

Research materials

Aomori apples

- Aomori Prefecture is the largest producer of apples in Japan. Aomori apples are characterized by big, strong sour taste and hardness. There are many kinds of apples. For example Orin, Fuji, Jonagold etc. There are various processed goods such as Apple Pie and Apple juice etc.

Dakekimi

- Dakekimi is corn grown in the Dake area. They are as sweet as melon and grape. Kernels are closely packed and yellow.

Tuna

- Tunas swim around waters lower than their body temperature. In addition, they are swimming all the time, because otherwise their body can't get oxygen, so they will die. The body of some tunas are bigger than other tunas. We know that we eat raw tunas. For example, sashimi and sushi and so on.



Industry change by Global warming

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Our group researched influence on industry by global warming because we heard Aomori will become an orange producer.

So Aomori's speciality Apple, Dakekimi and Oma's tuna can endure global warming. We thought these hypotheses.

1. Apples will become tender because the temperature is hot.
2. Dakekimi won't become sweet because the morning is hot.
3. Oma's tunas will disappear in the Tsugaru straits because seawater is hot.

Our group investigated if these hypotheses are the right answer and what are changing tastes and ecology by using the Internet.



Research result

Our opinion is that the taste of apple's, Dakekimi, Oma's tuna will change. At first, apple's taste will change. Aomori apple's feature is a sour taste and hardness. But because of a high temperature caused by global warming, the deadline for the growth period has been extended and the sour taste will decrease, sweet. Next, a high temperature problem. Apples are harvested earlier than usual and concentrated sunshine causes a sunburn. Next, Dakekimi. Dakekimi is the corn grown at Aomori prefecture Hirosaki city Mt. Iwaki Dake zone. Sugar content increases in the cooler morning.

As a result, the sugar content is over 18 Bx and it's very sweet.

However, it's thought that the sweetness decreases as global warming progresses.

Oma's tunas swim and turn a few lower waters their body temperature which is $18 \sim 20^{\circ}\text{C}$. Peak shipment is from September to December in the past, but now it is from July to October. In fact, there is a difference of two months. The population is decreasing compared to peak time. Apples with strong acidity and low sugar content will have high sugar content. From now on, there will be no difference in the temperature and shorter time to raise sugar content. So, dakekimi will be less sweet from now. Oma's tunas shipment peaks will premature. Also, they will move to a sea suitable for them and we won't see them in the Tsugaru Strait.