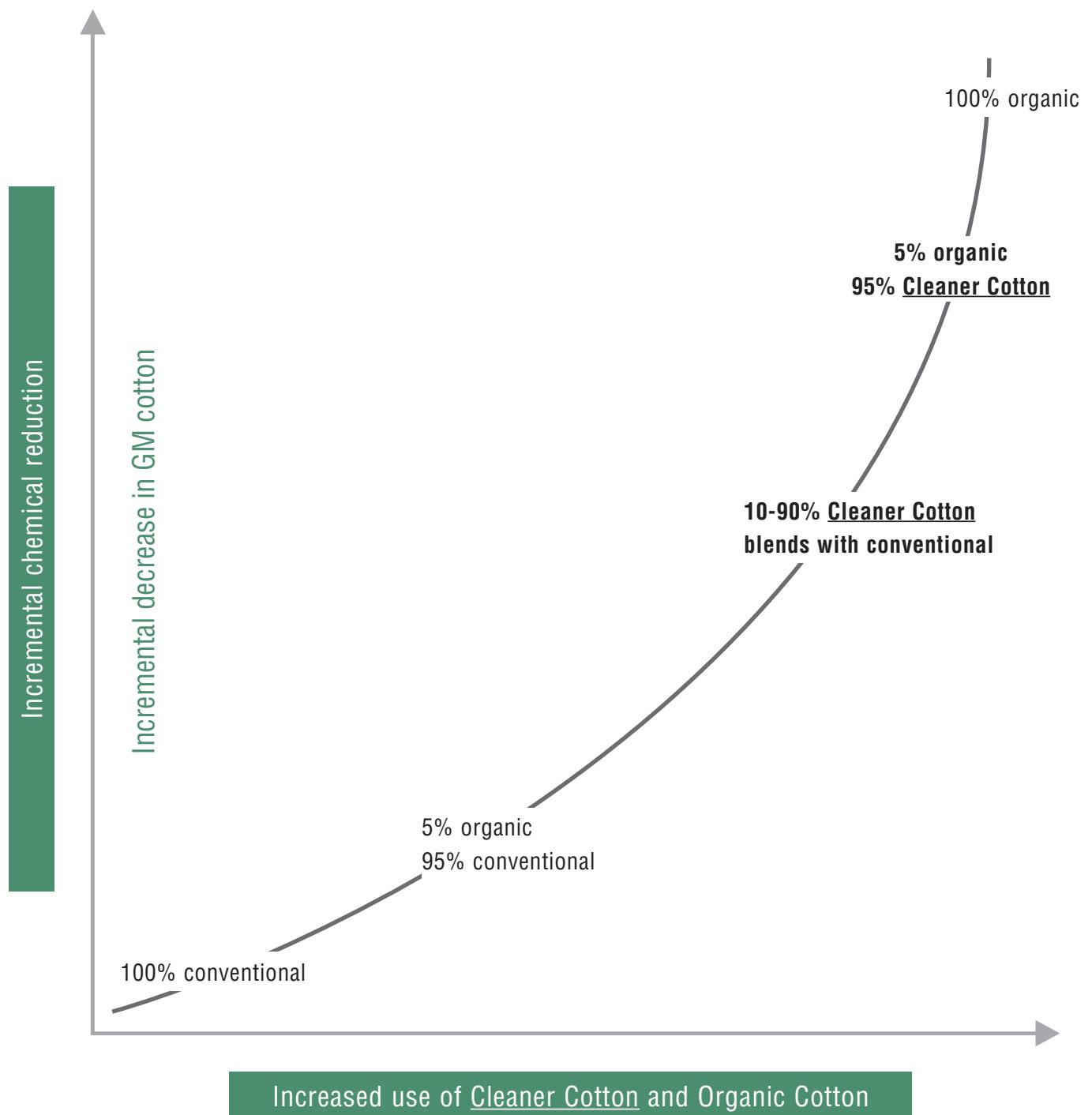
Stefan Long  
Entomologist  
Rincon-Vitova Insectaries, Inc.

SCP works to educate mainstream companies about the benefits of Cleaner Cotton and locally-grown organic cotton.



Cleaner Cotton targets companies still using 100% conventional cotton and those blending with 5% organic.

Converting 95% of your business to Cleaner Cotton will achieve even greater environmental (and social) benefits, than converting 5% of your business to organic.



# HOW Cleaner Cotton BUILDS

## REASONS FOR CHOOSING ORGANIC

We want to be able to quantify chemical reductions in products we manufacture.

We want to help family farms survive.

We want to reduce farmer and farm worker exposure to cotton chemicals.

We want to use locally-grown materials.

We are interested in cleaning up the environment - soil, air and water.

## WHEN YOU CHOOSE Cleaner Cotton

BASIC has documented a 73% reduction in insecticide, miticide and fungicide use in first year of implementation.

All BASIC farmers are family farmers.

BASIC may improve a farm's ecological footprint while maintaining crop yields and profitability, so family farmers take less of a financial risk to implement biological systems.

BASIC is grown in the heart of California's San Joaquin Valley where chemically intensive farming prevails.

Cancer clusters exist all around this agricultural region.

BASIC is California-grown and the only biological/organic initiative for cotton in the state.

BASIC comes from California's Central Valley, where prevailing winds blow air pollution directly into 4 national parks; Yosemite, King's Canyon, Sequoia and Joshua Tree.

All San Joaquin Valley rivers carry agricultural waste water into San Francisco Bay.

The BASIC program targets chemicals with high potential to pollute water, as well as being toxic to fish and wildlife.

# YOUR ORGANIC PROGRAM

## REASONS FOR CHOOSING ORGANIC

We want to phase genetically modified cotton out of our business.

We want to bring organic into our business but make it economically sustainable too.

We want to do organic and prove it can be fashionable, not frumpy.

We want to stabilize the market for organic so it can be steadily expanded.

We want to send a message to farmers and the cotton industry that there isn't a market for GM cotton.

We want to develop a long-term "sustainable" cotton program, to achieve consistent mill processing, season after season.

## WHEN YOU CHOOSE Cleaner Cotton

BASIC is grown with non-genetically modified cotton seed.

BASIC may reduce farm input costs and maintain yields. The premium for Cleaner Cotton is therefore less than that for organic.

BASIC is both Pima and Acala, which are typically a fine, long-staple cotton suitable for 1/30's combed cotton yarns and finer fabrics.

BASIC transitions farmers to biological controls, ready to go fully organic as the market expands.

Many BASIC farmers are already willing to grow organic if the market exists for California-grown organic cotton.

BASIC farmers are conventional farmers who would be considering genetically modified cotton to reduce chemical use. Providing a market for Cleaner Cotton sends a strong anti-GM message.

BASIC can enlist a consistent number of acres each season ensuring a steady volume and quality of Cleaner Cotton fibers for milling.

# Frequently Asked Questions

## IS BASIC CERTIFIED?

No. However there are several best management practices (BMP) and biological IPM (biolPM) certification programs emerging. SCP is in the process of discussing collaborations for these programs to include cotton, not just food crops.

In the meantime, chemical reductions by BASIC farmers are rigorously monitored and recorded on a weekly basis. The data is then compared to general county data collected by the California Environmental Protection Agency's Department of Pesticide Regulation (DPR). This agency monitors general pesticide use county by county throughout the state. The DPR data is unique to California and is the most detailed in the US. Both sets of data are then analyzed by an independent third-party, so you can feel comfortable that any claims you make about Cleaner Cotton are transparent and quantifiable.\*

## HOW IS BASIC DIFFERENT FROM OTHER IPM PROGRAMS I'VE HEARD ABOUT?

BASIC is a Biologically-intensive IPM (Integrated Pest Management) farm system.

The Consumers Union defines Biologically-intensive IPM as: 'A systems approach to pest management based on an understanding of pest ecology. It begins with steps to accurately diagnose the nature and source of pest problems and then relies on a range of preventative tactics and biological controls to keep pest populations within acceptable limits. Reduced-risk pesticides are used if other tactics have not been adequately effective, as a last resort and with care to minimize risks'.

In conventional IPM, the principles of understanding pest ecology and restoration of natural balances have been replaced by using chemicals as a tool of first resort. Some conventional IPM programs have therefore evolved to justify the use of pesticides, rather than to examine and implement biological alternatives.

For more detailed information, ask about our 'white paper' on BASIC and Biologically-intensive IPM.

## IF BASIC ISN'T ORGANIC, HOW CAN I MARKET IT?

Label it Cleaner Cotton. Some companies communicate quietly, others 'shout' about what they are doing. It also depends on shifting cultural influences, as our society's perspective on sustainability takes form. We supply actual examples of communicating Cleaner Cotton on our website as it comes to market: see sustainablecotton.org. In the meantime...

### HERE ARE JUST A FEW IDEAS:

#### 1. Companies already involved in organic who also want to decrease their use of conventional/GM cotton over time:

- Label their organic cotton products
- Talk about Cleaner Cotton in editorials and annual environmental statements.

#### 2. Companies working incrementally to shift their businesses to more sustainable practices:

- Label their organic products
- Talk about their overall social and ecological initiatives including Cleaner Cotton
- List their locally/regionally-sourced materials including Cleaner Cotton.

#### 3. Companies wanting to mitigate their risks from anti-GM activists:

- Plan phasing-in organic cotton over time
- Plan phasing-out GM cotton over time
- Label organic products
- Label Cleaner Cotton products: 'Non GM Cotton'

#### 4. Consider all the labeling and promotional options and choose the one that most suits your company philosophy and culture:

- |   |                              |
|---|------------------------------|
| • Non-GM cotton                               | • Adopt-a-farm-community     |
| • California-Grown                            | • Grown by U.S.              |
| • Organic                                     | • Community Supported Cotton |
| • Locally grown/sweat-shop free               |                              |
| • 'Not your conventional T-shirt..ask me why' |                              |

No matter what your company culture or approach, if it's California-grown organic or BASIC, SCP will brainstorm ideas with you and support your Cleaner Cotton marketing campaign.

\*Methods for cotton pesticide analysis and calculation steps are available upon request.

## **HOW CAN A NON-PROFIT ORGANIZATION AND FARMERS HELP US MARKET OUR PRODUCTS?**

Authentic communication to the consumer is paramount in today's retail environment. Our farmers can be an integral part of your company's campaign to promote California-grown Cleaner Cotton. We can provide information for press interviews or photos for hangtags and company catalogues to name just a few possibilities.

**Cleaner Cotton can provide exact data on the chemical reductions your product is directly responsible for.**

Through years of experience, we have found that SCP **farm tours** are a highly effective tool for educating companies and their suppliers about organic and biological farm systems, and also informing the press. SCP tours provide access to specific farmers and communities where your fiber purchases are making a difference. Companies often bring video and photographer crews to document the event for use on their websites, in catalogues and press kits.

## **WHAT QUALITY IS Cleaner Cotton?**

California's Acala and Pima cottons, are characterized by long, strong fibers, and are among the highest quality in the world. Among U.S.-grown varieties, California cottons are preferred for fine fabrics and are used in high quality interior fabrics, table linens, sheets, bath towels and dress shirts.

The only difference between Cleaner Cotton and conventional California-grown cotton is in the farm system for growing the fiber. BASIC farmers grow both Acala and Pima cotton.

## **HOW DO I PULL Cleaner Cotton INTO MY USUAL COMPANY PRODUCT DEVELOPMENT CHAIN? I KNOW A LOT ABOUT FABRIC, BUT I DON'T KNOW ANYTHING ABOUT THE FIBER WE USE.**

Channeling a new cotton fiber through your existing supply chain can seem challenging initially. SCP provides links through the supply chain for Cleaner Cotton handling from field to weaving mill. Cleaner Cotton can be readily shipped overseas, gin direct or through a broker. Cleaner Cotton is also available as a yarn package through R.L. Stowe Spinning Mill in Tennessee. Just call the contact information supplied on the back page to order your Cleaner Cotton yarn count today.

# Nine Good Reasons To Implement A Cleaner Cotton Program

1

It supports family farmers and rural economies in California.

2

It documents the conversion from chemically intensive farming to reduced-risk practices that rely on biological systems to control pests.

3

It documents the amount of chemicals that Cleaner Cotton products reduce.

4

It eliminates the use of the most toxic chemicals used in cotton.

5

It provides a mainstream approach to cleaning up cotton in California.

6

It enhances the environmental goals of any existing organic cotton program.

7

It grows a consistent and expanding number of acres each season.

8

It uses non-GM seed, which maintains the supply of this seed for the future.

9

It builds the emotional value of your brand.

# I'M CONVINCED, WHAT DO I DO NEXT?

To start a **Cleaner Cotton** program at your company contact  
one of the following suppliers:

## FIBER

### **Calcot**

Contact: Doug Star  
Tel: 661 395 6894  
e-mail: dstar@calcot.com

## KNIT FABRICS

### **Manoir Inc.**

Contact: Patrick Regan  
Tel: 515 994 3473  
e-mail: patrick.regan@manoir-inc.com

## YARN

### **RL Stowe**

Contact: Mike Slocumb  
Tel: 423 493 7238  
e-mail: mslocumb@rlstowe.com

## KNIT PACKAGES

### **Artwear Inc.**

Contact: Lynn Braun  
Tel: 310 217 1393  
e-mail: lynnbraun@artwearinc.net

## FABRIC AND FINAL PACKAGES

### **Spiritex**

Contact: Daniel Sanders  
Tel: 828 281 4333  
e-mail: daniel@spiritex.net

**Educate your company about the benefits of  
Cleaner Cotton**

**Sustainable Cotton Project**  
[www.sustainablecotton.org](http://www.sustainablecotton.org)

**Book a company slide show and strategy session to  
consider how to include Cleaner Cotton or  
California-grown organic in your next line**

Contact: Lynda Grose  
Tel: 415 383 7246  
e-mail: lyndagr@aol.com

### **Join SCP's annual cotton tour**

This one-day tour of the San Joaquin Valley challenges perceptions about what agriculture is and what it could become. Our tours have helped inform dozens of companies that have made the switch to organic or BASIC cotton. The tour serves as a great tool for educating employees and management about why reducing chemical use in cotton cultivation is so important and the contribution each company can make to change.

Contact: Marcia Gibbs  
Tel: 530 370 5325  
e-mail: marcia@sustainablecotton.org

