

Effect of Feed Additives, *Allium sativum* and *Argana spinosa* Oil on the Growth of Rainbow Trout Fingerlings (*Oncorhynchus mykiss*)

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Abstract : The present study has the overall objective of studying the effect of garlic and Argan oil on the growth of Rainbow trout (*Oncorhynchus mykiss*) fingerlings at the Ras El Ma (Azrou) salmon farming station during the 2023 production period. The fingerlings were distributed in seven tanks at a rate of 1000 per lot. The first control tank (B0) received only the feed without additives. Tanks B1, B2, B3, and B4 received garlic as a feed additive at a rate of 1%, 1.5%, 2% and 2.5% respectively. The fingerlings in tanks B5 and B6, in addition to 2.5% garlic, received 5 and 10ml argon oil, respectively. During this two-month experiment, the weight growth of the fingerlings and the physico-chemical parameters of the water that are favorable for fry rearing (hydrogen potential, temperature, dissolved oxygen, and electrical conductivity) were monitored. The weight growth of fingerlings receiving garlic was positive (mean weight: 4.95g, 5.43g, 5.13g, and 5.06g) compared with control fingerlings (mean weight: 3.88g). The maximum average weight was obtained with 1.5% garlic (average weight: 5.43g). The addition of 5 and 10ml of argon oil to B5 and B6 resulted in a slight increase in weight for the B5 fingerlings (5.37g) compared with the B4 control fingerlings (mean weight: 5.06g) but a minor decrease for the B6 batch (4.73g). The experimental results showed that the use of these feed additives had a positive effect on growth and yield, regardless of the quantities used.

Keywords : *Oncorhynchus mykiss*, fry, feed additive, garlic, argon oil, weight growth

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