

The Hascup

An Introduction



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Iburi prefecture is located in the South Central Region of Hokkaido. (Fig. 1)
Toyoura town, Toyako town, Sobetsu town, Date city, Muroran city, and Nobortibetsu city are located in West Iburi. Shiraoi town, Tomakomai city, Abira town, Atsuma town, and Mukawa town are located in East Iburi.



Fig. 1 Location of Iburi

Introduction to the Hascup and the East Iburi area

Hokkaido is the northernmost island of Japan. Residents of Hokkaido can enjoy pure water, clean air, and wide open spaces that are complimented by four distinct seasons. Hokkaido has many natural wonders, cultural activities, and a varied history unique to Hokkaido that visitors and locals alike can enjoy. One such feature of Hokkaido is the Hascup.



The Hascup is a delicious fruit that is grown in Hokkaido and its flavor is often associated with the nature of the area.

<Quick Fact>

The indigenous people of Hokkaido, the Ainu, have named many of the places and plants on the island. Their name for the Hascup is “ハシカブ” (pronounced hah-shi-ka-pu) meaning “the many things on the branch.” The tree that the Hascup grows on is called the Honeysuckle, or in Japanese “ケヨノミ” (pronounced Key-yoh-noh-mi.) The word Hascup is a combination of Honeysuckle and hashiKAHPu and symbolizes the juicy sweet taste of the berry.

Wild Hascup Distribution



Fig. 2 Distribution of Wild Hascup in Eurasia Continent and Far East.

In Japan, the Hascup naturally grows from the high mountains on central Honshu (the main island of Japan) to all over Hokkaido and the Chishima Islands, and stretches beyond to Sakhalin, North-East China, and Siberia.

Wild Hascup in Hokkaido

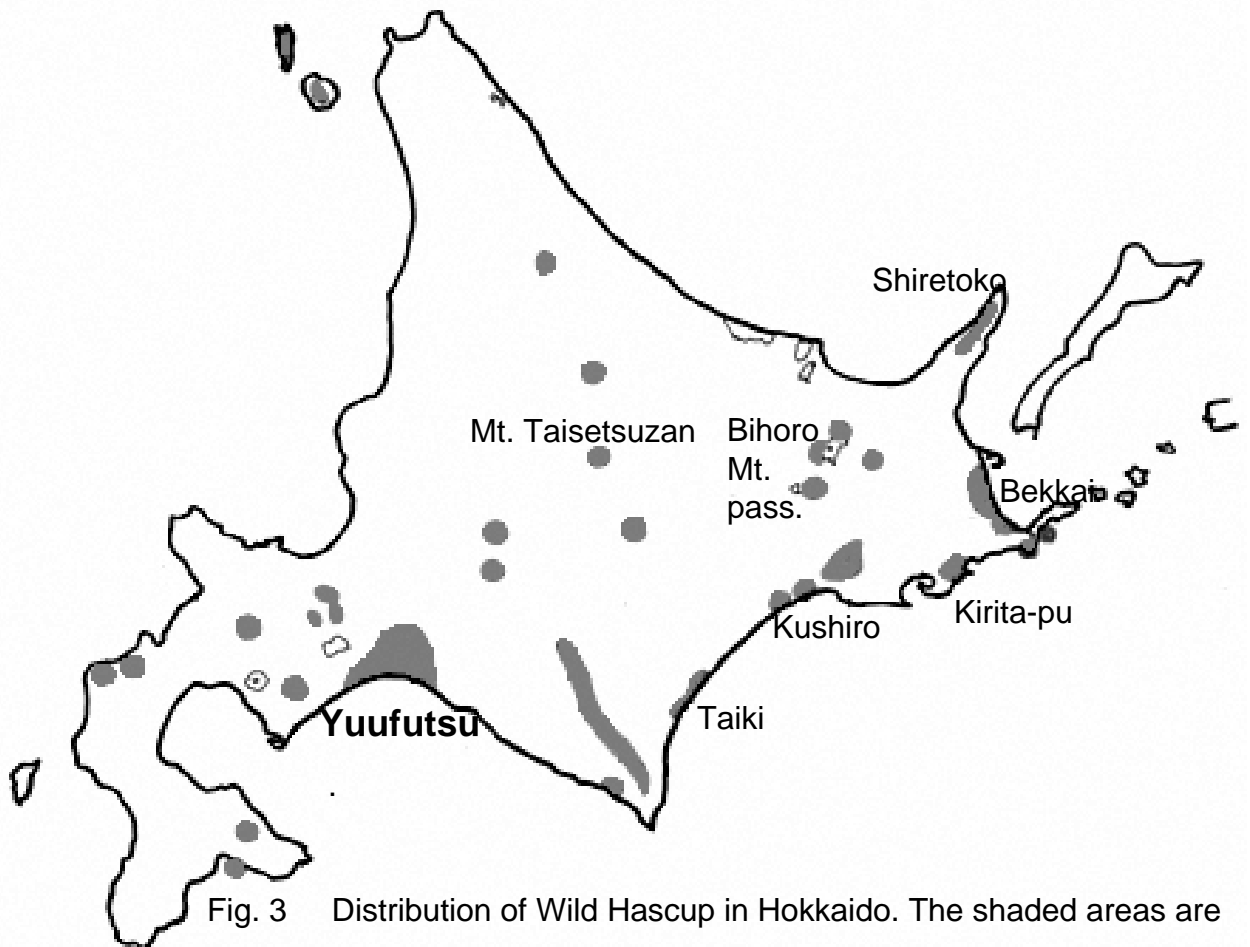


Fig. 3 Distribution of Wild Hascup in Hokkaido. The shaded areas are the places where Hascup grows wild. (Ref. 1)

The Hascup grows wild all over Hokkaido. These areas can be divided into two groups : sub-alpine and alpine lands: Mt. Taisetsuzan, Shiretoko, and the Bihoro Mt. pass. And, marshland: Bekai, Taiki, Kushiuro, Kirita-pu, and Yuufutsu .

The History of the Hascup in the Yuufutsu Wilderness



As shown in the left figure, the Yuufutsu Wilderness extends from Western Tomakomai to the outskirts of the Pacific Ocean. Hascup shrubs used to be spread throughout this area.

Fig. 4 Location of the Yuufutsu Wilderness. (Ref. 2)

In Tomakomai, during the 1920s, Hascpu was plentiful. The berries were harvested and eaten fresh or preserved using sugar, salt, or shochu (an alcohol made of rice).



Fig. 5 Untouched Yuufutsu wilderness at Penkenai river. (Ref. 3)

The berry is also used in baking with as it provides a tangy taste to cakes and cookies. The flavor of Hascup became so popular in Hokkaido that by the 1950s, there was a large market for the picking and the selling of these wild berry.

Unfortunately, in 1960, because of construction of Tomakomai port and seaside industrial zone, most of the Hascup s natural habitat was lost. In response to this, the citizens of Tomakomai began projects to protect the Hascup. Many Hascup was replanted in other areas in order to propagate.



Fig. 6 Tomakomai port under construction(1955). (Ref. 3)

As a result of these efforts, we can enjoy Hascup in Atsuma town, Abira town and Midorigaoka Park (Tomakomai city). Wild Hascup still grows, but only in two places: near Benten Pond in the Yuufutsu Wilderness, and around Lake Utonai .

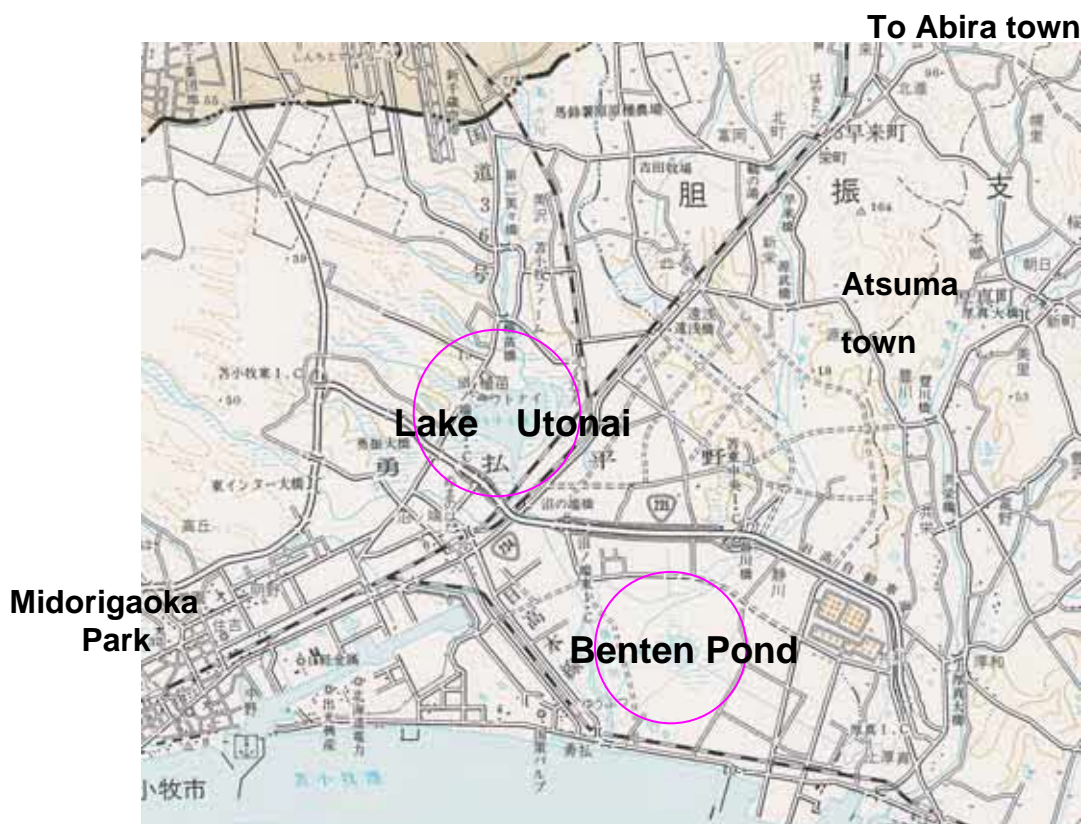


Fig. 7 The places where Hascup grows around Tomoakomai

Commercial Cultivation of the Hascup

The first commercial growing of Hascup began in 1970 in Chitose. Hascup cultivation subsequently commenced in the 1980's in Tomakomai and Atsuma after the construction of the port and the surrounding industrial area.

Further cultivation began in Bibai to meet the demand for Hascup from bakeries and patisseries in Tomakomai.

Hascup cultivation area & harvesting weight in Hokkaido

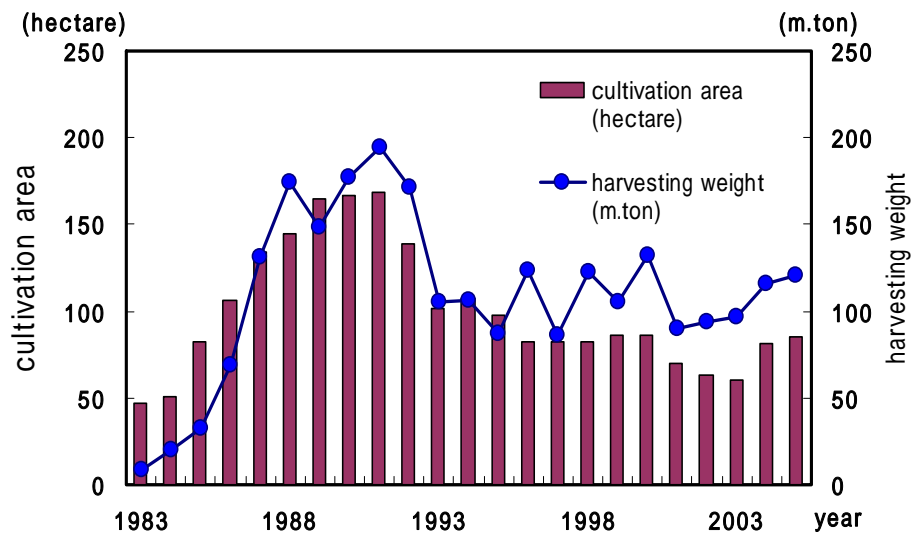


Fig. 8 Hascup cultivation area & harvesting weight in Hokkaido.

Table. 1 Hascup cultivation area & harvesting weight (by municipality) in 2005.

	cultivation area(hectare)	harvesting weight(m.ton)
Chitose city	19.6	20.0
Bibai city	14.3	39.5
Atsuma town	11.0	16.0
Kamifurano town	8.2	6.4
Shintoku town	8.0	3.6
Other	23.7	34.8
total	84.8	120.3

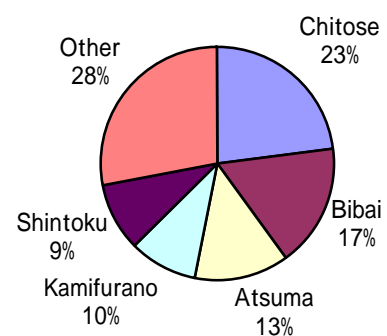
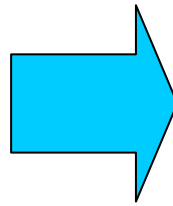
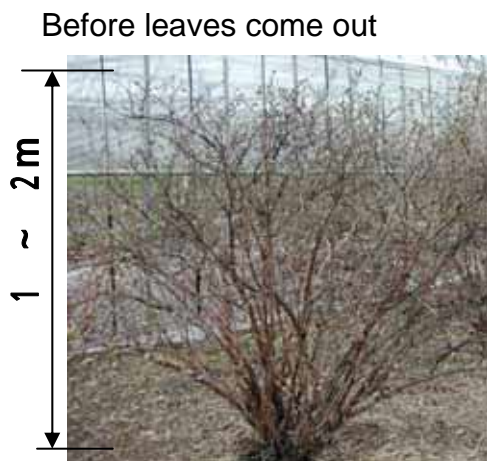


Fig. 9 Cultivation area percentage by municipalities in Hokkaido.

Characteristics of the Hascup

(Life cycle of the Hascup on a farm in Atsuma town)

Hascup is a shrub that grows 1-2 meters tall and has many leaves and branches.



The Hascup Flower

In mid-May, the Hascup begins to bloom with yellow, bell-shaped flowers. However, it is most beautiful when in full-bloom during the beginning of June.



Hascup berries

Around the end of June, the Hascup begins to produce flowers & bear purple berry. The berry start out green and in one week, usually during the beginning of July, the berry turns deep purple.

Hascup Information

Size

- 1~1.5cm

Weight

- 0.5~0.8g

Other

- The skin is thin and edible, with a tangy flavor
- Each berry has 5~25 seeds, but they are still good for making jam because the seeds are so small.



Appearance

· As seen in the photographs, the shape has many variations.



Hascup: From Farm to Table

(In Atsuma)

Hascup is usually harvested from July to the beginning of August. However, because of changes in the weather, these dates may change from year to year.

Harvesting the Hascup

- One plant has about 1 ~ 1.5 kg of berry.
- There is about 1,000~2,000kg of berry in 1 acre of land.



(When you pull back the branches, you can see many berries.)



(These are the Hascups just after harvesting)



(The berries are put into a small box that is hung around the neck.)



Packing

Each crate of Hascups contains four 300g packs.



The crates of Hascup make their way to the produce market of Tomakomai and are auctioned off to different stores.



Hascup Nutrition Facts

Content of Vitamin C in various Fruits

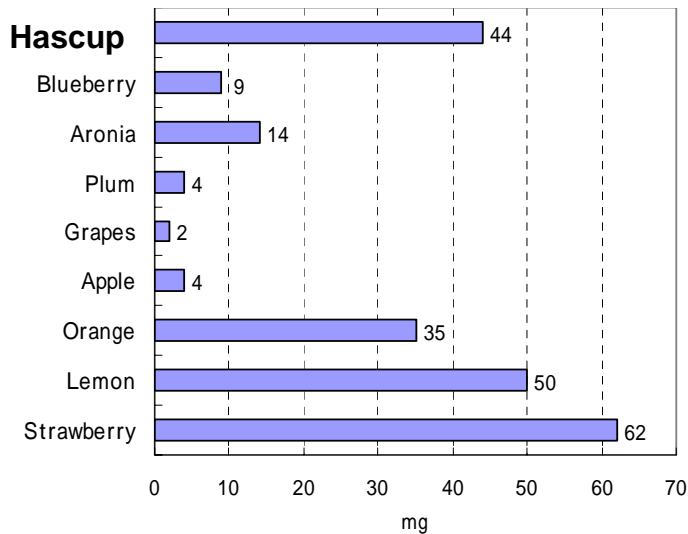


Fig. 10 Weight of Vitamin C per 100g fruit

Vitamin C has many functions, mostly associated with health maintenance. For example, cells need vitamin C to produce collagen, one of the materials required to make living tissue like our gums, blood vessels, bones, and teeth. As shown in the figure, the Hascup has more Vitamin C than most other fruits.

Content of Calcium in various Fruits

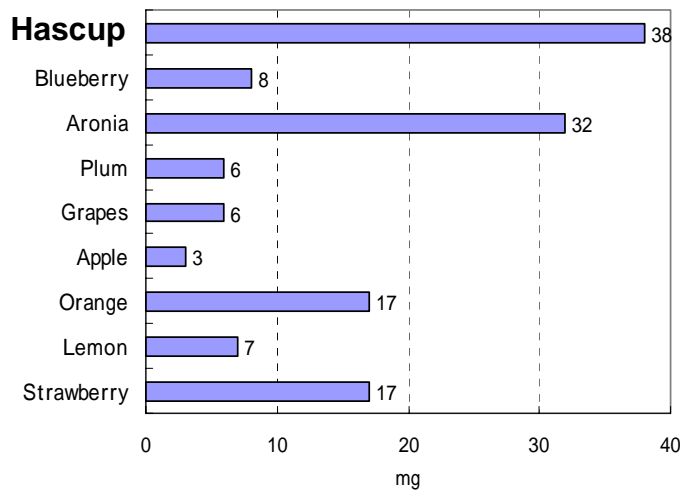


Fig. 11 Weight of Calcium per 100g fruit

Calcium is a necessary mineral that helps build strong bones and teeth. In addition, it helps keep activity of the nervous system in check. The Hascup has the most calcium per gram compared to any other fruit.

References

Blueberry



Aronia(Chokeberry)



Plum



Grapes



Apple



Orange(Mican)



Lemon



Strawberry



Content of Iron in various Fruits

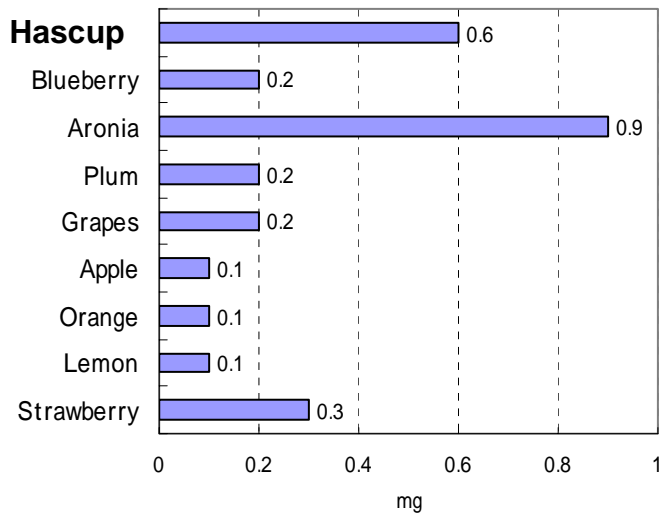


Fig. 12 Weight of Iron per 100g fruit

Iron is a carrier of oxygen throughout the body, as well as resist against disease. It is especially beneficial to take up iron with Vitamin C and/or protein, as these nutrients increase the body's ability to absorb this important mineral. The Hascup has the second highest amount of iron, after aronia.

Rich in Polyphenol

Polyphenol is known as an "anti-oxidant", which is thought to remove the effects of aging. Hascup contains a lot of polyphenol. Scientists are currently studying the amount of polyphenol, and measuring the SOD (superoxide dismutase) activity of the Hascup.

Hascup Recipies

The Hascup can be eaten raw, or used in jams, jellies, juices, cakes and liquors, as well as being pickled. Even when it's cooked, the unique tangy taste still comes through. Here are some recipes so you can use to cook some delicious Hascup dishes .

Hascup Jam

- 600g Hascup
- 600g Sugar
- Several drops of lemon juice for taste



< how to make >

- 1 Mix the Hascup and sugar in a large pot and heat over low flame.
- 2 Stir continuously to prevent burning, and remove any skim that collects on the surface
- 3 When the jam does not easily dissolve when placed in cold water, its finished!

Hascup Smoothie

- 0.8~1kg Hascup, frozen
- 150~300g Bananas, sliced and frozen
- Two Tablespoons of Sugar
- 100ml Milk



< how to make >

- 1 In a blender, mix all ingredients until smooth.
- * For a different flavor, use yogurt instead of milk

Hascup Pie

- 2 Pastry Sheets
- Dab of butter
- 200g Hascup
- 60g granulated sugar
- Dash of ground cinnamon and nutmeg
- Two tablespoons of Kirshwasser
- 1 8x8cm or other small sized Castella (Sponge Cake)
- 1 egg yolk



< how to make >

- 1 Pre-heat oven to 200 .
- 2 Stretch out Pastry Sheet and make vent holes using a fork.
- 3 Grease a baking pan with butter; place pastry sheet, then Castella on pan.
- 4 Mix Hascup, sugar, cinnamon and nutmeg, and spread onto castella.
- 5 Place second pastry sheet on top and fold over edges.
- 6 Thin egg yolk with a small amount of water, then brush on top of pastry.
- 7 Heat at 200 for 10min, then reduce heat to 180 . Continue baking for an additional 30 min.
- 8 Remove from oven and let cool for 10 minutes before serving.

Pickled Hascup

- 500g Fresh Hascup
- 300~350g sugar
- 40~50g salt

< how to make >

- 1 Mix Hascup and sugar and let sit for 3~4 days. Example: used for onigiri
- 2 After this time, move berry to a wide mouth jar and add salt.
- 3 The pickles can be eaten on their own, or used in onigiri or other recipes.



Hascup Pound Cake

- 3 eggs
- 20g milk
- 140g butter, room temperature
- 140g sugar
- 170g flour
- One teaspoon of baking powder
- 2 drops vanilla
- 1/2 cup of Hascup Jam



< how to make >

- 1 Grease a pound cake pan with butter and lightly flour. Set aside.
- 2 In a large bowl, using a hand mixer, blend butter until soft.
- 3 Add sugar slowly while mixing at low speed. Add vanilla.
- 4 Add eggs, one at a time, mixing between each addition.
- 5 Add milk and mix on high until mixture is smooth.
- 6 Add, by sifting, flour and baking powder. Mix by hand.
- 7 Stir in Hascup jam then pour mixture into pound cake tin.
- 8 Make an indentation along the middle length, to prevent the cake from cracking.
- 9 Heat at 180 until a toothpick comes out clean when you pierce the cake.
(50min)

References

- 1) Hokkaido Forestry Research Institute, " Distribution of Wild Hascup in Hokkaido".
- 2) Wild Bird Society of Japan, Lake Utonai sanctuary Home Page.
(ULR:<http://www.wbsj.org/sanctuary/utonai/index.html>)
- 3) M. Nakai, "Plants in Tomakomai", (Tomakomai no Syokubutsu in Japanese), The Tomakomaiminpo. Co. Ltd. (2000)
- 4) Y. Shimoyama *et al.*, Spectrochimica Acta (2008), in press.