Isolation and identification of mycobiota from farmed fish feed in São Paulo State – preliminary results

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The Brazilian fish farming has been expanding since last decade, highlighting the factors that may negatively affect the quality of animal feed, reducing performance and affecting the general health of the animal and consequently human health. The aim of this study was to isolate and identify filamentous fungi from fish farming in São Paulo State. The samples were collected in three different properties, totaling nine types of feed analyzed, stored or in use or different sizes. Water activity was measured. Dichloran glycerol (DG18) agar was used due to the low water activity of feed. Microcultive was performed in Potato dextrose agar (PDA) agar and identification of genera was performed using optical microscopy. *Aspergillus flavus parasiticus* agar (AFPA) was used to differentiate *Aspergillus* species. The molecular identifying was accomplished using ribosomal DNA sequencing, extracted and purified from fungi colonies grown at Yeast extract agar (YES). Fragments of 650 base pairs (bp) of ribosomal DNA were purified and submitted to genetic sequencing. The similarities between the BLAST program and the alignment of nucleotide sequences were made by ClustalW Sequence Alignment program BioEdit. Water activity ranged from 0.45 to 0.64. Only two samples did not present molds. Among positive samples, counts ranged from 2.0 log cfu/g to 4.6 log cfu/g. Stored feed presented lower counts than feed in use. All positive samples (100%) presented genera *Penicillium, Fusarium* and *Cladosporium*. The genus *Aspergillus* was found in 66.7% of the analyzed samples. Nine isolates were submitted to sequencing and the results showed *Aspergillus flavus* in eight (89%) isolates and *Aspergillus parasiticus* in one (11%) isolate. It is concluded that the fungi species identified can represent a concern about aflatoxins in fish feed. Further studies are in progress to analyze feed from more fish farms and to test also the occurrence of aflatoxins in feed and fish.

Key words: Mycotoxins, Fungi, *Aspergillus*.

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