AGRICULTURAL COMMISSIONER
SEALER OF WEIGHTS & MEASURES

Carlos Ortiz
Agricultural Commissioner/Sealer
2016

Imperial County

Agricultural Crop & Livestock Report
2016 CA Agricultural Statistics

Imperial County:

• Ranked #9 out of 58 California Counties with a gross value of ag production of $2,063,215,000
• Sole producer of sugar beets in the state
• #1 producer of alfalfa hay, onion, wheat, corn, alfalfa seed and Sudan grass hay
• Among the top 5 producer of cattle, lettuce, broccoli, celery, cilantro, carrots, cauliflower, spinach, cantaloupes, salad greens, cabbage, watermelon, grapefruit, sheep, honeydew melon and dates.
2016 Gross Value
$2,063,214,000

- Vegetable and Melons: $1,006,345,000
- Livestock: $468,176,000
- Field Crops: $381,181,000
- Seed & Nursery Crops: $123,057,000
- Fruit & Nut Crops: $80,098,000
- Apiary Products: $4,357,000
# Top Ten Commodities

<table>
<thead>
<tr>
<th>Rank 2016</th>
<th>Gross Value 2016</th>
<th>Rank 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cattle</td>
<td>$400,614,000</td>
</tr>
<tr>
<td>2</td>
<td>Alfalfa</td>
<td>$148,915,000</td>
</tr>
<tr>
<td>3</td>
<td>Leaf Lettuce</td>
<td>$133,212,000</td>
</tr>
<tr>
<td>4</td>
<td>Onions</td>
<td>$128,476,000</td>
</tr>
<tr>
<td>5</td>
<td>Broccoli</td>
<td>$120,562,000</td>
</tr>
<tr>
<td>6</td>
<td>Head Lettuce</td>
<td>$119,236,000</td>
</tr>
<tr>
<td>7</td>
<td>Spinach</td>
<td>$96,508,000</td>
</tr>
<tr>
<td>8</td>
<td>Alfalfa Seed</td>
<td>$84,911,000</td>
</tr>
<tr>
<td>9</td>
<td>Romaine Lettuce</td>
<td>$70,196,000</td>
</tr>
<tr>
<td>10</td>
<td>Carrots</td>
<td>$62,038,000</td>
</tr>
</tbody>
</table>
Export: Federal Certificates

- 19,002 certificates issued to 96 countries
- 92.7% issued to 7 countries: Japan, Mexico, Republic of Korea, China, Canada, Taiwan & United Arab Emirates

Commodities include:
- Hay & Straw 40.4%
- Vegetables 32.9%
- Seed 13.9%
- Other 12.8%
Export: State Certificates

- 1,061 certificates issued to 8 states & 3 territories
- 95.2% issued to 2 states: Hawaii & Florida

Commodities include:
- Vegetables 87.9%
- Nursery 11.2%
- Other 0.8%
- Seed 0.1%
Economic Contributions of Imperial County Agriculture

Dr. Jeff Langholz & Dr. Fernando DePaolis

El Centro, CA., January 9, 2018
Agenda

#1. Rationale

#2. Methods

#3. Findings
Why do this study?

OLD QUESTION: “What’s the $$$ value of agricultural production?”

NEW QUESTION: “What’s agriculture’s role in sustaining a healthy local economy?”
new tools for an old mandate

Section 2279 of the *California Food and Agriculture Code* requires every county to report the “value” of agriculture.
Crop Report PLUS

IMPERIAL is the 12th county to report the agriculture’s fuller “value”

Contra Costa ◆ Inyo ◆ Mono ◆ Monterey
◆ Riverside ◆ San Diego ◆ San Luis Obispo ◆ San Mateo ◆ Santa Cruz ◆ Santa Barbara ◆ Solano
Agenda

#1. Rationale

#2. Methods

#3. Findings
The “local economy” is a complex machine...

What economists see:

Rest of the United States and World Economy
What the public sees....
two kinds of “Multiplier Effects”

**INDIRECT:**
local “business to business” spending by Ag companies

*Examples:* vehicles, fuel, seeds, fertilizer, veterinary fees, insurance, banking services, chemicals, contract work, etc.

**INDUCED:**
local “consumer spending” by Ag employees

*Examples:* groceries, health care, housing, utilities, transportation, medical care, recreation, etc.
Agenda

#1. Rationale

#2. Methods

#3. Findings
HIGHLIGHTS: Imperial County Agriculture . . .

. . . contributed a total of **$4.50 billion** to the local economy, including:
• $2.94 billion in *direct* economic output, or **25.9%** of the county's total direct economic output.
• $1.56 billion in additional economic output in the form of expenditures by agriculture companies and their employees.
provided 24,429 jobs in Imperial County, including:

- 12,916 direct employees, which is 16.5% of all jobs in the county, or nearly one out of every six workers.
- 11,513 additional jobs made possible through expenditures by agriculture companies and their employees.
FIGURE 4: Overall Economic Effect of Imperial County Agriculture

<table>
<thead>
<tr>
<th>TYPE OF EFFECT</th>
<th>DIRECT</th>
<th>INDIRECT</th>
<th>INDUCED</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FARM PRODUCTION Sector</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output Effect ($ Millions)</td>
<td>$2,381.4</td>
<td>$762.9</td>
<td>$428.5</td>
<td>$3,572.8</td>
</tr>
<tr>
<td>Employment Effect (# Jobs)</td>
<td>12,186</td>
<td>6,549</td>
<td>3,421</td>
<td>22,156</td>
</tr>
</tbody>
</table>

| **LOCALLY SOURCED, VALUE-ADDED PROCESSING SECTOR** |         |          |         |          |
| Output Effect ($ Millions)    | $555.7  | $328.3   | $41.4   | $925.4   |
| Employment Effect (# Jobs)    | 730     | 1,213    | 330     | 2,273    |

| **TOTAL VALUE OF AGRICULTURAL SECTOR** |         |          |         |          |
| Output Effect ($ Millions)    | $2,937.2 | $1,091.1 | $469.9  | $4,498.2 |
| Employment Effect (# Jobs)    | 12,916   | 7,762    | 3,751   | 24,429   |
The Value of “Economic Diversity”

✓ Why is diversity important?
✓ How do we measure it?
✓ What did we find?
Economic diversity is like an “insurance policy” against economic shocks:

- Price drops
- Disease outbreaks
- New regulations
- New competitors
- Price spikes for key inputs
Shannon-Weaver Index:

\[ SW_t^k = - \sum_{n=1}^{k} p_n \cdot \ln(p_n) \]

- The **most widely used tool** among economists, ecologists, and others
- Captures the **# of different crops** as well as "evenness" of their distribution
POP QUIZ!

Imagine 2 counties with the same annual production value & number of crops. Which is more “diverse”? 

County “A”
10 Crops, $100 million

County “B”
10 Crops, $100 million
HIGHLIGHTS: Imperial County Agriculture...

...has exceptional diversity that provides critical economic stability within agriculture and to the wider county economy (Diversity Index of 3.23)
Diversity held steady over the past decade
(unchanged compared to many other CA counties)
Summary

#1. Rationale
#2. Methods
#3. Findings
How Does Agriculture Compare to other Imperial County Industries, in terms of OUTPUT and EMPLOYMENT?

### DIRECT ECONOMIC OUTPUT

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>OUTPUT</th>
<th>Rank</th>
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</thead>
<tbody>
<tr>
<td>Agriculture (production + processing)</td>
<td>$2,937,320,909</td>
<td>1</td>
</tr>
<tr>
<td>Government (fed/state/local)</td>
<td>$2,677,816,271</td>
<td>2</td>
</tr>
<tr>
<td>Real Estate</td>
<td>$849,698,725</td>
<td>3</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>$751,271,528</td>
<td>4</td>
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<tr>
<td>Wholesale Trade</td>
<td>$507,660,858</td>
<td>5</td>
</tr>
<tr>
<td>Health &amp; Social Services</td>
<td>$476,106,931</td>
<td>6</td>
</tr>
<tr>
<td>Transportation &amp; Warehousing</td>
<td>$420,885,725</td>
<td>7</td>
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<tr>
<td>Manufacturing</td>
<td>$411,108,030</td>
<td>8</td>
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<tr>
<td>Accommodation &amp; Food Services</td>
<td>$339,409,435</td>
<td>9</td>
</tr>
<tr>
<td>Construction</td>
<td>$335,116,991</td>
<td>10</td>
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<tr>
<td>Finance &amp; Insurance</td>
<td>$317,291,375</td>
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<tr>
<td>Utilities</td>
<td>$273,937,595</td>
<td>12</td>
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<tr>
<td>Professional: Scientific &amp; Tech. Services</td>
<td>$258,800,886</td>
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<tr>
<td>Other Services</td>
<td>$222,097,898</td>
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<tr>
<td>Administrative &amp; Waste Services</td>
<td>$191,265,255</td>
<td>15</td>
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<tr>
<td>Mining</td>
<td>$174,133,882</td>
<td>16</td>
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<tr>
<td>Information</td>
<td>$139,882,269</td>
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<tr>
<td>Management of Companies</td>
<td>$40,753,384</td>
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<tr>
<td>Arts, Entertainment &amp; Recreation</td>
<td>$23,244,479</td>
<td>19</td>
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<tr>
<td>Educational Services</td>
<td>$11,983,154</td>
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</table>

### DIRECT EMPLOYMENT

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>EMPLOYMENT</th>
<th>Rank</th>
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</thead>
<tbody>
<tr>
<td>Government (fed/state/local)</td>
<td>18,505</td>
<td>1</td>
</tr>
<tr>
<td>Agriculture (production + processing)</td>
<td>12,916</td>
<td>2</td>
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<tr>
<td>Health &amp; Social Services</td>
<td>9,879</td>
<td>3</td>
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<tr>
<td>Retail Trade</td>
<td>8,862</td>
<td>4</td>
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<tr>
<td>Accommodation &amp; Food Services</td>
<td>4,946</td>
<td>5</td>
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<tr>
<td>Administrative &amp; Waste Services</td>
<td>3,322</td>
<td>6</td>
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<tr>
<td>Other Services</td>
<td>3,257</td>
<td>7</td>
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<tr>
<td>Transportation &amp; Warehousing</td>
<td>3,095</td>
<td>8</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>2,446</td>
<td>9</td>
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<tr>
<td>Construction</td>
<td>2,297</td>
<td>10</td>
</tr>
<tr>
<td>Professional: Scientific &amp; Tech. Services</td>
<td>2,137</td>
<td>11</td>
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<tr>
<td>Real Estate</td>
<td>1,892</td>
<td>12</td>
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<td>Finance &amp; Insurance</td>
<td>1,581</td>
<td>13</td>
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<tr>
<td>Manufacturing</td>
<td>1,065</td>
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<tr>
<td>Mining</td>
<td>472</td>
<td>15</td>
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<tr>
<td>Arts, Entertainment &amp; Recreation</td>
<td>424</td>
<td>16</td>
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<tr>
<td>Utilities</td>
<td>374</td>
<td>17</td>
</tr>
<tr>
<td>Educational Services</td>
<td>354</td>
<td>18</td>
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<tr>
<td>Information</td>
<td>318</td>
<td>19</td>
</tr>
<tr>
<td>Management of Companies</td>
<td>250</td>
<td>20</td>
</tr>
</tbody>
</table>
Thank You

For more info:  
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Agricultural Commissioner’s Staff

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Laura Arellano, Plant Pathologist/Entomologist
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Joseph Andreotti, Agricultural Biologist III
Jeffrey Lopez, Agricultural Biologist III

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Brenda Suarez, Agricultural Biologist II

Special Projects Coordinator

Sandra Mendivil
Have you thanked a farmer today?
Thank You