

Royal Botanic Gardens

Kew

## **Sustainability of Ingredients for the beauty industry**

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## **Sustainability and Royal Botanic Gardens, Kew**

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This talk provides:

- 1) an introduction to Kew and why it is so important to save biodiversity and the fact the destruction of habitats needs to be stopped urgently. These are important factors that impact the need to have sustainable supply chains for natural ingredients that are used in the beauty industry.
- 2) an overview of why Kew is involved in the evaluation of plants for use in cosmetics. The importance of thinking about how you select plants, ensuring that if local communities are involved in the growing of the plants, they benefit from the sale of the plants and the fact that you need to ensure you are selecting plants that can meet the needs of the market as well as being resilient to the challenges of climate change.
- 3) an overview of the importance of checking that the right species of plants are used and that the extracts made from the plant contain the ingredients that are associated with its use in the product. For example, it contains anti-oxidants, moisturizing or hair protectants a process we call “botanical fingerprinting”.

## Some other points to consider when going natural

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### Opportunities:

- To **increase the diversity** of plants used to products
- Learn from nature – plants have **evolved to protect themselves** from UV and other aspects of environmental stress
- **Support local communities**
- **Optimise use of by-products** from the food industry
- **Decrease the build up of synthetic compounds** in the environment

# Increased public demand for naturals

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## Issues

- Many naturals are unstable (they breakdown)
- Source can be variable (depending on environmental conditions)
- Sometimes not as active as synthetics at the same concentration
- Often need more – therefore is there a sustainable source
- Need to ensure community supplying will have continued trade
- Need to ensure mark up of value is shared with those growing materials
- Incentives to keep growing the plants
- Need to ensure manufactures have sources of quality extracts



## What is biodiversity loss?

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Biodiversity is the variety of life on earth, in all its forms – plants, fungi, animals, bacteria etc.

Many plants are struggling to survive the pace of change. Kew's research shows that two in five plants are now at risk of extinction.

Once we lose a plant, it is lost forever. And all its secrets it holds are lost with it.

Halting biodiversity loss is critical for maintaining conditions in which all life, including humanity, can survive.

What is driving biodiversity loss?

- Habitat loss and deforestation
- Climate change
- Pollution
- Over-exploitation
- Invasive species, pests and disease



## Why is it important to protect biodiversity?

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All the interactions between plants, fungi and animals lead to the food we eat, the medicines we rely on and even clean water and oxygen. Just being around nature boosts our mood and wellbeing.

Plants also regulate the climate, protect communities from natural disasters like hurricane damage, and counteract the pollution in the air by carbon-sequestering.

We are also facing a climate emergency, and climate change is contributing to biodiversity loss.

Finding economical uses for plants is one way to protect biodiversity.

# Safety

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Natural does not always mean safe!

Need to make sure extracts are good quality – the right plant

The extract has the right composition of ingredients (chemical fingerprint – botanical fingerprint)

It does not contain any toxins or contaminants

It does not interact with other ingredients or makes your skin more sensitive



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**Thank you, any questions?**