

**Effect of dietary lipid source on semen fatty acids profile and sperm motility after cryopreservation in rainbow trout (*Oncorhynchus mykiss*).**

**Efeito de diversas fontes alimentares lipídicas sobre o perfil ácido do sêmem de truta arco íris (*Oncorhynchus mykiss*) e sobre a mobilidade espermática depois do descongelamento**

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**Abstract**

In order to evaluate the effects of different lipid sources on sperm motility of cryopreserved semen of rainbow trout (*Oncorhynchus mykiss*) 28 broodstock males 3<sup>+</sup> were kept in four tanks and fed with: 1) a commercial diet as control; 2) a diet containing cod liver oil; 3) a diet containing peanut oil; 4) a diet containing soybean oil. Fish were stripped for milt collection after 150 days of feeding. The semen was analysed for fatty acids composition, and fresh and post thawing sperm motility was evaluated. Vegetable oils induced an increase of C 18:0 and C 18:1 $\omega$ 9 content in semen in comparison with the commercial diet. An increase in C 18:2 $\omega$ 6 and C 18:3 $\omega$ 3 were induced by the diets containing peanut and soybean oil, respectively. Milt from fish fed the diet containing cod liver oil showed a high content in oleic and C 20:5 $\omega$ 3 acid, whereas C 22:6 $\omega$ 3 was

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