"Once-devastated mountains are now producing a specialty product, Black Locust Honey." Allow us to present an enterprise initiated by a local government-operated hotel: A new approach to Sustainable Development Goals, (SDGs), linking history and nature in the region.

Behind Kaijika-so Inn's honey is a historical story of forest restoration dating back to the Meiji period.

It is a story that leads to the modern afforestation and flood control in the area as well as environmental protection, job satisfaction and economic growth. We will look at how a local hotel has applied the philosophy of Sustainable Development Goals in developing and producing "Black Locust Honey," "Honey Flavored Soft Serve Ice Cream" and "Facial Mask with Honey", which have all become big sellers as specialty products in the region.

The mountains in Ashio were once devastated. But they now produce Black Locust Honey. Do you know why? There is a history of forest restoration which not many people are aware of. First, let us tell you about the relationship between the history of this restoration and the Black Locust Honey that Kajika-so Inn is promoting. Second, we would like to introduce the various honey products you can enjoy.



Harvesting honey in the mountain of Ahio

# Relations between the Thriving Ashio Copper Mine and Timber # Did you know that the mountains in Ashio were once devastated? Ashio Copper Mine was developed in the Edo period and its major turning point occurred during the Meiji period. With the introduction of new laws by the Japanese government, technological innovations in mining development were brought in from western countries and various mines across the nation actively implemented this new technology. Through mining development, new, large-scale mineral deposits were often found and then western style furnaces and machinery were installed to drastically increase production. This happened at Ashio Copper Mine, which later became known as one of the largest

copper mines. As the mine grew, it needed increasing volumes of fuel and consequently,

more timber was required to build the infrastructure necessary for development.

\*\*\* Forest Restoration History and Black Locust Trees (Robina Pseudoacacia) \*\*\*

# Change of Forest Management System and Beginning of Forest Devastation # During the Edo period, forests were owned by either the Shogunate government or feudal domains and managed by the villagers in the region. However, both the ownership and management styles of forests changed in the Meiji period. The ownership was basically divided into "government-owned forests" and "forests under private ownership." In other words, all the forests presently became either "national forests (forests under government ownership)" or "private forests (forests under private ownership)." This change made it much easier for the trees in the forests to be felled for use in the development of the region. This is why the forests across the country became increasingly devastated through deforestation.

# Meiji 30, Beginning of Active Forest Conservation and Recovery Projects # The Forest Act was finally enforced in Meiji 30 to protect forests, and forest restoration and conservation projects commenced. The mountains in Ashio were also its target. The development of Ashio Copper Mine had begun 10 years earlier and deforestation in the surrounding mountains was in progress.

### # Smoke that Hampered the Forest Restoration #

Copper ore gives off smoke when it is smelted in the furnace. Since copper ore contains not only copper but also sulfur and other kinds of heavy metals, the smoke discharged when copper ore is smelted (called metallurgical smoke) also consists of sulfur and other kinds of heavy metals. This sulfuric element in the smoke (called sulfurous acid gas) is particularly poisonous to plants. This gas caused the plants in the region to wither away.

#### # Beginning of Forest Restoration and Process of Trial and Error #

Although the forest restoration process had begun in Meiji 30, the trees that were continuously being planted withered completely because of the poisonous gas. The soil on the surface of the mountains without trees was eroded by the wind and rain to expose bare rock. The first thing that needed to be done was to find out how to plant trees successfully. Trees and grasses which might be resistant to the poisonous gas had to be found and trial planting of the candidates was repeated year after year. There were 2 obstacles standing in the way of forest restoration:

- 1 The erosion of soil on the mountains.
- 2 The poisoning of plants by the gas.

# # New Light Cast on the Sulfurous Acid Gas Problem and a New Start for Forest Restoration Projects #

The sulfurous gas problem had been a stumbling block for forest restoration for years. Since the trees that were planted had never survived, the majority of restoration work until around Showa 30 had focused on how to retain soil on the mountain surface. However, in Showa 31, a new technology was implemented to recover more sulfurous acid from the gas and it was hoped that this might make it possible to neutralize the damaging effect of the gas. The forest restoration projects which had been brought to a standstill due to the repeated failure of tree-planting made a fresh start with the new technology. New trial-and-error attempts started, which involved planting trees and grasses that were more resistant to poisonous gas.

### # Black Locust (Robina Pseudoacacia) #

Through the revitalized attempts at forest restoration, Black Locust seedlings (Robina

Pseudoacacia), Ryobu (Clethra Barbinervis) and so on, (which are considered to be resistant to poisonous gas), were planted and seeds of Japanese knotweed, saw grass, mugwort and so on were sown. They all flourished and cover the mountain surface to this day, laying the groundwork for forest restoration projects in the future.

The above is a brief historical outline of how the Black Locust came to be introduced and now flourishes and how, in turn, it has led to be keeping and the production of honey in the region. To taste the Black Locust Honey in the mountains in Ashio is to know the history of repeated attempts to restore the forests of Ashio.

\*\*\* Honey Production and Related Products that Kajika-so Inn Promotes \*\*\* Historic Black Locust Honey is sold at Kajika-so Inn.



Black Locust blossoms in full bloom in the mountains of

Ashio



Black Locust Honey

## # Honey is harvested by a professional beekeeper. #



Mr. Sakae Ota of Ota Apiary harvests honey.



Each bee is an important worker. They are treated gently with smoke.

# Have a look at other related products and the other kinds of honey available. #



Honey set



Honey Flavored Soft Serve Ice Cream



Facial Mask with Honey