

Announcer A: "It is time for the Special Report. Vegetables consumed daily, such as cucumbers and tomatoes are, in fact, grown with a large amount of agricultural chemicals -- to the extent that you could say they are soaked in chemicals. These chemicals are also linked to soil and water contamination,"

Announcer B: "Yes. Because of that, farmers are taking another look at sustainable agriculture. It is an agricultural method that uses organic fertilizer like chicken and cow manure and less chemical fertilizers. Water use is also a key to this method of agriculture. Let's take a look."

Mr. Kamon, Tokyo Wholesale Market: "Sweet!!"

Ms. Torisu, food researcher: "They're so fresh. It's the taste of first love! It's delicious!"

Reporter: "Both of these visiting food specialists are extremely impressed with the deliciousness of these strawberries. On this farm, they harvest 250 boxes a day. What grabs your attention the most is the smiting faces of the farmers."

Mr. Fukumoto: "I want to grow even better ones next year."

Reporter: "This is the Aso area in Kumamoto Prefecture, a vast open area, 128 km in circumference. It has been chosen repeatedly as one of Japan's top100 areas for drinking water. Underground water gushes up from the Aso Mountains. It is a place of world-class scenic beauty." "Not wanting to contaminate any more of this environment, the farmers here want to grow safer and more delicious agricultural produce. These farmers, who live in and around six towns in the southern Aso area, are taking up the challenge of a newly established organic agricultural method. We have followed them for the last six months."

Reporter: "What are you spraying?"

Mr. Matsuda: "This is restructured water."

Reporter: "Is it completely harmless?"

Farmer: "Yes, it is."

Reporter: "How are the prospects for this year's harvest?"

Farmer: "Looks good so far. Because we use restructured water, we have cut down on the use of insecticides and chemical fertilizers by about one third now."

Reporter: "Mr. Matsuda has 37 years of experience in agriculture and is an agricultural instructor for Kumamoto Prefecture. He looks totally content with his tomatoes after the drastic decrease in the use of agricultural chemicals. Success with tomatoes have been rare in recent years."

Mr. Matsuda: "I had a lot of damage from insects last year."

[on screen] A green caterpillar in a tomato

Reporter: "He had a lot of trouble with green caterpillars that year when he didn't use restructured water."

Mr. Matsuda: "If even one green caterpillar gets into the crop, the tomatoes will be spoiled. Even with stronger agricultural chemicals, these bugs don't die."

Reporter: "He even purchased a robot to spray the chemicals for fear of losing his income."

Mr. Matsuda: "Every time you use agricultural chemicals on the field, you are covered by chemicals from head to toe, so I resolutely bought a robot. I used it twice or so last year. But, because I used restructured water this year, there were not very many bugs and the robot has been kept in storage."

Reporter : "There aren't any blighted crops in this field at all, are there?"

Mr. Matsuda: "No, but there were other areas that were said to be totally destroyed."

Reporter: "I visited a greenhouse near Mr. Matsuda's farm. I was completely amazed to see a pile of dead tomatoes that had wilted and completely lost their commercial value. These tomato vines had received numerous applications of agricultural chemicals."

Farmer: "These tomatoes were grown in a greenhouse in the middle of the hot summer. When harvest time finally came, they wilted. It was too devastating to cry over."

Reporter: "However, Mr. Matsuda's tomatoes look great. We visited another farmer that grows tomatoes in the same way as Mr. Matsuda does."

Mrs. Kochi: "Our tomatoes are shiny and have a good shape. As many as 60% of our tomatoes were rated extra superior."

Reporter: "Here, again, good news came to my ears."

Woman: "We cultivated the soil with Thomas Orga Bacteria and sprayed plants with a mix of tap water and restructured water at a ratio of 500:1. Previously, we had problems with wilt disease

and black leaf spot, but not any more."

Reporter: "What are these things called Thomas Orga Bacteria and restructured water that are so greatly beneficial to farmers? We decided to investigate."

Mr. Goto, Thomas Research Center of Japan: "This is Thomas Orga. Bacteria, originally created by Dr. Thomas of the United States."

Reporter: "One gram of this black powder contains two to three billion beneficial bacteria of 40 different kinds. You add rice bran and oil cake to it, mix in chicken and cow manure and saw dust, then rotate it. After 45 days, the mix becomes mature compost."

Mr. Soda, Thomas Research Center of Japan: "Our goal is to bring our soil back to its original state."

[on screen] House in which Dr. Kitazato, a famous bacteriologist, was born

Reporter: "Oguni-cho is the birthplace of Dr. Shibasaburo Kitazato. The JA Compost Center, which ran deficits over the past few years, was revived by the introduction of this bacteria. Was there some kind of karma involved here?"

Mr. Hirose, Restructured Water Research Center: "Restructured water is made by adding a small amount of organic matter to tap water, thereby raising the energy potential of the water."

[on screen] Three plants in different soil mixes

Left: 80% sterile soil, 10% organic compost manufactured by another company

Center: 65% sterile soil, 30 % same organic compost, 5% Thomas compost

Right: 80% sterile soil, 20 % Thomas compost

Reporter: "Does it really make a difference?"

Left: 80% sterile soil, 10% organic compost manufactured by another company. Center: 65% sterile soil, 30 % same organic compost, 5% Thomas compost. Right: 80% sterile soil, 20 % Thomas compost.

Reporter: "The same amount of restructured water was added to these soils. The results show significant differences in the growth of the leaves as well as in the development of the root systems."

[on screen] Two plants grown with the same amount of Thomas compost:

Left: Restructured water was applied twice. Right: Restructured water was applied five times.

Reporter: "Here are two plants grown with the same amount of Thomas compost and watered with restructured water twice (left) and five times (right) over a 20 day period. Great differences are seen in the amount of leaf growth and in the development of the root systems."

Ms. Torisu: "In order to protect our lives, we desire fresh and healthy food that we can consume without worry."

Mr. Kamon: "Being tasty and cheap is not enough in today's market."

Reporter: "Why are conventional agricultural methods demanding so much reflection at a meeting of consumers, producers, distributors and agricultural coop members?"

Reporter: "Another factor in agricultural produce is scavenger water."

Professor Esatoguchi, Nakakyushu Junior College: "The word scavenger is not familiar to our ears. The closest Japanese translation would be "a cleaner that erases free radicals."

Reporter: "Antioxidants such as vitamin C, beta carotene, and flavonoids that kill free radicals are abundant in vegetables, fruits and grain."

Prof, Esatoguchi: "This is another reason why it is important to grow produce without many agricultural chemicals."

Reporter: "The farmers in southern Aso area and the surrounding region have started to actively grow safer and higher quality agricultural produce.

"Some change has started to be seen in major supermarkets and distribution systems. However, in order to make this change a success, consumer consciousness needs to be changed."

Consumer 1: "I want to eat food that is as safe for the body as possible."

Consumer 2: "Organic produce clearly tastes better. What it looks like on the outside is not important."

Reporter: "The Aso area is now in its second year of a new agricultural method that uses organic fertilizer consisting of microorganisms and water and a decreased amount of agricultural chemical use. The farmers are excited about challenging this new horizon."

Announcer A: "It is amazing that they produce that much without using agricultural chemicals, isn't it?"

Announcer B: "I wanted to learn more about restructured water. Currently, this agricultural

method is used only in the Aso area."