

عنوان مقاله:

(Hormonal sex reversal of rainbow trout (*Oncorhynchus mykiss*) by ethynylestradiol- 17α (EE 2))

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نویسندگان:

K. Razmi

T. Najji

M. Alizadeh

H. Hoseinzadeh Sahafi

خلاصه مقاله:

Rainbow trout (*Oncorhynchus mykiss*) females grow larger and mature later than males, making all-female stocks economically advantageous. The objective of this research was to develop methods for the production of monosex populations of trout through the use of sex steroids. The synthetic estrogen ethynylestradiol- 17α (EE 2) was administered in single period-immersion treatment of $400 \mu\text{g/l}$ for 1, 2, 4 and 8 h to groups of newly-hatched sac fries of rainbow trout and in a 30 day dietary treatment of 5, 10, 15 and 20 mg/kgf of newly swum up fries. 73.4 And 94.5% females were obtained with 1 and 2-h single-immersion of EE 2 respectively (38% female in control). However, higher doses progressively reduced the survival drastically. Sex ratios of dietary treatment of fry were 60, 57.4, 78 and 94% females respectively. Treatments also resulted in a slight increase of both weight and length. This increase was related to the method of hormonal exposure (dietary immersion), but not dosage-dependent for utilized hormone. This demonstrates that the direct feminization of rainbow trout can be achieved and resulted in sex reversal ratio effectively but not decreased the growth, as observed in hormonal sex reversed females, and it would be a noticeable approach to the direct feminization of trout.

کلمات کلیدی:

Ethynylestradiol- 17α , Rainbow trout, Immersion, Dietary

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