

USDA Foreign Agricultural Service

GAIN Report

Global Agricultural Information Network

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Voluntary - Public

Date: 4/2/2019

GAIN Report Number: KS1914

Korea - Republic of

Post: Seoul

Barley Market Brief in Korea

Report Categories:

Grain and Feed

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Report Highlights:

Although Korea's production of barley increased 38% in 2018, production and consumption of barley are expected to remain fairly constant over the next few years. Despite its Tariff Rate Quota (TRQ) advantage of zero percent, U.S. exports of barley to Korea have been limited because of its small market with weak price competitiveness. Total imports of U.S. barley have fluctuated in the last few years, ranging from 1,651 MT in Marketing Year (MY) 2016/17 to 3,393 MT in MY 2015/16. Meanwhile Korean imports of malt have grown consistently in the past few years from 37 MT in MY 2015/16 to 2,831 MT in MY 2017/18.

General Information:

PRODUCTION

The Republic of Korea's (henceforth referred to as Korea) total production of barley, amounted to 151,403 metric tons (MT) in 2018, a sharp increase of 38% year-over-year (see Table 1) due to a steep increase in barley acreage. In 2012, there was a precipitous drop in production when the government ended its purchasing program, forcing farmers to find new buyers and leaving little incentive to continue planting in a more volatile market. Production has since rebounded and is expected to remain constant.

Korean rice farmers usually plant winter barley as a double crop in rice paddy fields in October and begin to harvest towards the end of May, just prior to rice planting. There are three categories of barley grown in Korea—unhulled, naked, and malting—with approximately 30-40 different varieties per category. Unhulled barley is typically used to produce sweeteners and barley tea; naked barley is cooked and mixed with rice for human consumption; and malting barley is most commonly used for brewing beer. Domestic malting barley, however, is also being mixed with rice and used for human consumption due to the consumer's preference for its texture. Approximately 80% of barley production is concentrated within the provinces of Jeollabuk-do and Jeollanam-do, which produce predominantly naked and malting barley; 12% of barley production is in the southern province of Gyeongsang, where primarily unhulled barley is produced given the cold weather characteristics of the region; and the remaining production is dispersed throughout the country in small pockets (see Table 3).

Table 1:

Korea's Production of Barley (Hectare, MT, rough basis)								
Year	Unhulled		Naked		Malting		Total	
	Area	Prod.	Area	Prod.	Area	Prod.	Area	Prod.
2011	4,591	19,652	17,469	64,342	6,994	25,216	29,054	109,210
2012	4,750	19,746	12,702	52,143	3,748	12,636	21,200	84,525
2013	7,540	31,235	13,654	44,097	4,497	15,058	25,691	90,390
2014	7,974	37,388	16,783	70,361	5,732	22,963	30,489	130,712
2015	8,258	30,775	17,928	54,796	8,030	25,733	34,216	111,304
2016	8,806	29,265	18,592	51,775	9,233	26,772	36,631	107,812
2017	8,523	35,817	12,418	45,070	8,155	28,839	29,096	109,727
2018	11,999	43,757	24,538	76,906	10,700	30,783	47,237	151,403

Source: Statistics Korea (KOSTAT)

Table 2:

Korea's Production of Barley (MT, milled basis)				
Year	Unhulled	Naked	Malting	Total
2011	11,595	43,752	20,173	75,520
2012	11,650	35,458	10,109	57,217

2013	18,429	29,986	12,046	60,461
2014	22,057	47,845	18,371	88,273
2015	18,157	37,260	20,586	76,003
2016	17,268	35,207	21,418	73,893
2017	21,132	30,648	23,071	74,851
2018	25,817	52,296	24,626	102,739

Source: KOSTAT

Table 3:

Korea's 2018 Production of Barley per Province (hectare, MT)		
Province	Cultivated Area	Production
Jeonnam	21,073	60,843
Jeonbuk	16,441	59,112
Gyeongnam	5,601	18,533
Jeju	2,166	5,798
Gyeongbuk	1,390	5,448
Chungnam	291	843
Chungbuk	102	297
Gangwon	116	410
Kyeonggi	56	119
TOTAL	47,237	151,403

Source: KOSTAT

CONSUMPTION

A. Food Barley

Korea's demand for food grade barley (including malting, unhulled, and naked barley) has remained low, largely due to the decreasing demand for rice substitutes in the Korean market. As Korea's economy and per capita income have increased over time, the local diet has evolved to favor high-quality rice over what is believed to be lower-class barley. Per capita consumption of barley has decreased almost 97% since 1970 (see Table 5).

Adapting to growing consumer trends shifting to the use of products perceived to be healthier, the Government of Korea has developed promotional campaigns to educate people on the heart-healthy properties of barley, citing its high levels of beta-glucan and gamma-aminobutyric acid content. Barley has dietary properties that may reduce cholesterol, lower the risk of diabetes and heart disease, and reduce glycemic index-- characteristics that are desirable for the aging Korean population. However, the introduction of other coarse grain superfoods such as rye, oats, hemp seed, and lentils complicate promotional efforts to sway consumer preferences towards barley.

B. Feed Barley

Korea feed millers have annually consumed about 25,000 MT of barley, (usually unhulled barley) with an average range from 20,000 through 30,000 MT. Feed millers heavily rely on imported barley, with a small amount of domestic barley (ranging from 1,000 MT to 4,000 MT in the most recent five years).

Table 4

Korea: Feed Ingredient Use for Compound Feed Production (October/September, 1,000 MT)				
Items	MY 2015/16	MY 2016/17	MY 2017/18 ^{a/}	MY 2018/19 ^{a/}
Sub-Total Grains and Grain Substitutes	12,395	12,116	12,700	12,900
- Wheat	1,910	2,025	1,600	1,600
- Corn	7,841	7,031	7,600	8,000
- Rice	73	365	750	500
- Barley	28	22	20	20
- Other Grains and Grain Substitute ^{b/}	2,543	2,673	2,730	2,780
Others ^{c/}	7,028	6,844	6,900	6,900
Grand Total	19,423	18,960	19,600	19,800

Source: Korea Feed Association (KFA)

a/ FAS Seoul forecast

b/ includes Tapioca, bran and gluten feed.

c/ includes vegetable protein meal, animal protein, minerals/additives, tallow, DDGs and molasses.

C. Malting Barley and Malt

Malting barley is used in brewing beer, for making sweeteners (sikhye), and is used as a raw material in traditional sauces such as hot pepper paste. Some livestock producers have used imported malting barley to cultivate forage for animal feed in hydroponic facilities. The beer brewing industry has heavily relied on imported malt and has only imported a limited amount of malting barley from other countries because only one company has malting facilities.

Table 5:

Korea: Per Capita Consumption of Barley	
Year	Kilograms Per Person
1970	37.3
1975	36.3
1980	13.9
1985	4.6
1990	1.6
1995	1.5
2000	1.6
2005	1.2

2010	1.3
2015	1.3

Source: Korea's Ministry of Agriculture, Food and Rural Affairs (MAFRA)

Table 6

Korea: Barley Supply & Demand (Calendar year, milled basis)		
Supply	2015	2016
Beginning Stocks	62	80
Production	76	74
Import - Food	272	203
Import – Animal Feed	17	13
Total	427	369
Demand		
Food	67	72
Processing – Food	-	-
Processing – Brewing	249	245
Animal Feed	16	16
Seed and Other	15	16
Total	347	317
End Stock	80	52

Source: Food Grain Policy Bureau, MAFRA

TRADE

In marketing year (MY) 2017/18 (June - May), Korea's imports of barley, excluding malt, totaled \$16.8 million, an increase of 34% from \$12.5 million in MY 2016/17. In terms of volume, Korea's MY 2017/18 imports totaled 66,834 metric tons (MT), an increase of 29% from 51,710 MT in MY 2016/17. In MY 2017/18, the United States had a 4% share of total imports, following Australia, whose imports composed 93% of the total. (Table 9).

A. Food Barley

Korea only imports a small amount of barley that is usually mixed with rice during cooking, because domestic barley has mainly dominated the food-grade barley market. Prior to implementation of the

Korea-U.S. Free Trade Agreement (KORUS FTA), U.S. barley exports to Korea were almost zero. However, Korean wholesalers have tried to find a niche market for food grade barley by importing malting and common barley under the benefit of the tariff rate quota (TRQ) under KORUS FTA.

B. Feed Barley

The Korean government has set a 50,000 MT autonomous tariff rate quota (TRQ) for animal feed purposes. The applicable in-quota tariff rate is zero percent. Australia has been a major supplier of feed grade barley via Korea’s international open bidding process in recent years.

C. Malting Barley and Malt

Korea has imported malt and malting barley for beer brewing under an autonomous tariff rate quota (TRQ) set by the Korean government. In 2018, the total TRQ was 43,000 MT for malting barley and 205,000 MT for malt, which were allocated to large scale major beer brewers who have contributed to maintaining domestic barley production through farming contracts with local malting barley farmers. The applicable in-quota tariff rate is 30 percent.

D. Maximum Residue Levels (MRLs)

Korea began implementation of the pesticide positive list system (PLS) for agricultural products on January 1, 2019. As such, a 0.01 ppm default tolerance applies when there are no established MRLs in Korea. For barley, as of March 27, 2019, Korea has 121 established MRLs that include permanent MRLs, import tolerances and temporary MRLs. To check Korea’s MRLs set for barley, please use the following link: [Barley MRL](#). Please note that this list is subject to change at any time. MRLs marked with “T” are temporary MRLs and MRLs with “+” refer to import tolerances. Prior to the PLS implementation, to avoid trade disruption, Korea set temporary MRLs and those temporary MRLs will be deleted on December 31, 2021, so interested parties are encouraged to pursue permanent MRLs or import tolerances before the temporary MRLs lapse.

Table 7

Korea: Import Tariff Rate for CY 2018							
Commodity	In-Quota				Out-of-Quota Rate	Bound Tariff Rate	
	Current Market Access Quota		Temporary Quota			In-Quota	Out-of-Quota
	Volume	%	Volume	%	%	%	%
Malting Barley 1003.90.1000	30,000 MT	30	13,000 MT	30	513	30	513
Malt 1007.10.0000 1107.20.1000	40,000 MT	30	165,000 MT	30	269	30	269
Other Barley*	23,582	20	50,000a/	0	324b/ 299.7c/	20	324b/ 299.7c/

					260d/ 233e/ 126f/		260d/ 233e/ 126f/
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Source: Korea Customs Service (KCS)

*include 1003.10.2000; 1003.10.3000; 1003.10.9000; 1003.90.2000; 1003.90.3000; 1003.90.9000; 1102.90.1000; 1103.19.1000; 1103.20.3000; 1104.19.2000; 1104.29.2000

a/ only for unhulled barley (1003.90) for feed

b/ 1003.10.2000; 1003.90.2000;

c/ 1003.10.3000; 1003.10.9000; 1003.90.3000; 1003.90.9000

d/ 1102.90.1000; 1103.19.1000; 1103.20.3000

e/ 1104.19.2000

f/ 1104.29.2000

U.S.-KOREA FREE TRADE AGREEMENT (KORUS) TARIFF-RATE QUOTA (TRQ)

Tariff Phase-Out Schedule for Barley:

The KORUS FTA establishes a zero-duty TRQ for U.S. unhulled, naked, malt, and malting barley. The duty-free volume will grow 2 percent each year until tariffs are completely eliminated in 2027, although a safeguard duty could still be applied in the final year. The Korea Agro-Fisheries Trade Corporation (aT) shall administer the licenses for the TRQs on a first-come, first-served basis, in response to written applications. For greater detail, please refer to [Chapter 3, Annex 3-A](#) of the trade agreement.

Table 8

Korea: Tariff Phase-Out Schedule for Barley Under KORUS FTA						
	Description	2018	2019	2020	2021	2022
TRQ Volume (MT)	Unhulled + Naked*	2,815	2,872	2,929	2,988	3,047
	Malt and Malting**	10,135	10,338	10,545	10,756	10,971
Out-of-Quota (Safeguard) Duty (percent)	Unhulled	250	239	229	218	167
	Naked	231	221	212	202	155
	Malt	207	199	190	181	139
	Malting	396	379	362	345	265

*HS 1003.90.2000 (Unhulled Barley); HS 1003.90.3000 (Naked Barley)

**HS 1107.10.0000 (Malt); HS 1003.90.1000 (Malting Barley)

Statistical Information of Barley Imports

Table 9

Korea: Barley Import in Total, excluding Malt H.S. 1003 Marketing year (June-May)						
Country	MY 2015-2016		MY 2016-2017		MY 2017-2018	
	\$1,000	MT	\$1,000	MT	\$1,000	MT
World	17,558	65,390	12,585	51,710	16,878	66,834
United States	1,248	3,393	558	1,651	826	2,687

Australia	13,431	49,378	6,839	31,180	15,377	62,194
Canada	265	757	110	334	660	1,927
France	-	-	5,078	18,545	1	2
Germany	-	-	-	-	14	24
India	2,614	11,863	-	-	-	-

Source: Global Trade Atlas

Table 10

Korea: Malting Barley Imports						
H.S. 1003.90.1000						
Marketing Year (June-May)						
Country	MY 2015-2016		MY 2016-2017		MY 2017-2018	
	\$1,000	MT	\$1,000	MT	\$1,000	MT
World	9,769	31,624	8,228	30,176	10,874	43,394
United States	586	1,802	411	1,244	328	1,019
Australia	9,182	29,822	2,739	10,387	10,531	42,351
France	-	-	5,078	18,545	-	-
Germany	-	-	-	-	14	24

Source: Global Trade Atlas

Table 11

Korea: Unhulled Barley Imports						
H.S. 1003.90.2000						
Marketing Year (June-May)						
Country	MY 2015-2016		MY 2016-2017		MY 2017-2018	
	\$1,000	MT	\$1,000	MT	\$1,000	MT
World	7,603	33,356	4,352	21,532	5,679	22,651
United States	475	1,181	145	408	458	1,592
Australia	4,249	19,556	4,098	20,790	4,846	19,843
Canada	265	757	110	334	375	1,216
India	2,614	11,863	-	-	-	-

Source: Global Trade Atlas

Table 12

Korea: Naked Barley Imports						
H.S. 1003.90.3000						
Marketing Year (June-May)						
Country	MY 2015-2016		MY 2016-2017		MY 2017-2018	
	\$1,000	MT	\$1,000	MT	\$1,000	MT
World	185	410	3	2	322	787
United States	185	410	-	-	36	77
Australia	-	-	3	2	-	-
Canada	-	-	-	-	286	710

Source: Global Trade Atlas

Table 13

Korea: Malt Imports						
H.S. 1107						
Marketing Year (June-May)						
Country	MY 2015-2016		MY 2016-2017		MY 2017-2018	
	\$1,000	MT	\$1,000	MT	\$1,000	MT
World	102,932	184,221	96,109	187,387	98,968	193,238
United States	52	37	452	629	2,023	2,831
Australia	64,255	115,688	52,000	105,395	63,279	132,257
Canada	11,813	18,624	19,068	30,888	16,264	26,069
Germany	4,207	6,452	6,204	11,948	9,972	16,909
Belgium	8,835	18,004	12,836	27,998	592	1,147
Rest of World	13,770	25,416	5,549	10,529	6,838	14,025

Source: Global Trade Atlas

MARKETING

U.S. Grains Council (USGC) Perspective on U.S. Barley in the Korean Market

In 2012, following the implementation of the KORUS FTA, USGC became actively engaged in U.S. food barley promotion. Despite its zero-tariff TRQ advantage, U.S. exports of barley to Korea have been limited because of its small market and limited price competitiveness. In 2017, demand for imported barley as a rice substitute further decreased due to a growing demand for other super grains such as millet, buckwheat, quinoa, etc. Nevertheless, USGC has confirmed from its market development seminar for barley that the Government of Korea's Rural Development Administration, academia, and food industry are all interested in increasing barley consumption nationwide. However, imported barley is still a new concept for the local food industry, and food processors have not begun to develop barley-based food or snack products using U.S. food barley. The health food industry has expressed interest in increasing imports. Due to the limited volume, in 2017, no Korean barley importers entered into forward contracts with U.S. suppliers. Nonetheless, in MY 2017/18, total U.S. exports of barley (excluding malt) to Korea totaled 2,687 MT, an increase of 63% year-over-year.

Export Requirements: See APHIS' website for phytosanitary requirements for shipping barley to Korea (http://www.aphis.usda.gov/import_export/plants/plant_exports/index.shtml).

For more information, please contact
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