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Development and Utilization of wild species in Hokkaido: Haskap (*Lonicera caerulea* var. *emphyllocalyx*) as a useful berry

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Outline

Importance
Haskap is berry crop of wild species in Hokkaido

Social Importance
Ainu people have been utilized as fresh fruits or preserved it.

Variability
It is grown in various parts of Hokkaido now

Nutritional Importance
A functional compounds loganin and quinic acid were found.

Feeding → **Taste** : sour, sweet or (and) bitter

Compounds : iron, calcium, and anthocyanin etc.

Agriculture →

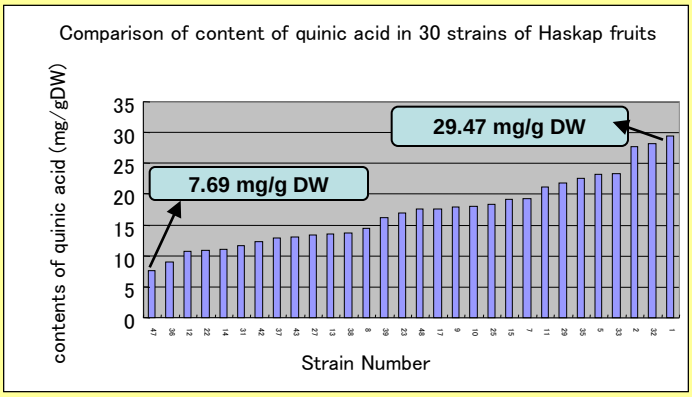
Research → **Loganin** showing antibiotic activity and reduction of blood pressure.
Quinic acid showing effectiveness for infectious disease of the urinary tract.

More basic information about these compounds will be necessary.

Analyses of quinic acid

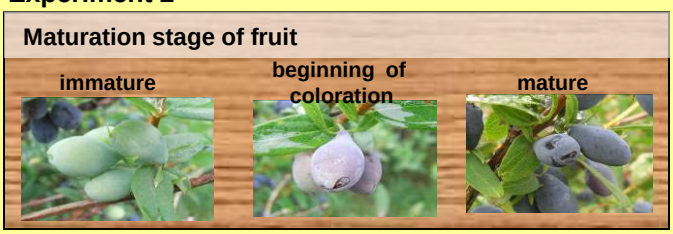
In this study, to detect quinic acid HPLC (High performance liquid chromatography) was used.
Experiment 1. Quinic acid in difference of the concentration in 130 plant strain were measured.
Experiment 2. Quinic acid in difference of the concentration in 3 different stage of fruits were measured.

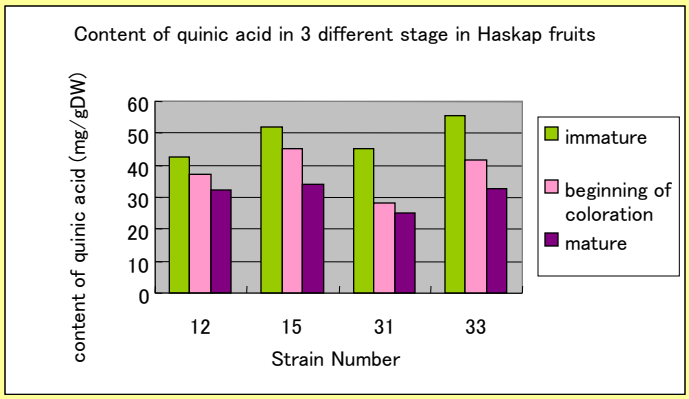
Experiment 1



→There was quinic acid content variation among 30 strain of Haskap.
→The difference between lowest and highest concentration was about four times.

Experiment 2





→The concentration of quinic acid in immature stage was highest.

Future prospects

From this study, the high-content of quinic acid was selected as elite line of Haskap. Based on this results, new useful cultivar will be produced by cross pollination between selected elite lines, and by biotechnological procedures.

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