

Physiological factors affecting triploid production in rainbow trout, *Oncorhynchus mykiss*

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The influence of three physiological factors related to triploid production was examined for rainbow trout. Individual spawnings of 46 females were used to perform triploid production experiments from 1989 to 1991, with various water temperatures (6-13.8°C) at stripping and egg incubation. The percentage of triploids was similar for a heat shock of 26.5°C for 15 min applied 15 or 25 min after fertilization (73.4±5.6% vs 78.6±4.5%). A tendency to a higher percentage of triploids (85.9±5.7%) was observed for water temperatures of 6-8.0°C at stripping and incubation, compared to at higher water temperatures of 12.1-14°C (63.0±8.4%). Analysis of variance indicated an effect of four categories of water temperature (6-8, 8.1-10, 10.1-12, 12.1-14°C) on triploid product at $P = 0.14$. Regression analysis confirmed these as significant ($r = -0.36$; $P < 0.02$). A significant increase in percentage of triploids was observed when eggs remained 2, 6 and 10 days in the body cavity. The mean % triploidy