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A stochastic approach for analysis of the influence of white spot disease, zootechnical parameters, water quality, and management factors on the variability of production of shrimp *Litopenaeus vannamei* cultivated under intensive commercial conditions

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We investigated the variability of shrimp *Litopenaeus vannamei* production by incorporating stochastic elements into deterministic stock models and determined the contribution that white spot disease, zootechnical parameters, water quality, and alternative management strategies have on variability. The model was calibrated for intensive shrimp cultivation in the State of Nayarit, Mexico. Mean annual production increased as a consequence of improved management from 8000 kg ha

Palabras clave: *Litopenaeus vannamei*, White spot disease, Stochastic modeling

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