

Trace elements in food materials and hair of village people in Phaidam village, Luangnamtha province, Lao PDR

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Abstract

In Southeast Asia, many kinds of natural bioresources have been used as food materials. We focused on the contents of trace elements in food materials including natural bioresource used by local village people and their effects on human health. In Phaidam village located in Luangnamtha province of north part of Lao PDR, we conducted health check on female villagers and the survey on meals together with food materials. From the same specimen, hair samples were collected on three months after the former investigation. We determined element concentrations in food materials and hair samples by PIXE. As the results, we found that the trace element concentrations in hair samples were normal levels from viewpoints of human health. The analytical results on food materials indicated that natural bioresources such as Packnork, cricket, luffa, bamboo shoot and river-nori contain Fe,Cu,Zn,Mn at higher concentration levels. It is suggested that bioresources are important food materials for local villagers to obtain essential trace elements.