

Notice on the radiation situation of ARI

We are receiving numerous inquiries concerning the radioactive contamination of the Asian Rural institute from individuals and groups interested in visiting us. We hope the summary of our situation (as of June 2012) below will serve as a reference.

1) How high is the radioactivity in the air at ARI?

We are continuing radiation measurements of six defined outdoor points on our campus. Since February 2012 the measurement results have been even. The average amounts to about 0.2 - 0.4 $\mu\text{sv}/\text{hour}$ outdoors and 0.08 - 0.17 $\mu\text{sv}/\text{hour}$ indoors. Suppose you worked a maximum time of 7.5 hours outdoors and spent the rest of the day (16.5 hours) indoors your daily exposure volume would amount to 2.8 - 6.3 μsv , or to 1.03 - 2.12 mSv in a year. However, this ratio presumes that you live on campus every day for 365 days. As it is unlikely for short-term visitors to spend such a long time outdoors this actual exposure rate is thought to be lower. Japanese and international standards suggest that an exposure rate of 1 mSv per year is acceptable for ordinary citizens.

The exposure rate of two of ARI's farm staff members who spend the longest time on the farm has been measured through glass badges since May 2011, after the earthquake. The total exposure estimate of one year of these two people was around 0.7 mSv for each. This figure does not include natural radiation. When adding the average amount of natural radiation from regular years to this result the number is thought to approximate 1 mSv. However, compared to last year the current radiation in the air has decreased by 10%, making it unlikely that you would reach 1mSv even if you spent one year at ARI.

2) Will I be contaminated by radiation if I eat the agricultural produce from ARI?

As you know the food harvested on the ARI campus is prepared in the school's kitchen and we spend each day sensing the cycle of nature and life. Therefore, immediately after the earthquake disaster the radioactive contamination of our food became a grave concern to which we paid the utmost attention to. At ARI, instead of applying the standard which the government has set for the amount of radioactive cesium in foods (100 Bq/kg) we determined an own standard and stopped the sales and on-campus consumption of food materials that include more than 37 Bq/kg of radioactive cesium. (The standard for rice which we eat daily is set at under 20 Bq/kg, for water at under 10 Bq/kg.) The food that is now sold and eaten at ARI is all under 37 Bq/kg. (Water: 0 Bq/kg, unpolished/brown rice: 11 Bq/kg, polished/white rice: 3 Bq/kg) This standard is the same as the one that the Republic of Belarus has specified for children's food, which is said to be the strictest world-wide. (The Belarusian government's maximum standard for one year of exposure is at under 1 mSv.) In other words, if you were to stay at ARI for one year and eat three meals made of ARI's farm produce a day your internal exposure is estimated to be under 0.1 mSv.

Last year November our school introduced a radiation measurement instrument (a gamma spectrometer donated by JEDRO). Simultaneously with the opening of the public radiation measurement center (ARI Becquerel Center) we started conducting regular measurements of things on our campus, beginning from food, soil, feed for livestock,

compost etc. If we find a figure that is considered high we take prompt countersteps and refrain from consumption if foodstuff is concerned. (See point 4 for consideration.)

3) Is it safe to work on the ARI farm?

As explained above, the amount of radiation in the air on our farm as well as the soil and compost that people touch at farmwork is being scrutinized regularly. We judge that there is no exposure on the farm that can lead to physical harm, as long as you do not put large amounts of soil into your mouth or a large amount of dust falls on you because of strong winds. However, we recommend that you wash your hands after farm work, pay attention to thorough gargling and put on a face mask if you are really concerned.

4) Is there anything in particular that I have to be worried about?

Having measured a variety of different places and things on their radiation exposure we detected several high numbers within the ARI campus. In such cases we quickly took countermeasures while at the same time announced the findings openly to all campus residents to make them aware of the matter. Following are the things we have called attention to:

2011

a) Wood ash (from the firewood stove): 40,000 Bq/kg

Because of the extremely high radiation only staff members are assigned to handle the disposal properly at the city's cleaning center.

b) Fallen leaves: 20,000 Bq/kg

We collected fallen leaves which are near to livestock and where people work and buried them on our premises.

c) Feed crops: 6,000 Bq/kg

Veiled and buried according to government instructions.

d) Berries: 123Bq/kg, carps: 79q/kg, whole grain wheat flour: 51bq/kg, egoma [*perilla nankinensis*]: 46.9Bq/kg, kiwi (39Bq/kg)

Consumption, use and sale halted.

2012

a) Egoma [*Perilla nankinensis*]: 46.9Bq/kg, kiwi: 133.80Bq/kg, mitsuba [*cryptotaenia japonica*]: 100.14Bq/kg

Consumption, use and sale halted.

For more detailed information, please contact us.