Effects of rainfall and vegetation on seasonal variation in acid neutralizing capacity

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To confirm the effect of forest management in long-term on solute transport in headwater area, we conducted the comparative study of natural forest with soil degradation catchments in Setouchi Region. We monitored stream runoff in Miyajima and Takehara experimental catchments. Moreover, soil and rainwater, soil water, and river water were collected at four areas, Miyajima, Hiroshima, Higashihiroshima and Takehara. The results are summarized as follows, 1) the average pH of rainwater was 4.8 at four sites. 2) Soil nutrient was rich at Miyajima where was covered by natural forest. 3) In the burned catchment, the peak discharge increased and baseflow decreased. Moreover, the pH of stream water and weathering rate declined.

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