Immediately following the Great East Japan Earthquake on March 11, 2011, FAS/Japan prepared a series of reports on Japan’s rapidly evolving food and agricultural situation. These reports were designed to disseminate vast amounts of information to a broad audience of policy makers and private sector actors as quickly as possible. Topics covered in these reports include; food safety, soil toxicity, port damages, disaster assistance, feed supply infrastructure, commodity prices, retail trends, consumer psychology, and many other food and agricultural topics. As the post-quake series of reports were prepared quickly, often from Japanese translations, some liberties may have been taken with grammar and writing style.
TODAY’S OVERVIEW
There is a growing sense that the situation at the Dai-ichi nuclear power plant is not getting worse. However severe aftershocks, food safety scares, and economic uncertainty have created an atmosphere of confusion and dismay throughout Japan. Consumers are refraining from spending money; restaurants are empty, weddings have been postponed, and graduation ceremonies have been cancelled. This decline in consumer spending has created great difficulty for the food service sector. But despite the consumer malaise, there is a great sense of togetherness and common purpose in Japan, as citizens, NGOs, businesses, and government work together to help those affected by the quake and tsunami.

Radioactive materials continue to be detected in vegetables from Fukushima and neighboring prefectures. MHLW has called on consumers to refrain from eating leafy vegetables and broccoli produced in Fukushima for the time being. Leafy vegetables called “Kukitachina” produced in Motomiya registered the highest level of radioactivity to date, at 164 times higher than the legal limit. This product was grown 60 km away from the Fukushima Daiichi nuclear power plant. Beyond food safety issues, there is a growing concern about radioactive traces in ground water.

BACKGROUND
A massive 9.0 magnitude earthquake and subsequent Tsunami hit Japan’s north east pacific coastal region on March 11, 2011. The catastrophe devastated cities, towns, and villages of the prefectures located along the coast line. The most affected prefectures are Iwate, Miyagi, Fukushima, and Ibaragi. As of today, the National Police Agency has reported 9079 dead, 2633 injured, and 12,645 missing from the earthquake/tsunami.

PORTS
Shipping by sea has emerged as a preferred mode of transportation in Japan. Major feed producers have started emergency transports to the severely damaged Tohoku region using short sea shipping vessels. Feed from Hokkaido and Kogoshima are shipped to the ports of Akita and Sakata, which are on the Sea of Japan. On Wednesday, Kuribayashi Steamship will begin shipping relief goods to the port of Sendai, which has partially reopened.

EMERGENCY FOOD AID
The USS Ronald Reagan is continuing its mission to provide relief supplies to the disaster-affected regions. One prominent newspaper characterized the support given by Operation Tomodachi as “unusually generous.” A senior MOFA official said this unusual level of support proves that the U.S. is a “genuine ally.”

GRAINS AND OILSEEDS
The flour milling industry is basically back to normal operating conditions, with some repair issues and logistical issues related to the short supply of materials, trucks, and gas. Flour mill lines at Kashima were restored as of 22nd, however the oil crushing plant and glucose line at the same location are still
under repair. Showa's Funabashi flower mill was damaged but will be back on line shortly. A small millers group in north east Japan has evidently asked MAFF to grant an exception to the minimum reserve rules.

Japan Agriculture (JA) reportedly operates around 300 rice warehouses just in Miyagi prefecture, but the condition of those facilities is still unknown. JA suspended rice shipments from a total of six prefectures including, Iwate, Miyagi and Fukushima due to unconfirmed damage and has canceled all of rice sales contracts that they made with wholesalers and trading houses.

**SEAFOOD**  
No updates from 3/22

**WOOD PRODUCTS**  
According to the Ministry of Land Infrastructure and Transportation’s (MLIT) Housing Bureau, prefectural governors in the area of devastation have ordered 175-temporary emergency housing units through the Japan Prefabricated Construction Suppliers & Manufactures Association. MLIT ordered temporary housing through the Prefabricated Construction Association (PCA). PCA will start to build 600 houses in two weeks, 4,800 in four weeks and 32,800 in two months. MLIT has also requested all prefectures to suspend ongoing public construction and give top priority to restoration of the disaster area. March is the end of fiscal year and it is the busiest season for public construction in Japan.

The Forestry Agency is urging cooperation with the Japan Federation of Wood-Industry Associations (Zenmokuren) in order to ensure that wood supplies, including wood pickets, plywood, joists, and other products, are available for temporary housing. Also, JPMA, the Japan Plywood Manufacturers Association reported that plywood plants from unaffected areas will be able to obtain sufficient supplies of plywood for temporary housing. (12,000 m3 for 30,000-units) within the next two months.

MAFF hosted an information exchange meeting March 22, 2011 in order to help ensure the availability of plywood for temporary housings in the devastated areas. Participants were four wood industry organizations such as Federation of Plywood Manufacturers, the Plywood Trading Cooperation, the Japan Lumber Imports Association and the Japan Wood Products Information and Research Center. Several points were made at the meeting:

1) Plywood manufactures in the devastated area represent roughly 25% of Japan’s total plywood output. Plywood mills in unaffected areas have sufficient capacity to cover the lost production and emerging reconstruction demand.

2) Difficulties in distributing plywood after the earthquake gave plywood users an impression of tight supplies. Suppliers should actively supply information on the supply situation so that users will not fear a shortage.

3) Wood manufacturing organizations should communicate with each other, and Japanese/local government, in order to ensure sufficient supplies of building materials for temporary housings.
Average Japanese housing starts in Japan were 1.1 million/year from 1999 to 2009, and only 0.8 million last two years. Japanese housing industry has potential capacity to supply emerging housing and plywood demand. Also there are many substitutions for plywood such as OSB, MDF, particle board, which comply with JAS standards. In short term, there might be shortage of plywood but Japanese plywood manufactures will increase production.

POULTRY, MEAT, DAIRY AND LIVESTOCK
The quake hit the primary poultry production area of Tohoku. Iwate prefecture produces around 10.6 million birds annually, 16% of a total domestic production. Most poultry farms in Iwate have not ceased production due to damages and lack of available feed. A number of poultry farmers have reduce production in Aomori-prefecture, which is the top area for broiler production in Tohoku region.

TOXICITY
On March 21, Prime Minister Kan ordered the cessation of shipments of spinach and Kakina (Brassica vegetable) from the prefectures of Fukushima, Ibaraki, Tochigi and Gunma due to the detection of radioactive materials (of which levels exceeded the regulated amount). In Tochigi prefecture, 5,700 Becquerel (Bq) of Radioactive Iodine (the level is approximately 3 times higher than the regulated level) was detected in spinach. The government of Japan is surveying contamination of radioactive materials in various fresh produce items that are currently produced in the region. A complete table of those products found to have exceeded the GOJ’s provisional limits is separately attached.

Japanese (provisional) limit is categorized by the type of food and radioactive nuclide. The U.S. FDA limit is categorized only by type of radioactive nuclide. For food, the FDA uses an estimation of the daily average food intake by age and sex. It is difficult to compare the two systems, however, it would initially appear that Japan’s provisional limits are more or less in line with those set by the FDA.

GOJ Provisional threshold - Indices relating to limits on food and drink ingestion

<table>
<thead>
<tr>
<th>Nuclide</th>
<th>Drinking water</th>
<th>Milk, dairy products*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radioactive iodine</td>
<td>300</td>
<td>300</td>
</tr>
<tr>
<td>(Representative radio-nuclides among mixed radio-nuclides: I-131)</td>
<td></td>
<td></td>
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</tbody>
</table>

Index values relating to ingestion limits in guidelines for coping with disasters at nuclear facilities etc.(Bq/kg)
<table>
<thead>
<tr>
<th>Food Category</th>
<th>Item</th>
<th>Radioactive cesium</th>
<th>Uranium</th>
<th>Alpha-emitting nuclides of plutonium and transuranic elements (Total radioactive concentration of Pu-238, Pu-239, Pu-240, Pu-242, Am-241, Cm-242, Cm-243, Cm-244)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vegetable(s)</td>
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<td></td>
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<td>200</td>
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<tr>
<td>Drinking water</td>
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<tr>
<td>Milk, dairy products</td>
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<td>Grains</td>
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<tr>
<td>Meat, eggs, fish, etc.</td>
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<tr>
<td>Infant foods</td>
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<td>20</td>
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<tr>
<td>Drinking water</td>
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<td>Milk, dairy products</td>
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<td>Meat, eggs, fish, etc.</td>
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<td>Infant foods</td>
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<tr>
<td>Drinking water</td>
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<td>Milk, dairy products</td>
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<td>Grains</td>
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<tr>
<td>Meat, eggs, fish, etc.</td>
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*) Provide guidance so that materials exceeding 100 Bq/kg are not used in milk supplied for use in powdered baby formula or for direct drinking to baby.

U.S. FDA Thresholds for Radioactive Contamination

<table>
<thead>
<tr>
<th>Radionuclide Group</th>
<th>DIL (Bq/kg)</th>
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<tbody>
<tr>
<td>Strontium-90</td>
<td>160</td>
</tr>
<tr>
<td>Iodine-131</td>
<td>170</td>
</tr>
<tr>
<td>Cesium-134 + Cesium-137</td>
<td>1200</td>
</tr>
<tr>
<td>Plutonium-238 + Plutonium-239 + Americium-241</td>
<td>2</td>
</tr>
<tr>
<td>Ruthenium-103 + Ruthenium-106 ©</td>
<td>(C₃ / 6800) + (C₆ / 450) &lt; 1</td>
</tr>
</tbody>
</table>

**HORTICULTURAL PRODUCTS**

Concerns about fresh produce from Fukushima, Ibaraki, Chiba, Tochigi and Gunma prefectures have dominated the food and agricultural dialogue today. Among those regions, Ibaraki and Chiba are the most important prefecture in terms of the production of fresh vegetables. Fukushima, Tochigi and Gunma are located further north, so their peak production season has not yet arrived. Currently, the followings are major items produced in the region.

**In bracket shows % of the total nation’s production**

- Spring cabbage – open fields – Chiba (16%), Ibaraki (11%)
- Spring Welsh Onion – open fields – Chiba (25%), Ibaraki (18%), Saitama (7%)
- Spring Chinese cabbage – open fields – Ibaraki (41%)
- Spring Lettuce – open fields – Ibaraki (34%)
- Spinach – open fields – Chiba (14%), Saitama (11%), Gunma (8%), Ibaraki (6%)
- Broccoli – open fields – Saitama (12%), Fukushima (5%), Gunma (5%)
- Komatsuna (Brassica veg) – open fields – Saitama (18%), Tokyo (9%), Chiba (8%), Kanagawa (8%)
- Lotus Roots – open fields – Ibaraki (45%)
- Leaf of beefsteak plant (Ooba) - covered
- Honewart (Mitsuba) – covered
- Chinese chive (Nira) - covered
- Winter/Spring Tomato – covered (vinyl house) – Ibaraki (4%)
- Cucumber – covered (vinyl house) – Fukushima (15%)
- Winter/Spring Green pepper – covered (vinyl house) – Ibaraki (33%)
- Strawberry – covered (vinyl house)
After the March 11 Tohoku-Kanto Earthquake/Tsunami, demand for fresh produce has been extremely weak in the Metro Tokyo area. Major events, receptions and banquets in the Metro Tokyo hotels and restaurants have been cancelled and the purchase orders of fresh produce items have been significantly reduced. Over fear of the contamination of radioactive materials, fresh produce retailers tend to place orders at a reduced volume for the products (specifically leafy items) produced in potentially contaminated area such as Fukushima, Ibaraki, Tochigi and Gunma. In general wholesale prices at Tokyo wholesale markets are weak.

RETAIL AND DISTRIBUTION
Grocery supply is improving in Tokyo and food production is expanding. However, there are more demands in the market due to hoarding and anxiety among consumers. For instance, Seven-Eleven Japan can now supply 2.5 times more milk than before the quake, but is receiving 6.3 times more orders from their shops. The same can be said for bottled beverages. Supplies are 1.8 times greater, but orders are 3.4 times greater. This data reflect consumer desire to stock milk and shelf stable products, and avoid fruits and vegetables and other perishable goods.

Domestic meats prices have edged higher in the market. The broiler’s average wholesale price, debone thigh, was JPY 691 per kilogram at Tokyo Market in the week of March 14 through 18, an increase of 2% from the week before. The pork carcass price was JPY 543 per kilogram, jumping 12% from the week before the quake.

The GOJ advised the affected prefectures to refrain from shipping agricultural products with radioactive contamination over the provisional residue standard of the Food Sanitation Law. However, rumors about vegetables other than those suspended vegetables are spreading. There are reports of farmers from outside the GOJ no-ship zone in Ibaragi and Gunma disposing of spinach and other vegetables, such as Mizuna (Japanese mustard greens) and Rocket (lettuce) due to shipping and transport difficulties. Ibaragi farmers also are being told by wholesalers that they cannot sell any vegetables produced in Ibaragi Prefecture. Supermarkets in Tokyo have perishable vegetables such as Mizuna and Chingensai (Chinese cabbage), not the suspended vegetables, from Igaragi on the shelf unsold at half price. Some consumers have been over-reacting to the radiation issue, and are trying to return milk and vegetables produced before the earthquakes.

MEDIA
NHK reported that abnormal level of radioactive material was detected in additional 11 vegetables from Fukushima sampled on Monday and that MHLW is calling on consumers to refrain from eating these vegetables. The network said that 82,000 Bq/kg of radioactive cesium, 164 times higher than the provisional concentration values, had been detected in kukitachina from Motomiya; 82,000 Bq/kg of radioactive cesium, 164 times higher than the provisional concentration values, had been detected in kukitachina from Motomiya; 28,000 Bq/kg of radioactive cesium, 56 times beyond the limit, had been detected in shinobufuyuna from Kawamata-cho; 24,000 Bq/kg of radioactive cesium was detected in santoona from Nishigo-mura; and 13,900 Bq/kg of radioactive cesium was detected in broccoli from Hitate-mura. Abnormal levels of radioactive substances were also detected in cabbage, komatsu-na, turnip, chiiire-na, cruciferous vegetable, and kousaitai from Fukushima; parsley from Ibaraki; and raw milk from Mito City and Kawachi-machi, Ibaraki.
11:43 March 23, 2011 Wednesday (CCS Edano comments on FDA steps taken against agricultural products from Fukushima, Ibaraki): In his daily morning news press briefing on Wednesday, Chief Cabinet Secretary Edano was asked about whether the U.S. FDA’s decision to stop at ports of entry agricultural and dairy imports from Fukushima, Ibaraki, and two other neighboring prefectures without enforcing any screening constituted “overreaction.” Edano said he is aware that the U.S. has responded to the radioactive contamination of these products but that he would like to learn the details of those measures first. He said the GOJ would ask any foreign governments to consider countermeasures based on scientific data and that it would be appropriate for them to only implement enhanced radiation monitoring as a precautionary step. Asked whether Japan will file a complaint about the FDA steps, Edano said Japan’s food safety standards, including those connected to radiation, are far stricter than those adopted by foreign governments to the extent that they are often dubbed as “non-tariff barriers.” He said: “Japan will brief foreign governments on detailed facts about the contamination situation so that they can respond in an appropriate manner.”

13:48 March 23, 2011 Wednesday (NHK: Edano says ban on Fukushima/Ibaraki foods presumes long-term contamination): NHK online reported at 12:30 on press comments this morning by CCS Edano regarding the GOJ’s ban prohibiting consumers from eating some types of vegetables grown in Fukushima and Ibaraki Prefectures due to high-level radiation found in those products. While dismissing any immediate health damage from eating those food items, the top government spokesman said the ban was instituted because the contamination is likely to be prolonged. He stressed that the decision was made as a precautionary step.

13:18 March 23, 2011 Wednesday (Aashi: High levels of cesium detected in soil): Asahi reported at 12:20 on the Education and Science Ministry announcement on Wednesday that a high level of cesium was detected in a soil sample collected at a location about 40 kilometers away from the Fukushima nuclear station. According to the article, the soil in question, which was surveyed on March 20, was laced with 163,000 becquerel/kg of cesium, or four times higher than a government-set standard. Noting that the figure was 6 times higher than the level registered a day earlier, the article said it might become necessary to remove the contaminated soils in order to grow vegetables, given that cesium has a half life of about 30 years.

12:47 March 23, 2011 Wednesday (Kyodo: U.S. bans imports of dairy products from near Fukushima plant): Kyodo reported that the U.S. Food and Drug Administration said Tuesday it will ban imports of dairy products and vegetables from an area near the crippled Fukushima Daiichi nuclear power plant in Japan, citing "radionuclide contamination." The measure will cover products such as milk and spinach from Fukushima, Gunma, Ibaraki and Tochigi prefectures, the FDA said.

12:02 March 23, 2011 Wednesday (Kyodo: PM Kan asks Fukushima residents not to eat leaf vegetables due to radiation): Kyodo reported that Prime Minister Naoto Kan instructed Fukushima Gov. Yuhei Sato on Wednesday to order residents not to eat leaf vegetables harvested in the prefecture after radioactive materials far exceeding legal limits were found in 11 types of vegetables, and to suspend shipments of these vegetables as well as turnips. In the latest sign that the impact of radiation leaks is slowly spreading beyond Fukushima, the premier also asked Masaru Hashimoto, governor of Ibaraki, a prefecture neighboring Fukushima, to suspend shipment of raw milk and parsley produced in his prefecture.

14:35 March 23, 2011 Wednesday (NHK: Tokyo prohibits tap water for infants): NHK reported that Tokyo metropolitan water authorities detected a reading of 210 becquerels per liter of iodine 131 was yesterday at a water filtration plant at Katsushika Ward. The authorities reportedly asked Tokyo residents not to allow infants to drink tap water, given that the detected contamination level is more than twice the accepted level for infants.
**Wednesday, March 23, 2011 14:31** NIKKEI reports that the Tokyo Metropolitan Government announced today that iodine exceeding permissible levels for infants has been detected in tap water in northern Tokyo. The City said that for that reason tap water should not be consumed by infants. One of three samples collected today was found contained an iodine reading of 210 becquerels per kilogram, exceeding the 100 becquerels per kilogram level considered acceptable for infants.

**Wednesday, March 23, 2011 12:27** NIKKEI carried a report from Canberra that an Australian dairy exporter speculates exports of milk to Japan would increase in the short term due to concerns about contamination of local supplies.

**DONATIONS**
Significant donations from private firms have been reported. The USAPEEC International Poultry Development Program has pledged $25,000 to the Japanese Chicken Association to aid and assist its members in rebuilding efforts after the recent devastating earthquake and tsunami. UIPDP is a charitable support organization that works closely with USAPEEC in supporting various international program aimed at creating good will and uniting the global poultry industry.

The following condolence letter was posted on the websites of the U.S. soybean industry:
To our friends in Japan,

The U.S. soybean industry, like the world community, was shocked by the devastation suffered in Japan during the recent earthquake and tsunami. The resilience and resolve of the Japanese people, already demonstrated in so many ways, will help Japan cope with the effects of this terrible disaster. Our organizations have long felt a deep connection to our counterparts, customers and soy consumers in Japan. We share a common concern for Japan’s recovery, and the well-being of its people.

We stand ready to assist and support our friends in Japan, in the short, medium and long term. In the spirit of collaboration and consensus, we reach out to the Japanese soy industry and ask how we might help.

ASA-IM/US Soybean Export Council
American Soybean Association
The United Soybean Board
The World Soy Foundation

日本の友人の皆様

東北地方太平洋沖地震により被災された皆様、そのご家族の皆様に心よりお見舞い申し上げます。米国大豆業界は、世界の人々同様、このたびの地震と津波により北日本が激甚的な被害を受けたことに、驚き、ショックを受けております。日本の皆様がすぐに立ち上がり復旧に全力で取り組んでいらっしゃる様子はすでにいろいろな形で示されており、この大惨事を克服されることを信じております。米国の大豆団体は、長年に渡り日本の大豆関連業界の皆様、大豆の消費者の皆様と深い、親密な関係を持っております。日本の復興、そして日本の皆様が幸福で健康な生活を回復されるよう、心から祈りしております。

日本の友人の皆様へ、短期、中期、長期に渡り、援助、支援致したく、日本の大豆関連業界の皆様にどのような形でお手伝いできるか伺いたいと思っております。私ども、米国大豆関連団体一団、日本の皆様の一日も早い復旧、復興のためできる限りの支援活動をさせていただきたいと思っております。

まずは、書面にて、取引急ぎお見舞い申し上げます。

アメリカ大豆輸出協会 アメリカ大豆協会 全米大豆基金財団 世界大豆財団
USSEC/ASA-IM ASA USB WSF