Nunatak Biotech

PROBLEM

33% of Earth's soils are already degraded, these losses are estimated at 490 B USD in annual economic costs. The population will exceed 9.7 billion by 2050, requiring a projected 70% increase in crop production to meet projected food requirements. Productivity enhancement and sustainable solutions are needed. One of the main actors working to solve this problem is the agriculture biological industry, but still has untapped potential. Most of the biological products that are contributing to a transition to sustainable agriculture are based only in a handful of microorganisms of the billions available in nature.

HISTORY: EXTREME BIOTECH IN ANTARCTICA

We are experts in identifying and prospecting microorganisms in extreme environments, both from soil and grasses. We then isolate them and create solutions that address challenges across different industries.
Nunatak learnt from nature: How fungi and bacteria help antarctic grass to thrive in extreme conditions. We decoded how this unique plant survive in antarctic conditions. The microorganisms that help this plant to survive were isolated and linked to other plants of the same family, thus enhancing them exponentially.

SOLUTION

Nunatak seeks extreme microorganisms and identifies and designs the best associations between fungi, bacteria, and plants in an efficient way to create products that adapt to adverse conditions. Our symbiosis platform has 4 steps.

1. Exploring microbial frontiers
2. Predicting possible symbiosis
3. In silico symbiosis designing
4. Products testing, regulatory and launch.

BIOLOGICALS FOR WINTER CROPS

Our first products are biologicals for winter crops to enhance yield performance under stress conditions. Liquid formulation for seed treatments.

MARKET AND OPPORTUNITY

The agriculture biologicals industry has a market size of $15B with a 10% CARG. There are 750,000,000 hectares (1,853,287,500 acres of gramineae crops). Starting with Argentina, we will be able to enter one of the largest markets for these crops, which is within our reach. Then Brazil will allow us to make a leap in quantity and quality of biological products before landing in the already developed U.S. market. The first 3 markets we are targeting total an area of 107,000,000 hectares cultivated with gramineae → $214 million. Our uniqueness consists in our expertise in bioprospecting in Antarctica, we are specialists in winter crops, and in our strain bank we can develop products for soil remediation and soil restoration.

BUSINESS MODEL

In the short term, we target winter crop producers through distributors and agriculture input companies by technology licensing.


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