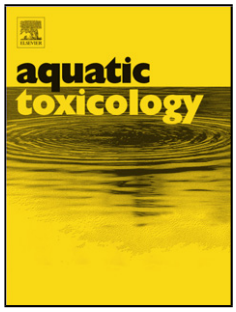

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Combined Toxicity of Prevalent Mycotoxins Studied in Fish Cell Line and Zebrafish Larvae Revealed that Type of Interactions is Dose-dependent

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Highlights

- Demonstrated the individual and combinatorial effects of prevalent mycotoxins- AFB_1, DON and ZEN- on aquatic life-forms.
- Showed that, rankings of individual toxic effects on BF-2 cells and Zebrafish are AFB_1 > DON > ZEN and AFB_1 > ZEN > DON, respectively.
- Combinations of AFB_1+DON and AFB_1+ZEN showed synergistic effects whereas DON+ZEN revealed antagonistic effect on both BF-2 cells and Zebrafish.
- The tertiary combination displayed an overall antagonism in Zebrafish larvae while the interaction was concentration-dependent on BF-2 cells that showed synergism-to-antagonism as the concentration of individual mycotoxins were gradually increased.
- Demonstrated the utility of high content screening for elucidating combinatorial toxicity of mycotoxins *in vitro* and *in vivo*.