



Cattle hides are a by-product of the meat and dairy industries. They are a waste material that becomes available as a result of meat and milk processing, have a much lower economic value and require further processing before people can use them.

CREDIT: MARTIN BERGSMAN/SHUTTERSTOCK

Time to put the by-product debate to bed



Language matters and unless we use it accurately, we risk sowing confusion. Confusion is bad enough, but language that defines leather, how we make it and how we use it continues to be twisted, deliberately, to make leather look bad and to make the synthetic materials that companies make and sell as substitutes look good.

One aspect of this lack of clarity that leather's opponents have leapt on with alacrity is confusion over the material's status as a by-product of the meat and dairy sectors. The US Environmental Protection Agency (EPA), which has heard all the arguments 1,000 times, defines a by-product as a material that is not "a primary product" of the process in question, in this case rearing livestock. A by-product does not form on its own as a separate outcome of that process "leather don't grow on trees". On the other hand, a co-product, according to the EPA, is something resulting from the process that consumers can use with little or no further treatment.

By-products are waste that have a much lower economic value than the main product. Cattle hides are an excellent example of this. Co-products, sometimes called joint-

There are ill-founded arguments that the raw material for leather is a co-product rather than a by-product of the meat and dairy industries. After what the Leather and Hide Council of America has called "a staggering decline" in the hide's share of cattle value, these arguments have now collapsed.

products, have an important economic value and come about as a result of the main production process. Companies that carry out the electrolysis of sodium chloride for the commercial production of salt also take advantage of the commercial demand for chlorine, sodium hydroxide and

hydrogen that the same process generates. This economic aspect is important and, where hides are concerned, recent economic results ought to be enough on their own to dispel any doubt about the status of the raw material for leather.

Follow the money

The Leather and Hide Council of America (LHCA) has said the consequences of the covid-19 pandemic are proving to be “particularly acute” for the US hide and leather industry. In comments in early May, LHCA said the hide and leather sector in the US was already having to contend with weaker global demand and declining prices. This is true all over the world. One of the advantages in considering LHCA’s situation, however, is that the US makes its figures public, week after week, month after month. From this, we have been able to see that hides now account for a tiny proportion of the overall value of the animals that the beef and dairy industries send to slaughter.

At the end of April, a US steer hide had a value of close to 1% of the entire value of the animal. LHCA said this may be the lowest percentage on record.

Staggering drop

All by-products from the slaughter of cattle in the US have traditionally accounted for between 8% and 10% of the total value of the livestock. This is known as the total drop credit value of the animal, comprising all of the non-meat by-products of cattle slaughter. The hide has typically brought the largest share of this by-product benefit, often estimated in the past at between 6% and 8% of the overall value of the animal.

Between 1980 and 2011, hides averaged 58.3% of the total value of cattle by-products for a steer weighing around 1,000 pounds or 450 kilos, LHCA says. This reached a high of 67% in 2000. In 2015, hides accounted for approximately 48% of total by-product value and by 2019, hides provided nearly 37% of the total drop credit. The figure stood at an estimated 27.7% on March 31 this year. Now it is even lower because the price of steer hides has fallen by as much as 49% compared to April 2019. “This has further eroded the hide’s once-dominant share of the steer’s drop credit value,” LHCA says. “Hides presently constitute only 15%-20% of the total by-product value of the animal, a staggering decline from a few years ago.”

This matters for two main reasons. One of these is pragmatic, the other is softer, more emotional. Both are important because leather continues to face a constant fight to defend its reputation and these are the two main prongs of attack.

Carbon footprint calculations

Looking at the pragmatic side of the argument first, we know that a much-repeated criticism of leather is that its production is harmful to the environment. Everything we make and consume has an impact on the environment. There clearly is an environmental impact from the transportation, energy, water and chemicals tanners use in processing the hide when it leaves an abattoir. For the purposes of illustration, automotive company Audi calculates this downstream carbon footprint to be 37.5 kilos of CO₂ equivalent per square-metre of finished leather. Unlike what happens on a livestock farm or in the boardroom of a meat producer, tanners have an influence on the impact

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downstream from the abattoir. The best in the business are working constantly to bring these figures down. For example, this June, Scottish Leather Group published a commitment to reduce its direct impacts to the extent it can declare itself carbon neutral by 2025.

Upstream is different. Cattle have an impact on the environment, although it is often exaggerated and, here too, extensive work is taking place on farms and in research laboratories around the globe to reduce this. For example, last year, animal nutrition and health solutions provider DSM filed for authorisation in the European Union to start selling a new feed additive for cows. The company claims that the product will reduce methane emissions by around 30% and, thereby, reduce the environmental footprint of cattle and of all the products and by-products they generate.

Bovine leather comes from cattle and there is a widespread view that leather should share some of the animal’s upstream carbon footprint. Since at least 1990, most of the carbon footprint and lifecycle analysis (LCA) studies that have been produced for leather have calculated this share badly, suggesting figures that are unfairly high. These studies failed to define clearly the role by-products play within the allocation of the whole environmental impact of the livestock supply chain. Based on work carried out by Danish academic Bo Pedersen Weidema on LCA and his “system expansion” model, we can say that, in spite of what some campaigners claim, responsibility for almost all of the animals’ environmental footprint rests with the “determining products” — milk and meat.

From this, a European Union project in the middle of the last decade accepted that leather’s share of the upstream carbon footprint of a dairy cow is just over 0.4%. This is based on the economics. The figure is based on the hide having an average of 3.5% of the value of the whole animal over a number of years, a higher value than it has now. Still, 0.4% is a low figure.

The hide’s share of total drop credit value

Year	%
2000	67
2015	48
2019	37
2020 (March)	27.7
2020 (May)	15 to 20



The interior of the Audi RS 5 Coupé. The automotive company's calculation of the carbon footprint of the leather it uses is skewed by attributing to the material an exaggerated share of the upstream impact of cattle. CREDIT: AUDI

Brands pluck other figures from the air

In a publicity campaign in 2012, sports footwear brand Puma used a figure of 15% for the upstream carbon footprint of the suede it used in some of its shoes. In 2017, Audi, another strong supporter of leather on the whole, revealed that it calculates the carbon footprint of the leather it uses at 50 kilos of CO₂ equivalent per square-metre. This makes leather look no better, from a carbon footprint point of view, than many of the synthetic materials car manufacturers often choose as an alternative upholstery material.

Audi said 25% of that figure came from the share it decided to attribute to leather because of the upstream impact of livestock. If leather were a co-product of the livestock industry, some of these exaggeratedly high numbers might be understandable. But for it to be a co-product, farmers would have to have the income they hope to gain from selling hides as part of their reason for maintaining or even increasing the size of their herds. There is no farm in the world where that thinking is in place. At 1% of the overall value, few farmers can have hides high up their long list of

priorities (this is a pity in some ways because farm practices can have a huge impact on hide quality).

Surprising 'facts'

The second angle of attack affecting leather stems from this. It would be good to put to the sword the emotive myth that cattle are reared and slaughtered because tanners want to source hides. That would take us into co-product territory and beyond and it is simply not true. However, there are proponents of alternative materials who insist on calling leather a co-product; this allows them to indulge in the spurious argument that people who care about animals should avoid leather.

Good On You is an Australia-based online platform, run by campaigners and fashion professionals, that rates clothing and accessory brands. It gives brands a score for how well they treat the planet, people and animals. It calls itself "the world's leading source for fashion brand ratings". It has no time for leather and, at the start of 2020, addressed the by-product-co-product conundrum head on. "We've done the hard work for you to answer this question, and the facts might surprise

you," it said.

It's 100% correct. Some of its 'facts' are certain to surprise you. A top three might be that more consumption of leather, according to Good On You's claims, means more production of hides, that legal standard practices for cows and bulls in the leather industry are "horrific", and that it's wrong to call leather a by-product of the meat industry because the meat industry charges a little bit of money for the hides. It looks like the world's leading source for fashion brand ratings has a bit more "hard work" to do if it is to reach a full understanding of the leather supply chain.

Mischief managed

There are two extra things to note about Good On You. It makes a great deal of the support it has received from Emma Watson. In June, Ms Watson took the chair of the sustainability committee of luxury group Kering, the parent company of Bottega Veneta, Gucci, Saint-Laurent and other brands whose commitment to leather provides a stark contrast with the arguments that Good For You puts forward.

Secondly, it cites red meat marketing body Meat and Livestock Australia (MLA) in its justification for calling leather a co-product of the livestock and meat sector, stating: "Meat and Livestock Australia defines skins to be made into leather as a co-product of the meat industry, alongside other co-products."

MLA says its focus is on marketing, research and development and that it does not present itself as "a peak body for the sector". After looking into it for us, spokesperson, Josh McIntosh, says it looks to him as though the two terms lack clear definition in the way they are used in the Australian meat and livestock industry. He says MLA has its own glossary, which defines a by-product as a product that is of considerably less value than the meat of the carcass, giving the hide and offal as examples. But for co-product, the glossary just says it is "another description" of by-products, again giving hides and offal as examples.

Mr McIntosh says it looks to him as though the two terms have been interchangeable in Australia and, for Good On You to try to present an MLA definition to support its argument, is "a little mischievous". ☺