



Planet-Friendly Gear

From recycled down to PFC-free fabrics, manufacturers are bringing sustainability to you.

By Elisabeth Kwak-Hefferan

THE
NEXT
100
YEARS

We've partnered with Subaru of America to celebrate this year's National Park Service Centennial and help preserve the parks for the next century. Since last summer, we've been giving advice on how you can do your part to help the parks go zero-landfill (learn more at Subaru.com/environment). The next step, naturally, is to reduce trash everywhere. Join the effort and share your own tips.

#DontFeedTheLandfills

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It's the inconvenient truth of the outdoor industry: Much of the gear we use to explore the planet's pristine wilderness has a significant impact on, well, that same pristine wilderness. The good news is that outdoor companies are greening up their practices.

RECYCLED GEAR

CHALLENGE Most performance soft goods are made from nonrenewable plastics that require lots of energy to produce.

SOLUTION Recycling. Polyester and nylon can be reprocessed and turned into fresh fabrics that are just as good as the virgin stuff.

→ Old plastic bottles, factory scraps, and worn-out garments get new life as polyester baselayers and fleece from Patagonia and The North Face, among others. Almost all of the poly in Nau's shells is recycled, and Spanish brand Ternua relies on it heavily for face fabrics.

→ This year, Big Agnes's line of Classic synthetic sleeping bags comes stuffed with Insotect Hotstream, a 100-percent recycled polyester fill.

→ Nylon is chemically more difficult to recycle, but companies like Patagonia and Mountain Equipment Co-op have turned old carpets, clothes, and even fishing nets into shells and pants.

→ Beyond plastics: A few brands are reusing feathers plucked from old duvets and pillows. Ternua, for one, uses 100-percent recycled down in all of its garments, as does Nau for its 650-fill puffers.

Check these: **Patagonia Capilene Lightweight Crew** (\$49; patagonia.com); **Big Agnes Farwell O** (\$200-\$210; bigagnes.com)

GREENER MATERIALS

CHALLENGE Most of the synthetic gear we don't recycle ends up in landfills where it will never break down.

SOLUTION Remove problem stuff from the process before it even starts by using eco-friendly raw materials at the front end.

→ All of Zeal Optics' frames and lenses are made from a castor bean oil-based resin, a swap that actually improves performance, says Brand Director Mike Lewis. "People are used



to thinking there's some tradeoff with more sustainable materials, that it's more expensive or lower quality," he says. "But this material is not only lighter, it allows for more clarity." (A measure called Abbe value corroborates this claim.) Zeal's M49 line of frames, made from cotton and wood pulp, goes a step beyond—it's entirely biodegradable.

→ Someday soon, technical clothes might come from a kind of man-made spider silk. Bolt Threads is developing a biodegradable synthetic protein polymer made from fermented yeast, sugar, and water. The company expects that, like different parts of a spider web, the material could be stretchy, strong, soft, hydrophobic, or hydrophilic. We could see it on the market in the next few years.

Check these: **Zeal Optics Equinox** (\$78; zealoptics.com) and **Ace** with biodegradable frames (\$169)

CLEANER CHEMICALS

CHALLENGE The standard durable water repellent (DWR) that makes water bead off your shell or protects down from moisture is made with perfluorinated chemicals (PFCs). These compounds build up in the soil and water, not to mention human and wildlife tissues, and scientists aren't sure how much exposure is safe. The nastiest PFCs are being phased out of production throughout the industry, but some manufacturers worry the fluorinated chemicals being used to replace them aren't much better.

SOLUTION This is the most vexing question of the day. Many brands using PFCs in their waterproof gear argue that the alternatives don't last as long—meaning you'll have to re-treat your shell more often to revive its DWR—but the anti-PFC crowd considers that a small tradeoff. "It looks like you're within 80 to 90 percent of the same performance with these alternate chemistries," says Nau General Manager Mark Gailbraith. "You still have to wash and care for your clothes a little bit more, but to say it's almost

as good in performance and you're not exposing yourself to toxins is a no-brainer."

→ NikWax's new Hydrophobic Down insulation repels moisture without PFCs, thanks to a water-based treatment that relies on a careful application process to bump up water resistance (look for it in Therm-a-Rest's sleeping bags and Rab's puffers now, and in Berghaus's puffers this fall).

→ Fjällräven treats its Keb Eco Shell fabric with a PFC-free DWR based on paraffin wax, and by the end of this year, Ternua's line will be 85 percent PFC-free.

→ Many waterproof/breathable membranes use PFCs in production, but all of Vaude's shells use polyurethane or polyetherester, which don't.

Check these: **Fjällräven Keb Eco-Shell Jacket** (\$500; fjallraven.com); **Berghaus Ramche Down 2.0 Jacket** (\$450; usa.berghaus.com)



SAVING WATER

CHALLENGE Conventional fabric dyeing and anti-shrink treatments use boatloads of water—and polluting chemicals.

SOLUTION Pioneer new ways to treat and dye fabrics.

→ Instead of treating its wool baselayers with chlorine (it prevents shrinking), Duckworth accomplishes the same thing using just water, pressure, and steam—which also results in stronger, more durable wool. And the company also uses a type of dye that needs dramatically less rinsing than other dyes, slashing their water use for the process in half.

→ Berghaus's new line of Gore-Tex Island Peak shells and insulated pants also features a new dyeing technology called COLOURKIND, which dyes the nylon before, not after, it's shaped into fibers. Typically, woven bolts of fabric are tossed in giant drums full of water and dye, then rinsed. But Berghaus applies the dye directly to the nylon pellets, which reduces water use by 89 percent, chemicals by 63 percent, and carbon emissions by 60 percent.

Check these: **Duckworth Maverick Crew** (\$85; duckworth.com); **Berghaus Island Peak Jacket** (\$330; usa.berghaus.com)



[Do Your Part]

Here's what you can do to reduce the environmental impact of your gear.

» Invest in quality gear that will last—and take good care of it.

» Torn tent? Flapping boot sole?

Don't toss it out—you can fix most dings and scratches. See our guide at backpacker.com/fixit or try sending it back to the manufacturer for repair.

» When you've finally worn out your stuff, keep it out of the landfill whenever possible.

Donate it or give it new life: The North Face recycles any brand of used clothing and footwear through its Clothes the Loop drop-off program and Patagonia recycles its own clothing via drop-off or mail.