IN THE WEEDS: FASHIONING A FUTUREPROOF CLIMATE

Just a few years ago Sam Elsom, a former high-end fashion designer, was busying shaping clothes, globetrotting for cotton supplies and raising a family when he accidentally collided with his future.

It was September 2017, and Elsom attended a lecture by renowned environmentalist Tim Flannery. In his speech, Flannery discussed the potential of seaweed to store quantities of carbon dioxide from the atmosphere. It instantly inspired Elsom. He would farm seaweed and help save the planet.

But there was another twist. Elsom's commitment coincided with recent research out of the CSIRO and James Cook University in Townsville, north Queensland – that some compounds in seaweed had the ability to dramatically reduce methane production in cows and sheep. They would discover that two species of a particular Australian red seaweed – the Asparagopsis taxiformis (found in warm Queensland waters), and the Asparagopsis armata – (common in the cooler waters of Tasmania) – reduced livestock methane production by up to 90 per cent if added to the animals' diet.

Given that 11 per cent of Australia's total greenhouse gas emissions came from ruminants (cattle, sheep, goats), Elsom saw an opportunity. He would grow commercial quantities of Asparagopsis and take a significant chunk out of the world's, greenhouse gas emissions. (The planet's 1.5 billion cows and 1.1 billion sheep contribute roughly 6 per cent to all global emissions.)

Elsom's Tasmanian-based company Sea Forest was born. The challenge was to grow enough seaweed to actually make a lasting difference.

By 2021, Sea Forest had attracted more than $40m in investment funds, and it continues to expand. By late last year it was producing 7000 tonnes of Asparagopsis per year, or enough to feed 300,000 cattle.

Sea Forest is not alone in the seaweed farming industry, which is rapidly developing into a multibillion-dollar global industry. In August 2021, an Australian Seaweed Institute report predicted the domestic industry could potentially generate $1.5bn annually by 2040, while reducing greenhouse emissions by 10 per cent. And that's all thanks to a native Australian red seaweed, and visionaries like Sea Forest chief executive Elsom. He told The Australian last year: "Australia is one of the most biodiverse places on the planet and there's a tremendous opportunity to better understand the life of seaweed and its many uses." (MC)

PHOTOGRAPHY: ADAM GIBSON; STU GIBSON