

Intellectual property is the cornerstone of innovation. As global population grows, developing new technologies that can feed our world becomes more challenging. Intellectual property ensures that innovators can invest the resources necessary to create the next generation of farm technologies.

# BROCCOLI



Broccoli is versatile plant rich in vitamin C, antioxidants, carotenoids, fibre, calcium and folate and can be an essential part of a healthy, balanced diet.

Agricultural scientists developed ancient *Brassica oleracea* into modern broccoli we know today.



*Brassica oleracea*    Modern Broccoli

## The Broccoli Boom

- U.S. broccoli demand has tripled over the past 30 years
- Value of the global broccoli market has increased over 6000% since 1960
- Global production has risen from just 3 million tonnes in 1961, to more than 21 million today

*“Broccoli appears promising as an excellent food for preventing cancer.”*

- American Cancer Society

## CHALLENGES & SOLUTIONS



Harvesting is the single most time-intensive and expensive part of broccoli production. In fact, just one hectare can take a single person up to 60 hours to harvest by hand. However, researchers have developed conventional broccoli varieties with a longer stalk that puts the head well above the ground, enabling the use of mechanized harvest methods. IP protections enabled the developers to invest years in creating this variety that can improve efficiency and reduce difficult labour.



Broccoli is a cool-weather crop that requires a temperate climate to thrive. Broccoli crops can be devastated if exposed to temperatures above 25 degrees Celsius, even for a short period of time. As climate change worsens, this will become an increasingly difficult problem for broccoli growers. Breeders in the United States have developed a broccoli variety that can withstand temperatures as high as 38 degrees Celsius with no visible damage. IP protections were awarded to this breakthrough invention in recognition of the innovators' hard work and contribution to society.



Hollow stem is a dangerous fungus for broccoli growers, attacking their crop from the inside and ruining harvests. The infection attacks the broccoli from the inside, which weakens the plant and reduces growth, while making it more susceptible to other infections and insects. Innovators at Seminis Vegetable Seeds in the United States recently patented a broccoli variety resistant to hollow stem. Their use of IP protections ensures they can invest the resources needed to properly develop and deploy their invention to farmers.

*Intellectual Property Makes Agricultural Solutions Possible*