

## CNN News Highlights — Seaweed

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|-----------------------|-------------------------|-----------------------------------|------------------------------|------------------------------|-------------------------|
| <b>1) alternative</b> | <b>2) biodegradable</b> | <b>3) seaweed-based packaging</b> | <b>4) single-use plastic</b> | <b>5) tackle the scourge</b> | <b>6) turn the tide</b> |
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Plastic pollution keeps piling up every day. About 2,000 garbage trucks worth of plastic ends up in oceans, rivers, and lakes around the world, according to the UN Environment Program. Now, one company in Wales is looking to \_\_\_\_\_ with \_\_\_\_\_ to replace \_\_\_\_\_, showing how something from the ocean itself could help protect it. CNN's Leroy Ah Ben has the story.

How do you take this seaweed and turn it into this \_\_\_\_\_ packaging and \_\_\_\_\_ of plastics in our oceans? I was born in Fiji in the middle of the South Pacific where plastics in the ocean are a huge issue. And I've always asked myself, surely there must be an \_\_\_\_\_ to this. And while researching that question, I came across this company called PlantSea in Wales. So I've decided to go check them out.

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|-------------------------|-------------------|------------------|----------------------------|-----------------------|--------------------------------------------|
| <b>1) bio-stimulant</b> | <b>2) harvest</b> | <b>3) liquid</b> | <b>4) rugged coastline</b> | <b>5) spun around</b> | <b>6) truly biodegradable alternatives</b> |
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My journey begins here on the \_\_\_\_\_ of Wales. This is where PlantSea is using seaweed to create \_\_\_\_\_ to single-use plastics. It starts at seaweed farms like Car-Y-Môr. "We'll go out to the farm and \_\_\_\_\_ the seaweed and then bring it straight back here and it gets \_\_\_\_\_ and the solid seaweed gets separated from the \_\_\_\_\_. And the liquid is our seaweed \_\_\_\_\_ which is being used in agriculture on farms."

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| <b>1) byproduct</b> | <b>2) chopped up and flaked</b> | <b>3) dry polymer powder</b> | <b>4) fertilizer</b> | <b>5) film</b> | <b>6) innovation center</b> | <b>7) laundry capsules</b> |
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"Like \_\_\_\_\_?" "Yeah, like fertilizer. And then the solid bit that's left over—so our \_\_\_\_\_ —is what PlantSea will use to make their plastic products." "Smells quite tasty." "It's lovely. You can eat this."

PlantSea then brings the seaweed to this \_\_\_\_\_ for processing. "This is where it all starts. So, the seaweed that you've just seen at the farm, this kind of gets dried and \_\_\_\_\_. And this is where it starts in our process. So, today we've processed around 20 kilos of seaweed, but this should yield, in terms of the wet products, we'll get about 40 to 50 kilos of a \_\_\_\_\_. They'll turn this into \_\_\_\_\_. We should have enough film to do 120,000 of these \_\_\_\_\_."

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| <b>1) at scale</b> | <b>2) chemical structure</b> | <b>3) it lends itself</b> | <b>4) liquid microplastics</b> | <b>5) material innovation</b> | <b>6) natural polymer</b> | <b>7) polysaccharides</b> |
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For PlantSea, seaweed is a natural fit. "So the seaweed actually lends itself very well to \_\_\_\_\_. It has a very rich \_\_\_\_\_; it's full of sugars and \_\_\_\_\_. So \_\_\_\_\_ very well to bio-materials. Most people don't realize that these are made from a synthetic polymer which is petroleum-based. Now while they do dissolve, they don't ever really truly disappear. They create \_\_\_\_\_. Our film and our polymer is a \_\_\_\_\_ and it doesn't leave behind any microplastics."

PlantSea is already working with major brands, proving this can work \_\_\_\_\_. So seaweed is kind of like a wonder material. You can eat it. You can use it as fertilizer. And now it appears you can use it as an alternative to plastic. The question is, why aren't we using it more?

## Translation

塑膠污染每天都在不斷堆積。根據聯合國環境規劃署的數據，全球每天約有 2,000 輛垃圾車份量的塑膠進入海洋、河流和湖泊。現在，威爾斯的一家公司正試圖**扭轉局面**，利用**海藻製成的包裝**來取代一次性塑膠，展示了來自海洋的資源如何反過來保護海洋。請看 CNN 記者 Leroy Ah Ben 的報導。

如何將海藻轉化為這種**生物可分解包裝**，並解決海洋中的塑膠災難？「我出生在南太平洋中心的斐濟，那裡的海洋塑膠污染是一個巨大的問題。我一直在問自己，一定有替代方案。在研究這個問題時，我發現了這家位於威爾斯、名為 PlantSea 的公司。所以我決定去一探究竟。」

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我的旅程從威爾斯崎嶇的海岸線開始。PlantSea 就是在這裡利用海藻，創造出真正能生物分解的一次性塑膠替代品。這一切始於像 Car-Y-Môr 這樣的海藻養殖場。「我們會去養殖場採收海藻，然後直接帶回這裡進行旋轉處理，將固態海藻與液體分離。而這些液體就是我們的**海藻生物刺激劑**，可用於農業耕作。」

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「就像肥料嗎？」「是的，就像肥料。剩下的固體部分——也就是我們的副產品——就是 PlantSea 用來製造塑膠產品的原料。」「聞起來挺香的。」「很棒吧，這甚至是可以吃的。」

PlantSea 隨後將海藻帶到這座創新中心進行加工。「這就是一切的起點。你剛在養殖場看到的那些海藻會被烘乾、切碎並製成薄片。這就是我們流程的開始。今天我們處理了約 20 公斤的海藻，以濕產品計算，這應該可以產出約 40 到 50 公斤的乾燥聚合物粉末。他們會將其製成薄膜。我們應該有足夠的薄膜來製作 12 萬個這種**洗衣球（洗衣膠囊）**。」

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對 PlantSea 而言，海藻是天生的完美材料。「海藻本身非常適合材料創新。它具有非常豐富的化學結構，富含糖分和多醣類，因此非常適合作為生物材料。大多數人沒意識到，（市售）這些產品是由**石油基的合成聚合物**製成的。雖然它們會溶解，但從未真正消失，而是會產生**液態微塑膠**。我們的薄膜和聚合物是天然聚合物，不會留下任何微塑膠。」

PlantSea 已經開始與各大品牌合作，證明這種技術可以大規模應用。所以海藻簡直就像是一種「萬能材料」。你可以食用它，可以把它當作肥料，現在看來，你還可以用它來替代塑膠。問題是：我們為什麼不更廣泛地使用它呢？



You can view this activity online here:

<https://linguadox.com/cnn-news-highlights-seaweed/>

## Answers

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How do you take this seaweed and turn it into this 2) biodegradable packaging and 5) tackle the scourge of plastics in our oceans? I was born in Fiji in the middle of the South Pacific where plastics in the ocean are a huge issue. And I've always asked myself, surely there must be an 1) alternative to this. And while researching that question, I came across this company called PlantSea in Wales. So I've decided to go check them out.

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