

O 83. EVALUATION OF FLAVOBACTERIUM PSYCHROPHILUM ABILITY OF BIOFILM FORMATION IN AQUACULTURE - MOROCCO.

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ABSTRACT: The most important bacterial pathology currently occurring in the world freshwater salmonids farming is the cold-water disease produced by the psychrotrophic bacteria *Flavobacterium psychrophilum*.

In aquatic environments, bacteria rarely occur in planktonic form, however their presence are associated with surface microbial communities known as biofilms (Huq et al. 2008). Biofilm formation is of importance to several pathogenic bacterial species, especially those living in water, conferring a selective advantage by increasing their ability to persist under adverse environmental conditions (Duchaud et al. 2007). Adherence to surfaces is the first stage in the formation of biofilms (Sauer et al 2002).

In aquaculture, biofilms can form on many of the components of the aquaculture system, and these are composed of various microflora present in the water, also they are ubiquitous, appearing on the surfaces of water and even in the internal and external surfaces of fish, Not only bacterial biofilms are frequently resistant to antibacterials and biocides, but they also have an important role as reservoirs of pathogens, enabling these to persist in aquaculture environments for a long period of time (Wingender and Flemming 2011).

The main aim of the present study is to evaluate the ability of *F. psychrophilum* to adhere to and form biofilms, and to get a better understanding of the survival of this bacterium in the aquaculture environment.

Keywords: Flavobacterium psychrophilum, bacterial cold-water disease, rainbow trout fry syndrome, biofilm formation, aquaculture.