



Taking a Closer Look at the Moral Fabric of Athletic Footwear

AN INDUSTRY ANALYSIS



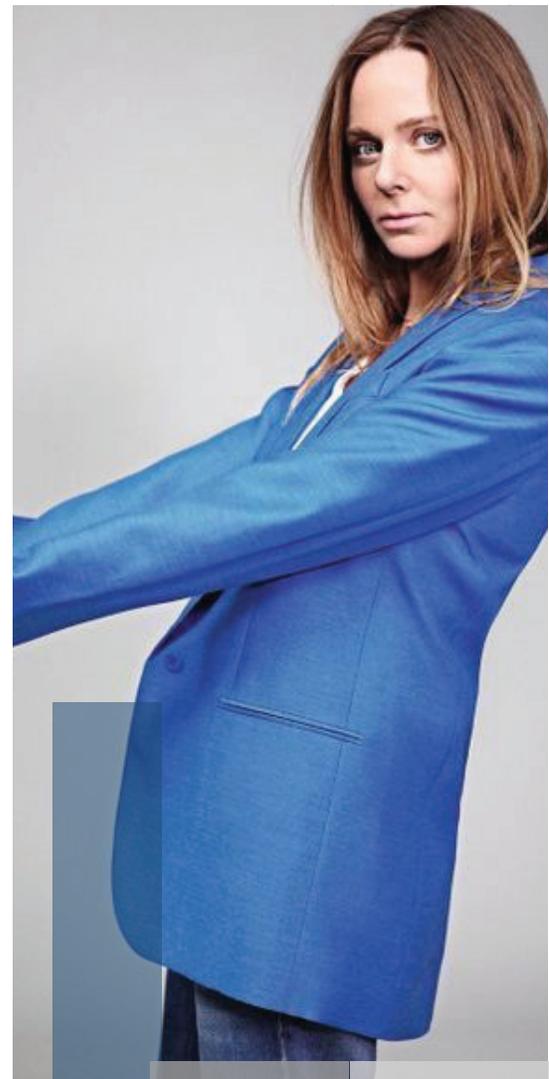
SUMMARY

Significant developments in plant-based fabrics, plastics, and other synthetic products have spurred a sharp reduction in the amount of leather in footwear in the last decade, particularly in athletic shoes. The total number of shoes containing leather has declined by tens of millions in recent years.

When you hear the name Stella McCartney, you might initially think of a high-end fashion show with models striding down the runway, cameras clicking, from New York to Paris to Milan. McCartney is also known for items suited to a different kind of runway — the track and field kind. Her latest collection of shoes and athletic wear for adidas launched in March 2009, marking over a decade of collaboration between the fashion icon and the fitness powerhouse.

McCartney's athletic wear line does not just strive for good-looking apparel. It's also animal-friendly. Her line shuns leather, fur, feathers, wool, or other animal products. The McCartney brand equals cruelty-free. Adding to the sustainability credentials of these products, about 70 % of the fabrics McCartney uses come from recycled materials.

Last year adidas released a cruelty-free shoe assembled with heat rather than glue that also addresses the international disposal of millions of pairs headed for landfills. According to Eric Leidtke, adidas' executive board member responsible for global brands, "Futurecraft Loop is [the] first running shoe that is made to be remade." The key to its recyclability is the shoe's design, which utilizes only a single ingredient – thermoplastic polyurethane – rather than the typical 12-15 materials which make recycling so difficult.



Cruelty-free shoes are part of a triple jump made by adidas to do better when it comes to animal protection, sustainability, and consumer choice. But it wasn't always that way. Some years ago, adidas was lobbying to stop California from banning the sale and import of kangaroo leather products. K-leather, as it's colloquially called in the footwear industry, has long been used in expensive soccer cleats, desired by some players for its durability, light weight, and supposed touch on the ball.

Adidas did not win that contest and a prohibition on the sale of kangaroo skins in California went into effect in 2016. Since then, adidas has increased its focus on synthetic cleats to keep its foot in the California market, the largest in the U.S. Like adidas, other big players including Nike, Asics, Lotto, Mizuno, New Balance, Puma and Umbro have begun offering more cruelty-free soccer cleats.

Sadly, these companies still do rely on kangaroo leather for more than 65 models of soccer cleats, and the sale of these shoes is driving a substantial portion of the killing of some 1.5 million kangaroos a year in Australia, comprising the largest commercial hunt of terrestrial wildlife in the world. That killing continues to be sanctioned by the federal and state governments of Australia and the athletic shoe companies, even as kangaroo populations have been devastated by the massive fires that recently scorched the continent and reportedly killed more than a billion animals, including countless kangaroos.

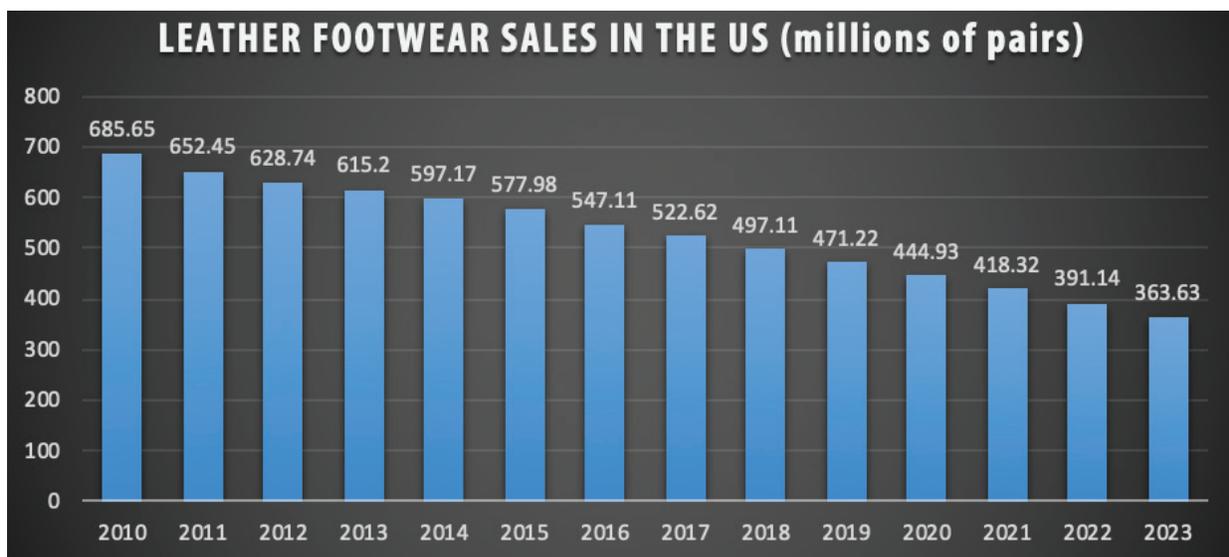


An Evolution in Footwear

The athletic shoe industry still uses animal leather, mostly cow and calf leather, in the construction of its wares. But now non-leather shoes are the majority offerings for leisure and athletic shoe manufacturers. Very few industries have shed animal products more rapidly in the last decade than the athletic shoe industry.

For decades, leather has been a core material for nearly all major shoe brands. Iconic sneakers such as Air Jordans and many other offerings relied heavily on animal skins obtained from slaughterhouses. Until recently, if you were an ethical vegan, you would have had a hard time finding brand name footwear that aligned with your values. For the longest time, Converse Chuck Taylor All-Stars, made from canvas and virtually unchanged since 1949, was one of the few go-to shoes for those seeking cruelty-free athletic shoes.

Increasingly, however, consumers are being offered shoes made without animal parts. A 2018 study suggests that 57% of footwear produced globally was made of synthetic materials, followed by leather (25%) and textile (18%). Despite unmistakable progress, companies in this space lack basic transparency in labeling the components of their shoes.



Despite increased footwear sales over time, consumers are opting for non-leather options, including cruelty-free materials such as recycled plastics and natural fabrics. **statista**



“This is not a trend. This is a fundamental shift in lifestyle,” says Peter Mangione, Managing Director of the Global Footwear Partnerships (GFP). Accounting for this change, Mangione cites an increased consumer preference for casual, comfortable, and versatile shoes, in addition to a growing awareness of ethical issues inherent in leather production. Mangione believes, “it is no coincidence that, recently, some big groups involved in traditional footwear filed for bankruptcy. Consumer favor has shifted from traditional shoes to sneakers.” Analysts predict the trend toward animal-free wares will continue in the foreseeable future.

Leather Bound Up With Unregulated, International Slaughter Industry

Many consumer goods that we buy have complex supply chains and ethically-suspicious origins. If you donned leather footwear this morning, there’s a good chance the leather was sourced from China, Brazil, Italy, Russia, or India. Unfortunately, regulations concerning humane slaughter in these locations are incomplete and extremely difficult to enforce. This means the animals killed for their skins suffer harsh and inhumane conditions throughout their lives, experiencing cramped and unnatural living quarters, physical abuse such as dehorning and branding, stressful transportation methods, and ultimately a traumatic slaughter where



the animals see, hear, and smell death around them. All these factors make supply chain traceability in the footwear industry a pressing moral, sustainability, and transparency issue.

When assessing the impact of different shoes from an environmental perspective, the carbon footprint of each material is also significant. Leather footwear causes a disproportionate amount of global carbon emissions when compared to the alternatives. In fact, a kilogram of leather is responsible for approximately ten times the volume of greenhouse gas emissions compared to human-made and recycled alternatives. The leather industry also contributes disproportionately to hazardous waste with the carcinogenic chemical compound hexavalent chromium, a standard part of the tanning process that turns hides into leather.

Much of the ecosystem degradation caused by the production of footwear can be attributed to the leather sourcing pipeline as well. Because leather often comes from ecologically sensitive areas and might involve the clear-cutting of virgin forests, the environmental implications of this material are very relevant to any sustainability analysis.

Consumers Can Set the Pace for Sustainable Practices

When it comes to athletic footwear, it's now more relevant than ever to ask where a conscious consumer should stand and which companies most closely represent forward-looking values.

The economic footprint of the sector is big, and it's in the best interest of manufacturers to stay ahead of consumer trends. Athletic footwear is a \$65 billion industry with an upward trajectory. We like our athletic shoes, and not just for athletics.

A significant part of this growth is driven by the emerging "athleisure" market, embraced by those who value a health-conscious lifestyle. These consumers buy shoes for running, yoga, tennis, and group fitness, and as a lifestyle shoe and fashion statement.



In addition to making healthy living a priority, these consumers consider the environmental costs associated with the lifecycle of their purchases. As a result, they are more willing to pay a premium for sustainably produced products. A recent survey by Nielsen suggests that 66% of global consumers – and 73% of millennials – are willing to spend more money on sustainably produced goods.

This so-called “Lifestyle of Health and Sustainability” (“LOHAS”) demographic will likely be further encouraged to continue their choices by the media. A recent CNN article predicted cruelty-free sneakers as the next big trend in sustainable athletic wear. The adidas brand Reebok is poised to set the pace here, with its plant-based models like the Cotton and Corn sneaker (named for its main ingredients) and a 100% sustainable and recyclable running shoe the Floatride Grow, with uppers derived from eucalyptus trees and midsoles made from castor beans.

Reebok isn’t the only shoe manufacturer making a clear statement that innovative offerings can be good for both business and the environment. Examples of other brands betting on a sustainable future include Hugo Boss, Stella McCartney, and other designers using materials for shoes sourced from orange peels, pineapple trees, mushrooms and coffee grounds. Kanye West, who like Stella McCartney collaborates with adidas, recently introduced a prototype of a new Yeezy runner made from algae. Plans for a manufacturing facility in Wyoming suggest adidas and West are betting heavily that this plant-based product will be a hit.

One catalyst in the transition to more sustainable footwear is the improved performance characteristics that synthetic, recycled, and plant-based materials deliver. Leather is relatively heavy and consumers, especially runners and tennis players, report that the newer animal-free fabrics are dramatically lighter. Footwear design engineers have revolutionized the space, delivering more lightweight, durable, and responsive



products at a fraction of the environmental cost. In this regard the transition from leather to synthetic is a win-win, benefitting both the consumer and the animal.

Animal alternatives in the footwear space are not all sustainable, however. Conventional virgin plastics and synthetic rubbers are not sourced from animals, but they can carry large carbon loads. On the spectrum of materials used in the footwear industry, these are among the least sustainable. Designers, manufacturers, and customers have become increasingly more sensitive to these distinctions, and they are giving preference to recycled products and renewable materials. In fact, the use of recycled plastics and other products is one of the most exciting developments in the entire textiles industry. For example, adidas is creating polyester from plastic bottles, nylon from fishing nets, and polystyrene from old food packaging for its product line.



Industrial Heavyweights Can Be Catalysts for Change

Nike and adidas are two front-runners in this space and have dedicated a significant amount of in-house Research & Development capacity to sustainability. Both have strong consumer-facing presences on their websites. Combined, these two industry leaders have more than half of the athletic footwear global market and they are starting to talk meaningfully about sustainability and ethical solutions for their businesses and for consumers.

According to its corporate policies, Nike pays attention to the rearing conditions, slaughter practices, and geographic origins of animals used in its supply chain. Skins from sheep, cow, goat, pig, and kangaroo are acceptable to the company, while exotic or protected animal skins are not. Skins originating from ecologically sensitive areas such as the Amazon basin are also forbidden. Nike's policy does not permit specific inhumane practices for the collection of wool, fur or feathers, like mulesing sheep or live-plucking rabbits. Nike also makes a concerted effort to source wool from certified sources. While Nike's policies are notable, traceability and accountability through the supply chain is not as strong. Not having adopted similar policies (at least in public view), adidas lags behind Nike in this area.

Nike has positioned itself at the forefront of materials science with its innovative approach to leather waste. The company launched a product it calls FlyLeather—an engineered composite of leather scraps and synthetic materials. The FlyLeather construction process uses blemished, imperfect, and scrap pieces of cow hide, reduces them to a pulp, and combines the mixture with performance-enhancing synthetic fibers. The resulting amalgamation, in addition to being environmentally and ethically preferable, is more durable and lightweight than traditional leather. Once FlyLeather has proven itself in the marketplace as a viable alternative to traditional leather, widespread adoption of the product is likely to result in meaningful efficiencies in the leather-sourcing supply chain.

Adidas is growing its sustainability portfolio through important collaborations with outside partners. In 2015 the company entered a partnership with Parley for the Oceans, an organization that collects plastic waste from coastal areas in the Maldives and up-cycles this trash for use in various consumer products. This initiative has grown rapidly since launch with



the company producing five million pairs of shoes in 2018 and 11 million pairs in 2019. For 2020, adidas aims to manufacture 15-20 million pairs of shoes using recycled plastic waste.

Adidas has made a push to integrate this technology into as many of its product offerings as possible, including its high-performance running sneakers, athletic clothing, and sports jerseys. This shift in materials preference brings many intended (and potentially unintended) sustainability benefits. The repurposing of plastic waste helps to mitigate the negative environmental impact of single-use plastics, and the use of vegan materials reduces overall demand for animal byproducts and signals a decreased future demand for these goods.

Footwear Startups Are Helping Drive Disruption in the Industry

While publicly traded, large-cap industry participants have a significant role to play as thought leaders and influencers, boutique manufacturers and shops are driving innovation as well. San Francisco-based startup Allbirds has become a millennial favorite, in part due to its unrelenting focus on procuring the most sustainable materials with the lowest environmental impact. The company's three primary source materials—wool, tree fibers, and sugar cane—are third-party certified and boast carbon footprints that are a fraction of its competitors. The company has devised a carbon positive sole material called SweetFoam that is open-source, encouraging



others to use this plant-based alternative. As a result, the broader footwear community will have access to this environmentally preferable intellectual property.

For conscious consumers looking for a fashion-forward casual sneaker, the French footwear company Veja is on the cutting edge of sustainability. Veja has been in the sustainable sneaker game for over ten years and recently garnered much celebrity fanfare with its lineup of ethical kicks. Specifically, the company's Campo sneaker features the classic look and feel of cow leather but is made from a combination of cotton canvas and corn byproduct. The sole of the shoe is entirely bio-based and sourced from sustainably sourced wild rubber trees in the Amazon.

Consumers Have Significant Power to Influence Material Choices

When it comes to athletic footwear, consumers have never had better choices. It's happening industry wide, with smaller companies forging new territory and industry giants, not wanting to be left behind, building their own robust R&D programs.

Yet navigating the crowded and complex sustainable footwear landscape isn't always easy. Consumers looking to make ethical choices are often confronted with myriad options and incomplete information in the store and on some companies' websites.

The newer, non-animal and sustainable products perform better on the pitch, track, and the street than the old styles. For companies doing remarkable things with recycled products, the decision to continue offering K-leather is a vulnerability. Given the horrific fires killing hundreds of millions of animals in Australia and the widespread destruction of habitat that burned in its 2019-2020 summer, adidas, Nike, Asics, Lotto, Mizuno, New Balance, Puma and Umbro would have a challenge in justifying continued sale of kangaroo skin. They would do well to follow the lead of Italian sport shoe manufacturer Diadora, which recently announced it would stop using kangaroo leather by the end of 2020.

Transparency continues to be a problem. Labeling is incomplete. Companies are advertising their sustainable sourcing and fabrication, which is outstanding, but they also need to



provide information at the point of sale. Sales staff at retail outlets are poorly schooled on sourcing and shoe composition details. Disclosure of materials sourcing pipelines, sustainability certifications, and carbon footprints can serve as clear signals of corporate and product responsibility.

Corporations should be attuned to sustainability signals set by influencers in the marketplace—those consumers, thought-leaders, academics, and industry peers who are at the forefront of environmental and social awareness. Those corporations that integrate sustainability practices throughout their product suite will be recognized and rewarded by consumers. Furthermore, companies that use distinctly more sustainable products (renewable, plant-based, recycled, and low carbon footprint) will be preferred over those with marginal sustainability benefit.



CITATIONS



<https://tinyurl.com/y2km4kkh>



<https://tinyurl.com/y2lkd8w9>



<https://tinyurl.com/tnrf88w>



<https://tinyurl.com/u4bo296>



<https://tinyurl.com/tqloz2m>



<https://tinyurl.com/urmlra5>



<https://tinyurl.com/vll529l>



<https://tinyurl.com/uxpyp6n>



The Center for a Humane Economy is Calling on All Athletic Footwear Companies to Continue Their Progress on Animal Welfare and Sustainability and to Set Public Targets on the Following Issues:

A commitment to reducing animal products over time

The marketplace has demonstrated that consumers favor alternative materials to cattle and calf leather and have overwhelmingly rejected exotic or endangered skins as a fashion option.

A short-term plan to end the use of kangaroo leather

Sourcing of kangaroo skins causes unnecessary harm to charismatic fauna and can easily be substituted with cruelty-free alternatives. Companies have made the switch with football, tennis, and other athletic shoes, and should do so with soccer cleats.

Transparent, consumer-facing labeling that describes materials used, percent recycled content, and country of origin

Such disclosures will aid consumers in making informed decisions that align with their purchasing preferences.

Time-bound commitments to increase use of recycled and recyclable shoes

Corporations have a responsibility to reduce their products' environmental footprints, and significant opportunities exist at the post-consumer processing phase.

Discrete and standardized disclosures of overall carbon footprint

Energy usage over time, strategies to offset carbon emissions, and efforts toward closed-loop product lifecycles will separate the most ethical companies from the pack.



PUBLISHER



The **Center for a Humane Economy** is a non-profit organization linked to the investment advisor Karner Blue Capital that focuses on influencing the conduct of corporations to forge a humane economic order. The first organization of its kind in the animal protection movement, the Center encourages corporations to honor their social responsibilities in a culture where consumers, investors, and other key stakeholders abhor cruelty and the degradation of the environment and embrace innovation as a means of eliminating both.

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CONTRIBUTOR



Karner Blue Capital is an SEC-registered investment advisor that evaluates publicly-traded companies on animal welfare criteria. It develops investment strategies as a means of generating financial returns and reducing harm inflicted upon animals by corporate enterprises. Evaluating thousands of companies across a range of industries, KBC includes companies in its strategies that have reduced their reputational and workforce risks by promoting innovative business practices that enhance the lives of domesticated and wild animals and the ecological health of the planet. Karner Blue Capital currently holds positions in the equity securities of adidas and Nike on behalf of its client.

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7315 Wisconsin Ave., Suite 650W, Bethesda, MD, 20814

APPENDIX

Kangaroos Aren't Shoes

Directory of K-Leather Soccer Cleats Available in the U.S.

adidas Copa 20+	Diadora Brasil K MPH	Pantofola d'oro Superleggra 2.0
adidas Copa 20.1	Diadora Brasil Italy K-Pro MDPU	Puma evoTOUCH Pro
adidas Copa Indoor	Diadora M. Winner RB Italy	Puma King Pro
adidas adiPURE IV SL	Diadora Maracana 18	Puma King Top di
adidas Copa 19+	Lotto Capolista	Puma King Top
adidas Copa 19.1	Lotto Stadio Cup FG	Puma One 5.1
adidas Copa 19.1 Women's	Lotto Stadio Primato K	Puma One 5.1 City
adidas Copa Mundial	Lotto Vento Diablo KL	Puma One 19.1
adidas Mundial Team	Milemil L'infatigable	Puma One Lux
adidas World Cup	Mizuno Morelia Neo	Reebok Strikezone Pro
adidas Predator 19.1 Leather	Mizuno Morelia Neo II MIJ	Ryal La Stroria
adidas Predator Accelerator	Mizuno Morelia Neo KL	Umbro Medusae II Elite FG
adidas Predator Mania	Mizuno Rebula 2 V1 Japan	Umbro Medusae II Pro
Asics DS Light 3	Mizuno Rebula 2 V2	Umbro Medusae III Elite
Asics Lethal Legacy IT	Mizuno Wave Cup Legend	Umbro Medusae Pro
Asics Lethal Testimonial 4 IT	New Balance 442 Pro	Umbro Speciali 98 Remake
Asics Gel-Lethal Tight Five	New Balance Audazo V4	Under Armour Blur Carbon III
Asics Gel-Lethal Tigreor ST	New Balance K-Lite Visaro	Under Armour Hydrastrike Pro II
Asics Lethal Ultimate FF	Nike Mercurial Vapor 13 Elite Tech Craft	Unozero Modelo 1.0
Asics Lethal Warno ST2	Nike Premier II	
Asics Tigreor IT FF	Nike Tiempo Legend 8 Elite	
Concord Techno Kangaroo	Nike Tiempo Legend VII Elite	
Diadora Baggio 03 Italy	Pantofola d'oro Epoca	
Diadora Blushield	Pantofola d'oro Lazzarini Canguro	
Diadora Brasil Classic	Pantofola d'oro Superleggra	

A directory of kangaroo soccer cleats does not exist, so we started one. This is not a definitive or guaranteed-to-be-accurate list -- uncovering kangaroo content in soccer shoes is not always straightforward. Please contact us with corrections or additions. info@centerorahumaneconomy.org



CENTER FOR A HUMANE ECONOMY

