

# Overview of U.S. Hemp Seed Imports

As one of the world’s leading consumers of industrial hemp, the United States serves as the major import center for various hemp products including hemp seed. Hemp seeds enter the United States in a variety of forms: whole hemp seeds ready for planting, sterilized whole hemp seeds ready for human or animal consumption, and de-hulled hemp seeds.

## Hemp Seed Import Data

One of the most cited articles regarding industrial hemp in the United States, [Hemp as an Agricultural Commodity](#)<sup>1</sup> by Renée Johnson of the Congressional Research Service, analyzes the U.S. importation of hemp seeds. However, Ms. Johnson only used official U.S. import data until 2013 and supplements several gaps in her research with other sources. She mistakenly notes that the U.S. stopped recording data for industrial hemp seed imports, although after further investigation Seed CX found that the Harmonized Commodity Description and Coding System, or Harmonized System (HS)<sup>2</sup> had simply been changed. As such, presented below is the most complete trade statistics of hemp seed entering and exiting the U.S. published to date, using data from *U.S.A. Trade Online*<sup>3</sup> where it can be traced using the HS system.

The HS system utilizes a coded sequence that can be narrowed down to the 4-digit level which corresponds to major commodity categories like fruits or cereals, the 6-digit level which corresponds to individual products like sunflower seeds or apples, and finally the 10-digit level which breaks down the products further. The current available trade data<sup>4</sup> for hemp seed being imported into the United States can fortunately be narrowed down as far as the 10-digits level which provide for a detailed picture. The classifications of hemp seeds fall under HS 1207990320<sup>5</sup>, which is defined as “hemp seed, whether or not broken” with a standard measure of quantity in kilograms. This definition includes three forms of hemp seeds: viable whole seed<sup>6</sup>, non-viable whole seed<sup>7</sup>, and de-hulled seeds<sup>8</sup>.

U.S. imports of hemp seeds are presented in Table 1. Imports of hemp seed have increased over the last five years with a record 35,148,821 lbs. in 2015. This upward trend has continued through the first half of 2016, with import numbers on track to exceed 40 million lbs. While this figure can include viable, non-viable, and de-hulled hemp seeds industry sources estimate that over 90% of this figure is comprised of de-hulled hemp seeds or heart hems with viable whole hemp seeds comprising the remainder and non-viable whole seeds accounting for a marginal amount.

**Table 1: U.S. hemp seed imports 2012-2016 (lbs)**

Commodity	2012	2013	2014	2015	2016	Grand Total
Hemp Seeds (HS 1207990320)	2,725,853	5,084,368	6,122,755	35,148,821	21,458,508	70,540,305

Source: USA Trade Online, United States Census Bureau, <https://usatrade.census.gov> (accessed August 1, 2016) 2016 through June

<sup>1</sup> Johnson, R. (2015) *Hemp as an Agricultural Commodity*. Congressional Research Service

<sup>2</sup> The Harmonized System (HS) codes are developed by the World Customs Organization (WCO), the codes are used to classify and define internationally traded goods. HS 6-digit codes are for universal reference, whereas 7-10 digit codes are often unique after the 6th digit and determined by individual countries of import.

<sup>3</sup> Provided by the U.S. Census Bureau, USA Trade Online is a dynamic data tool that gives users access to current and cumulative U.S. export and import data. With multiple data sets and capabilities, USA Trade Online can assist different types of customers from a wide range of industries and fields. Manufacturers and other businesses wishing to expand their business globally can utilize USA Trade Online to identify new markets, evaluate existing markets, and perform other market research tasks. The data available through this tool can also support economists in interpreting economic news and performing academic research, as well assist governments and federal agencies in analyzing domestic and international trade policies. <https://usatrade.census.gov/>

<sup>4</sup> While trade data can often be severely biased due to under reporting or mislabeling of products and often does not correspond to export data from the countries of origin, U.S. hemp seed import data does align perfectly with reported Canadian export data.

<sup>5</sup> Prior to 2012, hemp seed imports were classified under HS 1207990220

<sup>6</sup> The importation of viable hemp seed also requires a DEA import permit

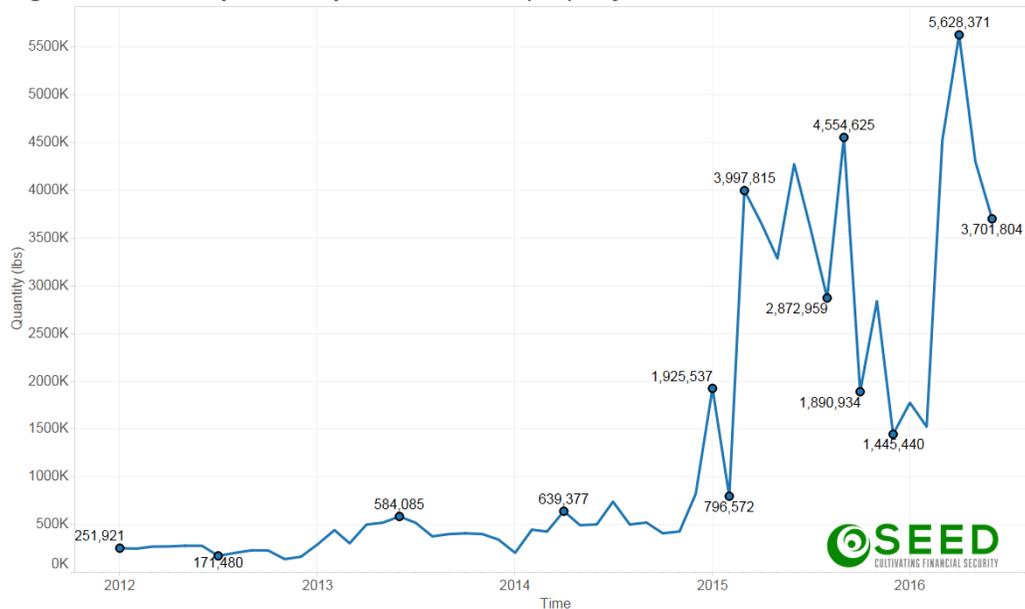
<sup>7</sup> Hemp seeds are rendered non-viable through a variety of sterilization processes that often involve to a specific temperature.

<sup>8</sup> Often referred to as hemp hearts, hulled seeds, or hemp nut.

## Monthly Imports

While Table 1 provides a general overview of hemp seeds entering the United States, it is important to break down the data further to determine the presence of any seasonal trends and provide additional insight into the nature of hemp seeds entering the U.S. Figure 1 gives a breakdown of hemp seed imports by month and clearly shows a significant increase in imports starting in 2015.

**Figure 1: U.S. hemp seed imports 2012-2016 (lbs) - by month**



Source: USA Trade Online, United States Census Bureau, <https://usatrade.census.gov> (accessed August 1, 2016) 2016 through June

These surges can be attributed to the large increases in hemp acreage of the United States' major hemp trading partner, Canada. According to Health Canada<sup>9</sup> in 2014 Canadian hemp seed registered acreage increased to an all-time high of 108,502<sup>10</sup> acres, with a decrease in 2015 to 84,663 registered acres. This expansion in Canadian acreage likely lead directly to the surges in hemp seed imports into the U.S. in 2015 and 2016. Additionally, Figure 1 can also give some insights into the seasonal nature of hemp seed imports. Prior to 2015, hemp seed imports appear relatively stable throughout the year. However, the beginning of 2015 and 2016 show decreases in imports in late fall and early winter. These dips may be attributed to the growth patterns of hemp in North America. As an annual crop, hemp is typically planted in early to middle summer and harvested in September or October. This decreases in exports may be due to these harvest patterns as supplies dwindle towards the end of fall, just prior to the next season's harvest.

<sup>9</sup> Health Canada acts as the administrative and regulatory body of the industrial hemp program under the Industrial Hemp Regulations provision of the Controlled Drugs and Substances Act.

<sup>10</sup> Official acreage reported by Health Canada. Accessed through Canadian Hemp Trade Alliance. <http://www.hemptrade.ca/>

## Imports by Country

Table 2 gives a breakdown of hemp seed imports by country and while Canada comprises the vast majority of imports in the United States, several other countries export hemp seed to the U.S.

**Table 2: U.S. hemp seed imports 2012-2016 (lbs) - by exporting country**

Exporting Country	2012	2013	Time 2014	2015	2016	Grand Total
Canada	2,710,838	4,997,495	5,629,955	34,701,851	20,914,404	68,954,543
China			279,919	167,218	117,088	564,225
Romania		83,292	164,120	209,000	85,360	541,772
India					300,177	300,177
Netherlands				38,966	17,061	56,027
Ireland	2,776	1,478	46,561	4,180		54,995
Italy				660	19,820	20,480
Lithuania				17,424		17,424
Germany			2,200	9,522	2,970	14,692
Mexico	11,141					11,141
United Kingdom	1,098	2,103			528	3,729
France					1,100	1,100
<b>Grand Total</b>	<b>2,725,853</b>	<b>5,084,368</b>	<b>6,122,755</b>	<b>35,148,821</b>	<b>21,458,508</b>	<b>70,540,305</b>

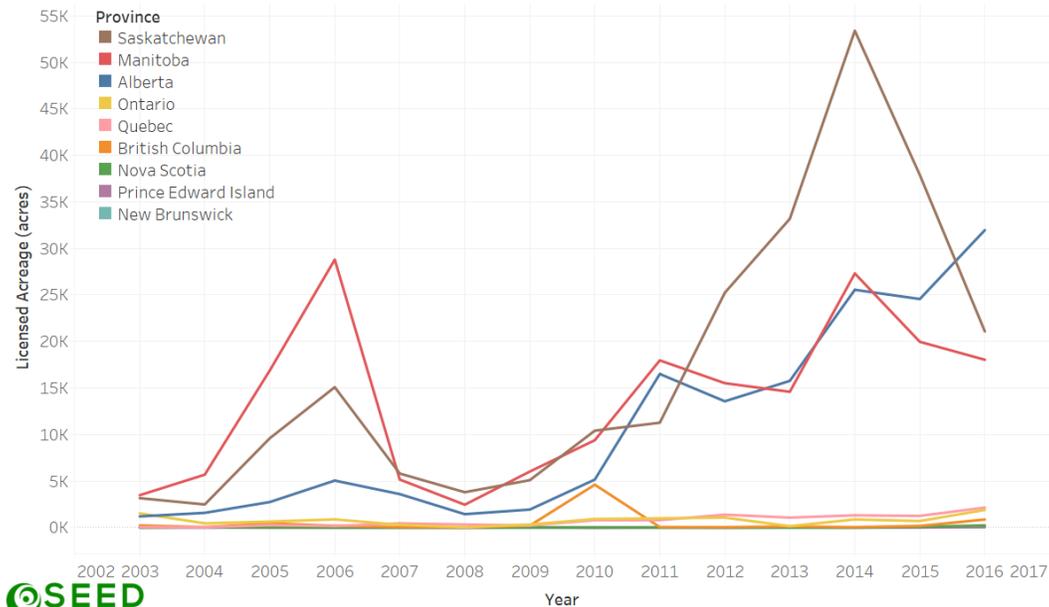
Source: USA Trade Online, United States Census Bureau, <https://usatrade.census.gov> (accessed August 1, 2016)  
 \*2016 through June

In 2015, Canada exported 34,701,851 lbs. of hemp seeds to the United States which makes up approximately 99% of total U.S. imports for that year. Even though Canada continues to be the number one source of hemp seeds, the U.S. receives deliveries from increasingly more countries. China is the next largest source of hemp seeds, accounting for 0.8% of imports over the five-year period. Romania is the third largest source, entering the U.S. hemp seed market in 2013 and accounting for 0.8% in the same time frame. In addition, imports from India increased from zero to 300,177 lbs., and became the second largest hemp seed source for the U.S. for the first half of 2016. Several European Union countries, including the Netherlands, Italy, Germany, and to a lesser extent The United Kingdom and France, have recently begun hemp seed exports to the United States.

## A Look into Canadian Hemp

As the primary exporter of hemp seeds to the United States, it is important to locate Canadian production. This analysis can provide a better understanding of the points of origin and import channels that hemp seeds entering the U.S. must travel through. While the official U.S. Census Bureau data does not record point of origin nor the exporter, this information can be determined through surveys and interviews with hemp seed market participants as well as through inference. Figure 2 gives a breakdown of officially registered, historical hemp acreage in Canada by province which can help inform us as to where this hemp seed is coming from.

Figure 2: Canadian hemp acreage 2003-2016 (acres) - by province



Source: Health Canada. Accessed through Canadian Hemp Trade Alliance. <http://www.hemptrade.ca>

The overwhelming majority of hemp acreage is located in the Canadian Prairie provinces of Alberta, Saskatchewan, and Manitoba with an upward trend in acreage in recent years. It is not surprising to find hemp flourishing in these regions as these locations comprise a large majority of their production of more traditional grain like wheat and rye. Hemp can slot easily into the crop rotation of these traditional grains like winter wheat as it is a summer crop that can suppress weeds and loosen soils prior to the planting of winter cereals. In Canada, hemp is exclusively harvested for its seed largely for regulatory reasons. Hemp derived CBD cannot currently be harvested or extracted in Canada. Fiber is not currently considered widely economically viable due to a lack of processing facilities within an economic radius (in interviews, an ‘economic radius’ was considered to be a distance of within 100 miles) and stiff competition from Asia, principally China.

Through an economic concentration analysis conducted by Seed, two companies, [Manitoba Harvest Hemp](#)<sup>11</sup>, [Hemp Oil Canada](#)<sup>12</sup> and [Hemp Production Services](#)<sup>13</sup>, stood out as the largest processors and wholesalers of hemp seeds in the Canadian Prairie region. Exports from these companies enter the U.S. in a variety of packages, including 2000 lbs grain bags, 50 lbs bags, and an assortment of Consumer Packages Goods (CPG). With Canada comprising the majority of hemp seed exports to the United States and Manitoba Harvest Hemp and Hemp Oil Canada comprising the majority of those exports, these two firms act as the two largest suppliers of hemp seed products in the United States.

<sup>11</sup> As the world's largest vertically integrated hemp food manufacturer. Manitoba Harvest is involved in every aspect of the hemp production process, from "seed-to-shelf." The company's hemp-exclusive, consumer-facing 100% all-natural product lineup includes hemp hearts, protein powder, and snacks. Manitoba Harvest has developed longstanding relationships with hemp suppliers and currently maintains relationships that provide access to over 60% of the hemp acreage in Canada. <https://manitobaharvest.com/>

<sup>12</sup> One of the world's largest bulk wholesale producer, private label packager, and custom processor of hemp food products and ingredients. Hemp Oil Canada exports globally to more than 15 international destinations including the European Union, UK, Asia, South Africa, and throughout North America. <http://www.hempoilcan.com/>

<sup>13</sup> HPs offers a "complete supply chain solution for sourcing hemp bulk food ingredient". <http://www.hempproductionservices.com>.

## Entry Points

Hemp seed imports enter the United States through a variety of channels and import locations. Table 3 provides a breakdown of hemp seeds passing through major U.S. border checkpoints.

Table 3: U.S. hemp seed imports 2012-2016 (lbs) - by import district

Import District	2012	2013	2014	2015	2016	Grand Total
Pembina, ND	1,784,575	3,360,010	3,937,806	32,516,719	19,684,142	61,283,252
Detroit, MI	478,903	767,333	610,337	1,019,508	522,536	3,398,617
Seattle, WA	374,227	722,589	566,056	604,246	468,353	2,735,471
Great Falls, MT	38,146	98,184	386,816	452,809	375,499	1,351,454
San Francisco, CA		19,492	318,639	210,588	61,206	609,925
New York City, NY	744		41,800	185,284	143,062	370,890
Buffalo, NY	46,128	49,379	66,856	100,429	26,643	289,435
Miami, FL				23,199	149,688	172,887
Los Angeles, CA		63,800	85,800	13,207	9,966	172,773
Baltimore, MD	3,130	3,581	46,561	4,180	528	57,980
Duluth, MN			42,489			42,489
Ogdensburg, NY			19,595	5,786		25,381
Norfolk, VA					12,815	12,815
Chicago, IL				8,085	2,970	11,055
Cleveland, OH				3,791	1,100	4,891
St. Albans, VT				990		990
Grand Total	2,725,853	5,084,368	6,122,755	35,148,821	21,458,508	70,540,305

Source: USA Trade Online, United States Census Bureau, <https://usatrade.census.gov> (accessed August 1, 2016) 2016 through June

Pembina (ND), Detroit (MI), Seattle (WA), Great Falls (MT), and San Francisco (CA) have been the top five entry points of hemp seed imports during the five-year period. In 2015, the top destination of hemp seed import was Pembina, North Dakota, with a quantity of 32,516,719 lbs, counting for nearly 93% of the entire imports in 2015 and 61,283,252 lbs over the five-year period, which accounts for 87% of all import within that time frame. With Manitoba Harvest Hemp and Hemp Oil Canada headquartered just across the border in Winnipeg, it is no surprise that Pembina is the major U.S. import location.

## Conclusion

Currently, an overwhelming majority of 35 million lbs. of hemp seed products entering the United States originates from several large Canada companies. While this import data help provides some insights into the nature of hemp seed entering the U.S., Seed CX is currently conducting a more detailed supply chain analysis.