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Canola and Rapeseed

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Background

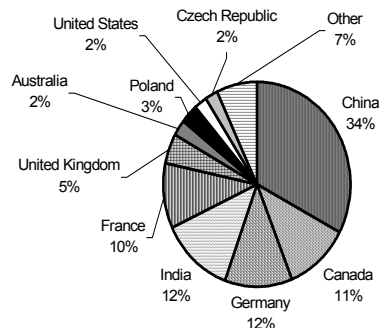
Edible and inedible varieties of rapeseed, a member of the mustard family, are produced throughout the world. Rapeseed production in the United States began during World War II principally for use as an industrial lubricant. Canola, *Brassica napus*, is an edible variety of rapeseed. Canola was given its name by Canadian producers in 1979 to describe a variety of rapeseed that contained low amounts of erucic acid along with other desirable characteristics. In 1985, the United States Food and Drug Administration recognized the separate identities of rapeseed and canola by establishing rapeseed as a crop for use in industry and canola for use in products for human consumption.

Production

*World*¹: Only pooled data on global canola and rapeseed production, consumption, and trade are available. (Figure 1). China produced 34 percent of total world output, India 12 percent, Germany 12 percent, Canada 11 percent, and France 10 percent (Figure 1). The United States produced two percent of worldwide canola production. Canola and rapeseed are produced in about 50 different countries.

¹ All data concerning world production of safflower is received from the FAOSTAT database of the Food and Agriculture Organization of the United Nations, which is compiled on a calendar year-basis. Marketing year and crop year information may yield somewhat different numerical results.

Figure 1: Percent of World Canola and Rapeseed Production by Country: 2002-2003



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Table 1: World Canola and Rapeseed Production, Historical

<i>Year</i>	<i>Production in Metric Tons</i>
1991	27,913,926
1992	26,775,165
1993	26,212,645
1994	29,723,969
1995	34,247,196
1996	30,491,211
1997	35,131,083
1998	35,814,416
1999	41,464,365
2000	39,606,592
2001	35,865,592
2002	33,170,413

Worldwide, annual canola and rapeseed production has fluctuated between 28 and 41 million metric tons over the past 12 years (Table 1). Production reached a peak of over 41 million metric tons in 1999 and thereafter decreased each year. In 2002, world production of canola and rapeseed was about 33 million metric tons.

United States: In 2002, the United States accounted for two percent of world canola and rapeseed production. Between 1991 and 1998, the area planted to canola in the United States increased significantly (Table 2). In part, this increase was tied to increased production flexibility provided the provisions of 1990 federal agricultural legislation (the FACT

Act) that introduced normal and optional flex acres for program crops. Acres planted to canola increased substantially after 1996, in part because of further increases in planting flexibility provided by decoupled federal market transition payments. The United States planted a record 1,555,000 acres of canola in 2000. Canola acreage in the United States ranks third in total acres among oilseeds behind soybeans and sunflower.

Montana: Montana is a minor producer of canola. In 2002, the area planted to canola in Montana declined to 37,500 acres from its peak of 65,000 acres in 2000 (Table 3). Recent declines in acreage and total production of canola were partly influenced by a prolonged drought in

Table 2: United States Canola and Rapeseed Production, Acreage and Production

<i>Year</i>	<i>Acreage</i>		<i>Production</i>		
	<i>Planted (000)</i>	<i>Harvested (000)</i>	<i>Yield (lbs)/acre</i>	<i>Total (000) Pounds</i>	<i>Metric Tons</i>
1991	155	147	1,300	191,100	86,682
1992	140	112	1,286	144,037	65,335
1993	199	187	1,350	252,450	114,511
1994	354	340	1,316	447,440	202,957
1995	446	429	1,278	548,447	248,774
1996	367	347	1,385	480,521	217,963
1997	671	631	1,237	780,710	354,128
1998	1,115	1,076	1,448	1,557,800	706,613
1999	1,076	1,044	1,306	1,363,680	618,561
2000	1,555	1,498	1,334	1,998,310	906,427
2001	1,494	1,455	1,374	1,998,515	906,520
2002	1,459	1,275	1,218	1,552,520	704,218

some Montana canola producing areas.

Montana's share of total United States canola acreage has decreased in the last four crop years from just over five percent (1999) to less than three percent in 2002 (Figure 2)

Domestic Competition: In addition to farmers in other countries, producers in Montana must compete with other states for the United States canola market. Canola acreage and production in the United States is dominated by North Dakota which produces 92 percent of U.S canola production (Figure 3 and 4).

Table 3: Montana Canola Production, Historical Production

<i>Year</i>	<i>Acreage</i>		<i>Production</i>		
	<i>Planted (000)</i>	<i>Harvested (000)</i>	<i>Yield (lbs.)/acre</i>	<i>Total (000) Pounds</i>	<i>Metric Tons</i>
1999	60	58	1,200	69,600	31,570
2000	65	58	960	55,680	25,256
2001	58	49.5	910	45,045	20,432
2002	37.5	34.5	860	29,670	13,458

Figure 2: Montana's Share of United States Total Canola Acreage

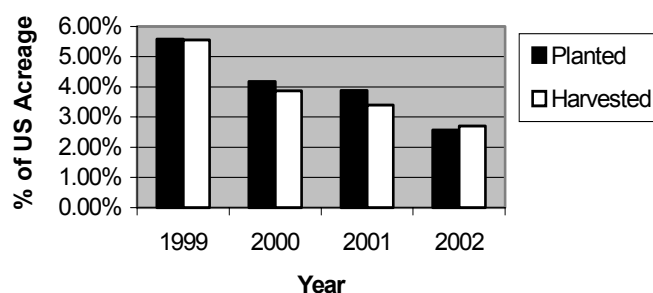


Figure 3: Percent of United States Canola Acreage by State: 2002

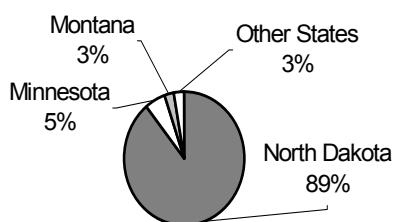
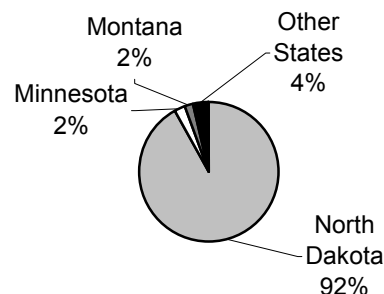


Figure 4: Percent of United States Canola Production by State: 2002



Consumption

Canola contains approximately 40 percent oil and is primarily used for human consumption in vegetable oil, margarine, and salad oil. In the United States, 45 percent of margarines, 60 percent of shortenings, and 80 percent of salad dressings contain canola oil. The widespread use of canola oil in edible products occurs because it has seven percent or less saturated fats and contains significant amounts of essential fatty acids believed to lower cholesterol, aid the immune system, and help in blood clotting.

Both oil and canola meal is extracted from canola seed.

Canola meal, a high protein food, is suitable for livestock consumption and is highly palatable. Canola meal contains from 20 to 35 percent protein.

Rapeseed oil is used in the manufacture of inedible products such as cosmetics, fungicides, herbicides, pesticides, and suntan oil.

Imports

In recent years, about 15 percent of the world's production of canola and rapeseed has been traded internationally (about 6 million metric tons in 2002).

In the 2002 crop year the top three importing countries for canola and rapeseed were Japan, Germany, and

Mexico (Table 4 and Figure 5). Collectively, these three countries account for 60 percent of world imports of canola and rapeseed. The United States imports only minor quantities of canola.

Exports

Canada, France, and Germany accounted for 76 percent of world canola and rapeseed exports in 2002-2003 (Figure 6). The United States exported 250,000 metric tons of canola and rapeseed, accounting for approximately four percent of world canola and rapeseed export total in the 2002-2003 year (Table 5).

Table 4: Major World Canola and Rapeseed Importing Countries, 2001

<i>Country</i>	<i>World Rank</i>	<i>Metric Tons</i>
Japan	1	2,034
Germany	2	911
Mexico	3	780
Belgium/Luxembourg	4	500
Pakistan	5	443
Canada	6	225
United Kingdom	7	200
Denmark	8	160
China	9	150
Bangladesh	10	110
Others		654
World Total		6,167

Table 5: Major World Canola and Rapeseed Exporting Countries, 2001

<i>Country</i>	<i>World Rank</i>	<i>Metric Tons</i>
Canada	1	2,300
France	2	1,700
Germany	3	600
Australia	4	450
United States	5	250
Czech Republic	6	248
United Kingdom	7	170
Hungary	8	105
Slovakia	9	80
Russia	10	35
Others		125
World Total		6,063

Figure 5: Percent of World Canola and Rapeseed Imports by Country: 2002-2003

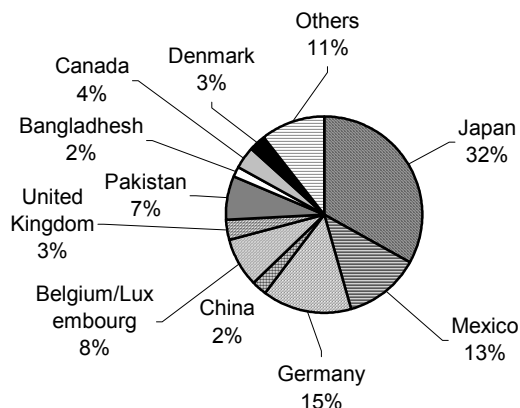
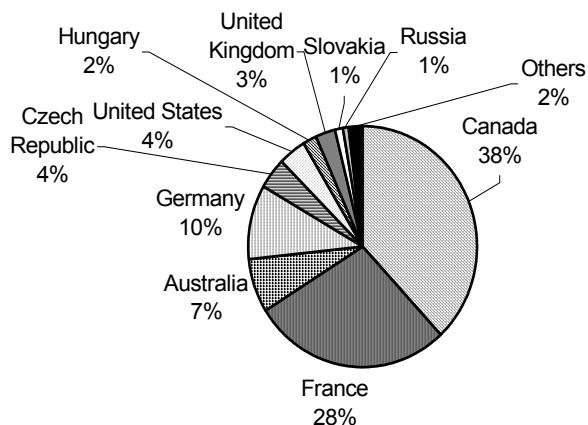


Figure 6: Percent of World Canola and Rapeseed Exports by Country: 2002-2003



The United States currently exports 35 percent of its annual production of canola and rapeseed.

Summary

World production of canola has averaged 38 million metric tons in recent years. About 15 percent of world production (about 6 million metric tons) is traded internationally annually.

The United States accounts for two percent of world production and about four percent of world exports. Canola and rapeseed imports into the United States are minimal.

In recent years, Montana accounted for four to five percent of the total acres of canola planted in the United States. In the last two crop years, acres of canola planted in Montana have declined sharply, primarily due to prolonged drought.

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