

Fish slaughter practices in Brazilian aquaculture and their consequences for animal welfare

MEG Coelho[†], AS Pedrazzani^{*‡}, MH Quintiliano[‡], F Bolfe[‡] and CFM Molento[†]

[†] Animal Welfare Laboratory, Federal University of Paraná, Rua dos Funcionários 1540, 80035-050, Curitiba, Paraná, Brazil

[‡] FAI Farms do Brasil, Estrada Velha do Irere s/n, Fazenda Santa Marta, 86115000, Londrina, Brazil

* Contact for correspondence: anasilviap@ufpr.br

Abstract

Slaughter is considered an important fish welfare issue. For a slaughter method to be considered humane, effective stunning that lasts until death as well as the reduction of pain and fear throughout all procedures are essential. Our objective was to investigate current techniques for slaughtering fish in Brazil. A digital questionnaire with six multiple-choice and three open questions was distributed to companies registered as fish slaughterhouses and to fish farms in 2019, addressing fish species, quantities processed and slaughter procedures adopted. From 62 facilities in 15 Brazilian states that answered the survey, nine slaughterhouses and 30 fish farms slaughtered fish, totalling 452 tonnes per day. All reported pre-slaughter stunning, and live chilling to be the most commonly cited method (82.0%), followed by electronarcosis (18.0%). Slaughtering techniques included exsanguination (38.5%) and decapitation (2.5%). For the remaining companies, no slaughter method was declared, suggesting death by asphyxiation or by further processing (59.0%). Twenty-nine companies adopted pre-slaughter fasting, lasting from 10 to 48 h. All sites worked with tilapia (100%) and 24 (82.7%) reported that they worked exclusively with this species. Other species reported were: pacu (25.6%), tambacu (17.9%), tambaqui and carp (15.3%), jundiá (12.8%), pintado and pirarucu (7.7%), matrinxã and pangassius (5.1%). Asphyxia and live chilling are not considered humane, as animals remain conscious and, thus, suffer. Results show that most establishments do not perform humane slaughter. This scenario highlights the urgent need for development and enforcement of humane fish slaughter techniques, with routine supervision and normative requirements.

Keywords: animal welfare, asphyxiation, electronarcosis, live chilling, Nile tilapia, stunning