



Republic of the Philippines  
Department of Science and Technology

**PHILIPPINE NUCLEAR RESEARCH INSTITUTE**



## PLANT BIOSTIMULANT Tech Brief

The innovation is about a newly developed **plant biostimulant** from seaweed. It contains essential micro and macronutrients as well as hormones for plants.

By delivering an average increase of 30% in yield, the technology can improve the generally low revenues of approximately 2.4 million rice farmers whose average farm size is only 1.14 hectares. In addition, rice infestations that cause degenerated growth, stunted crop, and even total loss of crops have been resolved by the technology. Moreover, the technology can address calamity-related economic challenges, of which annual losses in rice from typhoon devastations can exceed 100,000 tons. In the past, these benefits would only be realized when several products or solutions were combined. The technology uniquely provides multiple benefits all by itself.

It is noteworthy that this innovation is fully compatible with current farmers' practices. It can even lessen the use of inorganic fertilizers & yet stimulate an increase in production. Based on multi-locational field tests conducted nationwide, the technology provides resistance to the *tungro* virus and bacterial leaf blight, thus evading a possible total loss of crops. More growth of *tillers* were observed with the use of this technology, so rice stems are made stronger, thus they are able to endure stress from strong winds and rains brought about by typhoons. This technology is environment friendly because it is non-toxic to natural enemies, the beneficial insects and arthropods.

It has been tested on crops like rice, mung bean, peanut, and pechay (snow cabbage). It can theoretically be used on any kind of plants, especially vegetation. It can be used in hydroponics system, in seed treatment, as a foliar spray. Its application for a patent protection is on process.

Interested takers are welcome to apply as partners who will manufacture and distribute this technology through a licensing agreement.

