

“Trio-Up” Series for Pond Management Sober-Up, Bottom-Up, and Bac-Up



A steady aquaculture environment relies on the eco balance among the culture species, algae, and bacteria flora. Unfortunately, the eco balance is usually fragile, and can be broken by the fluctuations of sunlight, temperature, pH, nutrients, dissolved oxygen, and bottom soil condition. The consequences may cause the crush of algae, lack of oxygen, ruin of the bottom condition, then the mortality occurs. The “Trio-Up” serial products from SCBC contain the competent probiotics and toxin binders that can not only stabilize the eco balance, remove the environmental toxins and algal toxins, inhibit the growth of pathogenic bacteria and parasites, but also improve the nitrification cycle to stabilize the ammonium/nitrite concentration, to make the culture environment better.

Sober-Up: The ion-exchange modified natural minerals that can absorb the environmental protein toxins from fungal mycotoxins, algal toxins, and AHPND toxin.

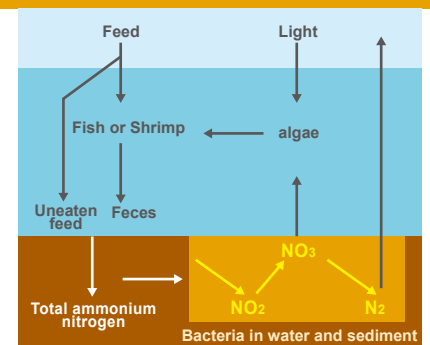
Bottom-Up: Patented EM probiotics formula specializes in the bottom soil treatment to improve the nitrification to stabilize the ammonium/nitrite concentration.

Bac-Up: Selected *Lactobacillus* strains that can grow at wide range of salinity and temperature to increase the total bacteria count, inhibit the growth of *Vibrio*, and to improve the culture environment.

Features



- ▶ Have been proven to be able to stabilize the water and bottom soil condition by large scale field trials in different countries.
- ▶ Increase the total bacteria count, inhibit the growth of pathogenic bacteria and parasites.
- ▶ Relief the acute toxin associated symptoms.
- ▶ Can work with other “A Solution” products for better performance.



* Nitrification cycle of aquaculture (Crab R et al., 2007)

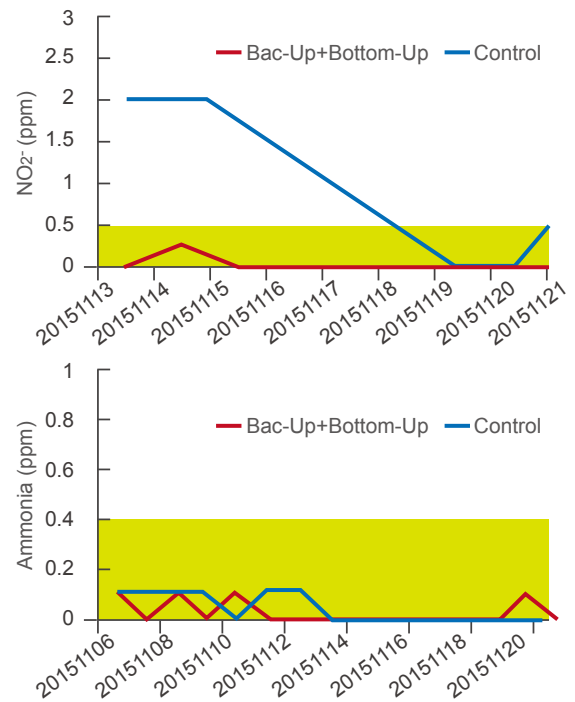
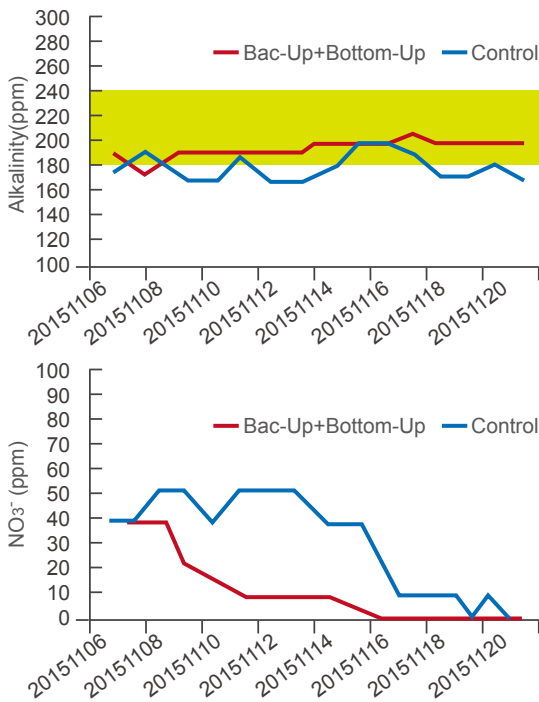


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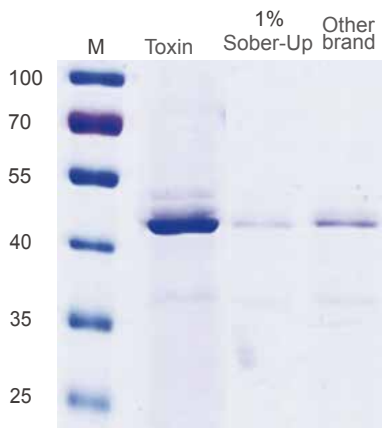


A. Field trial of Bottom-Up and Bac-Up: at the grow-out stage (Vietnam, 2015)



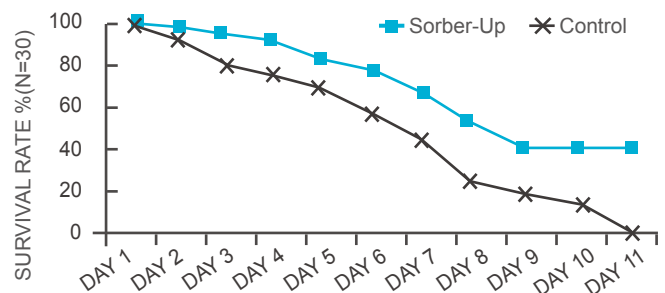
* indicates the most suitable range of water quality parameters for shrimp culture.
 * Bottom-Up and Bac-Up could stabilize the water quality. All of the parameters were in the qualified zone.

B. The toxin binding ability of Sober-Up



* Sober-Up can absorb the protein toxin effectively.

C. Field trial of Sober-Up: the survival rate after the artificial infection of AHPND (Vietnam, 2015)



* Artificial infection of AHPND was confirmed by POKKIT PCR.
 ** The survival rate was 40% for the 2% Sober-Up added feed group, instead the mortality is 100% for the control group.

Dosage

► Bac-Up / 1,000 - 2,000 tons of water/pack ► Bottom-Up / 1,000 - 2,000 tons of water/pack ► Sober-Up / Mix with feed: 2%

Frequency

► Bac-Up / 1-2 times/week ► Bottom-Up / 1-2 times/week ► Sober-Up / AHPND P(+) or acute toxin problem

Specification

	Cat. No.	Package	Storage condition	Safety
► Bac-Up	PB-BC	10 g/pack	1 yr. at 4°C , 2 mo. at RT	Legal and safe for aquaculture
► Bottom-Up	PB-BM	10 g/pack	1 yr. at 4°C , 2 mo. at RT	Legal and safe for aquaculture
► Sober-Up	NF-SU	1 kg/pack	3 years at room temp.	Natural minerals, legal and safe