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Arizona Leafy Greens: Economic Contributions of the Industry Cluster

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September 2017

What Is the Issue?

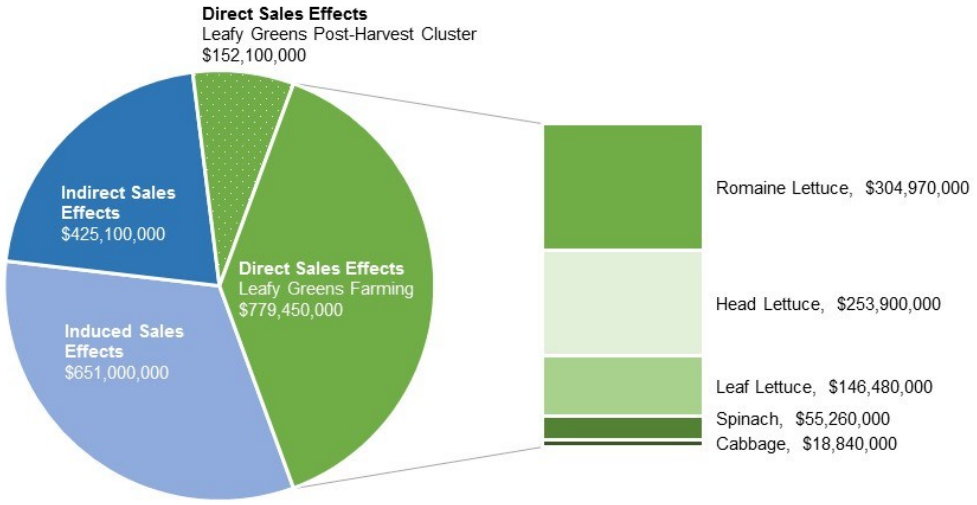
Arizona is a national leader in the production of lettuce and other leafy greens and plays a critical role in the year-round supply of lettuce for domestic consumption. Leafy greens represent a significant portion of the state's agricultural sales. Because leafy greens are perishable, there is a highly integrated cluster of industries involved in post-harvest activities to ensure their quality and shelf life. These industries are involved in cooling, cutting, washing, packing, processing, storing, and shipping Arizona-grown leafy green products. This requires incredible coordination and logistical efficiency across industries. This study estimates the economic contribution of on-farm production of leafy greens in Arizona, as well as the cluster of industries involved in delivering fresh, high quality produce to consumers around the country.

Key Findings

Economic Contribution of Leafy Greens Production Extends Beyond the Farm

- In 2015, the leafy greens industry cluster's **total sales contribution** to the Arizona economy was an estimated **$2 billion**.
- **Direct sales** (cash receipts) from on-farm production of Arizona's major leafy greens commodities (cabbage; spinach; and head, leaf, and Romaine lettuce) and forward-linked cluster industries accounted for approximately **$931.5 million** in sales, while **indirect and induced multiplier effects** accounted for more than **$1.0 billion** in sales.
- The leafy greens industry cluster's **total contribution to Arizona's gross state product** (GSP) was nearly **$1.2 billion**. This included approximately $950 million in wages, salaries, and proprietor income.
- Total **state and local tax contributions** from Arizona's leafy greens industry cluster for 2015, including multiplier effects, were an estimated **$64 million**.
- In 2015, Arizona leafy greens production required more than **16.9 million hours of hired on-farm labor.**

Total Sales Contribution of Leafy Greens Industry Cluster, 2015



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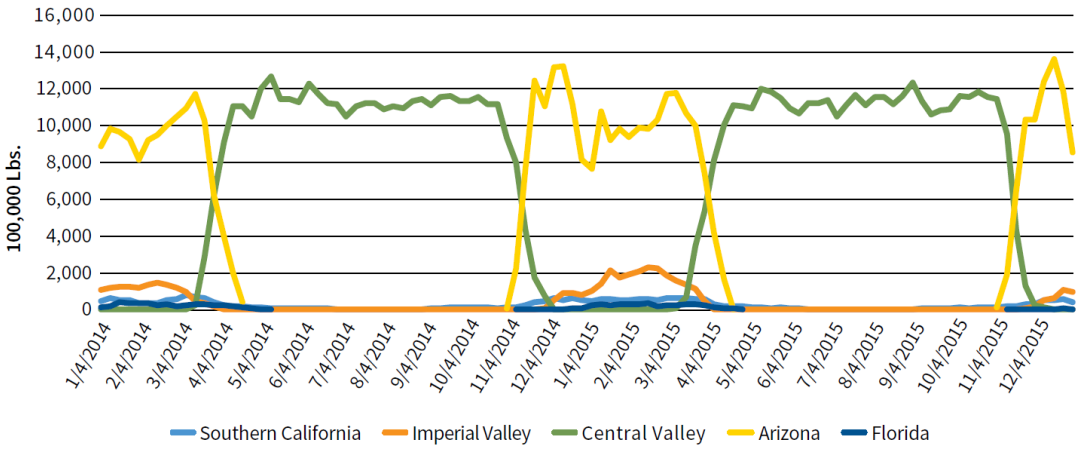
Arizona's Key Role in Providing Lettuce Year-Round

The vast majority of lettuce produced in the U.S. shifts seasonally between Arizona and California over the course of the year. During Arizona's most productive season, late November to mid-March, the region ships an average of 1 billion pounds of lettuce per month. During summer months, California's Central Valley is the primary producer of lettuce nationally. Other regions produce seasonally throughout the year. Combined, this amounts to a nearly constant weekly supply of lettuce available throughout the year.

U.S. Weekly Lettuce Shipments by Production Region, 2014-2015



Source: USDA AMS Specialty Crop Movement Custom Report, 2016.

Arizona is a National Leader in the Production of Leafy Greens

2nd *....Arizona's national rank in production of head lettuce, leaf lettuce, Romaine lettuce, and spinach in 2015*

2nd *....Yuma County's rank amongst U.S. counties for lettuce and spinach acreage harvested in 2012*

82% *....Percent of nation's lettuce coming from Arizona from the first week of December 2014 to the first week of March 2015 — this reached as high as 92% during the week of December 6th*

20% *....Arizona's share of national leafy greens production (lettuce, cabbage, and spinach)*

1st *....Arizona's national rank in cabbage yield for 2010, 2011, 2013, and 2014*

How was the study conducted?

A variety of data sources and methods are used to estimate the economic activity supported by Arizona-grown leafy greens. The economic contribution estimate uses agricultural cash receipts for on-farm production and cost-and-return farm budgets to estimate the economic activity in post-harvest industries. The economic contribution analysis was conducted using input-output modeling and the premier software for this type of analysis, IMPLAN Version 3.1. IMPLAN is a regional economic modeling system based on national average production conditions. The model was refined based on best available, recent data to more accurately reflect economic conditions and agricultural practices in Arizona.

To access the full report, please visit:
https://cals.arizona.edu/arec/publication/arizona-leafy-greens-economic-contributions-industry-cluster