

# Managing Aso Grasslands for Sustainable Agriculture

Akaushi (Japanese Brown) cattle graze on an Aso region grassland

In the Aso region of Kumamoto Prefecture, there are expansive grasslands that are said to have been used as grazing land for more than 1,000 years, during which time the people have over and over again burned off dead grass, sent out livestock to graze, and cut the grass. In 2013, in recognition of the people's various efforts to maintain and ensure cyclical use of the beautiful grasslands, "Managing Aso Grasslands for Sustainable Agriculture" was designated as a Globally Important Agricultural Heritage System (GIAHS) by the Food and Agriculture Organization (FAO) of the United Nations.

YANAGISAWA MIHO

The Kusasenrigahama plain



Globe thistles



The Oorurishijimi (Large Shijimi Blue) butterfly

There are expansive grasslands at the northern foot of Eboshi-dake, one of the five peaks of Mount Aso situated at the center of the huge caldera which is a famous symbol of Kumamoto Prefecture. These unobstructed, continuous grasslands are known as the Kusasenrigahama plain. These large grasslands alone extend to about 785,000 square meters over the remnants of a pair of volcanic craters that were formed about 30,000 years ago. They have become a popular tourist spot receiving many visitors as they can be reached by car easily, despite having an elevation of over 1,000 meters above sea level.

“Actually, these grasslands around Mount Aso were not formed entirely by nature,” says Sakamoto Taku of Kumamoto Prefecture’s Aso Regional Promotion Bureau. “Since ancient times, people here have burned off dead grass, sent out livestock to graze, and cut the grasses over and again. The grasslands were formed and maintained over an extensive period of time. It is thought that these grasslands were already formed by the beginning of the tenth century, and that they mainly supported the agriculture of the region as food and as a pasture for horses and cows, essential animals in rice farming, and also as a place to produce compost.”

The Aso soil is acidic due to the volcanic ash that fell and collected over the entire area, so it is not fit for farming. The people here, however, improved the soil for generations with cow and horse manure and compost made using their grass. Hill paths that link the small towns in the valleys to the grasslands in

the mountains, and where people and their horses and cows worked together to transport grasses, still exist today and are called the Kusa no Michi (Grass Paths). In just the small Ichinomiya area of Aso City along the northern foothills of the five peaks of Mount Aso, there are twenty-five of these paths following the cliffs. The accumulation of people’s constant efforts supported farming in the small towns. *Bonbanatori*, a custom in this region of picking flowers that bloom in the grasslands and offering them to the spirits of their ancestors is surely an expression of gratitude for the hard work of those who have gone before.

There are many species of fauna and plants unique to the Aso grasslands, including an endangered butterfly, the Oorurishijimi (Large Shijimi Blue). Among the approximately 600 species of plants that grow in the Aso grasslands are rare plants such as the perennial globe thistle which indicate that the Japanese islands were connected to the continent during the ice age. But why do so many plants grow here when the grasses are burned away with fire every year in spring? Sakamoto explains, “Unlike slash-and-burn techniques, the grass is not burned for long periods but is quickly burned away in a short time, meaning the soil temperature doesn’t really increase, and the roots and seeds of grasses are not affected by the burning.”

In recent years, however, it has become difficult to maintain the grasslands due to a shortage of people to take on farming and livestock work, and there are growing concerns about deterioration and reduction of the grasslands.

“To stop this from happening, there are currently sustainable initiatives underway to protect the grassland environment,” says Sakamoto. To maintain the cycle of burning, grazing and cutting, especially in pasturelands used for grazing livestock and gathering feed, grazing cattle from outside the region are being accepted, and work is also being done on an ownership system for Kumamoto Akaushi (Japanese Brown) cattle, a specialty of the Aso region and extremely popular as a healthy source of meat. In the past, experimental projects on biomass energy systems using wild grass as an energy source were conducted and eco-tours were held to enlighten visitors about the wonders of the grassland environment. Various activities to maintain the expansive grasslands in Aso, together with the rare nature and the culture connected with them, will continue to be carried out vigorously into the future. 



Burning off dead grass