

# INVESTIGATION THE WATER QUALITY OF WHITE LEG SHRIMP (*Penaeus vannamei* Boone, 1931) PONDS CULTURED AT DIFFERENT DENSITY IN BAC LIEU PROVINCE

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Summary

Study on water quality from unchanged water shrimp 's ponds of white shrimp culture at 50 and 100 shrimps per m<sup>2</sup> was carried out from august, 2015 to april, 2016 in Bac Lieu province. Results showed that water temperature fluctuated in a range of 27.0 to 30°C, meanwhile alkali changed from 183-194 mgCaCO<sub>3</sub>/L. TAN increased from 0.59 to 0.89 mg.L<sup>-1</sup> with the trend of increasing shrimp density from 50 to 100 shrimps per m<sup>2</sup>, yet the change was not significant difference. At the date 60<sup>th</sup>, TAN in the pond with 50 shrimps per m<sup>2</sup> increased significantly (2.12 mg.L<sup>-1</sup>). NO<sub>3</sub><sup>-</sup> content in the pond with 50 shrimps per m<sup>2</sup> was lower than that of the pond with 100 shrimps per m<sup>2</sup>. Similarly, N total in the pond with 100 shrimps per m<sup>2</sup> was higher than that of the pond with 50 shrimps per m<sup>2</sup> from 2.19 to 6.78 mg. L<sup>-1</sup> and continue increasing at the harvest time. In contrast, P maintained in a low rate (0.29-0.78 mg.L<sup>-1</sup>) and non-significant between two ponds of 50 and 100 shrimps per m<sup>2</sup>. In addition, mean of total organic content (TOC) changed from 30.7 to 170 mg.L<sup>-1</sup> in with the pond with 100 shrimps per m<sup>2</sup> was higher than the pond with 50 shrimps per m<sup>2</sup>, and TOC content increased at the end of culturing and significant difference from ponds of 50 and 100 shrimps per m<sup>2</sup>.

**Keywords:** *Water quality, shrimps' pond, white shrimp, Bac Lieu.*