Detection of IHHNV Desesase of cultivated Vannamei Shrimp (Litopenaeus vannamei) in Traditional and Intensive Ponds in Bone Regency

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Abstract. Vanname shrimp cultivation, disease is a limiting factor and a cause of economic loss. Diseases in vannamei shrimp are caused by parasites, bacteria, fungi and viruses. . One of the viral diseases is Infectious Hypodermal Hematopoietic Necrosis Virus (IHHNV). IHHNV is a 20-22 nm diameter, icosahedral, non-enveloped parvovirus containing a single-stranded DNA genome, about 4.1 kb in length. The aim of this study was to detect IHHNV disease reared in traditional and intensive ponds in Bone District. This research was conducted from August to September 2022 at the Test Laboratory of the Fish Quarantine Center, Quality Control and Safety of Fishery Products Makassar, Makassar. Shrimp samples were obtained from traditional ponds and intensive ponds in Bone Regency with a length of 7-14 cm and a weight of 4-14 g. DNA extraction uses the CTAB-DTAB method, and the DNA amplification process is followed by an electrophoresis process to visualize the amplified IHHNV DNA genome and finally the UV Documentation process to read the test results. The results showed that the PCR test using Primer KIT (IQ2000TM WSSV Detection and Prevention System) of vanname Vannamei Shrimp Litopenaeus vannamei. were negative (-) not infected with IHHNV. Measurement of water quality according to requirements and supports the growth of Vannamei Shrimp . Based on the results of the examination, it showed that the detection of the IHHNV virus in vannamei shrimp both reared in traditional ponds and in intensive ponds in Bone Regency showed negative results, meaning that there was no IHHNV virus disease.

Keywords: Vannamei Shrimp, IHHNV, PCR, Tradisonal and Intensif Pond.