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UNDERSTANDING THE REMOVAL MECHANISMS OF PHARMACEUTICAL COMPOUNDS IN A CONSTRUCTED WETLAND SETUP.

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ABSTRACT Veterinary antibiotics are a major player in the usage and ecological occurrence equation of pharmaceutical compounds. Ionophoric antibiotics are widely administered to farm animals. Of the total, only a small portion is used for actual disease specific therapy, rest of the usage is for metaphylaxis, prophylaxis and subtherapeutic purposes. Their presence in various environmental matrices has been confirmed by numerous studies. On account of limited removal by traditional methods, there is a need to evaluate non-conventional approaches like wetlands. The study primarily is an attempt to obtain an insight in the removal mechanisms of Ionophoric antibiotics that potentially occur within a constructed wetland setup. In this context, sorption potential for the selected compounds shall be determined for the wetland soil matrices; role of photodegradation will be evaluated, contribution of wetland bio-factor in the overall reduction shall also be discussed

Keywords: sorption, photodegradation, biotic, wetland