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ESSAYS ON REMOTE SETTING OF MUSSEL *Perna perna* SPAT

Felipe Matarazzo Suplicy*

Empresa de Pesquisa Agropecuária e Extensão Rural de Santa Catarina – EPAGRI, Centro de Desenvolvimento em Aquicultura e Pesca – CEDAP.

Av. Admar Gonzaga, 1188, Florianópolis – SC, Brasil CEP: 88010-970

E-mail: felipesuplicy@epagri.sc.gov.br

A reliable supply of spat is essential to the development of mussel industry in Brazil and elsewhere. Several countries such as Chile, Australia and New Zealand relied their spat supply on natural collection and suffered serious setback and economic losses to the industry when the mussel spats disappeared without apparent reason. Although the technique of remote settlement of bivalve spat is well known, there is little information about this technique applied to the species *Perna perna*. Preliminary essays conducted by EPAGRI and LMM/UFSC aimed to: 1) obtain data relating the length of mussels' plantigrades and its dry weight to adjust algae ration, and 2) observe growth rate of plantigrades in the hatchery and after their transfer to the sea.

Five meters of mussel spat rope were rolled in a steel frame and immersed in a 20 l bucket with filtered seawater, constant aeration and added $9,2$ pediveliger ml^{-1} . The bucket was cleaned daily and mussels fed with 8 to 12×10^6 cells of a mixture of *C. calcitrans* and *I. galbana*. We measured the length of spat weekly as well as rinsed them with 3% ammonium formate in order to remove salt and weighted them on precombusted glassfiber filters (Whatman GF/C).

Survival after 41 days in the laboratory was 11% and the plantigrades attained an average of $1,632 \mu\text{m}$ (± 154) within this period. On day 41, we transferred the frame with spat cable to the sea and continue to measure shell length weekly. At day 78 after settlement, spats attained an average of 12 mm ($\pm 1,12 \text{ mm}$). Growth rate at sea was much faster than the growth observed during the period in the hatchery, indicating that the technique could improve if we transfer the spat cables to sea as soon as pediveligers complete their metamorphosis into plantigrades, what normally occurs within two weeks after settlement.

