

Somzyme® -Granules
Liquid Seaweed Fertilizer
Fermentation Derivatives of Seaweed Sargassum
APPROVED FOR USE IN ORGANIC AGRICULTURE

Introducing Somzyme®-Granules

Somzyme®-Gr is a unique biological product derived from fermentation of Sea Weed (*Sargassum weightii*)

Sargassum weightii is an algal seaweed growing in hostile eco system like sea water which has low dissolved oxygen, diffused sun light and no nutrient base in salt water. *Sargassum* type of seaweeds have an innate ability to synthesise their own food in such hostile environments. It is surmised that presence of unique bio stimulants such as auxins , cytokinins , gibberellins , betaines and many more help sea weeds withstand biotic and abiotic hostilities and still grow and complete their life cycle.

Somzyme® is derived from fermentation of *Sargassum* seaweed by deploying a cold process, in which microbial organisms rupture the cell wall and release the bio stimulant substances into the broth, Somzyme® is impregnated into double roasted bentonite clay granules that enable sustained release of the various bio stimulants to root system of plants.

Somzyme® is made from unique downstreaming process after fermentation of seaweeds thereby enables retention of all bio stimulant substances naturally present in *Sargassum* seaweed.

Unlike many seaweeds grown in seas in temperate region, *Sargassum* is grown mainly in warm, tropical regions (Indian Ocean) and therefore is endowed with more bio stimulant substances. Thus, *Sargassum* derived Somzyme® – Gr is more effective than extracts from temperate region seaweeds.

Somzyme®-Gr helps in optimising vegetative growth in the initial phases of crop growth. It promotes better tillering, root growth and nutrient uptake. It also provides resistance to plants against draught conditions.

Somzyme® Gr activates the soil bacteria, specially rhizosphere bacteria which are responsible for better growth of root system.

Somzyme® -Gr is approved for use in Organic Agriculture.

Mode of Action

Biostimulant production: Somzyme® -Gr contains growth promoting biostimulants such as auxins , cytokinins , gibberellins , betaines , biologically activated nutrients and hydrolysed protein complexes which aid in cell division of the plant and promote plant growth and tillering.

Method of Application

Basal dose/ Top Dressing: Apply 5- 8 Kg / acre of Somzyme®-Gr uniformly over the field.

Crops

Somzyme®-Gr is suitable for application for on Cereals , Millets , Pulses, Oilseeds, Fibre Crops , Sugar Crops , Forage Crops , Plantation crops ,Vegetables, Fruits, Spices , Flowers , Medicinal crops , Aromatic Crops , Orchards and Ornamentals.

Compatibility

Somzyme®-Gr is compatible with Pesticides and Fungicides.

Shelf Life

Somzyme®-Gr is stable for a period of 36 months from the date of manufacturing.

Mass Composition

CONSTITUENT	W/W %	FUNCTION
Fermentation derivatives of seaweed Sargassam	0.00125%	Active
Carrier Double roasted bentonite clay granules and fermentation broth	q.s.	Inactive

Free from Salmonella, Shigella , E.Coli

Cautions for handling and use of product

1. Avoid inhalation and skin contact while application of the product.
2. Surplus granules if it had been mixed with chemical fertilizers– should not be disposed in crop lands / stagnant water / flowing water where there is a possibility of causing pollution to natural resources.
3. Do not eat / drink / smoke during application.
4. Direct incidence of Somzyme®-Gr may cause irritation and therefore it is recommended that the operator should use protective gear viz gloves, apron, mask, eye gear and hood.

Symptoms and Antidotes

Symptoms: Occasional symptoms include head ache and nausea

Antidote: In the case of ingestion: symptomatic treatment is advised. In the case of contact with Eyes: Flush with water liberally for 20 minutes. In case of skin contact, wash the affected area with plenty of water and soap

Citations

Somzyme[®]-Gr is a proprietary product and public citations of the same aren't available. However there is abundant literature available in the public domain on seaweed fermentation products.

Commitment to Nature

- Somzyme[®]-Gr is approved for use in organic agriculture.
- Somzyme[®]-Gr is safe to use along with bio fertilizer inoculums like Agri Life Nitrofix[™] (Nitrogen Fixing bacteria) ; P Sol B[®] (Phospho bacteria) ; K Sol B[®] (Potash mobilizing bacteria); Zn Sol B[®] (Zinc mobilizing bacteria) :S Sol B[®] (Sulphur solubilizing bacteria) : Si Sol B[™] (Silica solubilizing bacteria) ; Fe Sol B[®] (Iron / Ferrous solubilizing bacteria) : Mn Sol B[™] (Manganese solubilizing microbe) and Agri Life Agrivam[®] (Vesicular-arbuscular mycorrhiza)
- Somzyme[®]-Gr can be used as an effective component in INM programmes, thereby leading to a reduction in use of synthetic plant nutrition supplements and chemical fertilizers thus creating a safer environment.
- Somzyme[®]-Gr does not lead to residue problems and doesn't cause resistance or resurgence problems.

Benefits from Somzyme[®]-Gr

- Somzyme[®]-Gr effectively promotes vegetative growth, tillering in rice and sugarcane, better rooting and plant growth
- Better tillering and rooting promotes improved plant health and thereby increased crop productivity.
- Somzyme[®]-Gr is earthworm friendly , pet friendly , eco friendly and infant friendly