

Report of visiting tea farm

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The tea farmers in Shizuoka is suffering very much now. Radioactive cesium that dispersed due to the accident of the first nuclear power plant in Fukushima that had been caused due to the great earthquake that had happened on March 11 was detected from the tea leaf. A radioactive cesium of 200Bq/Kg was detected in Kinezuka's farm. Mr. Kinezuka has produced tea leaves by organic farming for 35 years. And he developed the method of minimizing the damage of the harmful insect and the weed using neither agricultural chemicals nor the commercial fertilizer. But this radioactive cesium ruined his current hardship. According to the government view, if radioactive cesium of 500Bq/Kg is detected in the leaves, the leaves are safe. But Mr.

Mr. Kinezuka don't think the leaves which the radioactive cesium was detected in are safe. And sales have decreased because of the harmful rumor. Still, Mr Kinezuka wants to be doing as a tea farmer in the future. Then he talked with consumer's people and asked "Both the consumer and the producer were victims, so I want to buy tea which the radioactive cesium was detected in, and let's get over this predicament together". I thought that I had to act calmly without making me puzzled to the harmful rumor as this story was heard. And as an engineer, I have to develop practical systems which are clean like bio-ethanol or solar power.



My research is Saccharification which is a part of producing glucose from lingo-cellulosic biomass like rice straws and woods. And glucose change into bio-ethanol. So, I'm interesting in present treatment of rice straws. Then, I ask present treatment of rice straws for Mr. Kinezuka. He puts the rice straws in the rice field. And the microorganism decomposes the rice straws and changes them into the nutrient. I ask for use of the farmer whom other agricultural chemicals used. They knit the rice straws, and put it on surroundings in the tea plantation, and are preventing the weed from entering. The rice straws used in that case remains in former shape without being decomposed after one year, so the microorganism can't decompose the rice straws and can't change them into the nutrient. They also put the rice straws in rice field, but they aren't decomposed by microorganism, so the treatment is useless. Then, I think that they should change the rice straws into sugar and make the bio-ethanol. Now, farmers are using a lot of energy in their farming as gasoline. It is not good, because The fossil fuel has danger of drying up, and we depend on import to get fossil fuel. So, if they can make fuel by themselves, they can produce crops with stability. I actually felt the importance of my research for the above-mentioned reasons.