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NITROGEN CONTENT OF MAHAWELI WATER AT PERADENIYA

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Effluents from agricultural lands and leaching of fertilizer nitrogen beyond the root zone of crop plants is wasteful, and could be a health hazard for both humans and animals if nitrates are present in appreciable amounts. Periodic analysis of Mahaweli water collected from Peradeniya showed that the content of ammonium-nitrogen varied from 0.2 to 4.2 ppm. There was more ammonium-nitrogen than nitrate-nitrogen in the waters.

Rainfall in the upper catachment of the river resulted in greater quantities of nitrogen in the water indicating that fertilizer applied to tea, vegetable and other crops were finding its way into the river. This was inspite of the diluting effect of rain water.

Laboratory and field experiments conducted on an alluvial soil from Peradeniya indicated that the intensity and quantity of rainfall were important factors in leaching losses of nitrogen from the soil.

The long term effects of relatively high content of nitrogen (and phosphates) on ground water pollution and eutrophication of water bodies in the dry zone into which most of these waters will be diverted could cause problems in the future.