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## The First Test Shrimp Culture Results from Izmir — Turkey

GUREL TURKMEN

*Ege University, Department of Aquaculture, Turkey*

### Abstract

The first test culture of shrimp (*Penaeus semisulcatus* and *Penaeus japonicus*) in earthen ponds was carried out in Izmir, a city near the Aegean Sea in western Turkey. In this experiment, it was aimed at investigating the effects of different regional and climatic conditions on the growth, survival rate and biomass gain of *P. semisulcatus* and *P. japonicus* and compare their results. Experiment took place at a marine fish farm (Pinar Sea Products) located in Ildir-Izmir in 2002. Brood stocks were transferred from Antalya, Turkey, and larvae culture was conducted on the farm. Two rectangular ponds (size 100 m<sup>2</sup> and water depth 1.2 m) were used. The ponds were stocked at the rate of 15 individuals per m<sup>2</sup> when the shrimps were 25 days post larval (PL) stage. Prior to stocking, PL quality was tested using morphological and viability characteristics. Starting on the day of stocking, ponds were sampled fortnightly at 7 h and 15 h for temperature (°C), salinity (‰), pH, dissolved oxygen (ppm) and turbidity (cm). The water exchange rates were 0–15 % daily for the two ponds. Shrimp were fed sea bream feed and feeding frequency was changed from 3 to 1 times daily. A yield of 1920 kg ha<sup>-1</sup> for *P. semisulcatus* and 516 kg ha<sup>-1</sup> for *P. japonicus* was obtained in 150 days of culture with survival rates of 82% and 59.3% respectively. At the end of the rearing cycle, average final weights for *P. semisulcatus* and *P. japonicus* were 15.6 g (SD 1.3) and 5.9 g (SD 0.9), respectively.

As a consequence, *P. semisulcatus* seems to be the more suitable species under Izmir conditions as far as growth performance, final yields and survival rates are concerned.

**Keywords:** *Penaeus japonicus*, *Penaeus semisulcatus*, shrimp culture, Turkey