

USDA Foreign Agricultural Service

GAIN Report

Global Agricultural Information Network

THIS REPORT CONTAINS ASSESSMENTS OF COMMODITY AND TRADE ISSUES MADE BY
USDA STAFF AND NOT NECESSARILY STATEMENTS OF OFFICIAL U.S. GOVERNMENT
POLICY

Voluntary Public

Date: 6/10/2014

GAIN Report Number: KS1426

Korea - Republic of

Post: Seoul

Food Consumption Trends in Korea

Report Categories:

Promotion Opportunities

Approved By:

Kevin N. Smith

Prepared By:

Si Yeon Kim / Yong Keun Ban / Mark A. Myers

Report Highlights:

A seminar conducted by the Korea Rural Economic Institute (KREI) on changes in food consumption patterns was recently held to discuss the results of a survey conducted by Hankook Research. A total of 3,018 adults responded to the survey. This report aims to provide an understanding of Korean consumers' food consumption patterns so that U.S. exporters can better plan their marketing strategy for targeting Korea.

1. General Food Consumption

Korean consumers generally purchase food in small and medium sized supermarkets (29.8% of the respondents), hypermarkets (27.8%), and traditional markets (27.2%). A large percentage of consumers in the capital area of Seoul use small and medium sized supermarkets and hypermarkets, while consumers in rural areas most frequently visit traditional markets. The younger generation and people with higher incomes tend to use hypermarkets more often.

Table 1: Most Visited Type of Stores to Purchase Agricultural Products (Unit: Percent)

		Small and middle sized supermarket	Hypermarkets	Traditional markets	Chain supermarket	Others
Total		29.8	27.8	27.2	9.1	6.3
Region	Capital area	32.0	28.7	22.0	9.6	7.8
	Rural area	25.1	25.2	36.9	8.4	4.4
Age	Under 39	33.4	33.3	13.7	11.1	8.5
	60~69	26.7	21.4	38.2	9.0	4.8
	College	28.5	35.7	17.2	11.7	7.2
Monthly income	1 million	32.4	15.8	36.8	6.2	8.9
	Over 6 million	25.9	35.2	16.7	14.8	7.5

Purchasing food online is not very common. Only 15.8% of households responded that they use the internet to order food on a regular basis. The younger generation showed a higher usage of online food shopping. The main reasons why consumers go online to purchase food are lower price (26.5%) and delivery service (23.7%). The satisfaction of online shopping is relatively high, scoring 71.4 out of 100 for price and 70.4 out of 100 for quality.

Environment-friendly food¹ purchases are more common than online food shopping. Among respondents, 37.6% said that they purchase environment-friendly food regularly. Hypermarkets are the most commonly visited type of store for environment-friendly food consumers. However, households

¹ Environment-friendly agricultural and fishery products are those that fall under one of the following category:

- Organic agricultural and fishery products
- Agricultural products that have been produced without using any agricultural chemical, antibiotic free livestock products, antibiotic free fishery products and fishery products that have not used active treatment agents.

in urban neighborhoods and households with higher incomes or a higher level of education were the most frequent users of specialized environment-friendly food stores.

Table 2: Most Visited Type of Stores to Purchase Environment-friendly Food (Unit: Percent)

	Hypermarket	Specialized stores	Small and middle sized supermarket	Chain supermarket	Traditional market	Others
Total	38.4	16.4	13.8	10.7	9.8	11.2
Urban neighborhood	37.5	17.2	14.2	10.7	9.4	11.2
Rural area	45.1	10.2	10.9	10.4	13.1	10.5
Monthly income of 4 million won	37.4	25.7	11.4	8.0	7.4	10.4
College graduate	37.4	22.0	12.6	9.3	6.4	12.8

Nearly half (48.6%) of the respondents consumed functional food. The most popular functional foods were dietary supplements (67.8%) such as vitamins, and ginseng/red ginseng (46.3%).

2. Grain Consumption

Almost half (44.5%) of the respondents purchased rice once every two to three months. The deciding factors in choosing rice are price, production area, country of origin, and variety.

Table 3: Main Information Korean Consumers Check when Purchasing Rice (Unit: Percent)

	Price	Production area	Country of origin	Variety of rice	Date of mill	Organic certificate	Others
Total	26.0	17.8	15.1	12.8	10.1	4.9	13.2

Only 2.2% responded that they consume imported rice occasionally or regularly. When the interviewees were asked if they plan to consume imported rice in the near future, only 4.1% answered that they would while 83.2% answered that they did not plan to do so. People in their 30s are the least reluctant toward imported rice, with 25% answering positively, compared to 83.2% of the total that stated they would not eat imported rice. This age group is the generation that has the highest potential for consuming imported rice.

Table 4: Experience of Purchasing Imported Rice (Unit: Percent)

Never	Not within a year	Sometimes	Regularly
95.3	2.6	2.0	0.2

Table 5: Willingness to Consume Imported Rice (Unit: Percent)

Willingness to consume imported rice	Will not consume	Not sure	Will consume
	83.2	10.3	4.1

Mixed grain (39.4%) was the most common form of rice intake. Other types were white rice (32.5%), white rice mixed with brown rice (21.5%). The most popular mixed grain was glutinous brown rice (31.0%), followed by black bean (13.3%), black rice (12.4%), barley (9.7%), and glutinous rice (3.9%).

3. Fruits and Vegetables

For fruits, they are most commonly purchased once per week (41.4%) and two to three times per week (22.2%). The decision-making factors that influence choice are freshness, price, and sweetness. The most popular fruits are watermelons and apples. Teenagers up to 20 years old showed a high preference for mandarin oranges, strawberries, and bananas. On the other hand, older generations tend to prefer oriental melon, tomatoes, and persimmons. Males prefer watermelons and Asian pear, while females prefer grapes, strawberries, and peaches.

Table 6: Preference in Fruits (Unit: Percent)

	Watermelon	Apple	Grape	Oriental melon	Tomato	Mandarin	Strawberry	Peach
Adults	20.9	17.0	8.7	8.3	7.4	6.6	6.3	6.1
20s	17.0	13.7	10.2	3.3	4.5	10.5	9.2	5.2
60s	20.9	20.6	6.7	13.1	10.4	3.9	2.4	6.0
Male	21.8	17.5	8.2	8.2	7.7	6.2	5.8	5.2
Female	19.9	16.5	9.3	8.4	7.2	7.0	6.8	7.0

For vegetables, they are most commonly purchased two or three times per week (35.7%) and once per week (34.4%). The higher the income, the more frequent the purchase is made. More than half (57.5%) of purchases are made in bulk, while 41.4% is in small packaging. The deciding factors that influence choice are freshness, price, and country of origin.

Table 7: Main Information Korean Consumers Check when Purchasing Fruits and Vegetables (Unit: Percent)

	Freshness	Price	Country of origin	Place of production	Environment-friendly	Condition	Sweetness	Others
Vegetables	29.1	25.3	15.6	3.8	5.6	8.3	N/A	12.3
Fruits	28.0	24.5	10.9	5.0	3.2	N/A	14.5	13.9

4. Livestock

The most consumed meat in households (in order of preference) is pork, beef, and chicken. However, in households of people in their 30s or under, chicken ranked second after pork, and beef was third. Such trends in higher consumption of poultry in the younger age group may be due to higher consumption of fried chicken compared to the older generation who are more health conscious. Although pork is the most frequently consumed among all age and income groups, over a quarter of households with monthly income over 6 million won (approximately \$6,000) replied that they consume more beef than other meat.

Table 8: Most Frequently Consumed Type of Meat (Unit: Percent)

	Pork	Beef	Chicken	Others
Total	67.2	15.1	11.8	5.9
Under 30s	62.8	14.6	19.0	3.7
Monthly income over 6 million won	58.5	28.9	7.5	5.3

The most popular cuts of beef for barbeque are sirloin, tenderloin, and rib, while popular cuts of beef for soup are brisket, shank, and leg bone. For pork, popular cuts are belly and Boston butt.

Table 9: Preference in Beef Cuts (Unit: Percent)

	Tenderloin	Sirloin	Rib	Brisket	Shank	Leg bone	Shoulder	Others/ No response
Barbecue	31.3	44.8	13.3	1.2	0.8	0.3	0.7	7.7
Soup	5.9	5.6	3.6	45.9	21.7	6.7	4.7	5.3

Table 10: Preference in Pork Cuts (Unit: Percent)

	Belly	Boston butt	Rib	Loin	Sirloin	Picnic	Others
Pork	50.2	43.7	2.1	1.5	0.7	0.6	1.4

Koreans tend to purchase more domestic than imported meat. Almost half (48.1%) responded negatively toward purchasing U.S. beef, but nearly a quarter (25.6%) responded that they will consume U.S. beef. This is comparable with a similar survey conducted by the Korea Rural Economic Institute in January, 2014, where 51.6 percent of the people surveyed replied that they had purchased U.S. beef.

Table 11: Preference in Domestic Meat over Imported Meat (Unit: Percent)

	Beef (barbecue)	Beef (soup)	Pork (barbecue)	Pork (soup/ side dish)	Chicken
Domestic	80.5	86.3	97.8	95.0	93.5
Imported	19.5	13.7	2.2	5.0	6.5

Table 12: Willingness to Consume Imported Meat (Unit: Percent)

	Definitely	Maybe	Not sure	Maybe not	Definitely not
US beef	1.0	24.6	26.0	31.5	16.6
Australian beef	3.4	39.3	23.9	21.7	11.2
Imported pork	1.0	16.1	20.4	36.3	25.9
Imported chicken	0.4	6.3	17.6	39.6	34.9

5. Fisheries

Important information that consumers check before purchasing fishery products are freshness (29.3%), price (24.5%), and country of origin (17.7%). Nearly half (42.4%) of the households consume more meat than seafood. People with higher income, higher education, and lower age tend to consume more meat. In general, fish products are lower priced than meat, which is why higher income groups with higher education prefer meat over fishery products. Another cause for higher meat consumption over fishery products may be due to the Fukushima nuclear accident that has made Koreans leery of consuming more fish.

Table 13: Comparison between Seafood and Meat Consumption (Unit: Percent)

Mostly seafood	A little bit more seafood than meat	Similar	A little bit more meat than seafood	Mostly meat
7.7	18.3	31.5	34.3	8.1

6. Processed Foods

The most popular drinks at home are milk, coffee, yogurt, and 100% fruit juice. Adults tend to prefer coffee, while adolescents prefer carbonated drinks.

Table 14: Preference in Drinks (Unit: Percent)

	Milk	Coffee	Drinking yogurt	100% fruit juice	Carbonated drink	Sports drink
Total ²	72.3	68.4	48.2	46.6	33.1	15.1
Adults	12.4	36.5	5.0	15.1	7.2	3.4
Adolescents	14.5	2.2	5.8	14.0	34.0	14.6

For liquor, adults drink alcohol one to three times per week. Younger people and people with higher levels of education showed a higher frequency of liquor intake. The most preferred liquor was locally produced soju (similar to vodka but with less than half of alcohol content, 57.2%), beer (32.3%), makgeolli (Korean traditional rice wine, 5.6%), and wine (2.0%). Younger people, higher education level, and higher income preferred beer. Although the consumption of wine is increasing, it greatly lags the consumption of other types of liquor products. The preference for hard liquor (scotch) has declined significantly as the past trend of going to karaoke style bars has faded.

The most popularly used cooking oils are olive, grape seed, and soybean. People in the capital area of Seoul tend to use more olive and grape seed oil, while people in the rural area tend to use soybean oil. This reflects a trend among residents in the capital area that demonstrates a more health conscious

² Plural response for this category

attitude for those that can afford more expensive types of oil.

Table 15: Most Frequently Used Type of Oil (Unit: Percent), Plural response

	Olive oil	Grape seed oil	Soybean oil	Maize oil	Rapeseed oil	Cotton seed oil	Not sure	Others
Total	50.0	45.1	39.0	25.8	24.2	2.5	1.6	3.3
Capital area	55.8	53.7	29.2	24.7	32.1	2.8	1.0	3.2
Rural area	39.7	33.0	48.5	28.3	15.5	1.4	4.3	7.8

Among sugar products, white sugar was most popular (48.5%), followed by brown sugar (46.6%), starch syrup (39.7%), and oligosaccharide (32.4%).

7. Meals

The frequency of rice intake (including rice, mixed grains, rice porridge) was similar compared to the previous year in most households (78.6%). The households that increased rice intake recorded 11.3%, while households that decreased rice intake were 10.1%. This is due to lower consumption of rice among younger generations that prefer other types of meals, such as bread, pizza, and hamburgers. The popularity of rice as a staple food is rapidly fading among the younger generation that prefers diversity, and is an area that the Korean government is trying to address to maintain the current level of rice consumption.

Korean adults showed interest in the origin of food products, mostly whether the products are from Korea (71 points out of 100). The level of interest in environment-friendly food was similar (63.4). Women and households with higher income tend to be the most concerned about the origin and environment-friendly products. However, adolescents did not show as much interest as adults.

Table 16: Level of Interest in Foodstuffs (Unit: 100-point scale³)

		Country of origin	Site of production	Environment-friendly
Adult	Total	71.0	64.0	63.4
	Male	68.6	62.4	61.4
	Female	73.4	65.8	65.2
	Monthly income under 1 million won	65.6	59.0	56.8
	Monthly income over 6 million won	75.0	67.4	68.6
Adolescent		56.4	51	54.2

The Korean food product which had the highest willingness to pay (WTP) for domestic product compared to imported food product is the livestock products. If the WTP for imported food is set at

³ 1= not interested to 100=interested

100, the WTP for Korean livestock products is 125.7. WTP for Korean agricultural products was also high with 123.7, followed by fishery products with 123.6.

Table 17: Willingness to Pay for Domestic Products

Imported food	Agricultural products	Fishery products	Livestock products	Processed food	Dining out
100 (Standard)	123.7	123.6	125.6	116.5	118.4

8. Food Safety

The research surveyed consumer perceptions of food safety based on a 5 point scale. Korean food products scored an average of 3.55 points among adults. Imported food scored a lower point with 2.41 points among adults. Products that were perceived relatively safe are New Zealand meat, fruits, forestry products, grains, European meat, and vegetables. On the other hand, products scoring the lowest are Chinese fishery products, Japanese fishery products, U.S. beef, South American beef, and processed foods. Food scare incidents reported about Chinese food products may have been the cause for consumers' lower trust in Chinese fishery products. The distrust over Japanese fishery products is due to the Fukushima nuclear accident. It is somewhat surprising that consumers distrust South American beef when there is virtually no beef imported from South America.

Table 18: Consumer Perception of Food Safety (Unit: five-point scale⁴)

Category		Adult		Adolescent	
		Domestic	Imported	Domestic	Imported
Grains		3.73	2.52	3.83	2.73
Vegetables		3.67	2.44	3.82	2.72
Fruits		3.70	2.64	3.83	2.89
Meat	Korea	3.53	-	3.57	-
	United States	-	2.35	-	2.51
	New Zealand	-	2.69	-	2.78
	Europe	-	2.48	-	2.64
	South America	-	2.38	-	2.55
Fishery products	Korea	3.52	-	3.51	-
	Japan	-	2.08	-	2.26
	China	-	1.92	-	2.11
	Europe	-	2.42	-	2.61
Processed foods		3.17	2.41	3.26	2.56
Forestry products		3.52	2.55	3.51	2.73
Total		3.55	2.41	3.62	2.59

Hazardous materials in food that Koreans are most concerned about are endocrine disrupting chemicals /heavy metals (such as mercury, lead, and cadmium). Endocrine disruptors are perceived as the most

⁴ 1=unsafe to 5=safe

dangerous among all hazardous materials, followed by food poisoning bacteria, animal diseases, and food additives.

Table 19: Perception of Hazardous Materials in Food (Unit: five-point scale⁵)

Hazardous materials	Score
Extraneous materials (hair, bug, etc)	2.23
Pesticide residues in fruits and vegetables	2.00
Antibiotics in livestock and fishes	2.06
Natural poison (mushroom, blowfish, etc)	2.31
Food additives	1.97
Endocrine disruptor/heavy metal	1.80
Food poisoning bacteria	1.95
Animal diseases (FMD, AI, etc)	1.96
GMO products	2.11
Radiation exposed products	2.03
Hazardous wrapping	2.19
Allergenic substance	2.20

Table 20: Most Concerned Hazardous Materials in Food (Unit: Percent)

Endocrine disruptor/ heavy metal	Pesticide residues	Food additives	Food poisoning bacteria	Animal diseases	Antibiotics	Others
21.2	15.2	12.4	11	8.6	7.4	24.4

9. Food Labeling

The reliability of food labeling scored 3.23 among adults on a five-point scale. However, more than half (59.3%) of respondents rated the credibility evaluation by replying ‘average.’ When the 10.2% of the respondents who replied ‘unreliable’ were asked for a reason, the answer was mostly because they do not trust the labeling process or the test result.

Table 21: Reliability of Food Labeling (Unit: percent)

	Reliable	Average	Unreliable
Adult	30.5	59.3	10.2
Adolescent	26.9	63.4	9.6

Table 22: Reason Why the Food Labeling Is Considered 'Unreliable' (Unit: percent), plural response

Reason	Adult	Adolescent
I do not trust labeling process or test result	55.1	50.6
Post management is poorly done	39.5	48.3
There are too many labeling	25.9	33.5
I cannot understand what the labeling says	26.7	29.2

⁵ 1=unsafe to 5=safe

Others	4.4	8.2
--------	-----	-----

The best known food labeling was country of origin labeling (88.9%) and organic labeling (79.8%). HACCP (Hazard Analysis and Critical Control Point), GAP (good agricultural practice), and GMO (genetically modified organism) labeling were relatively not well-known. The least well-known was the Korean traditional food labeling. The reason for low recognition of the GMO labeling is because GMO products are not marketed as a retail product due to the fear among food suppliers that it would not sell in Korea.

Table 23: Level of Food Labeling Awareness (Unit: percent)

Type of labeling	I know very well	I have heard of it	I do not know
Country of origin	61.4	27.5	11.1
Organic labeling	42.1	37.7	20.2
KS mark on processed foods	35.9	34.7	29.3
HACCP	16.2	30.1	53.7
Geographical indication system	22.5	31.2	46.2
Production traceability system	22.8	38.2	38.9
GAP	15.6	34.5	49.9
GMO labeling	16.8	33.9	49.4
Korean traditional food	8.0	26.3	65.7

Table 24: Frequency of Purchasing Products with Food Labeling (Unit: percent)

Type of labeling	Never	I did, but not recently	From time to time	Often
Country of origin	11.2	8.5	45.4	34.7
Organic labeling	27.0	18.8	41.4	12.5
KS mark on processed foods	17.2	13.5	45.1	23.5
HACCP	23.9	15.3	48.0	12.3
Geographical indication system	23.6	19.6	46.8	9.5
Production traceability system	28.9	17.0	44.7	8.8
GAP	26.7	18.2	45.0	9.8
GMO labeling	37.5	21.2	35.8	5.0
Korean traditional food	36.6	19.6	38.6	4.6