

‘The time is past when humankind thought it could selfishly draw on exhaustable resources. We know now the world is not a commodity’

Francois Hollande, President of France



Q.

What's the difference between **bio-based** and **biodegradable** plastics and what do biodegradable plastics actually break down into?

A.

For something to be **biodegradable**, it must be capable of being broken down by **biological processes**, for example by **bacteria** or other **living organisms**. This is a very general term and does not give any indication as to the conditions and time scale in which a product will degrade.

**Biodegradation**, if it is done right, will produce basically **water** and **CO<sub>2</sub>** which goes back through the carbon cycle.

Not all bio-based plastics are biodegradable, and not all biodegradable plastics are bio-based. Let us explain the difference...



### **Bio-based plastics**

Plastics made at least partly from biological matter.



### **Biodegradable plastics**

Plastics that can be broken down by microbes in a reasonable timeframe given specific conditions.



Q.

What is the **problem** with **oil-based** plastics?

A.

***Traditional** oil-based plastics are creating issues, especially when they escape into the general environment. The problem being that such plastics are designed to be stable and therefore **do not degrade**, so can stay with us for many **centuries**.*

*Oil-based plastics are made from **non-renewable sources** and therefore are constructing an **unsustainable** future.*

Q.

What is Floreon made from and what are the **benefits**?

A.

Floreon is sourced from renewable resources such as **corn** and **sugar cane**, unlike oil-based plastics which drain the world's finite resources. These plants form a **bioplastic** called **PLA** (polylactic acid).

We add our two additives to form Floreon, a bioplastic which can be **composted** or **recycled** when it reaches its **end-of-life**. For further details on Floreon's end-of-life options, please ask a member of the team for our end-of-life flyer.



Q.

Food versus fuel?

A.

The land use of bioplastics is currently at approximately **15.5 million hectares**, equal to 0.3% of the global agricultural area.

Despite continuous growth in the bioplastics market, land use for **New Economy bioplastics** will be as low as 0.007% of the global agricultural area by 2024. Therefore, there is **plenty of scope** to develop bioplastics without reducing land use for food.

Q.

Why is recycling conventional oil-based plastics not enough to solve plastic pollution?

A.

*There are many items that cannot be recycled, like face masks. Single-use items are there to be used only once and also, they are very difficult to recycle because they are made up of different materials which are hard to separate.*

*Therefore, sourcing sustainably by using plastic made from plants opens the option of commercial composting up.*



Q.

What applications are **bioplastics currently being used for** and what applications will bioplastics **replace in the future**?

A.

Currently bioplastics are used for **any product** which, especially **single-use products**, tend to escape into the environment. That is the issue with oil-based plastics. A material that can easily become airborne, such as plastic bags, can escape. Also, a hollow material like a straw or containers, like a water bottle, can escape into the environment and will ultimately find the water and somehow end up in the ocean.

Floreon is a bioplastic, but with its **exceptional strength and durability**, it can be used in durable applications such as **automotive, toys and electronics**. Such potential has never been available to PLA before.



Q

Can bioplastics be used in **outdoor** applications?

A.

Floreon has the **performance** to **last** and will degrade only in **controlled commercial composting**.



Forging positive connections  
between brands, consumers  
and the environment.



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