

Can synthetic rhino horn save the rhino?

Could manufacturing synthetic rhino horn mean that fewer rhinos are poached? Or will it expand the market, complicate law-enforcement, and lead to more rhino killings?

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Whose idea is this?

So far, three companies have announced their intentions to manufacture synthetic rhino horn.

Rhinoceros Horn LLC said, 'We've teamed up with the world's leading developer of keratin products, Keraplast Technologies, and using Replicine™ Functional Keratin® have produced a keratin protein powder that is biologically identical to the keratin in rhino horn'

Pembient's first batch of powder was 'primarily protein-based and didn't have genetic components of a rhino' but the company has apparently since produced additional batches that 'now include genetic components of a rhino itself.' (Africa Geographic)

How will synthetic rhino horn be marketed?

It's not clear whether the companies have resolved their target market: those buying whole rhino horn, primarily to demonstrate their status or those believing in the so-called medicinal properties of rhino horn, which is bought in smaller pieces or as powder. It is unclear how the companies will market the medicinal properties of their 'horns'. Pembient has said it will price its synthetic horn at a lower price than that of real horn sold by criminals.

How will synthetic horn be distinguished from rhino horn?

None of the companies has (yet) addressed this. However, if they move to producing synthetic horns, there will be an obvious requirement to resolve this, not just for potential buyers but also for law enforcement agencies, in order to distinguish between illegal real horn and legal synthetic horn. The problem is particularly acute when horn is sold ground into powder.

Will the sale of synthetic rhino horn stop rhino poaching?

More than 90% of 'rhino horns' in circulation are fake (mostly buffalo horn or wood), but poaching continues to rise annually. Selling synthetic horn does not reduce the demand for rhino horn or dispel the myths around rhino horn and could lead to more poaching because it increases demand for 'the real thing'. The availability of legal synthetic horn could remove the stigma of buying illegal real horn.

Wealthy users will likely use trusted sources to acquire wild rhino horns, further pushing up prices and demand. Marketing synthetic horn to the 'intender' consumer group could increase the number of people wishing to buy real rhino horn when they can afford it. 'Wild' rhino horn might be perceived as more desirable than 'farmed' or synthetic rhino horn, as seen with other wildlife products, e.g. tiger bone and ginseng. Synthetic horn could give credence to the notion that rhino horn has medicinal value.

Save the Rhino, the International Rhino Foundation and many other conservation organisations are opposed to the development, marketing and sale of synthetic rhino horn, which is diverting funds and attention from the real problem: unsustainable levels of rhino poaching.

Article adapted from a joint statement by the International Rhino Foundation and Save the Rhino published June 2015.



Pembient is primarily engineering rhino horn powder in its labs, but is working towards developing solid rhino horn substitutes. They claim to do this by duplicating the cells, proteins and

deposits in a rhino horn so the synthetic version is genetically similar.

Stop Poaching Through Synthetic Rhino Horn claimed 'Through the extraction of DNA via genuine rhino horn, cells are to be grown and developed in labs'

Will synthetic rhino horn be close to the real thing?

Rhinoceros Horn LLC stated 'Our product is biologically identical to rhino horn and composed of the same keratin. The only difference lies in the amino acids, in our product they are bioactive, meaning they can interact with the human body and give health benefits. Rhino horn has amino acids that are not bioactive'. Other than this, the two keratin protein powders are identical in composition, texture, smell, taste, etc.' (Safaritalk)

Top right: Real rhino horn from a de-horning procedure

Above left: Buffalo horn is often sold as fake 'rhino horn'

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