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Extended Abstract

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Agricultural biostimulants from seaweeds

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AquAgri (P) Ltd. has been promoting the farming of sea plant *Kappaphycus alvarezii* in Indian waters for more than a decade and generating alternative livelihood to the coastal communities. They manufacture AquaSap and its derivatives as plant nutrients from this marine alga. A large no. of efficacy trials have been conducted on different range of crops in field level both in India and overseas countries which clearly demonstrated enhanced crop yield ranging from 12-45% without compromising the quality when AquaSap at appropriate concentration with required volume was employed through foliar application.

AquaSap gel, AquaSap-5X, AquaSap Powder, Seaweed Fortified Granule and Seaweed Powder are the plant nutrients being manufactured and marketed by AquAgri Processing (P) Ltd. These products have been approved by NPOP and NOP (USA) under Organic inputs. These plant nutrients contain growth hormones (Auxins, Cytokinins and Gibberellins) macro-micro nutrients particularly potassium, silica, boron, zinc and iodine, amino acids (helps in building resistance against the cold and frost) and vitamins.

Function of AQUASAP and its derivatives on plant system are:

1. Fastens the photosynthesis and growth of plant
2. Increases the germination viability of the seeds
3. Results in healthy growth of root system and more vigorous seedlings
4. Stimulates flowering and better retention of flowers
5. Ensures better fruit setting and uniform fruit size and maturity
6. Increases resistance to insect pests and disease and adverse weather conditions
7. Increases crop yield and quality produce
8. Increases the nutrients level of crop yield
9. Completely harmless to human beings animals, plants and environment

Seaweed nutrients available in the market are prepared in extreme conditions like acid/alkali in higher temperature using dry sea weed powder based on cold water species' of imported origin and are generally very expensive and find use in specialized application in horticulture and floriculture. Whereas, AquaSap derived from fresh living K. alvarezii cultivated in Indian waters extremely effective and the first of its kind in the world (CSIR-CSMCRI- US Patent 6893479 B2 (2002).

AquaSap and its derivatives are recommended for crop application since they are of natural origin, enhancing crop productivity and also their price point makes them affordable and within the means of small and marginal farmers.

Key words: Biostimulants, plant nutrients, seaweeds, Kappaphycus alvarezii, Aquasap.