

# Brightseed – Forager® AI

## What is it?

Forager® is an AI-driven computational platform that uses AI to identify bioactives in nature and their health benefits. Using deep learning and bioinformatics, Forager® performs a molecular-level analysis of plants, identifying beneficial phytonutrients with unprecedented speed. It will analyse more than 10 million compounds by 2025.

## What are the benefits and risks?

Forager® significantly accelerates the discovery process compared to traditional methods, which will supercharge innovation in the health food sector and shine a light on previously unknown and underutilised compounds. It promotes/requires biodiversity and some discoveries involve the utilisation of waste products.

However, risks include potentially high costs to businesses for using the service and rapid IP protection that could mean alternative options become limited.

## Is it available to the food and fibre sector?

Forager® has many corporate partnerships. With Danone they are exploring the health potential of soy. They are helping Pharmavite to create a new US\$100 million/year sleep supplement product. With Blue Diamond Technologies

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*Science knows a little more than 100,000 compounds from plants, which have yielded things like aspirin and metformin. We've now identified over 7 million distinct compounds from just under 4000 different plant species that make the bulk of our food chain, as well as several thousand medicinal plants.*

Dr Jim Flatt, Brightseed Partner, 2024

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they are investigating the bioactives in almonds, and they are also working with Ocean Spray and Olam. When Brightseed discovers a new bioactive compound, the company immediately applies for a patent. The Forager® AI discovery process takes only 4–5 years to yield commercial products, half the traditional discovery-to-product commercialisation timeline.

## What could the future hold?

Forager's growing database and predictive capabilities will expand its impact across the food and fibre sector. Forager® will be able to offer precise and comprehensive insights into the health benefits of plants, supporting the development of innovative new health food products and highly personalised nutrition.

*Forager identified bioactive compounds NCT and NFT, which have both been shown in pre-clinical trials to support gut health. Forager also predicted the presence of these compounds in more than 80 plants and identified hemp hull as the most naturally enriched source.*

[www.brightseedbio.com/technology](http://www.brightseedbio.com/technology)

