

Aquastem ${ }^{\text {m }} \mathrm{V}$ is a unique algae based immunostimulant, enriched with vitamin C to improve non-specific immunity and disease resistance in aquatic species.

## FEATURES

- Algal source of linear 1,3-beta glucan enriched with vitamin C
- Ideal particle size
- Highly bioavailable


## INSTRUCTIONS FOR USE

- $5-10 \mathrm{~g} / \mathrm{kg}$ of feed
- Use suitable binders
- For more information, consult a Kemin AquaScience ${ }^{\text {TM }}$ technical expert


## BENEFITS

- Enhances immunity
- Improves the survival rate
- Improves growth and feed conversion

Beta glucan is a polymer (chain) of glucose molecules, similar to starch and cellulose. Beta glucan can be produced by yeast, fungi (mushroom), grains (oat/barley), bacteria and algae (Aquastem ${ }^{\text {TM }} \mathrm{V}$ ).

## ALGAE BETA GLUCAN vs YEAST BETA GLUCAN'



Form of beta glucan
Over $90 \%$ as linear 1,3 form
Less than $80 \%$ as linear 1,3 , lots of 1,6 side branches

| Bio-availability | Active in dried algae | Extraction required |
| :---: | :---: | :---: |
| Particle size | Ideal: small | Large and variable, |
|  | $1-3$ micron | $>10$ micron |

Effect of Aquastem ${ }^{\text {TM }} \mathbf{V}$ on body weight of the shrimp, L. vannamei ${ }^{2}$


Effect of Aquastem ${ }^{\text {TM }} \mathbf{V}$ on feed conversion of the shrimp, L. vannamei ${ }^{2}$

2. Kemin Internal Document, 18-00048

