

**Penang Sangam High School**  
**P.O. Box 44, Rakiraki**  
**Year 13 Agriculture Lesson Notes Week 19**

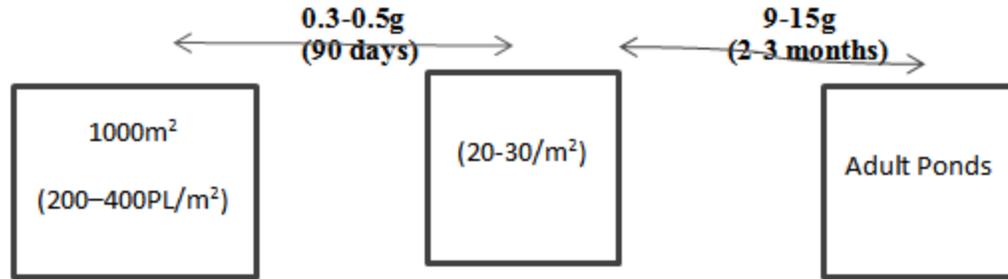
<b>Strand</b>	<b>AS 13.4 Livestock Production</b>
<b>Sub-Strand</b>	<b>AS 13.4.1: Prawns</b>
<b>Content Learning Outcome</b>	<b>At the end of this lesson student should be able to identify the classification, species and the major groupings of Prawns in Fiji.</b>

**Lesson 2: Prawn Culture Systems**

**Lesson Outcome:** At the end of this lesson the student will discuss confidently the prawn culture systems.

**Systems of Management in Grow-out Ponds for Freshwater Prawns**

<b>System</b>	<b>Advantage</b>	<b>Disadvantage</b>
<b>Continuous System</b> - regular stocking of PL and the culling (selective harvesting) of market sized prawns	-no definable 'cycle' of operation  -ponds are therefore only drained occasionally	-predators and competitors tend to become established  -large dominant prawns remain and have a negative impact on post larvae
<b>Batch System</b> - stocking each pond once, allowing the animals to grow until prawns achieve the average market size, and then totally draining and harvesting it	-reduces predator and competitor problems	<b>-Heterogeneous Individual Growth (HIG) remains.</b>  -Prawns do not all grow at the same rate, some grow much faster, tend to become dominant, and cause stunted growth in other prawns
<b>Combined System</b> - ponds are stocked only once. Cull-harvesting starts when the first prawns reach market-size	-reduced predator and competitor problems  -removes the fast-growing prawns for sale, leaving the smaller ones to grow	
<b>Modified Batch System</b> - After 60-90 days in a 1000 m <sup>2</sup> nursery pond stocked at 200 to 400PL/m <sup>2</sup> , 0.3-0.5g juveniles should be harvested and stocked at 20-30/m <sup>2</sup> into empty 'juvenile' ponds. After another 2-3 months, begin seine harvesting of these juvenile ponds.	-reduced labor cost and increased survival	



*Prawns grow faster when they have plenty of high-quality food and the right environmental conditions, especially in terms of dissolved oxygen and water temperature. Both males and females grow at a similar rate for the first 2–3 months. They both reach first maturity at about 15–35 g, within 4 to 6 months after the post-larvae stage. After the prawns reach maturity (about 20–35 g in size), the females begin to divert more energy into egg production and less into growth, so males end up much larger than females. Some males become socially dominant and can reduce the growth of other males, leading to significant variations in size. This is one of the drawbacks of farming this species of prawn.*