Animal welfare is a concern for animal suffering and for animal satisfaction. Fish welfare is one of the important part of animal welfare. Because many human activities potentially affect the welfare of ?sh. It is not necessarily the state of health or amount of stress that an animal has, that matters to its welfare, but the possession and state of a number of cognitive capacities. The anatomy, physiology and behaviour of ?sh suggests that they are more likely to be sentient than not. Therefore, like other vertebrates, ?sh have the capacity to suffer, and that welfare consideration for farmed ?sh should take these states into account. Aquaculture facilities utilize a number of technologies that need to be examined from the perspective of ?sh welfare. These include high density culture, various feeding strategies, genomic manipulations, handling methods, transportation and slaughter techniques.

In this study it is examined that two stocking density as 2-4 kg/m³ (low) and 6-8 kg/m³ (high) of rainbow trout broodstock in point of fish welfare. Experiment started in September 2009 and ended in February 2010. Broodstock was two years old and spawned once. This experiment included behavioral, water, blood, hormone, feed and biometric analysis that have been analysed.

**Key words:** Fish welfare, Rainbow trout broodstock, Stocking density