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RISK ASSESSMENT OF THE HERBICIDE CLOMAZONE IN THE AQUATIC LIFE.

Clomazone (2-(2-chlorophenyl)methyl-4 .4-dimethyl-3-isoxazolidinone) is a post emergence herbicide widely used in rice fields in Rio Grande do Sul (Brazil) wilh high
aclívíty against Gramineae at the recommended application rate(AR). of 700g/ha. The
herbicide input into the aquatic ecosystem may occur by aerial application or water
drainage. The presence of this chemical in the water may affect non-target organisms
leading to impairments in the aquatic food chain. studies were conducted in this work to
evaluate the risk of Clomazone using the estimated mean effective concentration (EC50)
for the microalgae Selenastrum
caprieornutum(96h) , the duekweed Lemna
valdiviana(96h) and the crustacean Daphnia similis(48h). The EC50 values were 11.2;
31.7 and 13.8 m9/1. respectively. According to the obtained data, and considering a direct
input of the herbicide in a 10cm column water, the estimated maximum application rate
that doesn't cause acute effects ís 5.3 AR for S. caprícornutum, 6.5 AR for D. similis and
15.0 AR for L. valdivíana .The estimated maximum application rate that doesn't cause
chronic effects is 2.0 AR for D. 'similis, 1.6 AR for S.
caprieornutum and 4.5 R for L. valdiviana.