

## The relationship between the increase of snow hardness and the meteorological conditions during the winter of 2005/06

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The highest Ram hardness of snow in the latest 20 years was observed at Tohkamachi during the winter of 2005-06. The hardness increased rapidly from December to the beginning of January. This rapid increase during the early winter had not been observed even during the record heavy snow winters of 1983-84 and 1985-86. In this study, the characteristics of snow hardness are depicted using snow pit observation data, and their causes are discussed. It was found that during the early winter prior to the increase in the liquid water content of snow, the hardness increased with the density. This increase in density could be explained by the viscous compression. Moreover, even the increase in hardness during that period could be explained by the increase in density.