SUMMARY

Detection of Frequently Seen Pathogen Microorganizms and Determination of Antibiotic Susceptibility in Rainbow trout (*Oncorhynchus mykiss*)

The present study aimed to detect some significant bacterial agents that causes important economic loses in cultured rainbow trout (*Oncorhynchus mykiss*) farms and to determine their antibiotic susceptibility for reduction of the treatment costs and remainder problem related to unnecessary drug usage.

Totally 96 rainbow trout comprised 8 fish per mount during 12 mounts from were used in the study for detection of the important bacterial diseases, for isolation the agents and for determination of effective antibiotic treatment alternatives. Samples were taken from spleen, liver, kidney and gill and were streaked onto convenient agar plates at sterile condition. Agents incubated at 22 and 37 °C to make isolation at least. Following morphological and biochemical tests for identification of bacteria, *Aeromonas salmonicida, Lactococcus garvieae, Vibrio anguillarum* and *Yersinia ruckeri,* which cause important bacterial infections in fish, were isolated. From total 96 rainbow trout samples, 37 (% 38,5) isolates were obtained. 6 (% 16,22) *Aeromonas salmonicida,* 13 (% 35,13) *Lactococcus garvieae,* 7 (%18.92) *Vibrio anguillarum* and 11 (% 29,73) *Yersinia ruckeri* of total isolates were found.

Kirby-Bauer disc diffusion method was used for determination of antibacterial susceptibility. According to antibiotic susceptibility tests, *Aeromonas salmonicida* was susceptible to enrofloxacin, florfenicol, fusidic acid, gentamicin, chloramphenicol, nalidixic acid, novobiocin, oxytetracycline, ciprofloxacin and sulphamethoksazole-trimethoprim, but intermediate to erythromycin and neomycin *Lactococcus garvieae* was susceptible to amoxicillin, bacitracin, erythromycin, florfenicol, chloramphenicol, novobiocin and oxytetracycline but intermediate to enrofloxacin, cefoxitin and

ciprofloxacin, *Vibrio anguillarum was* susceptible to enrofloxacin, florfenicol, gentamicin, chloramphenicol, nalidixic acid, novobiocin, oxytetracycline, ciprofloxacin, sulphamethoksazole-trimethoprim, but intermediate to erythromycin and neomycin *Yersinia ruckeri* was susceptible to enrofloxacin, gentamicin, nalidixic acid and ciprofloxacin but all of these bacteria were resistant to other antimicrobials.

In conclusion, it was determined that all of these pathogen agents isolated were susceptible to enrofloxacin, florfenicol and ciprofloxacin.

Key words; Rainbow trout, pathogen microorganizm, antibacterial susceptibility