

FLUORIDE ION LEVELS IN DRINKING WATER SYSTEMS

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Soil suspensions in the pH range 4.2-12.6 from the wet, intermediate and dry zones of Sri Lanka were investigated for their fluoride ion adsorption ability. Dry zone samples showed lowest adsorption while wet zone samples showed highest adsorption. In all samples, adsorption was found to increase with pH, content of organic matter, clay and free oxides of aluminium (III) and iron (III). Present study shows how these soil variables can be applied to maintain fluoride ion levels in the desired range required for dental health. Clay filters can be used to adsorb excess fluoride ions.

All fluoride ion determinations were made with Orion fluoride ion selective electrode/pH meter.

References

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