

## Commodity Spotlight



International Fresh-Cut Produce Association

### Lettuce: In & Out of the Bag

**L**ettuce has never been more popular in the U.S. The average American consumed 33 pounds of lettuce in 2000—an all-time high. This growing market has spurred the U.S. lettuce industry to reinvent itself over the past decade. In response to consumer demand for variety, freshness, and convenience, and as a result of technological innovations in packaging materials, lettuce shippers now offer customers everything from heads of iceberg to ready-to-eat salads.

Today's lettuce shippers market their wares through a variety of outlets: grocery stores, foodservice operations, produce wholesalers, mass merchandisers, and exporters. While some firms specialize, others consciously diversify across marketing channels. Operations range in scope from firms that simply wash, core, and wrap lettuce to large, sophisticated processing plants that bag salad blends and salad kits in special, patented films.

#### *California & Arizona Dominate the Market*

The U.S. produces more lettuce than any other country except China. Nearly all (more than 99 percent) of the lettuce consumed in the U.S. is produced domestically. Just two states, California and Arizona, produce 96 percent of the country's commercial iceberg (also known as crisphead

or head) and romaine lettuce and 98 percent of its leaf lettuce.

Overall, U.S. lettuce production has risen 16 percent since 1992. The soaring popularity of romaine lettuce, a staple of Caesar salads and bagged salad mixes, has led to a huge increase in production: 162 percent since 1992. Production of leaf lettuce (up 37 percent) has also been strong, due largely to the enduring popularity of salad bars and bagged salad blends. Iceberg lettuce has experienced a relative fall from favor, with production increasing only 2 percent since 1992. As the popularity of other varieties has risen, iceberg's share of U.S. lettuce production has declined from 84 percent in 1992 to 73 percent in 2000.

A relatively small number of firms coordinate the growing, processing, and transport of lettuce. Nearly all the major lettuce shippers have headquarters and year-round sales offices in the Salinas, California area. By organizing lettuce production in precise sequences, these firms have ensured that lettuce can be grown domestically throughout the year. Iceberg lettuce, for instance, is produced in the Salinas Valley from April through October, then briefly in Huron, California, before a new growing season begins in the desert areas of Yuma, Arizona, and California's Imperial Valley, running from

November through March. Huron provides another brief production bridge between the desert and the Salinas Valley in March and April. Leaf lettuce can follow a slightly different sequence, which can include planting in California's Santa Maria and Coachella valleys.

Most shippers of iceberg, leaf, and romaine lettuce handle other vegetables as well—sometimes as many as 75 different types, including broccoli, cauliflower, celery, green onions, radishes, and spinach—so that they can offer their customers one-stop shopping. Some of these shippers also specialize in crops that have smaller markets, such as artichokes, asparagus, cactus pears, rapini, and organic vegetables.

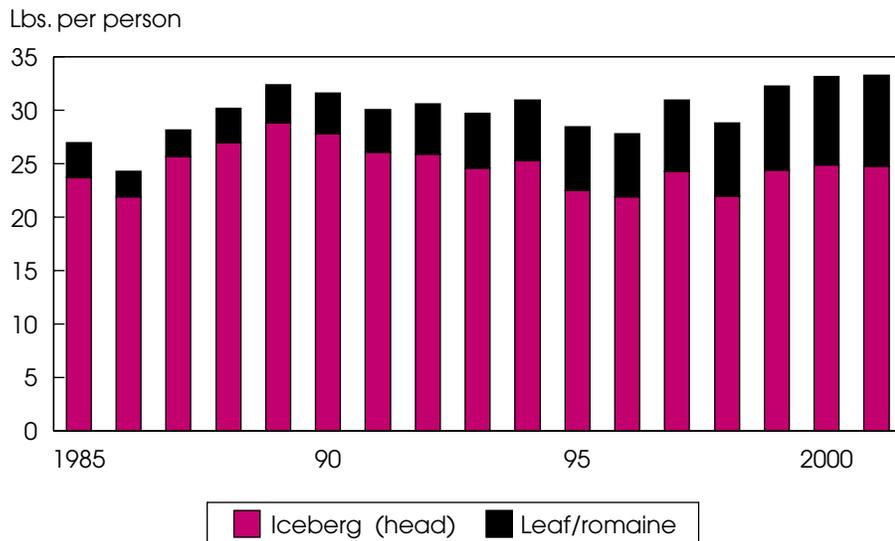
Iceberg, still the most widely used variety of lettuce in the U.S. (24.9 pounds consumed per capita in 2000), is second only to the potato (51 pounds consumed per capita last year) as the most popular fresh vegetable in the U.S. But while Americans used nearly 6.9 billion pounds of iceberg in 2000, per capita use has declined 13 percent since the 1989 peak. Decline in the iceberg market has been more than offset by increased demand for romaine and leaf lettuce. As Americans have tried to improve their diets, they have become more open to trying new varieties of lettuce (red leaf, bib, butterhead, and others) and more interested in buying conveniently bagged salad blends and kits. The result: per capita use of leaf and romaine lettuce has more than doubled since the beginning of the 1990s, culminating in a record 8.3 pounds in 2000.

#### *From Farm to Market: The Processing Picture*

Most shippers process their lettuce in one of three ways. Lettuce sold as a *commodity* undergoes virtually no processing; *value-added* lettuce is typically washed, bagged, and sold ready-to-serve; and *fresh-cut* (also known as fresh-processed) lettuce appears in bagged salad blends or kits. Lettuce marketed as a commodity is generally sold in bulk and under brands not widely recognized by consumers.

A commodity such as bulk spring mix—created by combining several different kinds of leaf lettuce—is not considered to be a “value-added” product. True value-

### U.S. Per Capita Lettuce Consumption Is Record-High



Farm weight. 2001 forecast.  
Economic Research Service, USDA

added products require more processing. For instance, although broccoli crowns or leaf lettuce sold in bulk are considered commodity products, broccoli florets that are washed and sold in 16-ounce packages, ready to serve or cook, are value-added, as are hearts of romaine. Most value-added products come bagged in simple cellophane, not in the sophisticated films used to protect salad mixes and kits. Although some value-added products may not bear universal product codes (UPCs), they will often sport PLU (price lookup) codes that are not scanned but are entered by hand at the cash register.

Value-added products require a small amount of processing, and thus require relatively little in the way of capital investment. Many value-added processing operations can be performed in modified packing sheds, with a modest amount of equipment. However, makers of fresh-cut products such as bagged salads must make substantial capital investments in plants and specialized machinery.

Because of these high capital costs—more than \$20 million for a central or regional processing plant—smaller producers may have difficulty entering the market. Other costs include special packaging films that manage transpiration and respiration rates

and extend shelf life; research and development of new films; and sophisticated merchandising. Producers of fresh-cut let-

tuce products must follow specific procedures in the “cold chain” that extends from the processing plant to the retail display case, and always be on the lookout for ways to reduce delivery times from regional processing plants. Fresh-cut products are marketed using consumer-recognized brand names and have UPC codes that are scanned by supermarket cashiers.

In 1993, 55 firms sold 197 fresh-cut salad items (lettuce-based salad blends and salad kits) in mainstream U.S. supermarkets. Sales totaled \$197 million, according to scanner data from Information Resources, Inc. By 1999, 54 firms were selling 459 items, and sales had skyrocketed to \$1.3 billion. However, largely because of barriers to entry in the bagged salad market (e.g., high capital requirements and brand recognition), only a few firms have vied for a major share of the national retail market. Competition for regional and national market shares has been intense. From 1993 to 1999, the top two firms increased their joint market share from about two-thirds to three-quarters of national sales. The remaining top

### Production Sites for Iceberg Lettuce Shift with the Seasons



Adapted from Wilson, Thompson, and Cook in *Choices*, First Quarter 1997.  
Economic Research Service, USDA

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national and regional firms saw their collective market share drop from 27 percent of national sales in 1993 to 14 percent in 1999. Some of these firms have apparently shifted from producing branded products to private-label products (retailers' house brands), which accounted for 5 percent of national sales in 1993 but had jumped to 10 percent by 1999. The number of competitors outside the top 10 peaked at 53 in 1994 and declined to 43 in 1999, while their combined market share shrank to less than 1 percent of total dollar sales.

Processors and shippers of fresh-cut salads have a more complex relationship with retailers than firms that sell only commodities, primarily because salads resemble packaged goods more than they do conventional produce—a uniform quality product that is available year round. The amount of fresh-cut salad shipped to retailers is more consistent from week to week than that of much fresh produce, although, according to university research, consumer demand for fresh-cut salads does fluctuate seasonally. Producers of fresh-cut products are concerned about capacity utilization, and process raw ingredients continuously despite fluctuations in yields and production throughout the year.

### Emerging Trade Practices & Trends in Produce Marketing

The Economic Research Service (ERS) is working with industry experts to undertake descriptive and analytical research studies on the changing nature of produce markets and market channels and their implications for competition. The major objective of a recently completed study was to identify and characterize types of marketing and trade practices used in the produce industry, focusing on the relationship between shippers and retailers.

Because there are no public data on transactions between produce shippers and their customers, ERS and university researchers conducted a small number of personal interviews with fresh fruit and vegetable shippers to better understand these practices and the changing nature of shippers-buyer relations. The study focused on California grapes, oranges, and tomatoes; California and Arizona lettuce and bagged salads; and Florida tomatoes and grapefruit. The interviews concentrated on two main aspects of the business relationship between shippers and retailers: the types and characteristics of sales and marketing arrangements, and the types of fees and services that shippers are being asked to provide, or are offering, to retailers and mass merchandisers.

*For more information on the produce marketing study, see AO March 2001. More details on the findings for lettuce and bagged salads will be available in the forthcoming publication, Recent Changes in Marketing and Trade Practices in the U.S. Lettuce and Fresh-Cut Vegetable Industries, on the ERS website—[www.ers.usda.gov](http://www.ers.usda.gov).*

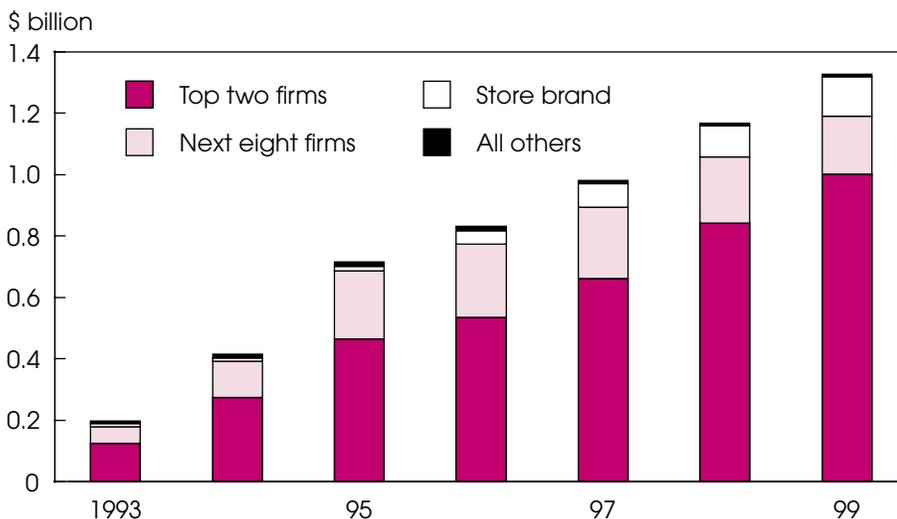
Although short supplies of produce resulting from bad weather would ordinarily translate into higher prices for retail buyers, fresh-cut salad shippers tend to absorb those increases and keep prices stable. By doing this, they ensure that weather conditions usually do not affect

retail prices. In all of these ways, the fresh-processing business is more a manufacturing than an agricultural enterprise—a key indication of how much the U.S. lettuce industry has changed in recent years.

### Product Mix & Marketing Channels Are Diverse

In conjunction with a team of university researchers, USDA's Economic Research Service interviewed 15 lettuce shippers in California and Arizona as part of a larger study on changes in produce marketing. Eight of the 15 shippers sold lettuce as a commodity, as well as (on average) 24 other kinds of fresh vegetables. The shippers sold mostly iceberg lettuce, followed by romaine and green and red leaf lettuce. Five of the eight firms sold lettuce only as a commodity, and three offered a few fresh-cut and value-added items such as broccoli and cauliflower florets. Seven of the 15 shippers interviewed either concentrated exclusively on bagged salads or offered an extensive line of bagged salads and other value-added products in addition to their commodity sales. The combinations of fresh-cut, value-added, and commodity items varied significantly from firm to firm.

### Retail Sales of Fresh-Cut Salad in Mainstream Supermarkets Are Highly Concentrated in a Small Number of Firms



Source: Information Resources, Inc.  
Economic Research Service, USDA

## WINDOW on the PAST

Excerpts from USDA publications

### U.S. Consumers Demanding Crisp-Textured Lettuce

Lettuce is the most important salad plant and one of the most important of the vegetable crops. The present commercial crop has an annual value of about \$28,000,000. Lettuce is in demand at all seasons of the year. . . .

The Western States grow largely the crisp-head type of lettuce, which sells on the eastern markets as "Western Iceberg." . . . Until recently the eastern lettuce crop consisted almost entirely of the butter-head varieties Big Boston and White Boston, . . . [but they] are being rapidly replaced by strains of crisp-head New York and the Imperials.

This shift from butter-head varieties . . . has resulted from consumer demand. The consuming public has come to prefer the crisp-textured lettuce, and jobbers and dealers find that it stands handling and shipment better than the more delicate butter-head varieties.

Cos or romaine lettuce has never been popular in America. . . . There is a limited market for this type of lettuce among the foreign population of the larger cities.

*Yearbook of Agriculture, 1937*

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Most shippers use a variety of outlets for selling their lettuce. Ten of the firms interviewed provided information on where they marketed their lettuce in 1999. Grocery retailers were the most frequent marketing outlet, followed by food service, produce wholesalers, mass merchandisers, brokers, and exporters. In contrast, firms selling bagged salads and value-added products sold almost exclusively to retailers and foodservice firms.

Sales and marketing arrangements will continue to change as markets for lettuce and fresh-cut produce evolve. For example, the relationships between shippers and their customers are becoming more formalized. Buyers are developing preferred supplier arrangements with shippers, written contracts are more common, mass merchandisers are making shippers responsible for tracking sales and replenishing inventory, and shippers are providing category management to retailers (AO March 2001).

Lettuce shippers have adopted various business strategies to manage buyer demands for greater volumes, broader product lines, and year-round availability. Some firms have changed their internal focus to concentrate on certain market channels or commodities. Some have made external arrangements with other vegetable shippers—such as co-packing arrangements, alliances, and consolidated marketing offices—to bolster their product lines and sales. In addition, product innovation has brought new fresh-cut items to grocery store shelves. Fresh-cut fruit and potato products are now on the market and may become more widely available as processing plants are built in more locations around the country. **AO**

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### April Releases—USDA's Agricultural Statistics Board

The following reports are issued electronically at 3 p.m. (ET) unless otherwise indicated.

#### April

- 2 *Crop Progress* (4 p.m.)
- 3 *Weather - Crop Summary* (12 noon)  
*Dairy Products*  
*Egg Products*
- 4 *Broiler Hatchery*
- 6 *Dairy Products Prices* (8:30 a.m.)  
*Poultry Slaughter*  
*Vegetables*
- 9 *Crop Progress* (4 p.m.)
- 10 *Crop Production* (8:30 a.m.)  
*Weather - Crop Summary*
- 11 *Broiler Hatchery*
- 12 *Dairy Products Prices*  
*Milkfat Prices*  
*Potato Stocks*  
*Turkey Hatchery*
- 16 *Crop Progress*
- 17 *Milk Production*  
*Weather - Crop Summary*
- 18 *Broiler Hatchery*  
*Fruit and Vegetable Ag. Practices*
- 19 *Hatchery Production - Ann.*
- 20 *Dairy Products Prices* (8:30 a.m.)  
*Catfish Processing*  
*Cattle on Feed*  
*Cold Storage*  
*livestock Slaughter*
- 23 *Chickens and Eggs*  
*Crop Progress* (4 p.m.)  
*Monthly Agnews*  
*Weather - Crop Summary*
- 25 *Broiler Hatchery*  
*Dairy Products - Ann.*  
*Floriculture Crops*  
*Milk - PDI*  
*Poultry - Production and Value*
- 27 *Dairy Products Prices* (8:30 a.m.)  
*Milkfat Prices* (8:30 a.m.)  
*Meat Animals - PDI*  
*Monthly Hogs and Pigs*  
*Peanuts Stocks and Processing*
- 30 *Agricultural Prices*  
*Crop Progress* (4 p.m.)