## Single Cell Biology

## Role of Blend Essential BAV oil in controlling Shrimp Diseases

Rajeev Kumar Jha, Haig Y. Babikian, SarayutSrisombat and Yousef H. Babikian <sup>1</sup>PT. Central Proteina Prima tbk., Jakarta, Indonesia

The Natural Blend Essential oil named as "BAV Salt" have been designed to work against various diseases of Penaeus vannamei shrimp like, White Spot Syndrome Virus, Infectious Myonecrosis Virus and Early Mortality Syndrome etc.

The essential oil blend from the following plants, *Lavandul latifolia, Pinus sylvestrisa, Jasminum officinale, C. Limon, Prunus avium, Viola odorata, Gardenia jasminoides, Cocos nucifera, Rosa damascene* and *Eucalyptus globulus.* The BAV salt in its effective dose is added in the feed during production. The liquid supplement, named "Pondguard" is applied as per requirement.

A series of bioassay trials have been conducted in Bioassay lab of PT. CP Prima in Jakarta and in Ben Tre, Vietnam to standardize and optimize the efficacy of the product. The developed feed has shown the significant protection, up to 100% survival against WSSV, 60% survival against IMNV and up to 100% survival against EMS in controlled lab trials.

The field results from the CP commercial farms in Indonesia are also encouraging and the disease incidence has reduced to several folds, for example, IMNV incidence in the farm reduced from 70% to less than 5% on annual basis. The inclusion of BAV salt in the feed has no negative impact on the shrimp and on the water quality system.

Keywords-Natural Blend Essential oil, BAV Salt, Penaeusvannamei, disease