Commodity Profile: Garlic

Crystal Stanford, Undergraduate Factotum
agissues@ucdavis.edu
Agricultural Issues Center
University of California

Overview
Garlic is a perennial crop. Depending on the variety and location, most garlic is planted during the late fall and harvested in the summer. Garlic belongs to the same family as leeks, onions, and shallots. The two major commercial varieties are the California Early and the California Late. With such names, it comes as no surprise that California is the primary producer of garlic. In fact, only four other states harvest more than 100 acres of garlic: Nevada, Oregon, Washington and New York. Of these four, the USDA only records production from Nevada and Oregon. Garlic is marketed fresh (accounting for about one-fourth of the U.S. production), dehydrated, and as seed stock.

Demand
Over each of the last two decades, garlic production has doubled in the United States. According to the USDA, no other vegetable has exhibited such strong sustained growth. In 1981, annual per capita retail consumption of fresh garlic was 0.5 of a pound (Figure 1). By 1991, annual consumption had risen to 1.2 pounds per person. After peaking at 2.7 pounds in 1999, retail consumption dropped to 2 pounds per person in 2001.

Demand for U.S. garlic comes primarily from the NAFTA partners, Canada and Mexico, which accounted for over 53 percent of U.S. exports in 2002. Canada, the number one destination for U.S. garlic, received $6.9 million in garlic (mostly dried), while Mexico received $5.4 million (mostly fresh). Exports to Canada in 2002 were down 11.4 percent from 2001, while Mexico received 35.7 percent more garlic than in 2001. Total U.S. garlic exports decreased 6 percent to $23.2 million in 2002. Of total exports, $12.6 million, or 54 percent, was dried garlic; the remaining $10.6 million was fresh garlic. The peak year for garlic exports, by value, was 1997 when the United States sent almost $40 million worth to its trading partners. Growth in garlic export markets occurred in the Philippines and Indonesia, while the United States’ third largest trading partner, the U.K., received almost half as much garlic as in 2001.

Garlic exports were $18.5 million in 1989 and peaked in 1997 at almost $40 million (Table 1). Since 1997, exports have followed a general decline, reaching their lowest point in 2002 at $23.2 million. The top four export destinations—Canada, Mexico, U.K. and Australia—have remained the same since 1989. Mexico’s imports
almost doubled the year after NAFTA was implemented, making it the second largest
destination for U.S. garlic exports after Canada.

Supply
In 2002, 5.65 million cwt of garlic was harvested from 32,800 acres in the United States
(Table 2). California accounted for 27,000 (82 percent) of the acreage and 4.73 million
cwt (84 percent) of the production. For almost every year from 1992 to 1999 when it
peaked, California acreage and production increased. (The USDA has only recorded
information on garlic production and pricing in states other than California since 2000.)
In 1999, 7.4 million cwt of garlic was harvested from 40,000 acres in California.
Garlic prices in California (in 1996 dollars) have varied considerably around an
average of $33.05 per cwt. In 1992, the price for garlic was $29.51 per cwt. Prices
continued to fluctuate and peaked at $46.98 per cwt in 1997. Since 1997, the California
price decreased to $26.39 in 2002. As of 2000, prices for Nevada and Oregon were
available from the USDA’s National Agricultural Statistics Service. Factoring in these
prices, the national garlic price in 2002 was lower, at $24.58 per cwt. Total production
value, nationally, was $153.8 million in 2002.
Garlic imported into the United States faces a tariff of 0.43 cents per kilogram
(MFN rate); specific countries with trade agreements or preferential status import garlic
without a tariff.
The United States is a net importer of garlic, importing $66.5 million worth in
2002. Most imports are fresh garlic, accounting for $53.6 million (80 percent) of the total
imports. China is the largest source, supplying almost half of the imports. In 2002, garlic
imports from China increased more than 100 percent to $32.8 million. The other two
main trading partners are Mexico and Argentina, both of which exported less to the
United States in 2002 than in 2001. In 2002, the United States received $14.4 million in
garlic from Mexico and $6.8 million from Argentina. Imports from Canada have
remained small and relatively constant, losing market share to rapidly growing exporters
such as China, Pakistan, Korea, and the Philippines.
Since 1989, total U.S. garlic imports have grown from $18.5 million to their peak
of $66.5 million in 2002, although with considerable fluctuation. The top four import
suppliers—China, Mexico, Argentina, and Spain—have not changed since 1989. China
and Mexico have traded places many times as the top supplier (Figure 2), while
Argentina has remained a steady third since 1989.
Sources


Charts and figures

Table 1: U.S. Garlic Exports, 1989-2002, in thousand $

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>3,061</td>
<td>9,604</td>
<td>9,335</td>
<td>9,869</td>
<td>10,340</td>
<td>8,827</td>
<td>7,538</td>
<td>8,398</td>
<td>9,910</td>
<td>10,507</td>
<td>7,412</td>
<td>6,166</td>
<td>7,782</td>
<td>6,896</td>
</tr>
<tr>
<td>Mexico</td>
<td>1,155</td>
<td>2,375</td>
<td>1,941</td>
<td>1,846</td>
<td>2,998</td>
<td>5,758</td>
<td>2,409</td>
<td>3,035</td>
<td>2,982</td>
<td>2,600</td>
<td>3,391</td>
<td>2,764</td>
<td>4,014</td>
<td>5,449</td>
</tr>
<tr>
<td>Total</td>
<td>18,473</td>
<td>30,258</td>
<td>30,622</td>
<td>29,720</td>
<td>34,175</td>
<td>33,090</td>
<td>26,659</td>
<td>34,795</td>
<td>39,981</td>
<td>36,179</td>
<td>30,404</td>
<td>24,442</td>
<td>24,773</td>
<td>23,197</td>
</tr>
</tbody>
</table>

(Source: U.S. Customs Service)

Table 2: U.S. Garlic Acreage, Production, and Value, 1992-2002

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CA Acreage Harvested</td>
<td>23,000</td>
<td>26,000</td>
<td>27,000</td>
<td>28,000</td>
<td>35,000</td>
<td>33,000</td>
<td>38,000</td>
<td>40,000</td>
<td>29,000</td>
<td>30,000</td>
<td>27,000</td>
</tr>
<tr>
<td>US Acreage Harvested</td>
<td>23,000</td>
<td>26,000</td>
<td>27,000</td>
<td>28,000</td>
<td>35,000</td>
<td>33,000</td>
<td>38,000</td>
<td>40,000</td>
<td>34,800</td>
<td>35,200</td>
<td>32,800</td>
</tr>
<tr>
<td>CA Production (1,000 cwt)</td>
<td>3,795</td>
<td>4,160</td>
<td>4,590</td>
<td>4,620</td>
<td>6,125</td>
<td>5,610</td>
<td>5,510</td>
<td>7,400</td>
<td>4,785</td>
<td>5,100</td>
<td>4,725</td>
</tr>
<tr>
<td>US Production (1,000 cwt)</td>
<td>3,795</td>
<td>4,160</td>
<td>4,590</td>
<td>4,620</td>
<td>6,125</td>
<td>5,610</td>
<td>5,510</td>
<td>7,400</td>
<td>5,581</td>
<td>5,877</td>
<td>5,650</td>
</tr>
<tr>
<td>Value ($1,000)</td>
<td>102,854</td>
<td>132,470</td>
<td>183,852</td>
<td>140,700</td>
<td>196,333</td>
<td>268,776</td>
<td>207,511</td>
<td>219,076</td>
<td>154,971</td>
<td>173,020</td>
<td>153,763</td>
</tr>
</tbody>
</table>

* Until 2000, only California data was recorded.

(Source: USDA National Agricultural Statistics Service)
Figure 1: U.S. Per Capita Garlic Consumption, 1960-2001
(Source: USDA Economic Research Service)

Figure 2: U.S. Garlic Imports from China and Mexico, 1989-2002
(Source: U.S. Customs Service)