Green Growth & the Expansion of Sustainability in the U.S. Apparel Industry

SEAMS ORGANIZATION
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MY INTRODUCTION TO SUSTAINABILITY
NATIONAL OUTDOOR LEADERSHIP SCHOOL 1988 - “LEAVE NO TRACE”
DEFINITION OF SUSTAINABILITY

sustainability
/se,stenəˈbiləti/

noun

the ability to be maintained at a certain rate or level.
"the sustainability of economic growth"

- avoidance of the depletion of natural resources in order to maintain an ecological balance.
"the pursuit of global environmental sustainability"

MY PERSPECTIVE ON SUSTAINABILITY TODAY IS FROM ONE OF RECYCLED SYNTHETIC MATERIALS. SPECIFICALLY, POST-CONSUMER WASTE, WATER BOTTLES, SINGLE USE PET PLASTICS AND POST-INDUSTRIAL NYLON & POLYESTER WASTE.
ECOLOGICAL BALANCE?

You wouldn’t bathe in this...

then why should marine life?

REPREVE®
REPREVE® is a high-quality yarn made from recycled materials such as plastic bottles, used in apparel, footwear, automotive, medical accessories, military and many more products. Some of most recognizable brands using REPREVE® include NIKE, Levis’, Haggar, The North Face, Patagonia, and Ford. It’s an essential ingredient that makes products more eco-friendly.
"We are not inheriting our world from our ancestors we are borrowing from our children".

---David Brower
1ST Ex. Dir of the Sierra Club
DAUNTING PLASTIC STATISTICS FOR THE USA

600 Billion pounds in 2015 vs. ~6 billion pounds in 1950
300+ years to breakdown
All plastic produced in your lifetime remains on earth and will for remain for 4 or more generations
2006-2016 production increased by almost 50%; not slowing down!

2016 production: 50+ billion water bottles
34 billion water bottles headed to the landfill last year!

Demand for bottled water grew at 7.4% last year. Similar to trends from past years.

THE AVERAGE PERSON IN THE USA CONSUMES 180 BOTTLES OF WATER PER YEAR
~58 BOTTLES ARE RECYCLED & 122 BOTTLES HEAD TO THE LANDFILL

122 BOTTLES PER PERSON PER YEAR FOR OUR ENTIRE POPULATION!
WHAT IS YOUR NUMBER?

68% OF PLASTIC BOTTLES USED IN THE USA ARE NOT RECYCLED!
OUT OF (ECOLOGICAL) BALANCE

122 BOTTLES TRASHED PER PERSON PER YEAR

58 BOTTLES RECYCLED PER PERSON PER YEAR
SUSTAINABILITY STARTS AT HOME AND OFFICE

Do you know what we can create with the 122 bottles that you do not recycle?

We could make the following:

• 3 Fleece Jackets
• 40-60 pair of socks
• 10 golf shirts
• 20 winter knit hats
• 6 pair of pants
• 8 pair of running shoe uppers

Teach your children, grandchildren, friends and co-workers that first quality apparel can be made with recycled water bottles. Young adults can teach older generations!

Do you make the extra effort to recycle? Always?
Does your office have an active recycling program?
Have you considered a landfill free office environment? ASK UNIFI!
NORTH CAROLINA BEACH SUNRISE
50 YEAR TRENDING FIBER DEMAND AND FORECAST

Figure 1

Total Fiber Demand (million tons)
KAMIZLO BEACH, THE BIG ISLAND HAWAII
CALIFORNIA COASTLINE

WHAT DO YOU SEE?

OR DO YOU SEE THE FULL PICTURE?
## Top 10 Items Found in the Ocean

<table>
<thead>
<tr>
<th>Rank</th>
<th>Number</th>
<th>Item Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2,117,931</td>
<td>cigarettes / cigarette filters</td>
</tr>
<tr>
<td>2</td>
<td>1,140,222</td>
<td>food wrappers / containers</td>
</tr>
<tr>
<td>3</td>
<td>1,065,171</td>
<td>beverage bottles (plastic)</td>
</tr>
<tr>
<td>4</td>
<td>1,019,902</td>
<td>bags (plastic)</td>
</tr>
<tr>
<td>5</td>
<td>958,893</td>
<td>caps, lids</td>
</tr>
<tr>
<td>6</td>
<td>692,767</td>
<td>cups, plates, forks, knives, spoons</td>
</tr>
<tr>
<td>7</td>
<td>611,048</td>
<td>straws, stirrers</td>
</tr>
<tr>
<td>8</td>
<td>521,730</td>
<td>beverage bottles (glass)</td>
</tr>
<tr>
<td>9</td>
<td>339,875</td>
<td>beverage cans</td>
</tr>
<tr>
<td>10</td>
<td>298,332</td>
<td>bags (paper)</td>
</tr>
</tbody>
</table>
GREAT PACIFIC GARBAGE PATCH
OCEAN POLLUTION AWARENESS
“TWICE THE SIZE OF STATE OF TEXAS”

UNIFI’S GOAL IS TO EDUCATE THE CONSUMER TO RECYCLE PLASTIC BEFORE THE END UP IN THE OCEAN!

https://www.youtube.com/watch?v=1qT-rOXB6NI
SNORKLING IN THE VIRGIN ISLANDS
WHAT MAKES UNIFI MANUFACTURING INC. TICK?
Our Ideals

Making our business more sustainable is a project that never ends. Because we can always improve on what we're doing. We'll never stop looking at our business from fresh perspectives and taking advantage of new ideas and technology to reduce our environmental footprint. Our key initiatives arise from four important ideals:

Ideal 1: One Common Goal
One company can make a difference. More than one, a bigger difference. From employees to end users, we will encourage the entire supply chain to work together to achieve one common goal: A reprieve. For the planet.

Ideal 2: Responsibility & Commitment
It's not just about product or process. It's about being totally committed to doing what's right - including giving back to our communities and to organizations that help take care of our planet for future generations.

Ideal 3: Sustainable Textile Solutions
Unifi will consistently develop and commercialize innovative, affordable textile solutions, reducing our company's long-term environmental footprint.

Ideal 4: Integrity & Authenticity
We've been entrusted with a great responsibility. Unifi will do the right things, in the right ways by providing real and transparent sustainable textile solutions.
UNIFI BOTTLE PROCESSING CENTER
WHERE DOES UNIFI, INC SOURCE RAW MATERIALS

WE PURCHASE BALES OF PLASTIC FROM MATERIAL RECOVER FACILITIES (MRF) FROM MAINE TO KENTUCKY AND AS FAR SOUTH AS FLORIDA TO FEED OUR BOTTLE PROCESSING FACILITY IN REIDSVILLE, NC

PROCESSING APPROXIMATELY 6-7 TRUCKLOADS PER DAY OF RECYCLED BOTTLES
PROCESS

RECYCLED BOTTLES
Post-consumer bottles are collected

REPREVE® FLAKE
Bottles are washed and chopped into flake

REPREVE® CHIP
Bottle flake is melted and formed into chip

REPREVE® RECYCLED FIBER
Chip is melted and made into yarn
The World’s Unique Recycled Synthetic Fiber.

**TRANSPARENT.**

The U Trust™ verification program is a comprehensive certification program designed to provide REPREVE® customers with a higher level of transparency.

**TRACEABLE.**

FiberPrint™ technology helps customers avoid false environmental claims. This proprietary technology, validates the authenticity of REPREVE® products, analyzes the fabric content and composition to support third-party certifications.

**CERTIFIED.**

Products made with REPREVE® recycled materials, including post-consumer plastic bottles & pre-consumer fiber waste, are certified by third parties.

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**U Trust™ VERIFICATION**

- The U Trust™ verification program is a comprehensive certification program designed to provide REPREVE® customers with a higher level of transparency.

**FiberPrint™ TECHNOLOGY**

- FiberPrint™ technology helps customers avoid false environmental claims. This proprietary technology, validates the authenticity of REPREVE® products, analyzes the fabric content and composition to support third-party certifications.

**RECYCLED CONTENT**

- Products made with REPREVE® recycled materials, including post-consumer plastic bottles & pre-consumer fiber waste, are certified by third parties.

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**Certified Recycled Content**

- Tested for harmful substances according to Oeko-Tex® Standard 100

**Global Recycled Standard**
REPREVE® RECYCLING CENTER

2007  42 MILLION POUNDS/YEAR

2011  56 MILLION POUNDS/YEAR

FALL 2017  90 MILLION POUNDS/YEAR
10 BILLION PLASTIC BOTTLES RECYCLED

- enough energy to power 146K homes for 1 year or energy equivalent to burning 110 million gallons of gas
- provide 1,844 million people their typical daily drinking water for 1 year or save over 354 million gallons of water
- improves air quality by avoiding 934 million pounds of CO$_2$ emissions or the same CO$_2$ emissions from the consumption of 986K barrels of oil
REPREVE®

THE U.S. HAS THE LOWEST BOTTLE COLLECTION RATE OF THESE DEVELOPED COUNTRIES.

FOR THE GOOD OF TOMORROW, We have to do better.
MULTIPLE END USES FOR RECYCLE POLYESTER & NYLON

Accessories  Apparel  Automotive  Bedding  Flooring  Footwear

Furnishings  Industrial  Medical Accessories  Military  Outdoors  Socks/Hosiery

PET FLAKE  PET RESIN  POLYESTER  NYLON  STAPLE FIBER
ADDITIONAL PREMIUM VALUE ADDED OFFERING FROM UNIFI

Moisture Management
- wicking & cooling / Sorbtek™

Minimized Absorption
- water repellency / Resist12™

Solution Dyed
- WaterWise™

Natural Touch
- Cotton-like™

Tunable
- XST™ modification

Stretch
- Reflexx™ shape

Thermal Regulation
- Comfort

Protection
- flame retardant

50+ UPF
- Sun Shield

Antimicrobial
- odor control

Effects
- cationic disperse
- heathers
The Repreve® concept was ranked first by 54% of respondents, which is significantly higher than the other concepts tested. A significant number of respondents rated the Repreve® concept as being unique and different compared to both the base recycled and Brand X concepts. Significantly more respondents are likely to purchase Repreve® than other concepts tested.

Introducing the season’s hottest new styles from Brand X, all made from fabrics that provide great comfort, feel and performance. (Brand X)

Introducing the season’s hottest new styles from Brand X, all made from high quality, sustainable fibers designed to provide great comfort and feel. (Base recycled)

Introducing the season’s hottest new styles from Brand X, made from Repreve®. Repreve® transforms recycled plastic bottles into high quality fabrics that are comfortable and perform, and that are made for the good of tomorrow. (Repreve®)
THE REPREVE® CONCEPT OUTPERFORMS THE BRAND X CONCEPT ON SEVERAL KEY ATTRIBUTES AND RATES EQUAL FOR ASSOCIATIONS WITH COMFORT AND STYLISH – THIS WOULD INDICATE THAT REPREVE CAN BE ADDITIVE TO THE BRAND X PERCEPTIONS.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Brand X concept (A)</th>
<th>Base recycled concept (B)</th>
<th>Repreve® concept (C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comfortable</td>
<td>37%</td>
<td>36%</td>
<td>32%</td>
</tr>
<tr>
<td>Stylish</td>
<td>27%</td>
<td>27%</td>
<td>25%</td>
</tr>
<tr>
<td>Cool</td>
<td>23%</td>
<td>25%</td>
<td>34%</td>
</tr>
<tr>
<td>Modern</td>
<td>23%</td>
<td>23%</td>
<td>29%</td>
</tr>
<tr>
<td>Authentic</td>
<td>21%</td>
<td>27%</td>
<td>33%</td>
</tr>
<tr>
<td>Innovative</td>
<td>14%</td>
<td>27%</td>
<td>48%</td>
</tr>
<tr>
<td>Aspirational</td>
<td>11%</td>
<td>7%</td>
<td>24%</td>
</tr>
<tr>
<td>Worth paying a premium</td>
<td>6%</td>
<td>7%</td>
<td>17%</td>
</tr>
<tr>
<td>Inspirational</td>
<td>6%</td>
<td>9%</td>
<td>21%</td>
</tr>
<tr>
<td>Unique</td>
<td>5%</td>
<td>11%</td>
<td>31%</td>
</tr>
</tbody>
</table>

Comments: This is amazing. I’d buy anything like this from companies that think about the future. I like that it recycles plastic bottles. It makes me feel like I’ve done something good for the environment. Really Innovative.
REPREVE® BRAND PARTNER GROWTH
“The reason why we won’t face up to our problems with the environment is that we are the problem. It’s not the corporations out there, it’s not the governments, it’s us. We’re the ones telling the corporations to make more stuff, and make it as cheap and as disposable as possible. We’re not citizens anymore. We’re consumers. That’s what we’re called. It’s just like being an alcoholic and being in denial that you’re an alcoholic. We’re in denial that each and every one of us is the problem. And until we face up to that, nothing’s going to happen. So, there’s a movement for simplifying your life: purchase less stuff, own a few things that are very high quality that last a long time, and that are multifunctional.”

This one may not be exact but he said something close to this “If you wait for the customer to green your company, you are way too late...."
BRAND PARTNERS WITH SUSTAINABILITY INITIATIVES

Eileen Fisher – Reclaimed garments – Remade in the USA
Ford Motor Company – 82 landfill free factories, water and waste savings
H & M – 2nd largest user of recycled polyester globally
Levi’s’ – Reuse/recycle cloth program, Goodwill Ind partnership, sharing techniques
Nike – Reuse a shoe program, 60% content of Flyknit is recycled, Nike Grind
Patagonia – 1% of sales to grassroots environmental groups
prAna – Repreve®, responsible down, organic cotton, recycled wool. R,R, & Recycle
Recover Apparel – Giving proceed to Protect our Parks
RETH¾NK Apparel – BEP Recycling Education & Clean Energy Program
The North Face – National Parks recycled bottle program
Thread for Thought - International Rescue Committee / Choose Humanity
Toad & Co – Partnered with the Renewal Workshop to give garments new life
TS Design – Repreve® blend, solar, bio-diesel fuel sales, water based inks
United by Blue – Volunteer waterway clean-up, remove 1 lb of plastic/item sold
UNITED BY BLUE – VOLUNTEER WATERWAYS CLEAN-UP

For every product sold, United By Blue removes one pound of trash from our world's oceans and waterways. And by that, we don’t mean writing checks or accepting donations. Our pledge to remove one pound of trash means rallying our team and like-minded volunteers to pick up plastic bottles, tires, etc....
SAGE AUTOMOTIVE FABRICS

GROWING THE GREEN STORY

70% OF CONSUMERS are “green” and believe it’s important to purchase recycled materials.

21% have checked vehicle interior specs for the use of recycled materials.

3 OUT OF 4 green consumers say it’s important for car interiors to be made from recycled materials.

100% of green consumers want to know your sustainability story.

SAGE Automotive Interiors

50 YEARS OF GREEN HERITAGE.

BIO-BASED AND RECYCLED FIBERS.

http://www.sageautomotiveinteriors.com/sustainability/
REPATRIOT FLAGS – Veteran owned!

We've partnered with the good folks at Unifi, Inc. to use their Repreve® Polyester as our base yarn. That yarn is woven into fabric, dyed Red, White and Blue and manufactured into the US Flag. Every step of that process occurs right here in the USA. 15 Plastic Bottles were recycled into Repreve rPET to make each RePatriot Flag
GENERAL MOTORS – DOING THEIR PART!

Do Your Part!

GM UAW H&S Center
GM Ren Cen
Orion Assy.
WTC
Flint Tool & Die
Flint Powertrain
City of Flint

States per color:
MI NC QC ON NY

Overseas, a common alternative

Clean Tech (Wash + Flake)
UniFi (Chips)
Palmetto (Fiber)
W.T. Burnett (Fleece)
Rogers Foam (Die Cut)
The Empowerment plan (Coats for homeless)
Detroit, Flint & International Distribution
GM Rochester, scrap insulation

GM Plants (Air filters)

ESG (Filter Media) In Flint - New Life Center
EXO S manifold cover

GM plant CAMI,

Scrap
The EMPWR coat transforms into a sleeping bag, or can be worn as an over-the-shoulder bag when not in use. The coat is constructed of Cordura fabric from Carhartt, upcycled automotive insulation from General Motors. Insulation made from Repreve® fiber. We hire single parents from local shelters.
HOW UNIFI CAN HELP YOU DEFINE YOUR SUSTAINABILITY STORY
Marketing Support

Event Marketing
Tour Options:
• Retail Stores
• Corporate Headquarters
• Tailgates
• Events
• Schools
• Product giveaways

Digital Marketing
Options:
• Repreve.com brand/product links
• Social Networking
• Product Launch Promotions
• Videos
• Graphics/Logos
• Process Images

POS & Fixtures
Options:
• In-store Fixtures
• Window Displays
• Standard Hang Tags/Labels
• Process Graphics
• Gift with Purchase
• Shopper Bags

Collateral
Options:
• Product Brochures
• Sell Sheets
• Custom Hang Tags
• Tradeshow Graphics
• Flake/Chip/Fiber Shakers
• Bottle Calculations
• Eco Assessments
Marketing Creative Examples

*Co-op marketing requests are evaluated, approved and funded on a case-by-case basis by Unifi Marketing*
I challenge each one of you in this room today to take the next step
And live a more sustainable lifestyle.

What will you do today ........ *for the good of tomorrow*?