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The Market for Organic Oats in Germany and the United States

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UNIVERSITY OF WISCONSIN
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List of abbreviations

Av.	Average
CETA	Comprehensive Trade and Economic Agreement
DSD	Duales System Deutschland (Dual System Germany, Ltd.)
e.g	exempli gratia (for example)
ERS	Economic Research Service
EU	European Union
EUR	Euro
€	Euro
FAO	Food and Agricultural Organization
FDA	US Food and Drug Administration
FDCA	US Food, Drug and Cosmetic Act
FLAG	Farmers Legal Action Group
FOB	Free on board
g	grams
HS	Harmonized Commodity Description and Coding System
i.e.	Id est (that is)
ISIC	International Standard Industrial Classification
kJ	Kilojoule
kg	Kilogramme
lb	Pound
m	Million
MFN	Most-Favored Nation
MT	Metric tonne
NAICS	North American Industry Classification System
NACE	Nomenclature Générale des Activités Economiques dans l'Union Européene
oz	Ounce
PACA	Perishable Agricultural Commodities Act
p.	Producer
p.a.	Per annum (yearly)
pr.	Price
prod.	Production
SITC	Standard International Trade Classification
t	Ton
t/ha	Ton/hectare
US	United States
US\$	United States Dollar
USDA	United States Department of Agriculture
w.	Weight
WTO	World Trade Organization

Executive summary

Oats are a widely used grain, traded internationally and predominantly consumed in these three sectors: animal feed, consumer food and cosmetics. For consumer foods, oats are mainly processed to whole oats, oat groats, steel-cut oats, rolled oats, instant oats and oat flour. In both the US and German food markets, they are mostly consumed as rolled oats (with hot or cold milk), granola bars, bakery products or baby products. However, the vast majority of oats are used for animal feed (95% in the US and 70% in Germany), while cosmetics only make up a minute fraction of oats consumption.

The US is unable to produce enough oats to meet its demand. This leads to them being the largest importer of oats globally. Germany is the 6th largest producer of oats, but also the 2nd largest importer. Most of Germany's trade occurs within the EU. Both countries have experienced steady consumption growth over the last five years. This is mainly due to a higher health-consciousness among consumers and organic animal feed regulations. Further, the US provides easy market access by applying no tariffs for WTO members. Two of the biggest hurdles in entering the organic food market in the US are the time and effort it takes to become Certified Organic. Germany has stricter regulations and higher tariffs for non-EU countries.

Pricing conditions make both the German and US markets increasingly attractive, shown by an upward price trend since 2011. Organic oats are typically priced at a higher level than regular oats due to additional production costs and higher perceived health benefits. The lack of new competitors and established relationships allow producers to dictate price. However, prices are sensitive to market conditions for both importing and exporting nations.

In Germany, the number of outlets is rising due to growing demand for organic produce. The number of retailers is increasing, but they are still lacking concentration in comparison to other European markets. The US market shows stagnant distribution channels with no anticipated changes, and a high concentration in the retail sector.

Commercial practices often occur between partners with preexisting relationships. Both spot market and contractual sales take place, with the latter more prevalent in the organic market. Trade shows, direct marketing, trade magazines, associations, and internet portals are all viable promotional activities. Both supply and demand of organic oats is expected to increase during the next 5 years. Gains in consumption will likely be underpinned by increased food demand, which is forecasted to expand at 2% p.a.

Overall, both the US and Germany offer promising export opportunities for organic oats. The opportunity is driven by the increased demand for healthy food options in developed countries. While the opportunity is similar the markets do differ. Germany is more self-sufficient in its production and relies less heavily on imports to meet its national demand. This allows Germans to prefer local options over imported ones. Due to the lack of domestic production, the US consumers are not granted the ability to be selective of the source of their oats. This difference

in supply and demand is also demonstrated by the tariff measures that the countries use, with the US applying less than Germany.

1. Product description

This 'Export Opportunity Survey' covers the market for organic oats in the United States and Germany. Oats are the grains of a cereal grass plant. Most cultivated varieties belong to the *avena sativa* type. There is no separate standardized code for organic oats. They are classified under the general oats categories:

- HS: 100400 Oats
- SITC: 0452 Oats, Unmilled
- ISIC: 0111 Growing of cereals (except rice), leguminous crops and oil seeds
- NAICS: 311230 Oats, breakfast cereal, manufacturing
- NACE: 01.11 Growing of cereals (except rice), leguminous crops and oil seeds

Figure 1: Oats Bowl



Source: TheHealthSite, 2013

Harvested oats consist of an inedible hull, a bran, and a kernel comprising the endosperm and germ. Usually the hulls are removed before human consumption and the kernels further processed. 100 g of consumable oats contain 379 calories (1587 kJ), 69.0 g carbohydrates, 13.1 g proteins, 6.5 g total fat and several vitamins (esp. choline and folate) and minerals (esp. phosphorus, potassium, magnesium and calcium). Depending on the processing, the nutritional value may differ (Condé Nast, 2014). There are several varieties or types of oats:

- **Whole oats** are the result of harvested and cleaned oats. The hard outer hull is removed. The hulls can be used in a chemical solvent (i.e. furfurals).
- **Oat groats** are the whole oat grains with the hard hull removed. The kernel's outer bran layer is still untouched. At this stage the groats are ready to eat, but usually will be processed into other forms. They take a long time to cook.

- **Steel-cut oats** (also pinhead oats, coarse, rough oatmeal) are whole oats simply cut into three or four pieces by a sharp metal blade. Still containing the whole grain, they are therefore considered to be very nutritious. They are cooked more quickly than oat groats.
- **Rolled oats** are oat groats that are steamed and then flattened with a roller into flakes. Processing them this way stabilizes the healthy oil in the oats which means that they can stay fresh longer and cooked very fast. German breakfast cereals typically use this type of oats.
- **Instant oats** are produced by steaming rolled oats longer and then rolling them more thinly. These are used to make 'instant porridge'. Since this type of oat is further processed, it is less nutritious than the others.
- **Oat flour** originates from ground and sieved oats. There are three grades of oat flour: coarse (i.e. steel-cut oats), medium (used in cakes and crumble toppings or as a thickener or creamer), and fine (for bread or cakes). Since oats lack gluten, they do not rise during baking. Thus it is often combined with wheat flour (QA International, 1996).

The oldest oat grains were found in Egypt in around 2,000 B.C., but those were not actually cultivated. In Switzerland the first cultivated oats were discovered between 2,000 and 700 B.C. The progenitors of today's oats are probably the wild read oats (*avena sterilis*) located in Asia. Scottish settlers brought oats to North America in 1602 (Journal of Drugs in Dermatology, 2007). Today the predominant areas of production are in the cool, moist climate of the northern states of Europe and America. High-quality oats are also grown in Australia and New Zealand. (Encyclopedia of Life Support Systems, n.d.).

Oats can be used in different industries for a variety of reasons. A popular use of oats is for **human consumption**. It is commonly used in cereal, bread, and as an ingredient in baking. However, the major part of produced oats are used for **animals**. About 95% of globally produced oats are used for livestock purposes (feed grain, hay or silage). It is viewed as a valuable and nutritious grain for animals. Oats can be fed without threshing (Webster & Wood, 2011).

The American Food and Drug Association (FDA) recognizes the health promoting effects of oats because they reduce blood cholesterol, lower risk of cardiovascular diseases and enhance immune response to infection. The fiber in oats assists in regulating the gastro-intestinal function. Thus it is also used in the **pharmaceuticals** sector. Oats have proven soothing effects on the skin, which makes them a common ingredient in **cosmetics** like skin protectants, anti-aging and other skin-related products. Oats are also needed in the **chemical** industry. They are used in furfural, which is an important chemical solvent (Nicholas, 2009).

2. Production, foreign trade & consumption

Production

The annual global production of oats is about 22.5 million tons which grow at 9.7 million hectares. World oat production has decreased over the last few decades, and is now at 45% of the 1961 production figure. The reason of the decline is that farms have become mechanized and the demand for oats for horse feed has declined sharply. The cultivated areas declined, with the areas having only 25% of its 1961 value. However, this reduction has not had a negative effect on production due to improvement in yields across the world that occurred over this same time period. The average world yield (t/ha) has increased by 79% since 1961 (Agronomy and Marketing Yara UK Ltd, 2011).

Table 1 provides an overview of the top oats producers within 2008-2012 and average prices per ton. The single largest cultivated area is in Russia, which is 30% of the global production area. Russian Federation contributed 18.9% to the world oats production in 2012. Canada and Poland are the second and third largest producers with 13.19% and 6.89% respectively. Producer prices vary depending on quality, quantity and weather conditions. The average price per ton of oats within this time period is highest in China (US \$561.3), followed by Chile with US \$260.2. The lowest price can be found in Belarus (US \$97.7), Argentina (US \$164.7) and Ukraine (US \$161).

Table 1: Top 15 Producers in 2010-2012

Country	2008			2009			2010			2011			2012			MS*** (%)	Av. Price (US\$/t)
	P1*	P2**	Price (US\$/t)	P1*	P2**	Price (US\$/t)	P1*	P2**	Price (US\$/t)	P1*	P2**	Price (US\$/t)	P1*	P2**	Price (US\$/t)		
Russian Federation	45.1	5835	152.8	47.2	5401	125.1	39.2	3220	118.4	48.2	5332	153.3	44.2	4027	149.5	18.90	140.30
Canada	270.4	4273	184.9	215.8	2906	128.5	202.8	2480	145.7	216.1	2997	206.2	216.1	2811	205.3	13.19	185.70
Poland	0.3	1262	208.8	17.7	1415	99.4	21.0	1334	115.6	15.0	1382	220.7	24.9	1467	202.5	6.89	180.00
Australia	18.5	1160	235.7	13.2	1180	171.4	21.6	1374	146.8	21.6	1128	202.1	32.4	1262	208.2	5.92	185.70
Finland	54.4	1213	202.1	38.7	1115	119.4	25.6	810	152.6	42.4	1043	230.6	45.9	1073	238.5	5.04	207.70
Germany	18.5	793	265.1	22.5	826	154.2	21.9	600	171.1	23.3	627	252.8	36.7	756	242.3	3.55	222.00
Sweden	23.4	820	173.0	24.0	744	101.2	13.9	563	151.6	16.5	698	212.6	20.2	731	214.2	3.43	193.00
Ukraine	28.9	944	160.0	28.3	731	81.0	28.2	459	96.6	25.7	506	197.4	26.5	629	189.1	2.95	161.00
United Kingdom	59.5	784	189.4	56.3	744	128.1	47.2	685	153.8	38.9	613	277.4	40.5	627	300.0	2.94	243.70
China, (mainland)	9.5	600	367.0	9.7	580	395.3	9.2	525	517.0	8.3	490	565.0	20.9	600	602.2	2.82	561.30
Argentina	7.8	291	174.1	2.8	102	180.6	34.9	660	213.5	8.0	415	146.7	17.2	495	132.5	2.33	164.70
Chile	7.9	384	255.5	9.5	344	199.1	12.0	381	260.2	29.3	564	-	16.4	450	-	2.12	260.20
Brazil	25.7	239	-	26.9	253	-	43.1	395	-	40.5	373	-	47.1	431	-	2.02	-
Belarus	14.6	605	105.6	14.6	552	77.8	13.9	442	70.9	16.0	448	85.5	14.5	422	135.7	1.98	97.70
Ireland	4.3	174	191.9	1.4	146	156.9	7.3	148	193.4	9.6	168	227.5	7.0	157	273.9	0.74	231.70

Source: UN Food and Agricultural Organization, 2014

*P1- Production in million US\$;

**P2- Production in thousand metric tons

***MS – Market share

Foreign trade

World exports

Table 2 shows the top ten exporters of oats in the world between 2013 and 2009. Canada is consistently the largest exporter of oats by both quantity (57%) and dollar value (55%). Canada has seen an increase in its average price per kg from US \$0.20 to US \$0.28 during this time.

World Imports

The US is the world's largest importer of oats with about 73% of the world oats import. Germany (11%) and Mexico (4%) are the second and third largest oats importers in 2013 respectively. China is the fourth in the rating, but its oat imports are growing by more than 15% p.a.

Oats import prices are not stable over the analyzed time frame. Canada imports oats at the lowest price (US \$0.165 per kg) and Japan imports at the highest (US \$0.441 per kg), compared to other top importers.

German and US trade

Germany

Table 4 indicates that the main country from which Germany imports their oats is Finland (more than 55% of imports on average). Another important supplier is Sweden (10.8% in 2013). The import amounts from other partners differ from year to year. Trade in oats is almost exclusively intra-EU. The number of oat suppliers to Germany is increasing every year.

Germany's average importing price per kilogram of oats has increased since 2009. As mentioned above, prices are mainly correlating with weather conditions and product quality. German consumers eat more oats of high quality year after year, so it is reflected in trade import value (Table 4).

As stated in Table 5, total export value of oats has increased significantly from 2009 to 2013. The Netherlands, Switzerland and Austria are the main importers of German oats. The EU countries are Germany's main trading partners for exporting oats. However, the ranking of export partners is not stable.

Similar to the average import price, the average export price has also gone up (from US\$ 0.22 to US\$ 0.32 per kg) within the timeframe analyzed. Export quantity has also increased by 60% since 2009. This trend is connected with the growth of national oats production. Due to lack of organic data availability, this section focuses on the trade value of oats as a whole traded by Germany.

The United States

As of 2011, there were only 62,015 acres of certified organic crop acreage dedicated to oats within the US (United States Department of Agriculture, 2012). This is divided amongst 29 states with Wisconsin and Minnesota being the largest producers. The lack of production within the US leads to a high volume of imports.

Due to lack of organic data availability, Table 6 focuses on the trade value of oats as a whole brought into the US. While the quantity of oats imported to the US has fluctuated during this time, the trade value has increased by 27%. The average price per kg has risen over this time as well by increasing US\$.08 from 2009 to 2013. Canada, the world's largest exporter of oats, is also the US's largest trade partner. Canada has accounted for over 94% of the value of oats exported to the US in each of the last five years.

The top importers of oats grown in the US are shown in Table 7. While not reflective of organic oats, they present an overview of the US's partners and overall trade. Canada and Mexico, the two countries that border the US, are the largest export markets for the US. Combined they account for over 60% of US exports. It is noteworthy that while total exports decreased sharply the average price per kg jumped up 53.8% between 2011 and 2012.

As seen from Table 8, US import value of oats is significantly higher compared to Germany. Estimated import prices vary during 2009-2013, but US imports oats mainly at lower price. Starting from 2012, Germany began to outperform US in both export trade value and net weight (Table 9). However, US oats export price is higher compared to Germany.

Re-exports count for less than 2% of the US market and are not significant enough to factor in to this evaluation (UN Comtrade Database, 2014).

US and Germany Comparison

Re-exports count for less than 2% of the US market and are not significant enough to factor in to this evaluation (UN Comtrade Database, 2014).

Table 2: Top 10 Exporting Countries of Oats

Country	2009			2010			2011			2012			2013			Av. price (US\$/kg)
	V*	W**	Price (US\$/kg)	V*	W**	Price (US\$/kg)	V*	W**	Price (US\$/kg)	V*	W**	Price (US\$/kg)	V*	W**	Price (US\$/kg)	
World	556.3	2731	0.204	579.7	2766	0.210	811.0	2984	0.272	810.5	2907	0.279	743.8	2508	0.297	0.25
Canada	329.4	1651	0.199	326.5	1544	0.211	429.2	1657	0.259	427.1	1643	0.260	410.1	1440	0.285	0.24
Finland	66.9	339	0.198	56.2	320	0.175	93.6	321	0.292	102.7	367	0.279	96.5	312	0.309	0.25
Sweden	39.4	202	0.195	22.5	102	0.220	47.9	144	0.333	63.6	213	0.299	57.0	189	0.301	0.27
Chile	7.6	33	0.234	12.9	60	0.215	36.8	140	0.263	18.3	66	0.278	18.4	51	0.364	0.27
Czech Rep.	4.7	23	0.201	6.2	28	0.224	12.8	40	0.322	14.4	44	0.332	17.5	50	0.347	0.28
Poland	3.5	22	0.159	7.5	47	0.161	5.9	25	0.240	12.3	47	0.261	15.6	61	0.258	0.22
Germany	6.3	29	0.222	6.1	31	0.200	13.0	39	0.332	12.1	36	0.336	14.9	46	0.325	0.28
France	10.2	50	0.203	15.0	85	0.175	19.6	69	0.285	9.3	26	0.363	14.9	50	0.295	0.27
United Kingdom	7.6	33	0.229	15.7	79	0.198	9.0	23	0.386	7.0	11	0.611	10.0	17	0.589	0.40
Denmark	1.5	7	0.209	4.9	22	0.221	10.8	35	0.306	7.6	24	0.315	9.6	27	0.348	0.28

Source: UN Comtrade Database

*V- Trade value in million US \$

**W- Net weight in thousand metric tons

Table 3: Top 10 Importing Countries of Oats

Country	2009			2010			2011			2012			2013			Av. price (US\$/kg)
	V*	W**	Price (US\$/kg)	V*	W**	Price (US\$/kg)	V*	W**	Price (US\$/kg)	V*	W**	Price (US\$/kg)	V*	W**	Price (US\$/kg)	
World	571.3	2682.5	0.213	586.3	2701.4	0.217	814.7	2793.7	0.292	823.2	2763.0	0.298	856.5	2723.8	0.314	0.27
USA	327.7	1661.4	0.197	327.7	1579.7	0.207	408.2	1609.3	0.254	414.1	1609.7	0.257	414.9	1473.1	0.282	0.24
Germany	53.7	233.6	0.230	51.3	259.7	0.198	94.2	301.1	0.313	84.5	273.0	0.309	102.2	316.2	0.323	0.28
Mexico	14.2	60.5	0.235	18.0	74.5	0.242	35.7	115.4	0.309	23.8	77.2	0.308	38.8	111.0	0.350	0.29
China	11.0	42.9	0.257	13.7	56.8	0.241	19.5	55.9	0.349	28.4	82.8	0.343	30.6	92.8	0.330	0.30
Belgium	13.0	64.2	0.202	17.0	94.8	0.179	26.7	85.0	0.314	23.2	75.4	0.308	28.6	91.7	0.312	0.26
Netherlands	3.9	9.6	0.409	6.6	42.2	0.157	15.4	57.0	0.270	14.4	51.1	0.281	17.2	71.0	0.242	0.25
Japan	19.3	50.5	0.382	21.2	54.3	0.390	28.6	59.5	0.480	25.4	54.3	0.468	25.9	53.1	0.488	0.44
Switzerland	10.8	43.8	0.246	14.3	56.4	0.253	21.6	53.9	0.401	17.8	47.6	0.373	15.6	44.6	0.350	0.33
Ecuador	3.4	14.9	0.227	3.5	14.3	0.244	4.8	15.7	0.306	7.0	21.9	0.320	7.3	18.7	0.388	0.30
Canada	2.2	16.1	0.136	2.9	21.6	0.135	3.2	19.6	0.165	2.7	14.7	0.183	3.7	17.8	0.205	0.17

Source: UN Comtrade Database

*V- Trade value in million US \$

**W- Net weight in thousand metric tons

Table 4: Germany's Oats Import Sources (Top 10 per year)

Country	2009			2010			2011			2012			2013		
	V*	W**	Price (US\$/kg)	V*	W**	Price (US\$/kg)	V*	W**	Price (US\$/kg)	V*	W**	Price (US\$/kg)	V*	W**	Price (US\$/kg)
World	53730	233621	0.230	51326	259668	0.198	94222	301129	0.313	84463	273039	0.309	102243	316155	0.323
Finland	43480	190811	0.228	28844	157359	0.183	43021	139013	0.309	56131	189029	0.297	57440	178126	0.322
Sweden	3122	11926	0.262	4192	21373	0.196	15651	54512	0.287	4161	14549	0.286	10999	38115	0.289
France	1454	6574	0.221	1963	9550	0.143	3605	11283	0.320	1735	5754	0.302	4565	14494	0.315
Austria	1184	3011	0.393	1102	5336	0.096	2784	7126	0.391	3932	9360	0.420	2452	5216	0.470
Czech Rep.	1033	5824	0.177	2789	11523	0.297	4548	13814	0.329	4266	12005	0.355	5001	13611	0.367
Ireland	710	2959	0.240	2589	9383	0.271	5453	17027	0.320	2206	7694	0.287	866	2729	0.317
Denmark	699	2942	0.238	3386	13767	0.635	6073	18568	0.327	4055	12402	0.327	7104	21746	0.327
Poland	605	4471	0.135	591	3860	0.153	1715	6450	0.266	2293	8676	0.264	5564	21274	0.262
Netherlands	419	1440	0.291	382	1542	0.248	2855	7693	0.371	1753	5252	0.334	1005	2434	0.413
Lithuania	42	145	0.291	315	1260	0.250	872	1867	0.467	1658	3962	0.419	2305	7077	0.326

Source: UN Comtrade Database

*V- Trade value in thousand US \$

**W- Net weight in metric tons

Table 5: Germany's Oats Export Partners

Country	2009			2010			2011			2012			2013		
	V*	W**	Price (US\$/kg)	V*	W**	Price (US\$/kg)	V*	W**	Price (US\$/kg)	V*	W**	Price (US\$/kg)	V*	W**	Price (US\$/kg)
World	6338	28489.3	0.222	6114	30554	0.200	13014	39245.2	0.332	12072	35901.5	0.336	14902	45799.8	0.325
Netherlands	643	2976.4	0.216	909	5274.4	0.172	2911	10332.7	0.282	3271	11198.7	0.292	5518	21064.2	0.262
Switzerland	2254	9459.8	0.238	3389	17235.1	0.197	5418	15545.4	0.349	4405	12720.8	0.346	4508	12924.9	0.349
Austria	1307	5268.3	0.248	939	4221.9	0.222	1489	4360.5	0.341	1538	4983.8	0.309	1593	4422.4	0.360
Italy	759	4025.8	0.189	431	2561.9	0.168	992	3711.8	0.267	1161	3523.4	0.330	787	2464.0	0.319
Denmark	251	1293	0.194	93	242	0.384	53	75.7	0.700	81	121.7	0.665	701	2089.9	0.335
United Kingdom	13	24.8	0.524	12	17.9	0.670	91	164.6	0.553	508	1454.5	0.349	488	743.8	0.656
France	177	799.5	0.221	52	295.1	0.176	195	598.2	0.326	473	735.1	0.643	441	525.0	0.840
Belgium	63	329.4	0.191	27	118	0.229	97	288.3	0.336	146	369.4	0.395	200	592.3	0.338
Spain	704	4032.7	0.175	3	900	0.003	951	2859.0	0.333	56	49.6	1.129	39	55.6	0.701
Ireland	59	104.4	0.565	118	246.9	0.478	197	327.6	0.601	0.292	0.2	1.333	31	40.4	0.767
Sweden	16	25.5	0.627	5	8.3	0.602	63	71.2	0.884	39	42.1	0.927	18	13.0	1.385

Source: UN Comtrade Database

*V- Trade value in thousand US \$

**W- Net weight in metric tons

Table 6: US Oats Import Sources

Country	2009			2010			2011			2012			2013		
	V*	W**	Price (US\$/kg)	V*	W**	Price (US\$/kg)	V*	W**	Price (US\$/kg)	V*	W**	Price (US\$/kg)	V*	W**	Price (US\$/kg)
World	327694	1661394.5	0.197	327688	1579712.2	0.207	408162	1609272.2	0.254	414050	1609650.6	0.257	414859	1473109.4	0.282
Canada	318681	1601096.2	0.199	314522	1498618.9	0.210	403083	1589630.1	0.254	398918	1551570.4	0.257	392973	1390435.9	0.283
Sweden	3547	24778.4	0.143	NA	NA	NA	NA	NA	NA	7022	29020.4	0.242	10669	40789.8	0.262
Finland	5271	34941.6	0.151	12703	79447.0	0.160	4847	18843.6	0.257	6832	27003.6	0.253	9418	38947.9	0.242
Australia	9	3.9	2.179	NA	NA	NA	60	263.0	0.227	1168	1882.5	0.620	1737	2886.5	0.602
China	NA	NA	NA	NA	NA	NA	NA	NA	NA	35	10.7	3.290	21	4.7	4.553
Latvia	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20	40.0	0.498
Italy	NA	NA	NA	19	6.3	2.937	17	3.6	4.750	16	4.6	3.522	11	2.8	4.071
Mexico	11	4.5	2.356	8	3.3	2.424	10	3.6	2.722	6	1.8	3.111	6	1.8	3.278

Source: UN Comtrade Database

*V- Trade value in thousand US \$

**W- Net weight in metric tons

Table 7: US Oats Export Partners

Country	2009			2010			2011			2012			2013		
	V*	W**	Price (US\$/kg)	V*	W**	Price (US\$/kg)	V*	W**	Price (US\$/kg)	V*	W**	Price (US\$/kg)	V*	W**	Price (US\$/kg)
World	8464.7	34806.0	0.243	8663.3	38292.2	0.226	9722.8	41886.4	0.232	7299.6	20444.3	0.357	8014.3	21615.5	0.371
Canada	2098.5	15228.0	0.138	2880.6	20594.7	0.140	3267.2	20473.9	0.160	2539.9	7126.2	0.356	3354.6	11007.7	0.305
Mexico	3096.0	6007.2	0.515	1870.1	3660.2	0.511	2872.8	10095.8	0.285	1976.1	5952.9	0.332	1785.6	3998.3	0.447
Japan	919.2	2441.0	0.377	1023.1	2162.4	0.473	1317.6	2113.8	0.623	1437.1	2765.2	0.520	901.9	1231.7	0.732
China, Hong Kong SAR	284.7	1601.4	0.178	332.5	1995.0	0.167	387.2	2104.7	0.184	86.0	514.0	0.167	449.0	1657.7	0.271
Other Asia, NES	345.3	2576.0	0.134	550.7	4660.0	0.118	536.3	3024.9	0.177	392.8	1855.4	0.212	226.2	968.0	0.234
Rep. of Korea	40.6	137.0	0.296	551.8	692.2	0.797	385.3	446.1	0.864	132.5	126.7	1.046	163.7	165.8	0.987
Ghana	NA	NA	NA	33.8	137.1	0.247	30.0	180.0	0.167	15.0	43.2	0.347	159.7	262.1	0.609
Singapore	219.3	214.1	1.024	NA	NA	NA	15.7	54.4	0.289	NA	NA	NA	146.3	463.1	0.316
Colombia	224.6	229.5	0.979	445.9	399.2	1.117	85.1	113.2	0.752	21.4	36.3	0.590	141.6	195.8	0.723

Source: UN Comtrade Database

*V- Trade value in thousand US \$

**W- Net weight in metric tons

Table 8: Oats Import of Germany and US

Country	2009			2010			2011			2012			2013		
	V*	W**	Price (US\$/kg)	V*	W**	Price (US\$/kg)	V*	W**	Price (US\$/kg)	V*	W**	Price (US\$/kg)	V*	W**	Price (US\$/kg)
Germany	53730	233621	0.230	51326	259668	0.198	94222	301129	0.313	84463	273039	0.309	102243	316155	0.323
US	327694	1661394.5	0.197	327688	1579712.2	0.207	408162	1609272.2	0.254	414050	1609650.6	0.257	414859	1473109.4	0.282

Source: UN Comtrade Database

*V- Trade value in thousand US \$

**W- Net weight in metric tons

Table 9: Oats Export of Germany and US

Country	2009			2010			2011			2012			2013		
	V*	W**	Price (US\$/kg)	V*	W**	Price (US\$/kg)	V*	W**	Price (US\$/kg)	V*	W**	Price (US\$/kg)	V*	W**	Price (US\$/kg)
Germany	6338	28489.3	0.222	6114	30554	0.200	13014	39245.2	0.332	12072	35901.5	0.336	14902	45799.8	0.325
US	8464.7	34806.0	0.243	8663.3	38292.2	0.226	9722.8	41886.4	0.232	7299.6	20444.3	0.357	8014.3	21615.5	0.371

Source: UN Comtrade Database

*V- Trade value in thousand US \$

**W- Net weight in metric tons

Apparent consumption

The apparent consumption for each country is calculated by using the following formula:

Consumption = production + imports – exports

Oats consumption per capita was 7.8 kg in US and 11.12 kg in Germany in 2013. 2013 saw lower total and per capita consumption than the five-year average for each country. It decreased from 2012. Though total and per capita consumption has fluctuated, it has remained relatively stable in each country over the past five years. The difference in consumption between the countries is due to their different usage of oats and consumer preferences.

Table 10: Estimated Consumption of Oats in the US and Germany				
Year	Estimated Consumption of the US (TMT)	Per Capita Consumption of the US (kg)	Estimated Consumption of Germany (TMT)	Per Capita Consumption of Germany (kg)
2013	2467	7.80	898	11.12
2012	2577	8.21	994	12.34
2011	2346	7.53	889	11.07
2010	2720	8.79	827	10.31
2009	2978	9.71	927	11.55

Source: Statistik und Berichte des Bundesministeriums für Ernährung und Landwirtschaft, 2013; UN Comtrade Database

3. Market characteristics

Oats consumption has been rising since 1970 as consumers rediscover their health benefits, even though global oats production is still lower than that of wheat, corn, or even barley (Planetoscope, 2012). According to a study by the German Ministry of Agriculture, 91% of consumers state a healthy and balanced nutrition is important to them (Öko-Barometer, 2013). In the US about one-third of adults and 17% of children are obese (Dietary Guidelines for Americans, 2010), leading to positive growth for both US whole grains and organic industries.

Consumer Preferences

As consumers become more health conscious, preferences and buying habits are changing. Both German and US consumers are looking for new “supergrain” alternatives and oats were one of the first grains elevated to this status. Consumers are more willing try these supergrains (grains which have strong health benefits) if they don’t have to change their eating habits (Euromonitor, Healthy Grains Revolution, 2008). US consumers are searching out organic foods for several reasons, including health and nutrition (66%), taste (38%), environment (26%), and availability (15%) (USDA ERS, 2014). Although willing to buy more organic products, German consumers don’t accept inferior quality regarding taste in organic products.

In the US rolled oats and whole oat flour are the main forms used for human consumption. These forms are primarily found in hot breakfast cereals, but are also in cold cereals, granola bars, bakery products and baby foods (Northern Crops Institute). In Germany oats are mostly consumed as rolled oats as part of Muesli or with milk and only a small amount are consumed as instant oats. Unlike American consumers, Germans usually don’t heat up their oats when they consume them with milk.

US consumer preferences vary greatly based on per capita disposable income, which saw a decline through 2009. However, per capita disposable income is expected to grow a moderate 2.5% through 2019 (IBISWorld, 2014), benefitting organic food consumption (Organic Packaged Food in the US, 2014).

Market Segments

The three customer segments for oats include: Animal feed, human consumption, and cosmetics.

Animal feed uses coarse grains. In the US, 18% of dairy farmers report using oats as feed (Heuzé V, 2014) and may constitute 50-70% of grain mixture for feed in the Great Plains region. Ninety-five percent of oats produced in the US are used for animal feed, leaving only 5% for human consumption products.

Organic products have become more mainstream in the US, with supermarkets and hypermarkets accounting for 73% of organic packaged food sales in 2013 (Euromonitor, Organic Packaged Foods in the US, 2014). According to the Organic Trade Association's 2011 Organic Industry Survey, US consumers purchase organic foods through three main venues:

- Mass market retailers (54%) (Supermarkets)
- Natural retailers (39%) (Organic stores)
- Direct-to-consumer markets (farmer's markets, internet, specialty stores, etc.)

In Germany organic oats for consumer purposes are sold through different channels. When it comes to buying organic food, German consumers prefer supermarkets (82%), discounters (64%), bakeries (58%), weekly markets (57%) and specialty organic stores (25%).

In the consumer market there are three primary groups accounting for a majority of sales (BÖLW, 2014):

- Retailers, drugstores and discounters (60%)
- Organic specialty retailers (32%)
- Other channels like local regular markets, bakeries, gas stations (8%)

Cosmetics are the only significant industrial use of oats and limited detailed information was found on this segment. The growth of the organic industry in the US has extended to cosmetics. In 2003, the FDA approved colloidal oatmeal, which is the powder obtained from grinding and processing whole oat grain, for use as a skin protectant (Kurtz and Wallo, 2007). It is also used in various products such as cleansing bars, body washes, lotions, and shave gels.

Conditions of Acceptance

The United States Code of Federal Regulations Title 7 establishes the regulations and standards for Agricultural products within the US. The standards for oats are covered under section 810G of this document. These standards define oats as grain that consists of 50 percent or more of oats and may contain, singly or in combination, not more than 25 percent of wild oats and other grains. Oats that meet these standards are assigned grades as seen in table 9. Oats below level 4 are given a sample grade. These grades help determine the market value of the product (Electronic Code of Federal Regulations, US Government Printing Office).

Consumers also pay very close attention to universally accepted labels by official organizations that indicate organic and/or regional products, such as the "Bio" label by the European Community (Euromonitor – Breakfast cereals in Germany, 2014). As the US organic market has grown, 72% of parents are now familiar with the USDA organic seal, which is up from 65% in 2009 (Organic Trade Association). Since organic foods are still priced at a premium to conventional foods, consumers are price-sensitive (Euromonitor, 2008). More involved organic consumers are concerned with more than just the USDA organic seal, and want assurance that the products are environmentally and ethically sound. They push retailers not to buy from countries where standards may not be enforced and tend to purchase at specialty stores rather than mass market retailers (Euromonitor, 2008).

Eighty-seven percent of German consumers state that the main reason for buying organic products is to support local farmers. German organic customers also expect that milk, eggs, and meat should be predominantly produced using regional, organic animal feed, a large amount of which is made out of oats (BÖLW, 2013).

Table 11: US Oat Grade Requirements					
Grade	Minimum limits		Maximum limits		
	Test weight per bushel (pounds)	Sound oats (percent)	Heat-damaged kernels (percent)	Foreign material (percent)	Wild oats (percent)
U.S. No. 1	36	97	0,1	2	2
U.S. No. 2	33	94	0,3	3	3
U.S. No. 3	30	90	1	4	5
U.S. No. 4	27	80	3	5	10
U.S. Sample grade—	<27.0	<80.0	>3.0	>5.0	>10.0

Source: Electronic Code of Federal Regulations, US Government Printing Office

Competition

Competition varies by market segment. As a food, oats compete with traditional grains like buckwheat and rye. Considered a supergrain with significantly more amino acids than traditional varieties, oats are replacing more traditional grains in some areas and are at the same time being replaced by newly used grains in other areas (Euromonitor – The healthy grains revolution, 2014).

For animal feed, coarse grains compete directly with corn, wheat and soybeans, but increases in prices for those grains have helped increase prices for coarse grains since 2006 (IBISWorld).

Breakfast cereals are facing competition from time-saving substitutes like fast food breakfast sandwiches. Consumers are expected to eat out more frequently as lifestyles and employment demands change (IBISWorld). The rise of the natural food market is a threat to the US organic industry, as there is still no FDA definition for “natural” and these products are lower cost than organic alternatives (Euromonitor, Organic Packaged Food in the US, 2014).

Demand Trends

The use of oats in the US has increased in feed, seed and industrial market since 2010, up to 77 million bushels for the 2014 reporting year, as shown in table 10 below (USDA ERS Feed Database).

Table 12: Oats Consumed for Feed, Seed and Industrial Use						
Year	Frequency	Attribute	Commodity	Geography	Unit	Amount
2010	June-May	Food, seed, and industrial use	Oats	United States	Million bushels	74
2011	June-May	Food, seed, and industrial use	Oats	United States	Million bushels	76
2012	June-May	Food, seed, and industrial use	Oats	United States	Million bushels	76
2013	June-May	Food, seed, and industrial use	Oats	United States	Million bushels	75
2014	June-May	Food, seed, and industrial use	Oats	United States	Million bushels	77

Source: USDA ERS Feed Database

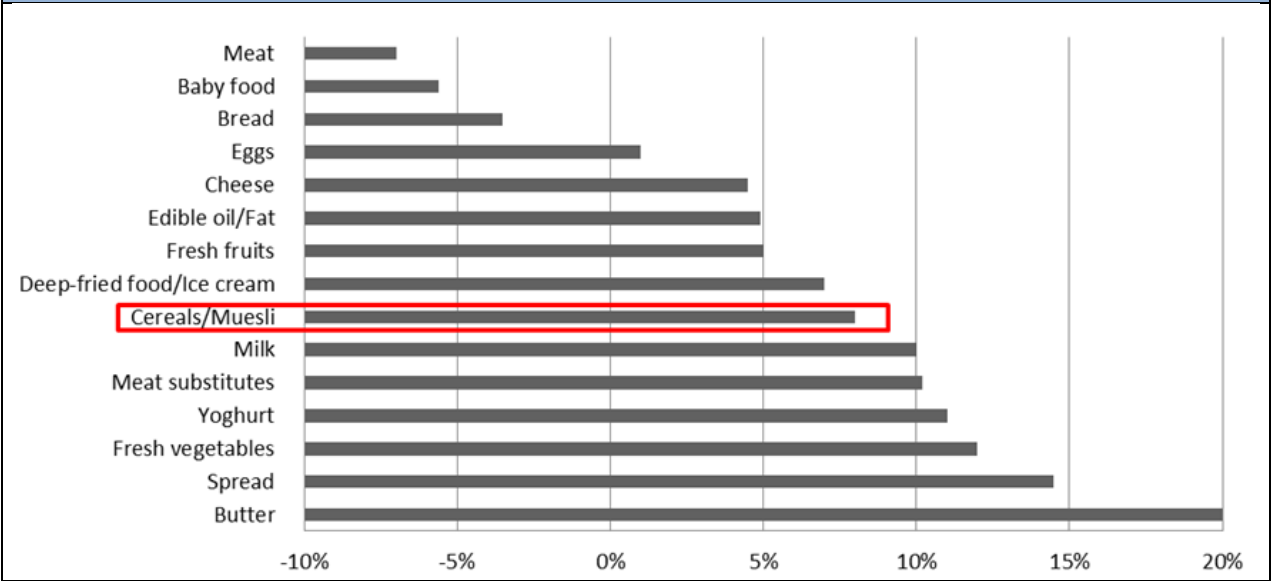
In Germany, the demand for organic animal feed (i.e. organic oats) is very likely to grow in the future due to a rising livestock population and a new guideline that demands a 100 percent organic animal feed for animal products sold as “organic” starting 2015 (BÖLW, 2013).

With the continued increase in US per capita disposable income, revenue in the breakfast cereal industry is expected to grow at an average annual rate of 0.8% through 2019. Domestic demand for the cereal industry is expected to increase through 2019 and the price of coarse grains follows the same trend (IBISWorld). Although cereals are facing an overall slight decline in sales in Germany, healthier variants (including products with oats) have been able to achieve a volume and value growth (Euromonitor, 2014 Breakfast cereals in Germany). Organic packaged food sales have grown to 4% of total US food sales, reaching US\$12 billion in 2013 (Euromonitor, Organic Packaged Food in the US, 2014). US whole grain consumption rose 23.4% in a two year period from 2008 to 2010 (Whole Grains Council, 2013).

The overall organic market in Germany is growing (+3% in 2010, +7.2% in 2013), especially fueled by the growth in organic specialty stores, which amounted to +8% in 2010 (BOELW, 2011). The drugstore channel, which includes businesses such as “DM” or “Rossmann”, has shown the most growth for organic oats (BOELW, 2014). Consumption figures and prices for both countries indicate a difference in the **price elasticity** for Germany and the US. German consumers are not very price sensitive (0.02) while US consumers react stronger to price shifts (0.4).

Figure 2 shows the sales development in percent of the most important organic food product groups in Germany in 2013, exposing a relatively strong growth for cereals (+8%) in the organic market in Germany (BÖLW, 2013).

Figure 2: Organic Sales Development in Germany in % (2013)



Source: BÖLW, 2013

4. Market access

Tariffs

The United States

The US applies no tariffs on oats as seed for sowing (HS 100410) and other oats (HS 100490) that are imported from most-favored-nation (MFN) partners. Oats that are imported from non-MFN partners are subject to a tariff of 1.1 cents/kg. All members of the World Trade Organization have MFN status with the US; only Cuba and the Democratic People's Republic of Korea are excluded of this status (INTRACEN Database, 2014).

Germany

Germany applies the same tariffs on both oats as seed for sowing (HS100410) and other oats (HS100490). Imports from a MFN are imposed 89 EUR/1000 kg (40.18% ad valorem equivalent). Germany provides 0% tariffs for EU members and some other selected nations. (See Annex 3 Market Access – EU tariffs for oats). Germany also imposes internal taxes: 7% VAT since 01.07.2014 (Export Helpdesk, 2014).

Standards, Regulations and Non-tariff barriers

The United States

To be marketed as organic, the US requires that all imported products meet either USDA organic standards or the standards of an authorized international partner. The US will accept the organic certification standards of Canada, Japan, and the European Union in place of USDA Certified Organic standards. The imported product must be identified by which organization certified it as organic (United States Department of Agriculture, 2014).

USDA organic regulations are covered in Section 205C of the United States Code of Federal Regulations Title 7. Regulated by this are the standards for land usage, plant nutrition, crop rotation, and pest, weed, and disease management practices for all organic crops (Electronic Code of Federal Regulations, US Government Printing Office, 2014).

Any land used to grow organic agriculture must not have had any prohibited substances applied to it for the past three years. Once the three years have passed and an Organic System's plan has been submitted along with an application, the inspection process can begin. This involves a review of the submitted documents and an on-site inspection. The certification must be renewed annually and includes a yearly on-site review (United States Department of Agriculture, Agriculture Marketing Service, 2014).

The Public Health Security and Bioterrorism Preparedness and Response Act of 2002 requires that advanced notice must be provided to the FDA for any food or animal feed that is being imported to the US. Prior notice can be filed electronically through the fda.gov (US Food and Drug Administration, 2014).

In addition to prior notice, importers of plants or plant products must first obtain an Agricultural Import Permit from the USDA Animal and Plant Health Inspection Service and also provide a phytosanitary certificate from the exporting country. The phytosanitary certificate must identify the plant by its scientific name and ensure that officials from the exporting country have inspected the product for disease and pest. The certificate must also confirm that the shipment meets US import regulations. Importers to the US can obtain a permit by visiting www.aphis.usda.gov/plant_health/permits/index.shtml (USDA Animal and Plant Health Inspection Service, 2014).

While market access is the same for all WTO members, the cost to transport the oats to the US can be a hurdle for importers to overcome. Canada is the largest supplier of oats to the US and they maintain a natural competitive advantage on shipping cost given their close proximity. No significant competitive barriers are applied.

Germany

Regulation (EC) No 183/2005 of the European Parliament and of the Council (OJ L-35 08/02/2005) establishes the general requirements for feed hygiene which aim at ensuring feed safety throughout the food chain, starting with primary production of feed, up to and including, the feeding of food-producing animals.

Regulation (EC) No 882/2004 of the European Parliament and of the Council (OJ L-165 30/04/2004) establishes the EU framework of general rules for the organization of official controls on feeding stuffs. The control may apply to imports into the EU and/or to any other stage of the feed chain (manufacture, processing, storage, transport, distribution and trade) and may include a systematic documentary check, a random identity check and, as appropriate, a physical check.

The importer or its representative must give advance notice of the arrival and submit a request for inspection that should at least contain:

- The “Taric” code (the product identification in the European Integrated Tariff Nomenclature)
- A statement indicating that the consignment contains produce of phytosanitary relevance
- Reference number(s) of the required phytosanitary documentation
- Official registration number of the importer

Seed must fulfill the criteria in Directive 66/402/EEC for:

- Field production
- Seed purity and identity
- Plant health

- Specific requirements for the different marketing categories: pre-basic, basic and certified seed

The seeds and plant propagating material from countries outside the EU may only be marketed if they offer the same guarantees as the products produced in the EU and comply with the conditions laid down in EU legislation. Council Decision 2003/17/EC (OJ L-8 14/01/2003) lists the countries complying with EU requisites and establishes the conditions on the equivalence for field inspections to be carried out in third countries for certain seeds and seed-producing crops (fodder, cereal, beet seeds and oil and fiber plants).

The placing on the EU market of seeds and plant propagating material must comply with specific marketing requirements laid down by EU legislation designed to ensure that these products meet criteria for health and high-quality as well as the protection of biodiversity.

Hence, this type of products may be affected by:

- Specific marketing conditions for certain groups of seeds and plant propagating material
- Special provisions applicable to Genetically Modified (GM) plants and seeds

Besides these mandatory provisions, imports into the EU of these products may be subject to the phytosanitary measures established by Council Directive 2000/29/EC (OJ L-169 10/07/2000).

Imports of plants and plant products listed in Council Directive 2000/29/EC must be accompanied either by an official “phytosanitary certificate” or a “phytosanitary certificate for re-export” (in case the consignment after being dispatched from a third country, has been stored, repacked or split up in another non-EU country).

Those documents certify the phytosanitary conditions of plants and plants products, and also that the shipment has been officially inspected, complies with statutory requirements for entry into the EU and is free of quarantine pests and other harmful pathogens. They shall be at least in one of the official languages of the EU and shall be issued by the designated authorities of the third country of export or re-export. The documents shall also be made out not more than 14 days before the date on which the plants, plant products or other objects covered by it have left the country of issuance (European Commission, Export Helpdesk).

According to Codex Standard, oats shall be safe and suitable for processing for human consumption, free from abnormal flavors, odors, living insects and mites. Oats have to contain: moisture 14.0% m/m max; impurities of animal origin (including dead insects) 0.1% m/m max; other organic extraneous matter 1.5% m/m max; inorganic extraneous matter 0.5% m/m max (Codex Standard 201-1995).

German customers prefer buying oats from local producers to support them. The organic oats market is characterized by strong competition in Germany. Due to strong market power of domestic companies, it can be difficult for foreign exporters to enter this market.

5. Prices

Organic oats are usually priced at a higher level than regular oats due to additional production costs related to organic grains and due to higher perceived benefits associated with organic oats. On earlier stages of organic oats production the added markup is about 20% whereas on the last stage retailers add roughly 40% markup (Weiling GmbH, 2014). Also, seasonality and weather impact organic oats prices that will be shown in this chapter further.

Prices at Producer Level

Germany

As shown in the table below, the domestic producer price for oats in Germany has been varying in the last few years. In 2012, the average producer price per kilogram reached 0.19 EUR.

Table 13: Producer Prices Oats Germany		
Year	Unit	Value
2008	USD/kg	0.2651
2009	USD/kg	0.1542
2010	USD/kg	0.1711
2011	USD/kg	0.2528
2012	USD/kg	0.2423
Source: FAOSTAT		

Imports also make up a significant part of Germany's growing oats consumption. Imported oats reached an average price per kilogram of 0.26 EUR in 2013. This represents a 30% increase since 2009 (COMTRADE, 2014). Eighty-nine percent of German oat imports originate from six countries (Finland, Sweden, Denmark, Poland, Czech Republic and France). Table 13 shows the average producer price for those six suppliers.

Table 14: Producer Prices per Country Oats EUR/kg					
Country	2008	2009	2010	2011	2012
Finland	0.138	0.086	0.116	0.166	0.186
Sweden	0.123	0.083	0.117	0.148	0.156
Denmark	0.168	0.101	0.124	0.175	0.200
Poland	0.121	0.074	0.084	0.156	0.158
Czech Republic	0.155	0.101	0.095	0.133	0.149
France	0.143	0.085	0.131	0.173	0.209
Source: FAOSTAT					

According to Alibaba, the FOB price for white oats from Germany ranges from 240 to 320 EUR per metric ton (0.24 to 0.32 per kg).

The United States

The prices of oats and corn are highly correlated and trend closely; table 14 below shows the producer prices of both maize and oats in US Dollars (USD) per ton from 2007 to 2012.

Table 15: US Producer Prices - Maize and Oats (USD/ton)						
Producer	2007	2008	2009	2010	2011	2012
Maize	165 USD	160 USD	140 USD	204 USD	245 USD	283 USD
Oats	181 USD	217 USD	139 USD	174 USD	240 USD	268 USD

Source: FAOSTAT

Strong domestic demand for corn in the United States, due in part to the Energy Policy Act of 2005 and the substitutability of corn for oats in livestock feed, has led to a rise in the premium for corn over oats.

Table 15 below shows the prices from 2005 till 2014 received by US Farmers. Prices fell in 2009 with the recession in the US market, but remain stable at US\$3.00 per million bushel range.

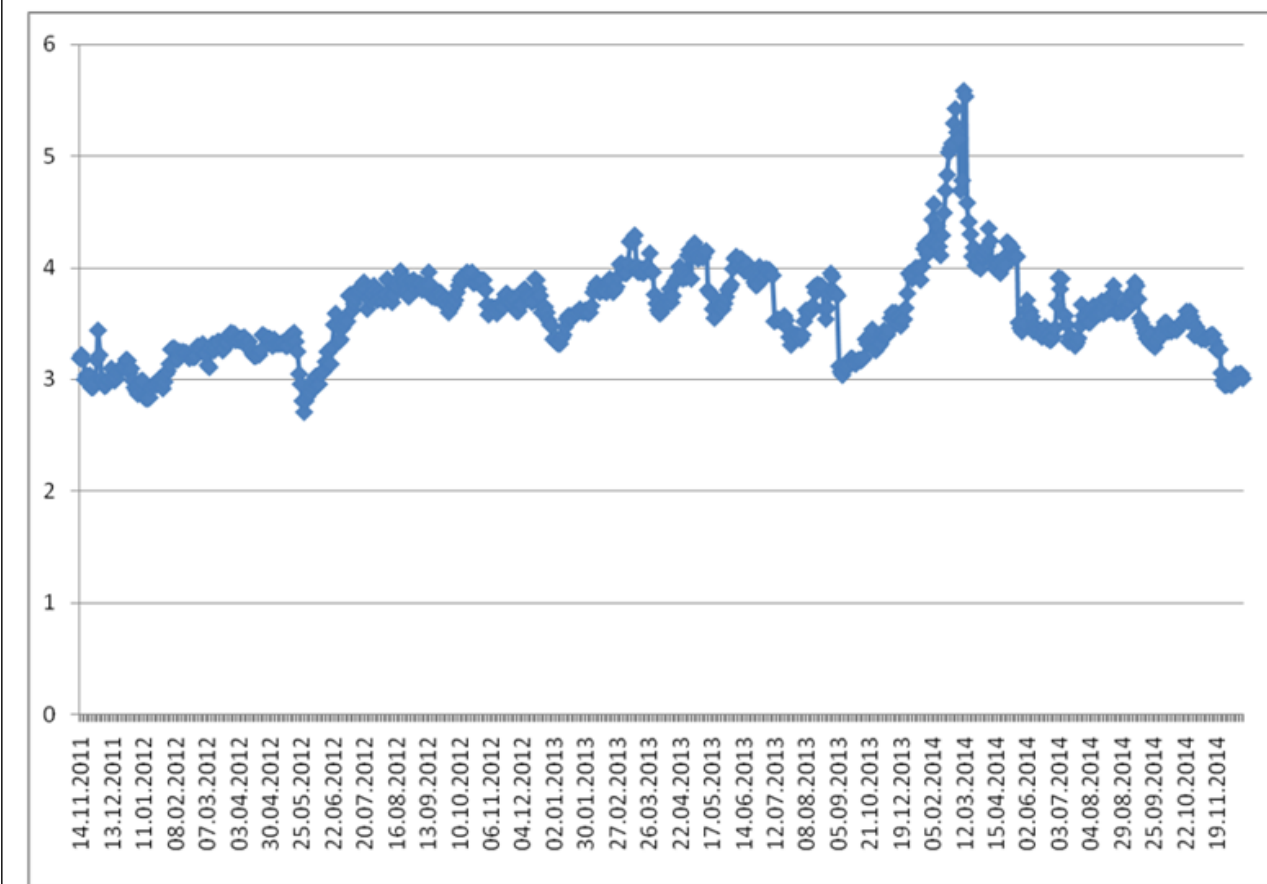
Table 16: Avg. Prices Received by Farmers, United States (million bushels)	
Commodity/Market Yr	Wt Avg
2005/06	1.63
2006/07	1.87
2007/08	2.63
2008/09	3.15
2009/10	2.02
2010/11	2.52
2011/12	3.49
2012/13	3.89
2013/14	3.75
2014/15 (estimate)	2.80-3.40

Source: USDA, National Agricultural Statistics Service, Agricultural Prices: and USDA, World Agricultural

Prices at Wholesale Level

The price development of oats over the past three years per US Bushel (14.515kg) is shown in figure 3.

Figure 3: Price Development of Oats in EUR/Bushel



Source : Finances.net, 2014

The graph shows that the price of oats is not stable. In May 2012 the price was the lowest (2.70 USD per bushel), but in February 2014 it peaked at 5.52 USD per bushel. All in all, the price shows a slight increase within the time period analyzed. This reflects seasonality and weather.

Germany

Wholesale oats are sold in quantities of 1 MT to 55 MT and more. Organic oat wholesale prices differ from 0.8 EUR to 4.5 EUR per kg depending on color, style (dried or fresh), drying process, country of origin etc. During 2014 wholesale oat prices rose in February, reached a peak in March and went down slowly in April, what means seasonal price swings (Alibaba). The average estimated wholesale oat price in Germany is 1.5 EUR per kg.

The United States

Wholesale oats are generally sold in large quantities with minimum orders or at least 1 MT, but smaller retailers, such as Nuts.com, do offer wholesale organic oats in quantities as low as

11.34 kg packages. When sold in quantities of at least 1 MT, organic oat FOB prices range from US\$ 0.3 to US\$ 2.00 per kg depending on color, style (dried or fresh), drying process, country of origin, etc (Alibaba, 2014). In smaller 11.34 kg packages, the FOB cost for organic oats increases to a range of US\$2.38 to US\$5.60 per kg (Nuts.com, 2014).

With the US relying so heavily on Canada for the supply of oats, the wholesale prices are greatly impacted by market conditions in Canada. The five year average wholesale price of oats in the US was US\$3.62 per bushel. The high during this time occurred in February and March of 2014, culminating with a price of US\$5.58 per bushel (Quotenet, 2014). This spike in price was due to a grain shipping backlog that Canada experienced at the time.

Prices at Retail Level

Germany

In November 2014, different stores in different categories (REWE, dm, Lidl) and websites with products online were visited by the team.

Classifications of the brands in different categories (cheaper in most expensively) for 500g:

- Alnatura
- Rewe Bio
- Kölln
- Seitenbacher

This on-site and online observation showed for organic oat that the price range for 500 g is between € 1.15 and € 2.40 and for 1000 g between € 1.50 and € 5.50. The average price is about € 2 per 500 g and € 3.60 per 1000 g.

The on-site observation for **regular oats** showed that the price range for 500 g and 1000 g is lower than prices of **organic oats**. The price range for 500g is between €0.39 and €1.99 and for 1000g is between €1.49 and € 2.99.

The United States

At the retail level, organic oats are sold throughout grocery, department and specialty stores (Department of Agricultural Economics, 2005). The units of measure are oz (ounces) and lb (pounds). The retail price of organic oats varies by purchase date, type, grade, quality, quantity purchased, sales channel, brand, retailer type and location. For instance, Wisconsin's Unfair Sales Act prevents retailers from selling below cost, thereby creating a lower limit on a product's price (Wisconsin Department of Agriculture, n.d.). Thus retail customers located in Wisconsin may pay a higher price for organic oats compared to other states.

The United States lacks a centralized system to track and collect organic oat prices at the retail level. Based on information governed from primary research about retail prices, it was indicated that the price of organic oats ranged between \$0.76 and \$4.64 per lb (US Organic Oats Retailers

Survey, 2014). The retail price differs by purchase date, type, grade, quality, quantity purchased, sales channel, brand, retailer type and location.

The average price of organic rolled oats is \$2.48 per lb (range \$1.06 - \$4.49), whereas regular oats is \$1.59 per lb (range \$0.54 - \$3.22) (USOORS, 2014). So there is a 43.73% difference in prices of **regular** and **organic oats**.

Value chain

The value chain for organic oats starts in the growing farms of oats producing countries. Furthermore, a variety of functions occur, including harvest and production, processing to wholesale quantities. Then organic oats are transferred to importers who then deliver it to destination countries or operate in the borders of own country (Department of Agricultural Economics, 2005).

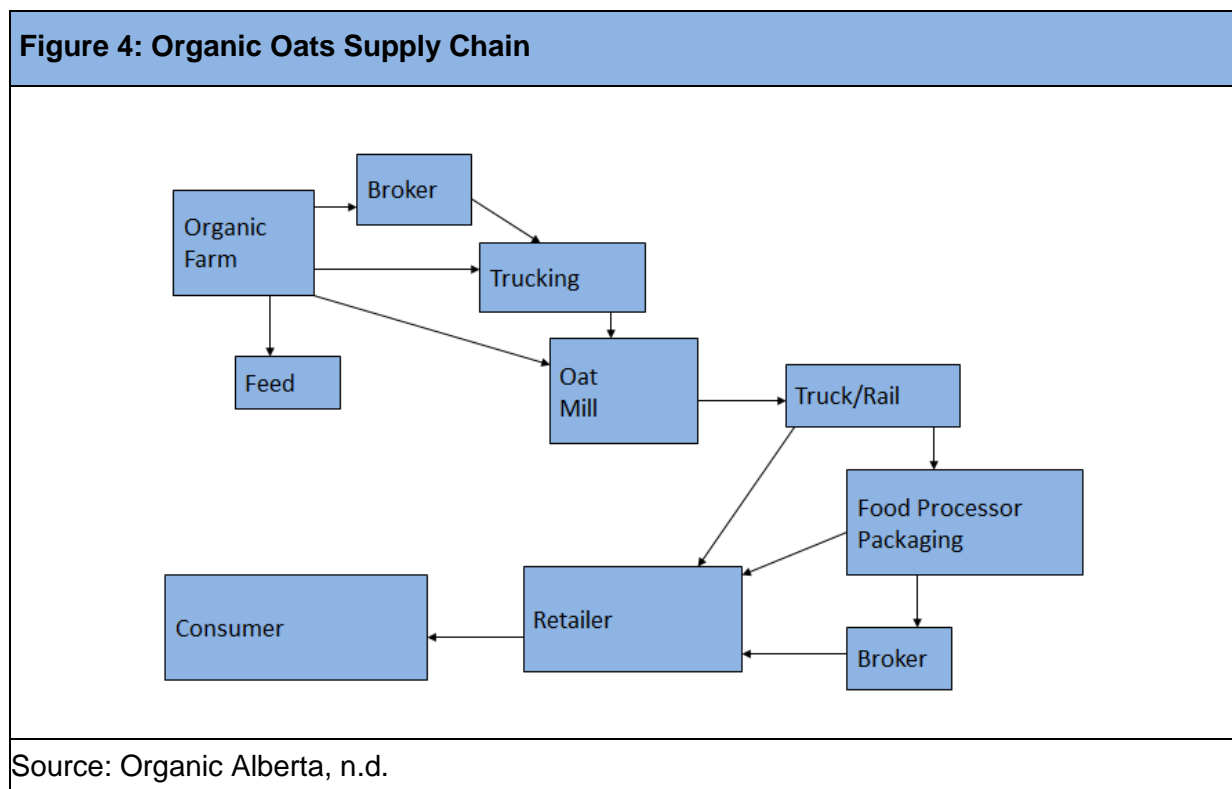
As for value chain shares among all participants, the growers have a smallest one (about 10-17%) of the whole chain. For instance, in Sweden the oats farmers are paid approximately US\$ 0.156 what is approximately 10.4% of the final price. The broker adds a markup about 20% from growers to exporting countries. Nevertheless, retailers take the largest markup: more than 40% (Weiling GmbH, 2014).

6. Distribution channels

After the organic oats have been harvested, they undergo a one to two-month **post-ripening process**. During this process, oats with higher water content become moist on the outside and cannot be shipped yet. If water content is below 13 percent the moisture can be absorbed by the surrounding air, minimizing mold risk and therefore enabling shipping. Oats that are too humid or not completely ripened can cause heat build-up, mold and fermentation during transportation. If oats show water content suitable for shipping, they can be stored for **12 months or longer** (TIS, 2014).

Oats are predominantly transported as **bulk cargo** in bulk-containers. These containers have three apertures on top to fill in goods without further packaging. A smaller fraction of oats is shipped as **bagged cargo** in standard containers. Oats are a lighter weight grain. When shipped with wheat, rye, barley or corn, oats are typically higher on the ship to help with stability (ITC; TIS, 2013). If the weather conditions are moist, the oats need to be protected from water and snow to prevent any damages during transshipment (TIS, 2014).

For both countries, the supply chain for organic oats is very similar. Figure 4 below shows the different paths organic oats can take until they reach their final consumer. Key players and contact partners are listed in annex 2.



The first step in oats production is the harvesting of the oats by **local farmers**. They can either sell their products directly to the consumer or to handlers and grain marketers (see chapter 5). The former channel is growing due to the rising demand for local organic products.

Handlers and **grain marketers** then purchase these oats through brokers using spot-market sales. In the organic market, 65% of products bought by handlers in 2007 were purchased using contracts due to the limited access to desired product procured through spot-market (Dimitri and Oberholtzer, 2009). Organic handlers move almost all of the organic products from farmers to further intermediaries, adding value by processing or packaging the products before resale to other handlers for further processing, to retailers, or directly to end consumers.

After this step, **processors** apply different procedures and produce various products. This step is done by **oat mills** and **cereal/muesli producers** (Alleskörner, 2014). In Germany, oat mills and cereal/muesli producers are organized in the powerful German syndicate for grain processors and starch producers (“Verband der deutschen Getreideverarbeiter und Stärkehersteller - VDGS e.V.”). They sell the processed oats either to distributors or directly to retailers.

There are different kinds of **distributors** that trade organic oats: organic wholesalers and animal feed wholesalers. However, many distributors for organic groceries are local companies that only serve customers within a certain radius. **Retailers** make up the last player in the supply chain and sell the products to the end consumer. The different kinds of retailers and their key players are listed in table 22 (Euromonitor Retailer Statistics, 2014). Organic manufacturers compete with conventional manufacturers as end products are now sold not only through specialty retailers, but also traditional supermarkets, big-box retailers and club stores (Dimitri and Oberholtzer, 2009).

Although the supply chain is very similar in both the U.S. and Germany, there are major differences between the markets. The distribution of oats in the US market uses a combination of three primary transportation methods: rail, barge and truck. Often grains use at least two modes of transportation before reaching its final destination; this integration provides highly efficient, low-cost transportation (Sparger & Marathon, 2013). In Germany, truck and railway transportation are most common.

Due to their bulk density, oats are used primarily where they are produced, especially for feed. In the US, oats production is concentrated in the Midwest, with the Dakotas, Wisconsin, Minnesota and Iowa leading production (FAO 2004). In Germany, oats are predominantly produced in the Central German Uplands, the Alpine foreland, and the coastal region (Alleskörner - Anbau, n.d.).

In the retailer market, the difference between Germany and the US lies in the fact that the diversification of supermarkets in Germany is higher, with the market consisting of more supermarket companies. Therefore, the concentration in Germany is lower than in the US. Further, Germany is more dominated by discounters than the US. Big-box retailers like Wal-Mart have a much higher market share in the US than in Germany.

Organic oats exported to the US must meet strict guidelines monitored by the National Organic Program (NOP); organic products must be certified either through USDA organic regulations or through an established trade partnership with authorized international standards (USDA 2013).

7. Commercial practices

Germany

Success in introducing food products within Germany depends mainly on personal contact and practice of brokers or grain marketers. Grain marketers are responsible for connections between producers and processors. For a fee, they help producers find downstream markets (DAE, 2005). They primarily receive information about costs, scarcity and demand. Another approach to establish contacts is specialized trade fairs that happen annually but in different places and time period. Also important that most relationships between partners were established earlier (Bahnhof Mill, 2014). Further information about them is provided in Chapter 9.

As for customary contract stipulations, they include terms of payment (e.g. payment date), size of order (e.g. how many tons could be produced and purchased at a negotiated fixed price), discounts (e.g. for early payment or additional discounts are possible according to the length of the business relationship), delivery (e.g. insurance, time, place, price), and quality issues (e.g. QS- Standards, any permitted rejection rate or discount in case of mass rejection). Any corrections must be submitted by an exact agreed upon date. After the aforementioned steps are completed and the final contract is finalized, partners begin to collaborate with each other on a long-term basis (Mehrens, 2014).

Oat prices depend on partner relationships. For new customers, an actual price proposal is offered. Conversely, for partners in long-term relationships, negotiations may result in lower prices (Max Lünig GmbH & Co., 2014). Negotiations are usually conducted via e-mail or telephone. This is vital because plants and offices are all dispersed over Germany (Link, 2014).

Normally payments must be submitted within 7, 14 or 30 days. Method of payment and conditions vary (Weiling, Bahnhof Mill, 2014). Thus, method of payment and conditions also depends from customer to customer.

Oats are usually transported via road transport like trucks even from foreign partners (Landline Lebensmittel Vertrieb GmbH, 2014). Basically, it takes from 2 to 3 days to deliver within Germany e.g. from port of destination to processors or from wholesalers to retailers (Weiling, 2014).

Trend of selling organic oats by phone and Internet will continue to be popular because oat plants and offices are dispersed throughout Germany.

The United States

In the US market, organic oat producers often sell to intermediaries, who in practice are referred to as handlers. Handlers are brokers, marketers, distributors, or processors (USDA, 2009). Most organic grain farmers must sell directly to handlers and negotiate a selling price. Producers often network with marketers, who provide valuable market and contact information. Although commercial practices in the organic oat market are similar to the regular oat market, use of contracts is more common in the organic market. Handlers prefer contracts as they secure product and maintain relationships with suppliers; producers prefer contracts as they reduce uncertainty and risk (Dimitri & Oberholtzer, 2008).

As noted, organic oats are often sold on contract, wherein before harvest a production contract stipulates the transaction details, such as quantity and purchase price. After harvest the product is held by the producer until the delivery date. Conversely, producers may harvest and store their crop without contract. In either case, producers present samples to prospective handlers to substantiate product quality. Interpersonal negotiation between producer and handler is common. Communication via email and telephone are acceptable modes of correspondence (DAE, 2005).

Written and verbal contracts are used, though written contracts are increasingly common (Farmers' Legal Action Group, Inc [FLAG], 2012). Use of spot markets is less frequent in the US organic market than in the conventional oat market (USDA, 2014). Scope and complexity of organic oat contracts vary. Common organic contract provisions include, but are not limited to: buyer and seller obligations, breach, disaster and confidentiality clauses, carry insurance, contract duration and termination, price and pricing method, payment deadline, payment penalties, quantity, cleaning responsibility and payment, quality requirements, dispute clauses, transportation, and compliance with organic certification (FLAG, 2012).

Method and condition of payment is often negotiated and vary widely. Payment may be made before, upon, or a set number of days following delivery. Contract conditions may stipulate verification of quality and certification before payment. Unless otherwise specified, payment typically is made 5 to 20 days following delivery. Producers have a disincentive to contractually extend payment beyond 30 days as they lose payment protections as delineated in the Perishable Agricultural Commodities Act (PACA). Producers can file a PACA complaint if buyers do not fully and promptly pay (FLAG, 2012).

Truck transport is common when producer and processor are in close proximity (DAE, 2005). All aspects of the purchase transaction, including transportation, must comply with the organic standards and technical requirements of the certification body. For example, NOP standards stipulate that if the transport container hauled conventional crops, the storage container must be cleaned prior to hauling organic crops (USDA, 2012). Typically loss during transport, such as contamination loss, is incurred by the party in ownership of the oat at the time of loss (FLAG, 2012).

8. Packaging and labeling

Packaging

As mentioned in chapter 6, organic oats are mostly shipped as bulk cargo in bulk containers and only rarely as bagged cargo.

Germany

Packaging must comply with European legislation for prevention of risks to consumer health and protection of the environment, especially with regard to the treatment of waste (planet-expert.com, 2014; Europa - Product labelling and packaging, n.d.). Regulation (EC) No 1829/2003 of the European Parliament and of the Council (OJ L-268 18/10/2003) establishes that no person shall place on the market, use or process feeding stuffs consisting of and containing GMOs and produced from GMOs unless they are covered by an authorization and comply with the provisions on labeling (HKTDC, 2008). For more details about legislation, you can refer to chapter 4 (“Market Access”).

Further, according to the German Packaging Enactment (“Verpackungsverordnung”) established in 1991, producers are required to take back their packaging after usage and to contribute to its recycling (BMUB, 2014).

Standards for food and biological food existing in EU and must be applied by all member states. These standards are listed below (Europa, 2011):

- Nutritional Declaration (EU No. 1169/2011 - INCO) concerns consumer information on food. The nutrition declaration is mandatory as of 12/13/2016 but contains requirements concerning the legibility of mandatory information, strengthens the information on allergens, the indication of origin or provenance, supervises volunteers mentions labeling provides that the presence of nano-ingredients is indicated on the labeling of prepackaged products.
- Directive 76/211/EEC became Directive 2007/45/EC following amendment and its entry into force in 2007 on the approximation of the laws of the Member States relating to the preconditioning by weight or by volume of certain products prepackaged.
- Directive 2011/91/EU of the European Parliament and of the Council of 13 December 2011 on indications or marks identifying the lot to which a foodstuff belongs.
- Directive 2007/45/EC of the European Parliament and of the Council of 5 September - 2007 laying down rules on nominal quantities for pre-packed products, repealing Council Directives 75/106/EEC and 80/232/EEC and amending Directive 76/211/EEC.
- Regulation (EC) No 834/2007 of 28 June 2007 concerns organic production and labeling of organic products and repealing Regulation (EEC) No 2092/91.
- Regulation (EC) 1935/2004 lays down general requirements for all materials intended to come into contact with foodstuffs.

- In 2014, a legislative proposal and annex to review recycling and other waste-related targets in the EU Waste Framework Directive 2008/98/EC, the Landfill Directive 1999/31/EC and the Packaging and Packaging Waste Directive 94/62/EC has been adopted by the European Commission.

The United States

Similar to the European Customs Agency, the US Customs and Border Protection performs agricultural inspections at the port of entry for products entering the US. Products pass through inspection more quickly when they have proper documentation, are uniform and palletized. As part of the USDA, the Federal Grain Inspection Service facilitates the marketing of US grains by setting standards for quality assessments, regulating handling processes and managing networks that provide official inspection and weighing services. General provisions for all grains are found in subpart A of the US Standards for Grain, and subpart contains information specifically for oats.

The FDA regulates the safety of substances added to foods, and also regulates how most food is processed, packaged and labeled in the US. The FDA closely regulates the use of irradiation in the treatment of food and food packaging as part of the 1958 Food Additives Amendment to the Federal Food, Drug, and Cosmetic Act (US FDA 2014). Health claims and nutrient claims are also regulated by the FDA. Oats are particularly prominent in the Title 21 Code of Federal Regulations 101.81 in regards to soluble fiber and risk of coronary heart disease. Eligible sources of soluble fiber include oat bran, rolled oats, whole oat flour and oat rim. Concerning US, FDA also imposes strict rules. These standards are listed below (FDA, 2014):

- CFR - Code of Federal Regulations Title 21.
- Law US Food, Drug and Cosmetic Act (FDCA) defines labeling as all labels, printed or graphic elements placed on a product, its packaging, or packaging or accompanying this product. The term "accompanying" takes into account the posters, advertisements, flyers, leaflets, brochures, instructions, websites, etc.
- The law Nutrition Labeling and Education Act is a modification of the FDCA law and requires that most food has a nutrition labeling and a list of ingredients but also that the labeling of foods, beverages and dietary supplements with claims about the nutrient content of the product or claiming health effects, meet specific requirements.
- The Dietary Supplement Health and Education Act law defines "dietary supplements". It adds specific requirements for the labeling of food supplements and offers optional statements to affix the label.
- FCS (Packaging & Food Contact Substances) on the website of FDA considers the contact between products and packaging. You can find the report here: <http://www.fda.gov/Food/IngredientsPackagingLabeling/PackagingFCS/default.htm>
- Plastic has to be suitable for applications for food-contact (chemistry considerations).

Also, international food standards are listed on the website [codexalimentarius.org](http://www.codexalimentarius.org):

- CAC/GL 32-1999 amendment in 2013 concerning guidelines for the production, processing, labeling and marketing of organically produced food.

- CODEX STAN 1-1985 concerning general standard for the labelling of prepackaged food amendment in 2010.

Labeling

Germany

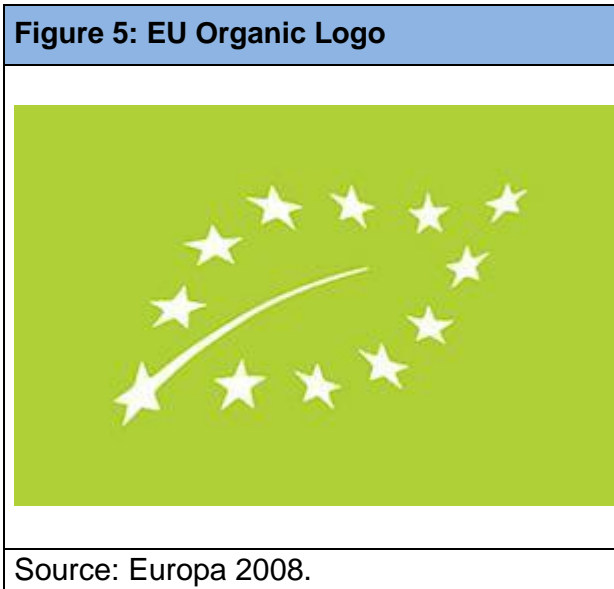
Organic products from third countries may only be placed on the EU market if they are labeled as products with indications referring to organic production. If they have been produced in accordance with production rules and subject to inspection arrangements that are in compliance with, or equivalent to Community legislation (European Commission, Export Helpdesk). These specifics and regulations have to be taken into consideration (Europa, 2012):

- Units of Measurement: Metric system.
- Languages required: German. Although English is used to give an international brand image, several studies have shown the difficulties of German consumers to understand the meaning of slogans in the English language (planet-expert, 2014).
- Origin marking: Obligatory.
- Regulations related to the labeling: Although it is not compulsory, the marking 'Green Dot' symbolizing recycling, in Germany is recommended. "Dual System Germany Ltd." corporation ("*Duales System Deutschland GmbH*") only collects packaging material from manufacturers who pay a license fee to DSD. DSD license fee payers can then add the 'Green Dot' logo to their package labeling, which then will be picked up by waste collection vehicles and recycled in DSD facilities. The costs for participation in the dual system of DSD GmbH depend on the packaging material used and the weight of sales packaging.
- Specific regulations: European legislation provides specific rules for labeling foodstuff. Regulation (EU) No. 1169/2011 of the European Parliament and the European Council requires the following labeling content to be easy to understand and visible, clearly legible (Europa - Foodstuff regulation, 2012. (e.g.: name, net quantity of the food, date of minimum durability or the 'use by' date, any special storage conditions, nutritional declaration).

The regulation further states that the operator under whose name the food is marketed or the importer (if that operator is not established in the EU) is responsible for the information relating to the foodstuff. They must ensure the presence and accuracy of the information in accordance with the applicable European food legislation and requirements of relevant national provisions.

European Council Regulation No 834/2007 clarifies that labeling, advertising or commercial documents may use terms such as "eco" and "bio" to describe an organic product, its ingredients, or raw materials. Further, the labeling of an organic product must be clearly visible on the packaging and contain a reference to the control body that certifies the product concerned. Since July 2010, the use of the European Union logo on organic food products is mandatory, as well as an indication of the provenance of raw materials used in the product. This

indication must be shown in the same field of vision as the Community logo shown in figure 5 (Europa, 2008).



The United States

USDA organic products have strict production and labeling requirements. All labeling is reviewed by a National Organic Program – authorized certifying agent. There are strict guidelines for the use of the USDA Organic seal, along with its placement on labels. The seal can be found on the principal display panel or the information panel of the packaging. There are four categories for organic labels:

- **100% Organic:** All ingredients and processing aids must be certified organic, product labels must display the certifying agent on the information panel, and the USDA organic seal may be used.
- **Organic:** All ingredients must be certified organic, except those found on a National List, of which those may not exceed 5% non-organic, and the USDA organic seal may be used.
- **“Made with Organic”:** At least 70% of the product must be certified organic, non-agricultural products must be on a National List, and the USDA organic seal may NOT be used.
- **Specific organic ingredients:** Products that contain less than 70% certified organic content may not use the USDA organic seal, but may list the organic ingredients on the ingredient label.

Oats are considered a whole grain, and their products are therefore eligible to use the Whole Grains Council stamp, as seen in figure 6.

Figure 6: FDA Whole Grain Stamps



Source: Whole Grains Council, 2013.

While there is no FDA or USDA final regulation on whole grain labeling, there are various standards for whole grains and their health claims. Several products can use the Whole Grains Stamp, as long as they contain a half serving (8 grams) of whole grain. If the product contains only the minimum 8 grams, the basic stamp may be used. Products containing at least 16 grams of whole grains and where all the grains used are whole grains, may use the 100% Whole Grain stamp.

Figure 7: USDA Organic Seal



Source: USDA, 2014.

9. Sales promotion

The main methods used to promote organic oats are trade fairs, trade magazines, specialty internet portals and associations. Here is a sample of media companies by type.

Trade fairs and exhibitions

Germany

Name	<i>Anuga</i>	<i>BioFach</i>	<i>Die Slow Food Messe</i>
	KoelnMesse GmbH	NürnbergMesse GmbH	Landesmesse Stuttgart GmbH (LMS)
Address	Messeplatz 1	Messezentrum	Messeplazza 1
	50679 Cologne	90471 Nürnberg	70629 Stuttgart
Tel.:	+49 221 8212240	+49 911 86060	+49 711 185600
Fax:	+49 221 8212574	+49 911 86068228	+49 711 185602440
E-Mail:	anuga@koelnmesse.de	info@biofach.de	info@messe-stuttgart.de

The United States

Name	<i>International Production and Processing Expo</i>	<i>Midwest Specialty Grains & Grain Export Shipping Conference</i>	<i>Omaha Exchange Expo</i>
	Georgia World Congress Center	Midwest Shippers Association	Grain Elevator and Processing Society
Address	285 Andrew Young International Blvd NW	10800 Lyndale Ave So. Suite 159	455 North 10th St.
	Atlanta, 30313-1513, Georgia	Bloomington, 55420, Minnesota	Omaha, 68102, Nebraska
Tel.:	Sarah Novak, +1 703 558 3574	+1 952 253 6231	+1 952 928 4620
Fax:		+1 952 253 6227	
E-Mail:	snovak@afia.org	staff@mshippers.com	conferences@geaps.com

Direct Marketing

The United States

Name	The Feed, Grain and Milling Database
	InfoUSA
Address	P.O. Box 27347, 5711 S. 86th Cir. Omaha, 68127, Nebraska
Tel.:	Tel: +1 866 323 7191
Fax:	Fax: +1 402 836 4912
E-Mail:	Bob Wegner, sales manager, resellerdatacards@info.usa.com

Trade magazines

Worldwide

Name	Organic Standard
Address	
Web	http://organicstandard.com
Tel.:	
Fax:	
E-Mail:	office@organicstandard.com

Germany

Name	Bioland	BNN-Nachrichten	Praxisnah
	Bioland- Verband für organisch-biologischen Landbau e.V.		CW Niemeyer Druck GmbH
Address	Kaiserstraße 18 55116 Mainz	Albrechtstr. 22 10117 Berlin	Eisenstr. 12 30916 Isernhagen
Web	http://www.bioland.de	http://www.n-bnn.de	http://www.praxisnah.de
Tel.:	+49 613 1239790	+49 308 47122444	Dr. Anke Boenisch, +49 511 72666242
Fax:	+49 613 12397927	+49 308 47122440	
E-Mail:	info@bioland.de	info@n-bnn.de	

The United States

Name	<i>Acres U.S.A.</i>
	Acres U.S.A
Address	P.O. Box 91299, Austin, 78709-1299, Texas
Web	http://www.acresusa.com/
Tel.:	+1 800 355 5313
Fax:	+1 512 892 4448
E-Mail:	orders@acresusa.com

Associations

Germany

Name	<i>The SAATEN-UNION</i>
	Saaten-Union GmbH
Address	Eisenstr. 12 30916 Isernhagen
Web	http://www.saaten-union.de
Tel.:	+49 511 726660
Fax:	+49 511 72666100
E-Mail:	service@saaten-union.de

The United States

Name	<i>AFIA</i>	<i>Midwest Shippers Association</i>	<i>NAMA</i>
	American Feed Industry Association	MSA	North American Millers' Association
Address	2101 Wilson Blvd. Suite 916 Arlington, 22201, Virginia	10800 Lyndale Ave So. Suite 159 Bloomington, 55420, Minnesota	600 Maryland Avenue SW, Suite 825 West 20024, Washington DC
Web	http://www.afia.org/afia/home.aspx	http://www.midwestshippers.com/AboutSpecialty.php	http://www.namamillers.org
Tel.:	+1 703 524 0810	+1 952 253 6231	+1 202 484 2200
Fax:	+1 703 524 1921	+1 952 253 6227	+1 202 488 7416
E-Mail:	afia@afia.org	staff@mnsippers.com	generalinfo@namamillers.org

Name	OTA
	Organic Trade Association
Address	28 Vernon St. Suite 413, Brattleboro, 05301, Vermont
Web	http://www.theorganicpages.com/
Tel.:	+1 802 275 3800
Fax:	+1 802 275 3801
E-Mail:	

Internet

Germany

Name	Agrarticket
	DLG-Verlag GmbH
Address	Eschborner Landstraße 122 D-60489 Frankfurt
Web	http://www.agrarticker.de/
Tel.:	Mechthilde Becker-Weigel, +49 692 4788485
Fax:	
E-Mail:	m.becker-weigel@dlg.org

The United States

Name	AgMRC Action Blog and Directory	World Grain	Grain Farmer
	Agricultural Marketing Resource Center (AgMRC)	Sosland Publishing Company	
Address	1111 NSRIC, Iowa State University Ames, 50011-3310, Iowa	4800 Main St. Kansas City, 64112, Missouri	
Web			www.grainfarmer.com
Tel.:	http://www.agmrc.org	Web: www.world-grain.com	
Fax:	+1 866 2775567	+1 816 7561000	
E-Mail:	+1 515 2949496	+1 816 7560494	mail@grainfarmer.com

10. Market prospects

Both supply and demand of organic oats is expected to increase during the next 5 years. However, excess supply means that stocks will rise slightly. Gains in consumption will likely be underpinned by increased food demand, which is forecast to expand at 2% p.a. as consumers capitalize on oats health benefits. Feed consumption is steady, after declining over the previous five years (International Grains Council five-year global supply and demand projections, 2014).

Table 17: Global Supply and Demand Projections of Oats									
	2012	2013	2014	2015	2016	2017	2018	year/year change	
								previous five-year average*, %	average 2014-2018, %
Yield (t/ha)	2.2	2.2	2.2	2.2	2.2	2.2	2.2	0.3	0.3
Area (m/ha)	9.6	10.6	10.4	10.4	10.6	10.6	10.7	-2.5	0.8
Production (MT)	21.2	22.9	22.3	22.5	22.9	23.0	23.4	-2.1	1.2
Consumption (MT)	22.4	22.2	22.5	22.6	22.6	22.7	23.0	-2.3	0.6
Trade (Jul/Jun, MT)	1.9	1.9	2.0	2.0	2.0	2.0	2.0	-3.9	-0.2
Stocks (MT)	2.7	3.5	3.3	3.2	3.5	3.9	4.3	-	-
Change (since previous year)	-1.2	0.7	-0.2	-0.1	0.3	0.4	0.4	-	-
major exporters **	1.6	2.0	1.8	1.7	1.8	2.0	2.3	-	-
Source: International Grains Council five-year global supply and demand projections, 2014									
Notes: *2008/2009-2013/2014 , **Canada, EU, Australia									

Germany

As seen in Table 1 of chapter 2, oats production in Germany increased by 20% in 2012. Rising self-sufficiency in oats means that product demand will be covered mostly by national production, not by imports. Germany is the 7th largest exporter of oats in the world. However, competition both on the German and world market is expected to rise due to the strong growth of three major exporters of oats: Czech Republic (exports raised by 54% since 2009), Poland (74% growth since 2009) and Chile (34% growth since 2009).

Oats consumption according market segments (animal feed, human consumption, cosmetics) will face some changes. The demand for organic animal feed (i.e. organic oats) is very likely to grow in the short-term period due to a rising livestock population and a new guideline that demands a 100 percent organic animal feed for livestock used for organic meats starting in 2015 (BÖLW, 2013).

Human consumption will increase due to the rediscovered benefits of consuming oats on health and need for convenience food (instant oats, oat bars etc.) at the same time. The demand for

balanced nutrition is growing in Germany (Öko-Barometer, 2013). All in all, human consumption is likely to become a more important market segment in Germany.

German consumers are in favor of local producers which creates additional non-tariff barriers for importers. The Government also supports German farmers (especially for organic food cultivation), so they obtain more power in the national oats market.

The free trade agreement (CETA) between Canada and the European Union will open the German market to the world's biggest exporter of oats from 2016. The Ukraine–European Union Association Agreement (2014) will also affect the oats market. Ukraine is 8th largest oats producer, providing oats at low prices (US\$ 189 per ton in 2012) and can become a new competitor to European oats producers.

The distribution channel of oats is growing due to the rising demand for organic products that are produced locally. The number of retailers is increasing, but they are still lacking concentration in comparison to other European markets. The number of trade fairs and exhibitions is also growing. Such trade shows are expected to gain more popularity due to their importance in establishing new business relations, especially in the field of organic products.

Germany is expected to become an attractive organic oats market in the next 5 years. Consumption is rising in all segments, prices are getting higher and distribution channels are growing. However, local producers will continue to be preferred and national production is growing.

The United States

The US offers a promising market for exporters of organic oats. Oat trade and production has remained stable over the last 10 years and the USDA is forecasting almost no change in US oat production over the next 10 years (Agriculture and Agri-Food Canada, 2010). The US is currently the largest importer of oats and its production does not meet its current consumption. With just over 62,000 acres of certified organic oat cropland in the US, there is a shortage in production to meet the demand.

As healthy nutrition becomes more of a concern, the organic market will continue to grow. While organic food commands a higher premium, economic growth in the US will help absorb the increased cost. The health and wellness industry will see continued growth from 2013 to 2018 as higher disposable income and the desire for healthier products continues. Organic packaged foods are expected to grow by 15% over the same period. Both the organic market and whole grains are seeing increased consumption by families, as parents are making healthier choices for their children. The demand for organic livestock will also drive the demand for organic ingredients, like oats, to be used in animal feed.

The absence of a tariff creates a level playing field for other exporters to enter the market. With the increased demand for both organic and whole grain foods, the US market is penetrable for

exporters from other countries. The upward pricing trend for organic foods will also ease the burden of shipping cost.

One of the biggest hurdles in entering the organic food market in the US is the time and effort it takes to become Certified Organic. This process can take over three years from the time the decision is made to switch to organic production. The risk and commitment to switching to organic production can be offset by securing contracts for future sales. Marketers within the US are already anticipating an increased demand for organic food, so they will be in need of more partners with which to contract.

In the US oats are often sold under production contracts that allow producers and exporters to secure pricing and commitment for their future production. Any potential exporter of oats to the US should network with handlers that can provide them with industry contacts to assist with developing contracts. Having contacts within the industry can help assure that there will be a market for the product. Industry contacts can be found through the key industry trade magazines and networking at trade fairs. There is also an increase in the number of internet portals available, offering increased visibility into pricing trends for organic foods. The increased availability of pricing data will prove beneficial for suppliers.

















Table 18: Market Prospect Summary		
		Germany
Chapter	Increasingly/ decreasingly attractive	Short explanation
2		Unchanged due to similar export and import growth rates.
3		Increasingly attractive due to higher demand for organic oats both in human consumption and animal feed.
4		Unchanged due to fixed regulations for market access.
5		Increasingly attractive due to upward price trend since 2011.
6		Increasingly attractive due to growing distribution channel of organic oats.
7		Unchanged due to established business practices
8		Unchanged due to fixed packaging and labeling requirements.
9		Increasingly attractive due to growing number of trade fairs and exhibitions as well as their importance.

Table 19: Market Prospect Summary US		
Chapter	Increasingly/ decreasingly attractive	Short explanation
2		Increasingly attractive due to lack of US domestic oat supply.
3		Increasingly attractive due to the increase in demand for organic and healthy products.
4		Unchanged due to fixed regulations for market access.
5		Increasingly attractive due to upward price trend for organic foods.
6		Unchanged due to established system with no anticipated changes.
7		Increasingly attractive due to established business practices which are managed faster because of integrating new forms of communication (Internet based) between partners.
8		Unchanged due to fixed packaging and labeling requirements.
9		Increasingly attractive due to the increase of pricing information available online.

Both the US and Germany offer promising export opportunities for organic oats. The opportunity is driven by the increased demand for healthy food options in developed countries. While the opportunity is similar the markets do differ.

Germany is more self-sufficient in their production and relies less heavily on imports to meet their national demand. This allows Germans to prefer local options over imported ones. Due to the lack of domestic production, the US consumers are not afforded the ability to be selective of the source of their oats. This difference in supply and demand is also demonstrated by the tariff measures that the countries use, with the US applying less than Germany.

Annex

Annex 1: Selected Potential Exporters and Importers

Germany Export

Berief Feinkost

Berief Feinkost GmbH
Kerkbrede 3
59269 Beckum
Web: www.berief-feinkost.de
Tel.: +49 252 1829290
Fax: +49 252 182929100
E-mail: berief@berief-feinkost.de

RSL Leipzig

RSL Leipzig GmbH
Kranoldstraße 24
04838 Eilenburg
Web: www.pigo-tiernahrung.de
Tel.: +49 342 37066660
Fax: +49 342 37066669
E-mail: info@pigo-tiernahrung.de

US Export

Altmar Enterprises

Gonzalo Marte, Managing Director
117 C. Palanca St., UP1
Legazpi Village
Makati, Massachusetts
Tel: 630-890-7151
E-mail: altmar@gmail.com

Germany Import

Fortin Mühlenwerke

Fortin Mühlenwerke GmbH & Co KG
Fringsstrasse 1
40221 Düsseldorf
Web: www.fortin.de
Tel.: +49 211 99380
Fax: +49 211 9938115
E-Mail: info@fortin.de

Frießinger Mühle

Frießinger Mühle GmbH
Brühlstrasse 13
74206 Bad Wimpfen
Web: www.friessinger-muehle.de
Tel.: +49 706 397970
Fax: +49 706 3979797

Bayernhof

Bayernhof GmbH
Prof.-Reger-Str. 22
94339 Hankofen
Tel.: +49 942 6852180
Fax: +49 942 6852188
E-Mail: info@bayernhof.de

US Import

Grain Millers, Inc.

Roger Mortenson
10400 Viking Drive, Suite 301
Eden Prairie Minnesota 55344-3894
Tel: (952) 983-1331
Fax: (952) 983-1339
E-mail: roger.mortenson@grainmillers.com
Web: <http://www.grainmillers.com/suppliers.aspx>

Louis Dreyfus Commodities

David C. Lyons

1200 G St., NW, Suite 800

Washington, DC 20005

United States

Tel: (202) 842-5114

Fax: (202) 842-5099

Web: <http://http://www.ldcom.com/global/en/site-support/contact-us/supplier-opportunities/>

Dakota Organic Products

Hersco, Inc.

Travis Sitter, Commodity Merchandiser

Watertown, South Dakota

United States

Tel: (605) 884-1100

E-mail: traviss@hesco-inc.com

Web: www.hesco-inc.com

Annex 2: Contacts of Main Partners of Supply Chain for Oats

Local Farmer

AgriFarm NOB

Munich Area

Germany

Web: <http://linkd.in/1Ga847Z>

Grain Marketer

Alfred C.

Toepfer International GmbH

Ferdinandstr. 5

20095 Hamburg

Germany

Web: www.toepfer.com

Tel.: +49 403 0130

Fax: +49 403 013634

E-mail: mail@toepfer.com

CHS
CHS Inc.
5500 Cenex Drive
Inver Grove Heights MN 55077
United States
Web: www.chsinc.com
Tel.: 651 355 6000

Mills

Altdorfer Mühle
Altdorfer Mühle GmbH
Altdorfer Mühle 1-3
71155 Altdorf
Germany
Web: www.altdorfer-muehle.com
Tel.: +49 703 1742440
Fax: + 49 703 17424419

Rosenmühle
Rosenmühle GmbH
Meisenstraße 32
84030 Ergolding
Germany
Web: <http://muehlen.kampffmeyer.com/en/locations/rosenmuehle-gmbh>
Tel.: +49 871 78090
Fax: +49 871 780911
E-mail: rosenmuehle@kampffmeyer.de

Rubin Mühle
Rubin Mühle GmbH
Hugsweierer Hauptstrasse 32
77933 Lahr-Hugsweier
Germany
Web: <http://rubinmuehle.de/en/index.php>
Tel.: +49 782 158040
Fax: +49 782 158048591
E-mail: info@rubinmuehle.de

Cereal, soya and muesli producers

Bob's Red Mill

Bob's Red Mill
13521 SE Pheasant Ct
Milwaukie, OR 97222
United States
Web: www.bobsredmill.com
Tel.: 503 654 3215

Dr. Oetker

Dr. Oetker GmbH
Lutterstraße 14
33617 Bielefeld
Germany
Web: www.oetker.de
Tel.: +49 800 71727374
Fax: +49 521 1553471
E-mail: bilddaten@oetker.de

Fortin Mühlenwerke

Fortin Mühlenwerke GmbH & Co KG
Fringsstrasse 1
40221 Düsseldorf
Germany
Web: www.fortin.de
Tel.: +49 211 99380
Fax: +49 211 9938115
E-mail: info@fortin.de

Grain Millers

Terry Tyson
10400 Viking Drive
Suite 301
Eden Praire, MN 55344
United States
Web: www.grainmillers.com
Tel.: 866 730 4682
Fax: 306 783 5410
E-mail: terry.tyson@grainmillers.com

H. & J. Brügggen

H. & J. Brügggen KG

Gertrudenstr. 15

D-23568 Lübeck

Germany

Web: www.brueggen.com

Tel.: +49 451 31000

Fax: +49 451 3100142

E-mail: info@brueggen.com

Köln

Peter Köln KgaA

Westerstraße 22-24

D-25336 Elmshorn

Germany

Web: www.koelln.de

Tel.: +49 412 16480

Fax: +49 412 16639

E-mail: www.koelln.de/kontakt/

Wholesaler animal feed market

F.W. Cobs Company

F.W. Cobs Company Inc.

P.O. Box 30

Saint Albans Bay, VT 05481

United States

Tel.: 888 531 4888

Fax: 866 738 9883

E-mail: info@fwcobs.com

Johann Pirzer - Manfred Gollwitzer

Pirzer - Gollwitzer GmbH

Klostermühlstr. 6

93194 Wald

Germany

Web: www.pigo-tiernahrung.de

Tel.: +49 946 4911713

Fax: +49 946 4911713

E-mail: info@pigo-tiernahrung.de

Landhandel Rainer Bruns

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Annex 3: Market access – EU tariffs for oats

Tariffs applied by **Germany**

Product: **100490 - Oats (excl. seed for sowing), 100410 - Oats seed for sowing**

Nomenclature: **HS Rev.2012**

AVE Methodology: **AVE based on the World Tariff Profile (WTP)**

Annex 3 : EU Tariffs for Oats

Tariff regime	Applied tariff (as reported)	Applied tariff (converted)	Total ad valorem equivalent tariff
Rate for EU members (Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, United Kingdom, Gaza strip (Palestine, State of))	0%	0%	0%
MFN duties (Applied) (Albania, Algeria, American Samoa, Andorra, Antigua and Barbuda, Argentina, Armenia, Australia, Azerbaijan, Bahamas, Bahrain, Barbados, Belarus, Belize, Bermuda, Bolivia (Plurinational State of), Bosnia and Herzegovina, Bouvet Island, Brazil, Brunei, Darussalam, Cabo Verde, Canada, Chile, China, Christmas Island, Cocos (Keeling) Islands, Colombia, Democratic Republic of Cook Islands, Costa Rica, Cuba, Democratic People's Republic of Korea, Dominica, Dominican Republic, Ecuador, Egypt, El Salvador, Faroe Islands, French Guiana, Gabon, Georgia, Gibraltar, Grenada, Guam, Guatemala, Guyana, Heard and McDonald Islands, Honduras, Hong Kong, China, Iceland, India, Indonesia, Iran (Islamic Republic of), Iraq, Israel, Jamaica, Japan, Jordan, Kazakhstan, Korea, Republic of Kosovo, Kuwait, Kyrgyzstan, Lebanon, Libya, Liechtenstein, Macao, China, Macedonia, The former Yugoslav Republic of, Malaysia, Maldives, Marshall Islands, Mexico, Micronesia (Federated States of), Midway Islands, Moldova, Republic of Mongolia, Montenegro, Morocco, Nauru, Netherlands Antilles, New Zealand, Nicaragua, Nigeria, Niue, Norfolk Island, Northern Mariana Islands, Norway, Oman, Pacific Islands, Pakistan, Palau, Palestine, State of Panama, Papua New Guinea, Paraguay, Peru, Philippines, Puerto Rico, Qatar, Russian Federation, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, San Marino, Saudi Arabia, Serbia, Singapore, South Africa, Sri Lanka, Suriname, Svalbard and Jan Mayen Islands, Swaziland, Switzerland, Syrian Arab Republic, Taipei, Chinese, Tajikistan, United Republic of Thailand, Tokelau, Tonga, Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, United Arab Emirates, United States Minor Outlying Islands, United States of America, Uruguay, Uzbekistan, Venezuela, Viet Nam, Virgin Islands, U.S., Western Sahara)	89 EUR /1000 kg net	\$123.07 /Ton	40.18%
Preferential tariff for Albania, Andorra, Bosnia and Herzegovina, Colombia, Egypt, Iceland, Israel, Jordania, Kosovo, Lebanon, Macedonia, Montenegro, Morocco, Papua New Guinea, Peru, San Marino, Serbia, South Africa, Ukraine, the republic of Korea, the republic of Moldova	0%	0%	0%
Preferential tariff for CARIFORUM countries (Antigua and Barbuda, Bahamas, Barbados, Belize, Dominica, Dominican Republic, Grenada, Guyana, Haiti, Jamaica, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago)	0%	0%	0%
Preferential tariff for Eastern and Southern Africa countries (Madagascar, Mauritius, Seychelles, Zimbabwe)	0%	0%	0%
Preferential tariff for EPA countries (Botswana, Burundi, Cameroon, Comoros, Côte d'Ivoire, Fiji, Ghana, Haiti, Kenya, Lesotho, Mozambique, Namibia, Rwanda, Swaziland, Tanzania, United Republic of Uganda, Zambia)	0%	0%	0%
Preferential tariff for Least Developed Countries (Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Central African Republic, Chad, Comoros, Congo, Democratic Republic of Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Lao People's Democratic Republic, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Myanmar, Nepal, Niger, Rwanda, Samoa, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, South Sudan, Sudan, Tanzania, United Republic of, Timor-Leste, Togo, Tuvalu, Uganda, Vanuatu, Yemen, Zambia)	0%	0%	0%
Preferential tariff for Overseas Countries and Territories (Anguilla, Aruba, British Indian Ocean Territory, Cayman Islands, Falkland Islands (Malvinas), French Polynesia, French Southern territories, Greenland, Montserrat, New Caledonia, Pitcairn, Saint Helena, Saint Pierre and Miquelon, South Georgia and the South Sandwich Islands, Turks and Caicos Islands, Virgin Islands, British, Wallis and Futuna)	0%	0%	0%
Source: INTRACEN database, 2014			

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