

Abstract

Six heads of Newzealand rabbits were divided into 2 groups. Group 1 animals were the undosed controls. The test group was given 1% alum and 1% polydadmac at 1:2 for a period of 10 weeks after an adaptation period of two weeks during which the animals were under ideal experimental conditions. Fluctuations in electrolyte levels of Mg, Fe, Na, K, Ca and P were monitored in comparison to the undosed control rabbits. On evaluation of the above results, The interactive water treatment with 1% alum and 1% polydadmac at 1:2 was considered toxic to Newzealand rabbits at the dose rates tried Practical implications of the results were highlighted and suggestions for future work were put forward.

Keywords

Alum, polydadmac, interactive, drinking water treatment, Newzealand rabbits

Introduction

In the Sudan, the first use of a chemical to reduce the turbidity of the Nile water especially during the flood season to be suitable for the healthy human consumption with a maximum allowable level (MAL) of 150 mg/L, was 1925. Most of the available working staff is not satisfactorily qualified educationally and the disposal system to eliminate the outcome of the sludge of the chemical reactions that happen during treatment of the turbid water is not adjusted well to the laws of environmental health regulations.

Through out time , alum did not give satisfactory results in the reduction of turbidity of water ,so new methodologies were introduced with special preference in use of polydadmac polymer .Toxicological tests were always lacking and hence subjected this use to a lot of debate .This experiment is a trial to lead the way out.

Material

Animals Six, 5-7 month old mixed, clinically healthy Newzealand rabbits were purchased from Balsam Pharmaceutical Laboratories in the vicinity of Khartoum North and housed, prophylacticy dosed. The rabbits were ear tagged, given a 2-week preliminary period during which lucerne was fed and Nile drinking water was provided ad libitum.

Administration of the doses:Test materials, polyDADMAC and alum (AlSO₄), were prepared in separate stocks each as 1% solution. The two test solutions were blended at 1:2 of the polymer and alum respectively. Animals were weighed-distributed into two experimental groups. Test blend was given orally to rabbits of group

