

AHW018-11

Room: Exhibition hall 7 subroom 2

Time: May 28 11:45-12:00

## Characteristics of soil erosion on grazing pastures

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In Japan, large-scale grassland development started in the 1960's. At present, large-scale grasslands such as public pastures are about 900 spots in Japan. Most of these are located on sloping lands. Therefore, soil erosion is important problem on sloping grasslands. However, the actual conditions are not grasped enough.

In this study, the actual erosion conditions were surveyed in two public pastures in the North Kanto region. Erosion conditions and distributions of gully and cattle track were measured by TS (Total station) and GPS. Vertical profiles of soil hardness were also investigated using the SH type handy dynamic cone penetrometer along gully channels.

The marked gully erosion occurred in low level areas on the paddock and along the paddock fence. The depth of gully bottom was approximately equal in the depth of a hard layer of soil. Hence, it concludes that there is a close relationship between the gully formation and properties of the soil hardness in soil layers.

Keywords: Grazing pasture, Soil erosion, Gully erosion