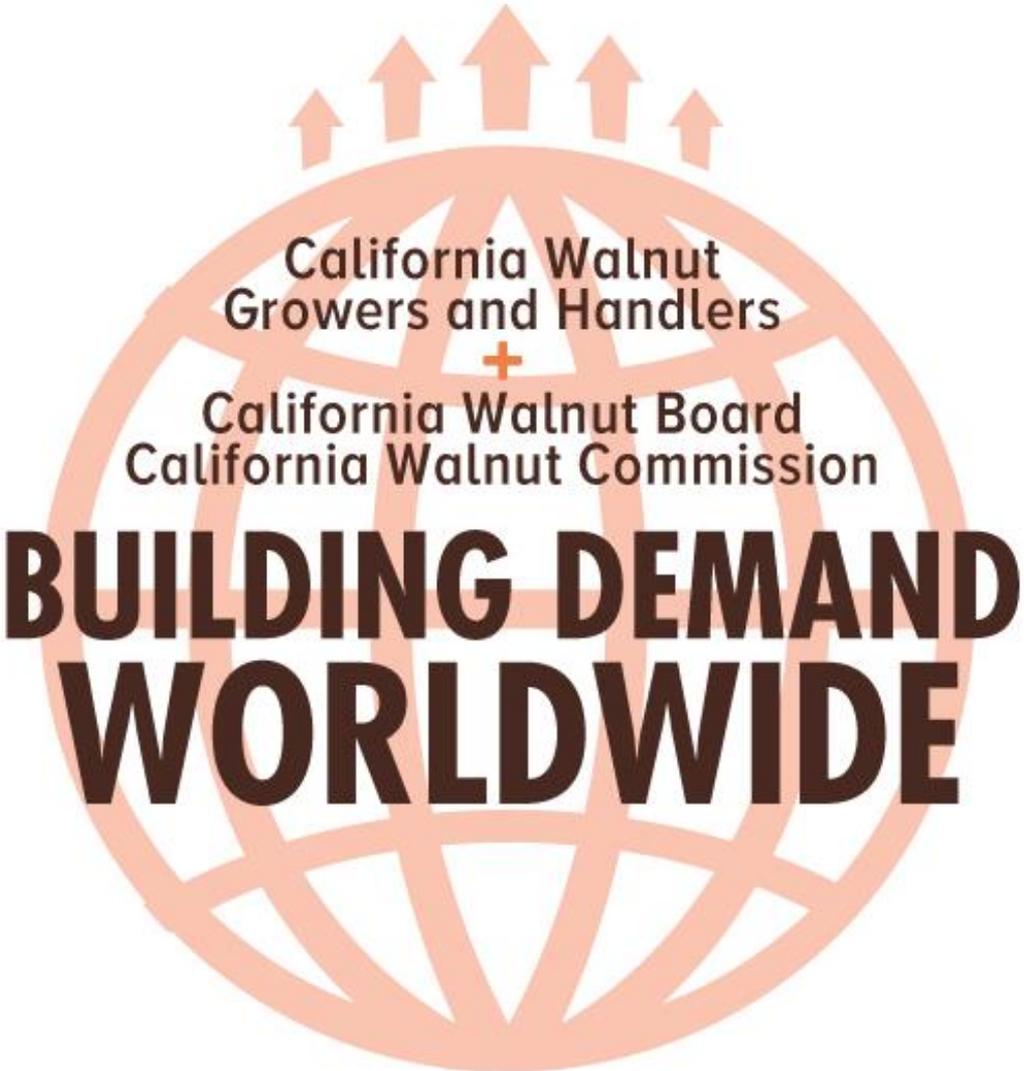


2015 STATE OF THE CALIFORNIA WALNUT INDUSTRY

Dennis A. Balint, Carl Eidsath,
Jennifer Olmstead



IT'S WORKING



California Walnut
Growers and Handlers



California Walnut Board
California Walnut Commission

**BUILDING DEMAND
WORLDWIDE**



IT'S WORKING

WHAT IS WORKING TOGETHER?

- You the grower produce the highest quality
- Handlers supply and service the markets
- The Board & Commission
 - Fund Production Research
 - Direct the Health Research Program
 - Work to open new markets
 - Give you a regulatory voice
 - Increase use and usage among target audiences



IT'S WORKING

THE CHALLENGE OF 2014/15

- Record California Crop @ 568,530 Short Tons
- China's production up 50,000 Tons
- Total Production up 130,000 Tons
- China's Early Purchases of California Down
 - Utilize Own Crop Early
 - Leverage Against Our Prices
- Chile continues to snipe our markets (FTA)



IT'S WORKING

THE ANSWER

- Build Demand With Resources Available
- It Will Not Happen In One Year
 - Limited Resources
 - Distribution Of Inventory
 - Price Is Thought To Be The Immediate Answer
- It will require that we compete and invest
- Look to the long term



IT'S WORKING

BUILD DEMAND



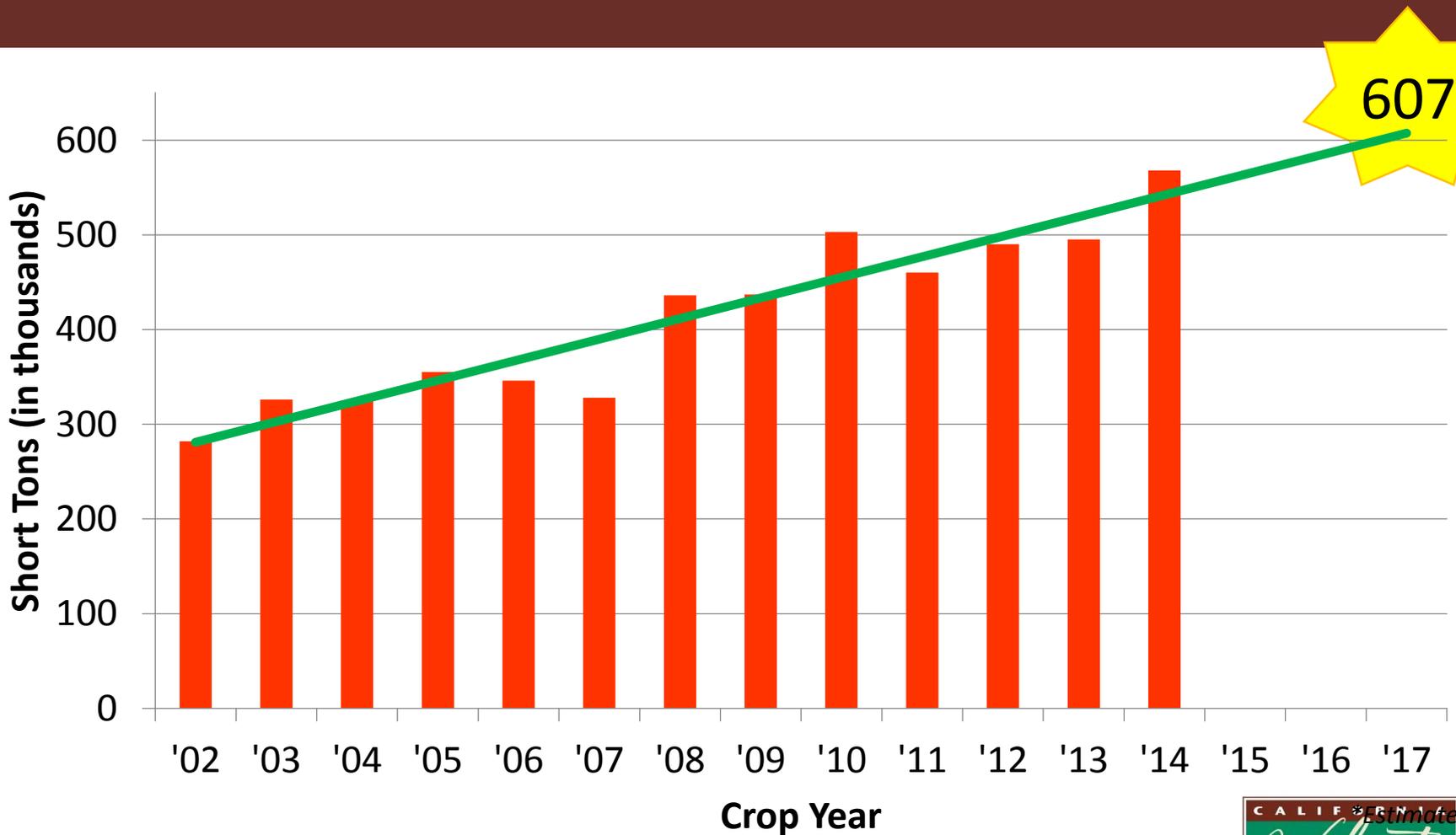
IT'S WORKING

FACTS AND FIGURES



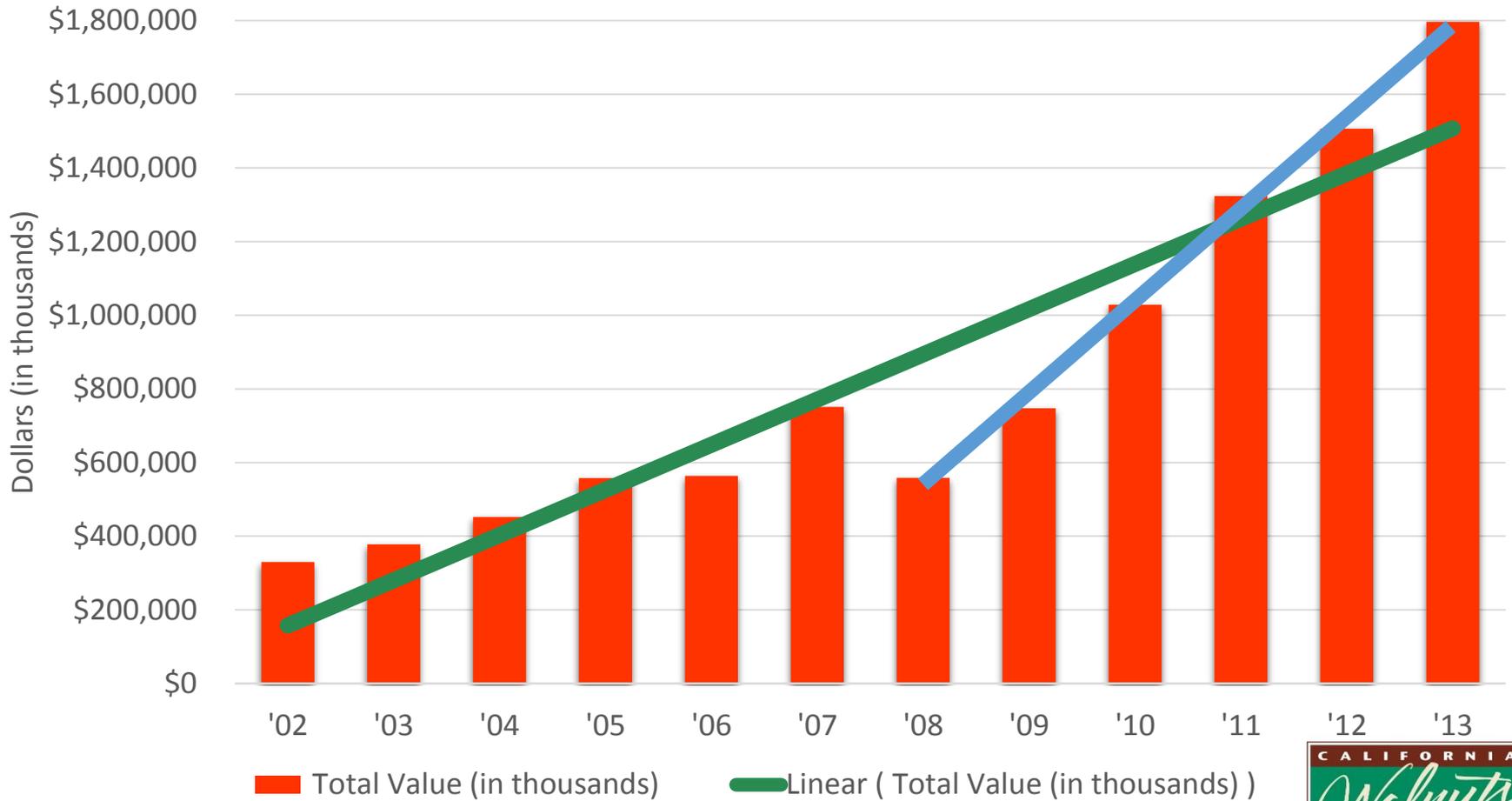
IT'S WORKING

PRODUCTION



IT'S WORKING

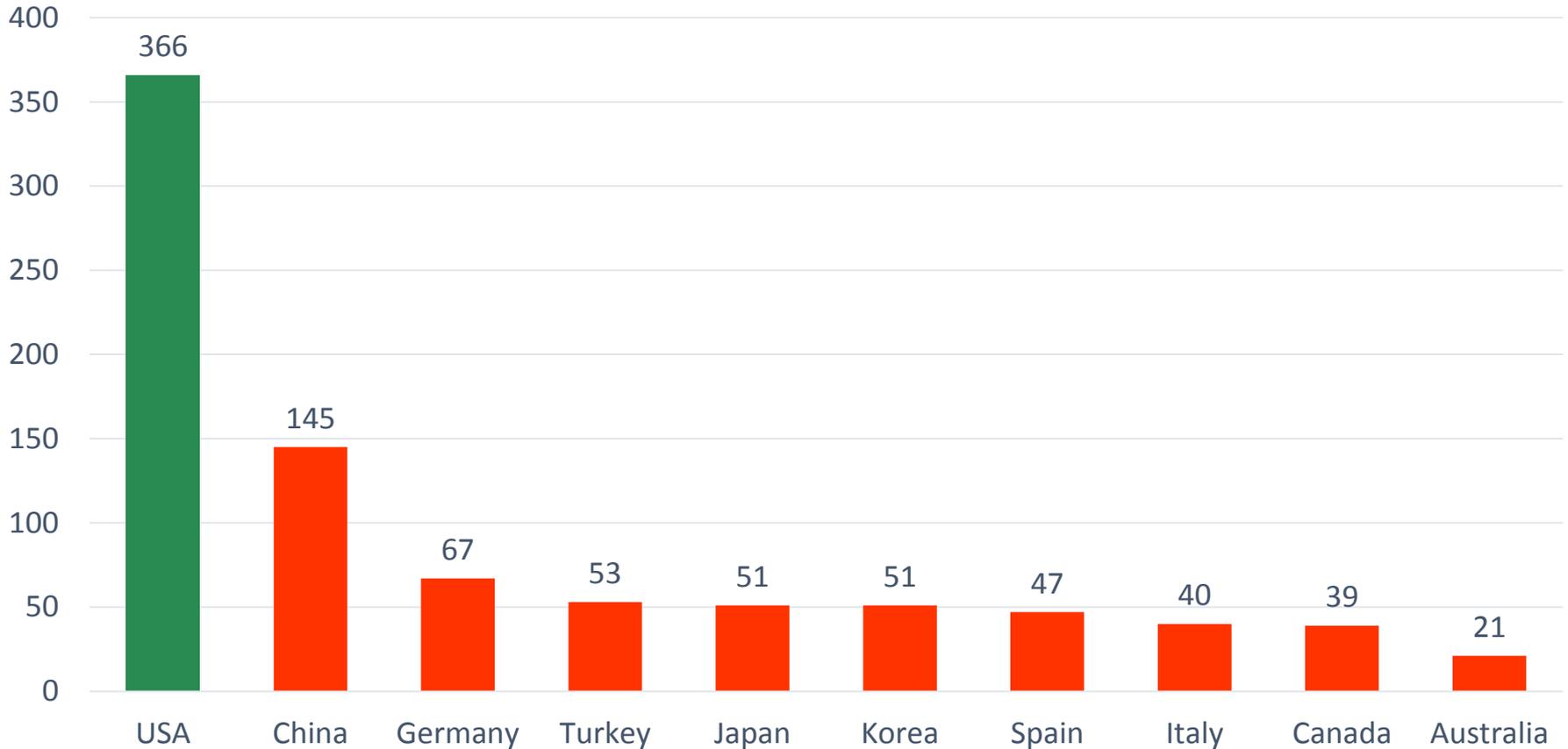
FARM GATE VALUE



IT'S WORKING

TOP MARKETS 13/14

(ISE lbs. in millions)



IT'S WORKING

INVESTING IN OUR FUTURE: HEALTH RESEARCH



IT'S WORKING

HEALTH RESEARCH PROGRAM

- **43 Institutions**
- **8 Countries**
- **159 Published Papers**



29 Papers Published in 2014



IT'S WORKING

HEALTH RESEARCH PROGRAM

Focus Areas

- **Weight Management**
- **Cognition/Diseases of Aging**
- **Gut Health**
- **Heart Disease**
- **Diabetes**
- **Cancer**



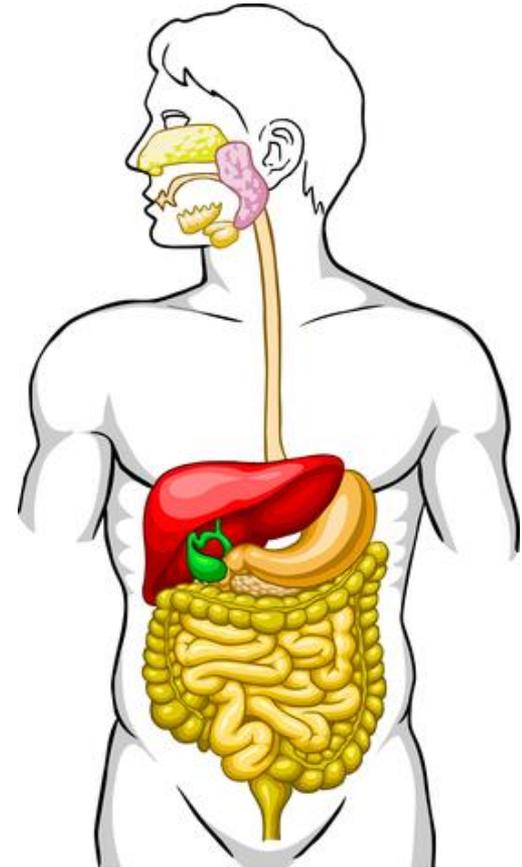
IT'S WORKING

NEW RESEARCH: WEIGHT MGMT

Walnuts & Calorie Absorption

Dr. Baer – USDA

- Only absorb 79% of calories in an ounce of walnuts (146 calories)



IT'S WORKING

BUILDING DEMAND

- **34 Studies in Process**
 - **Aging – Physical Function (1)**
 - **Cancer (6)**
 - **Cardiovascular (8)**
 - **Cognition (3)**
 - **Diabetes (5)**
 - **Gut Health (3)**
 - **Male Reproductive Health (3)**
 - **Maternal Health (1)**
 - **Weight Management (4)**



IT'S WORKING

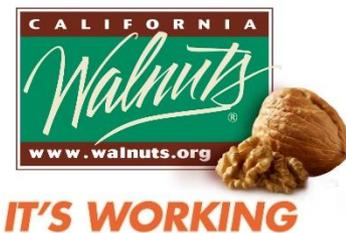
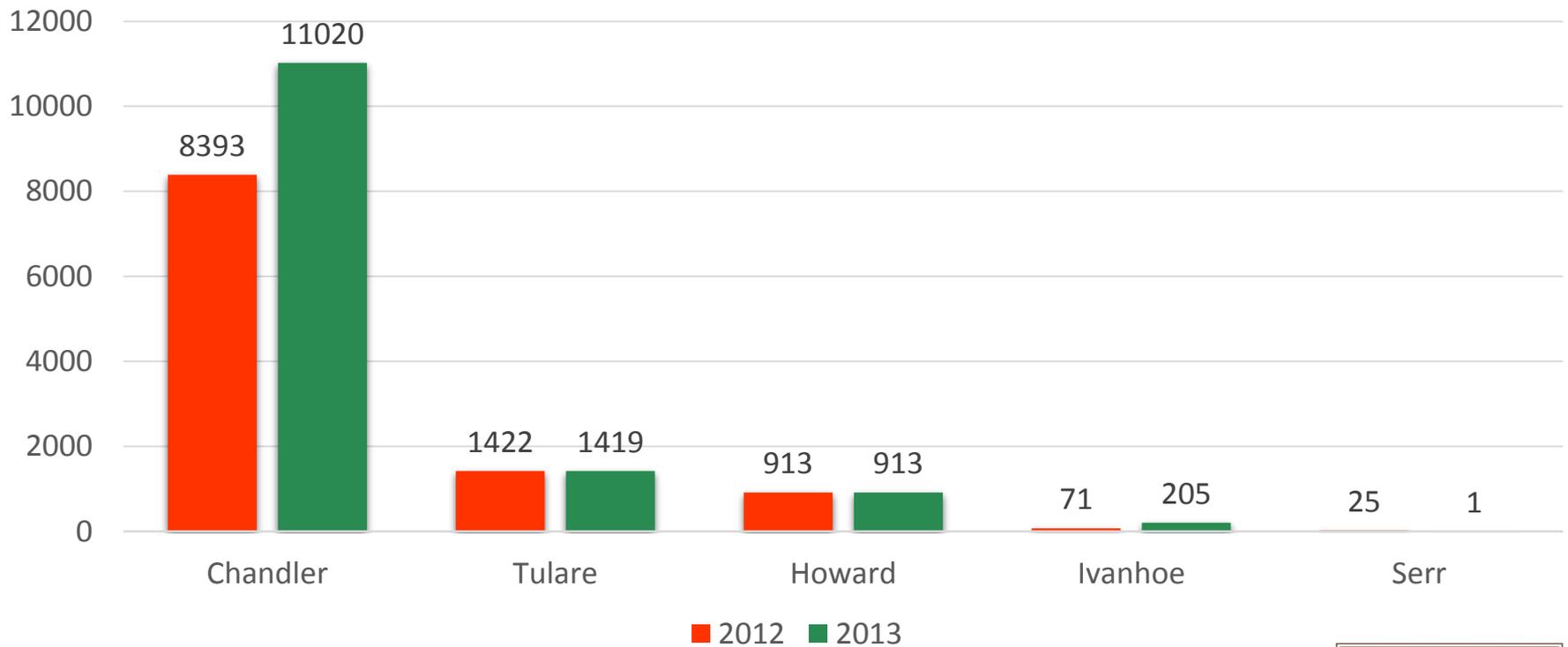
INVESTING IN OUR FUTURE: PRODUCTION RESEARCH



IT'S WORKING

NEW PLANTINGS

Walnut Nursery Sales
Acres Planted by Variety



PRODUCTION RESEARCH

OVER \$1.5 MILLION FOR 2014/15

- **PLANT PATHOLOGY**
- **ORCHARD MANAGEMENT**
- **GENETIC IMPROVEMENT**
- **ENTOMOLOGY**

OVER \$8.4 MILLION INVESTED OVER 10 YEARS



IT'S WORKING

WHAT'S IN A WORD

GENOME – Full set of genetic material (genes)

Genetic improvement –
Optimizing genetic traits,
particularly the economically
important ones



IT'S WORKING

MAPPING THE GENOME

Lateral Bearing

Pellicle Coloration

Root Stocks



IT'S WORKING

FERTILIZER OR FUNGICIDE?

**Potassium phosphite status in U.S. =
fertilizer**

**Potassium phosphite status in E.U. =
fungicide**

**Raised Temporary MRL until
January 1, 2016**

**Walnut industry working with USDA/DFA to
monitor residues and confirm the method E.U.
uses isn't causing the problem**



IT'S WORKING

New Regulations: Food Safety Modernization Act

Will walnut growers need to register with FDA? No

**Will hullers be treated the same as handlers? Yes/
No**

Will use of manure need 9 month pre-harvest interval? No

**Will FDA make you test irrigation water for E.coli?
Yes, but..... Not as much as they first proposed**

- **Baseline profile: 10 samples/year for surface water, 4/year for untreated ground water. You can use irrigation district or a third party results**



INVESTING IN OUR FUTURE: MARKET DEVELOPMENT



IT'S WORKING

TARGETS



Consumer

Key
Opinion
Leaders

Food
Industry



IT'S WORKING

TARGET: CONSUMER

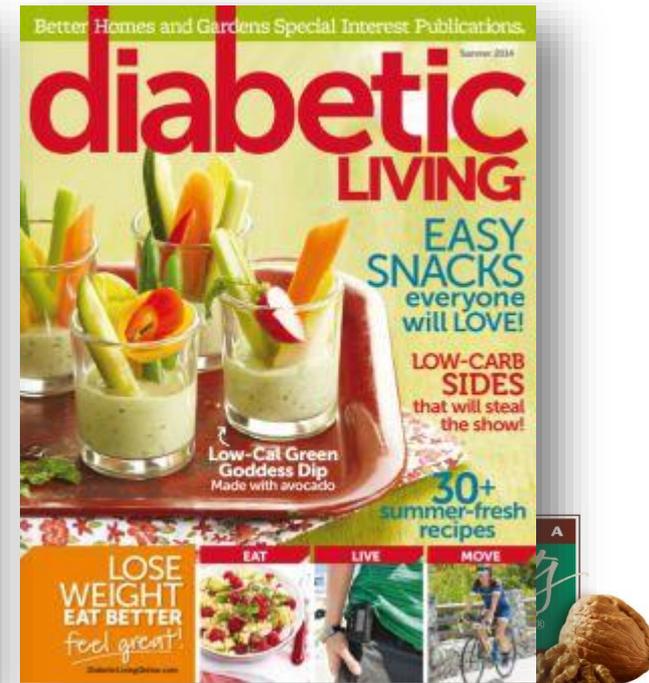
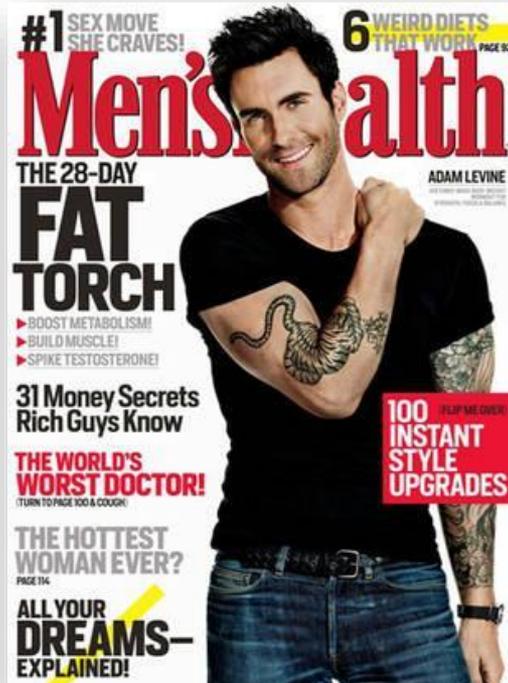
- Make walnuts an essential part of the daily diet
- Distinguish
 - Taste
 - Versatility
 - Health
 - California Origin
 - Quality



IT'S WORKING

TARGET: KEY OPINION LEADERS

- Leverage influencers to build 3rd party credibility



IT'S WORKING

TARGET: **FOOD INDUSTRY**

- Increase availability, distribution and application (usage) of walnuts
- Trade, industrial, and foodservice sectors
 - Examples: Bakery and retail promotions, new product development.



MARKETING TACTICS

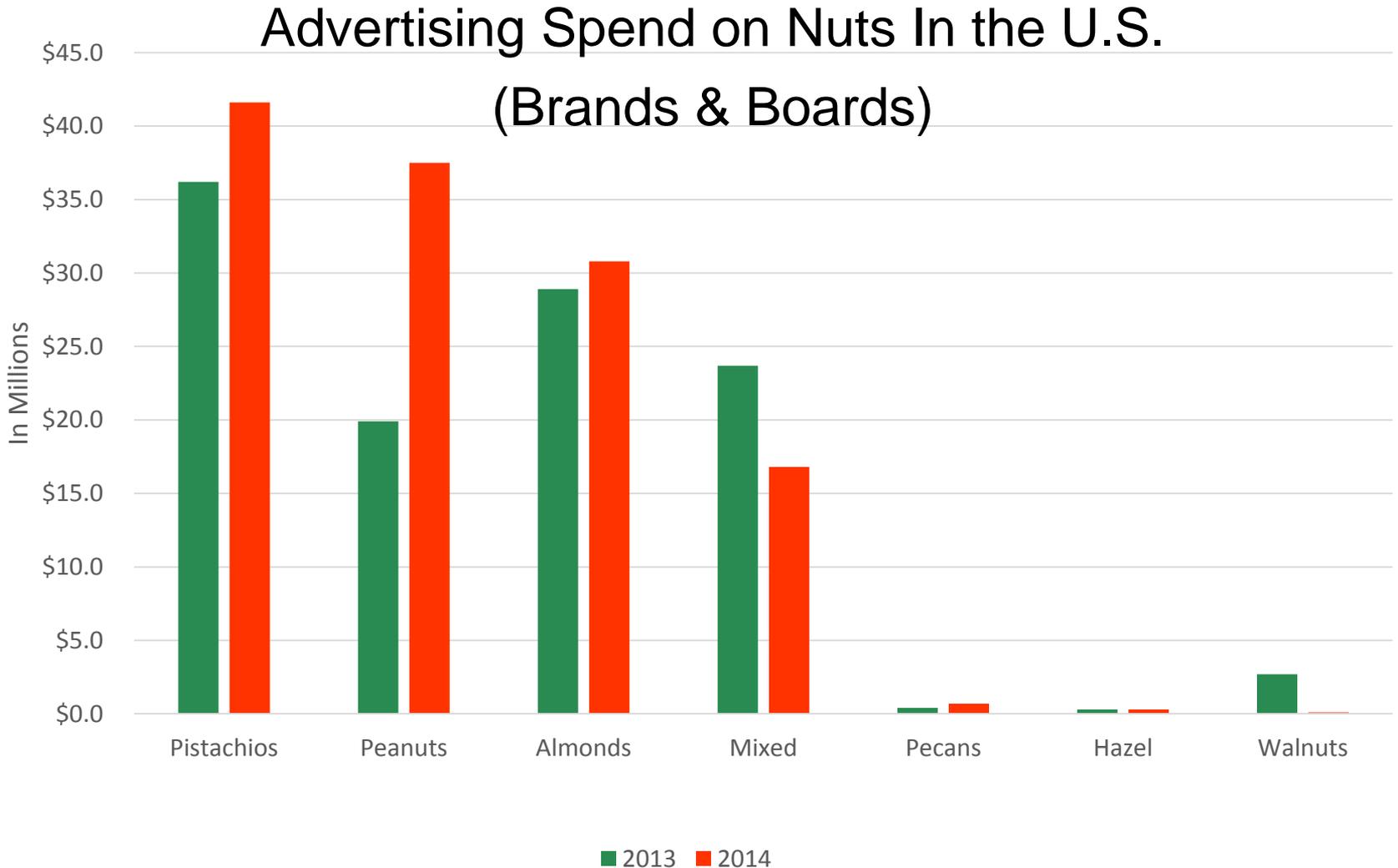
- Public Relations
- In-Store Promotions
- Opinion Leader Outreach
- Advertising
- Trade Promotion
- Social Media
- Partnerships

To stimulate demand....

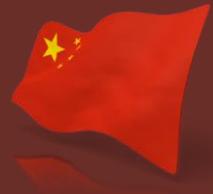


IT'S WORKING

BUILDING DEMAND THROUGH ADVERTISING: USA



BUILDING DEMAND THROUGH DIGITAL MEDIA: CHINA



- Meet Wallie, our new ambassador in China



BUILDING DEMAND THROUGH INDUSTRIAL USES: EU



Use of California Walnuts is increasing

- New companies in 2014: **+ 29**
- New walnut products in 2014: **+ 38**
- Incremental usage: **+ 32%**

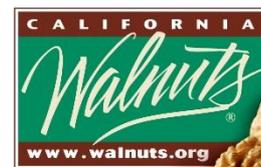


BUILDING DEMAND THROUGH: RETAIL PROMOTION: **KOREA**



IT'S WORKING

BUILDING DEMAND THROUGH TRADE RELATIONS: **TURKEY**



IT'S WORKING

BUILDING DEMAND THROUGH RETAIL PROMOTION: **INDIA**



BUILDING DEMAND THROUGH PUBLIC RELATIONS: JAPAN



Takeshi`s Health Entertainment

- April 5th - 45 Minutes on Walnut Health Benefits
- July 5 - Program Reruns

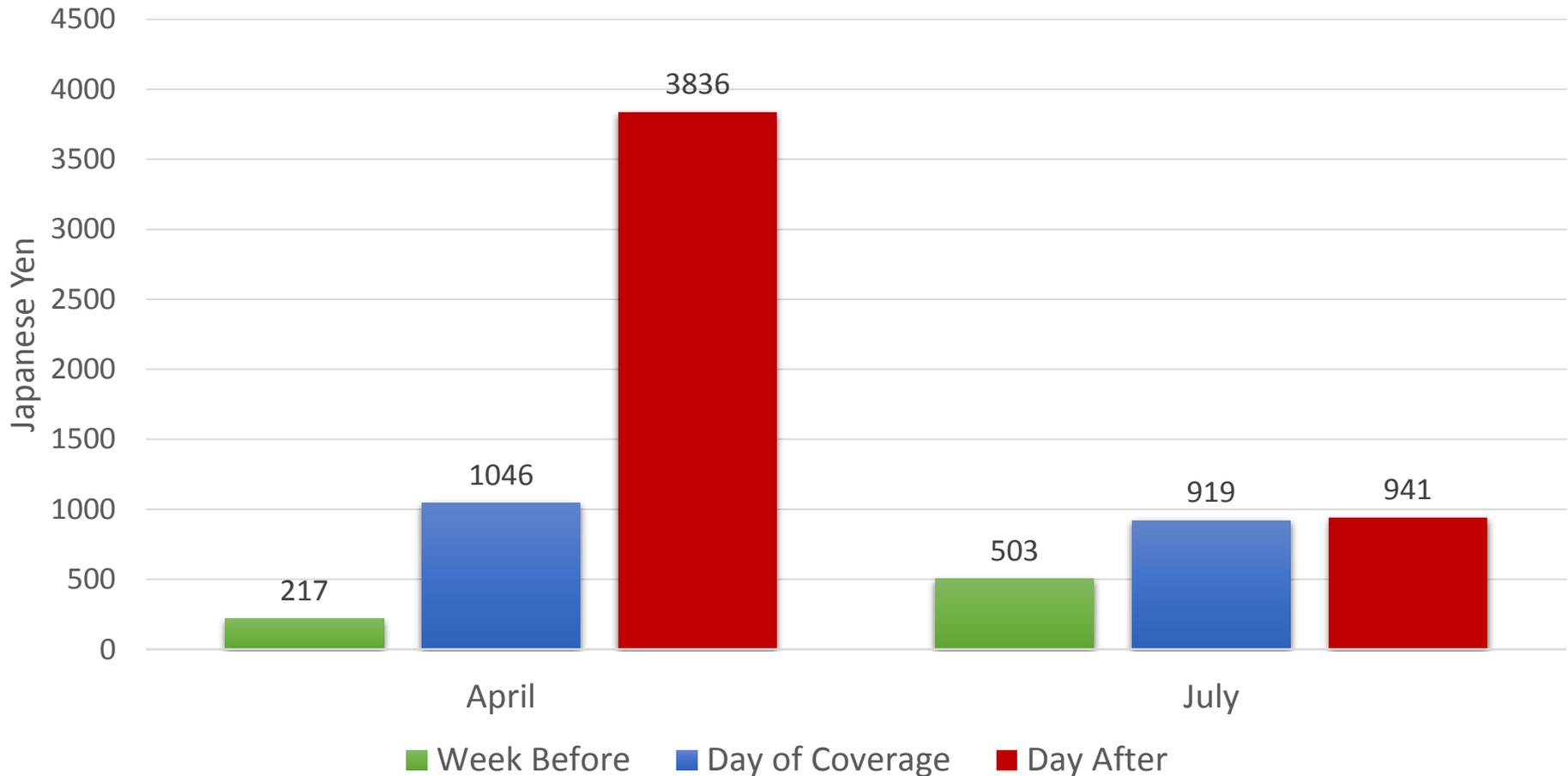


IT'S WORKING

BUILDING DEMAND THROUGH PUBLIC RELATIONS: JAPAN



Resulting Sales



BUILDING DEMAND THROUGH PARTNERSHIPS: **SPAIN**



Menus with Heart

Collaboration with Spanish Heart Foundation

- 10th Anniversary Gala
- Promotion of Top 50 recipes



IT'S WORKING

LOOKING TO THE FUTURE



IT'S WORKING

BUILD DEMAND



IT'S WORKING

THANK YOU! QUESTIONS?



California Walnut Board & Commission

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www.walnuts.org

Walnut Research Reports

1971 to Current are available by visiting the
UC Davis Fruit & Nut Research & Information website:

<http://walnutresearch.ucdavis.edu/>



IT'S WORKING

APPENDIX



IT'S WORKING

CA WALNUT BOARD

- **Production Research**
- **Food Safety**
- **Grades & Standards**
- **Regulatory Matters**
- **U.S. Marketing to Build Demand**
- **Volume Control***

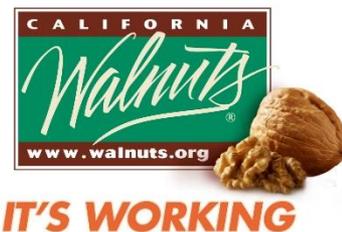
*Unique to California Walnut Board



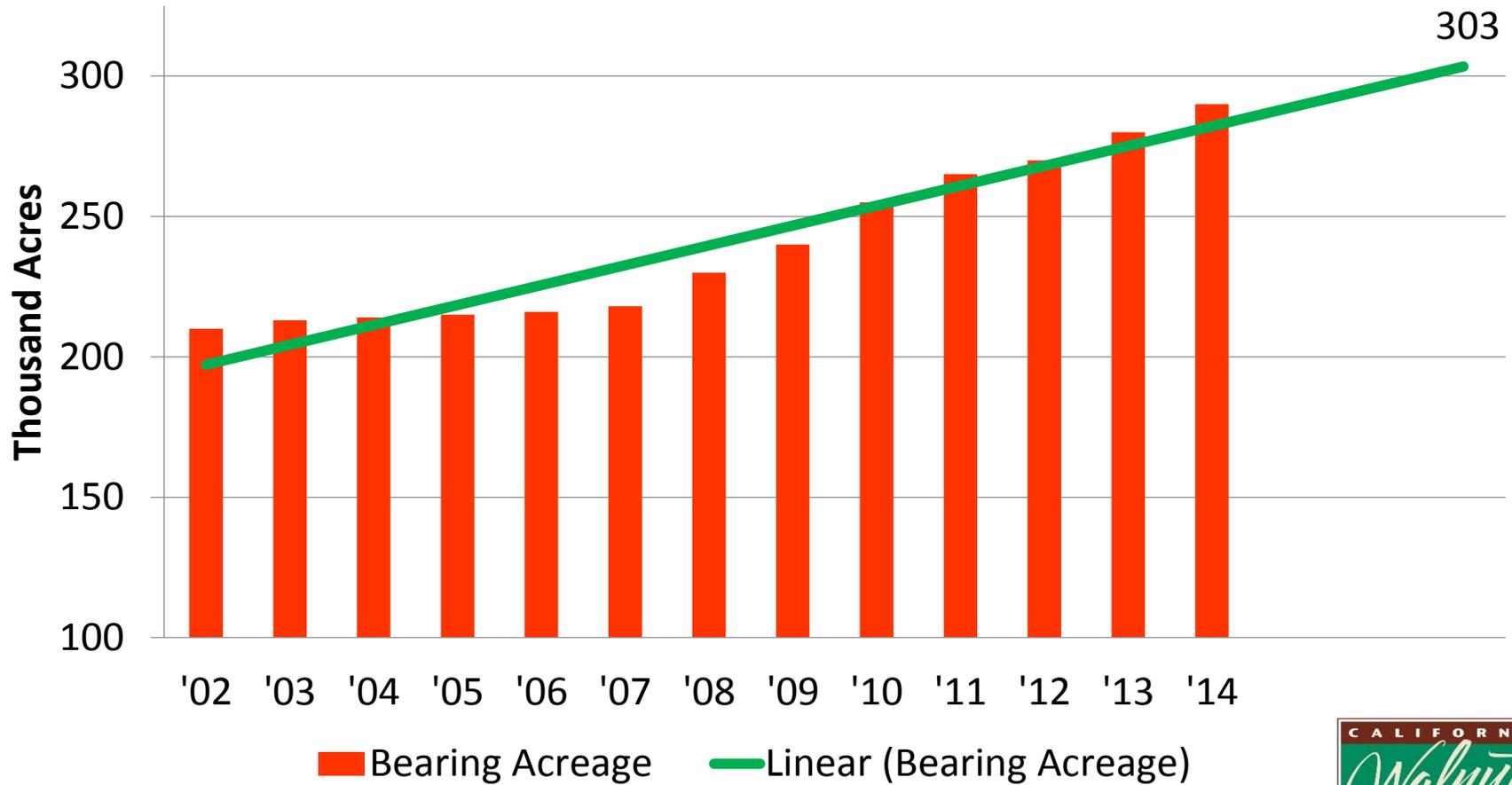
CA WALNUT COMMISSION

- **Health & Nutrition Research**
- **U.S. & International Market Development**
- **Educate government officials***
- **Trade Policy**
- **Communication within the Industry**

*Unique to California Walnut Commission

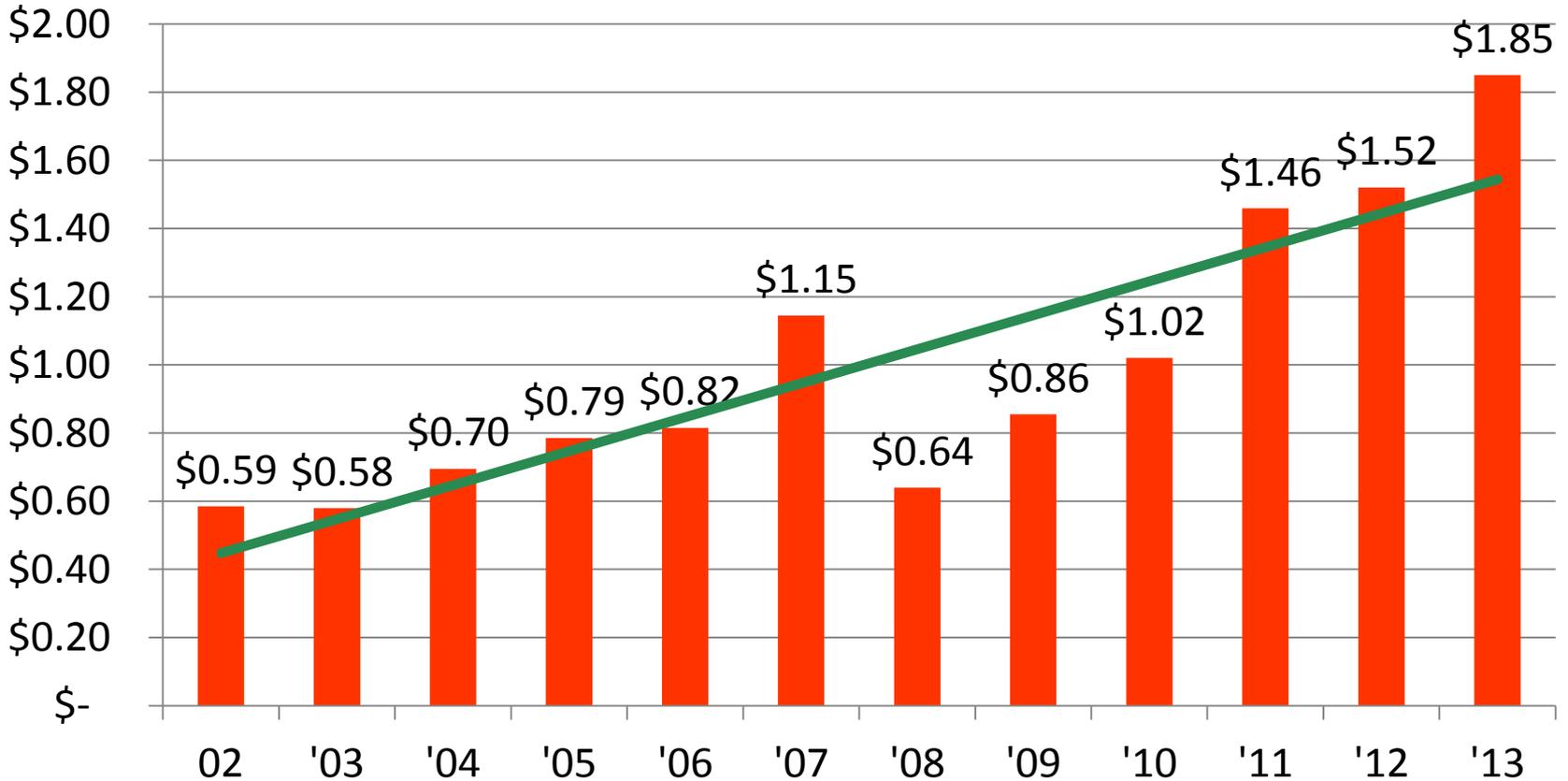


BEARING ACREAGE



IT'S WORKING

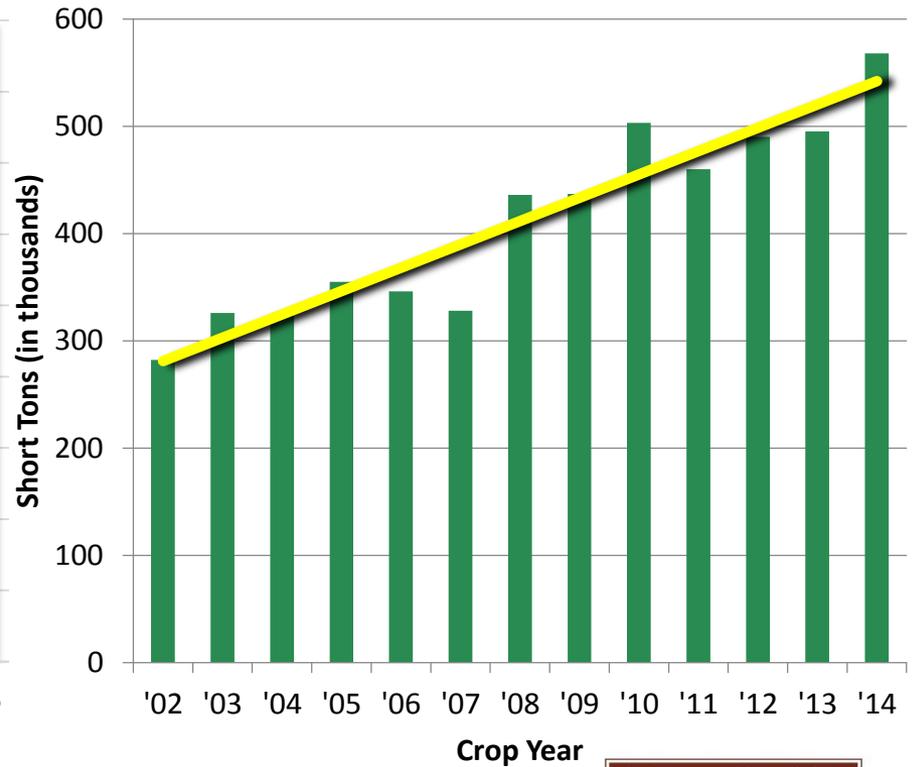
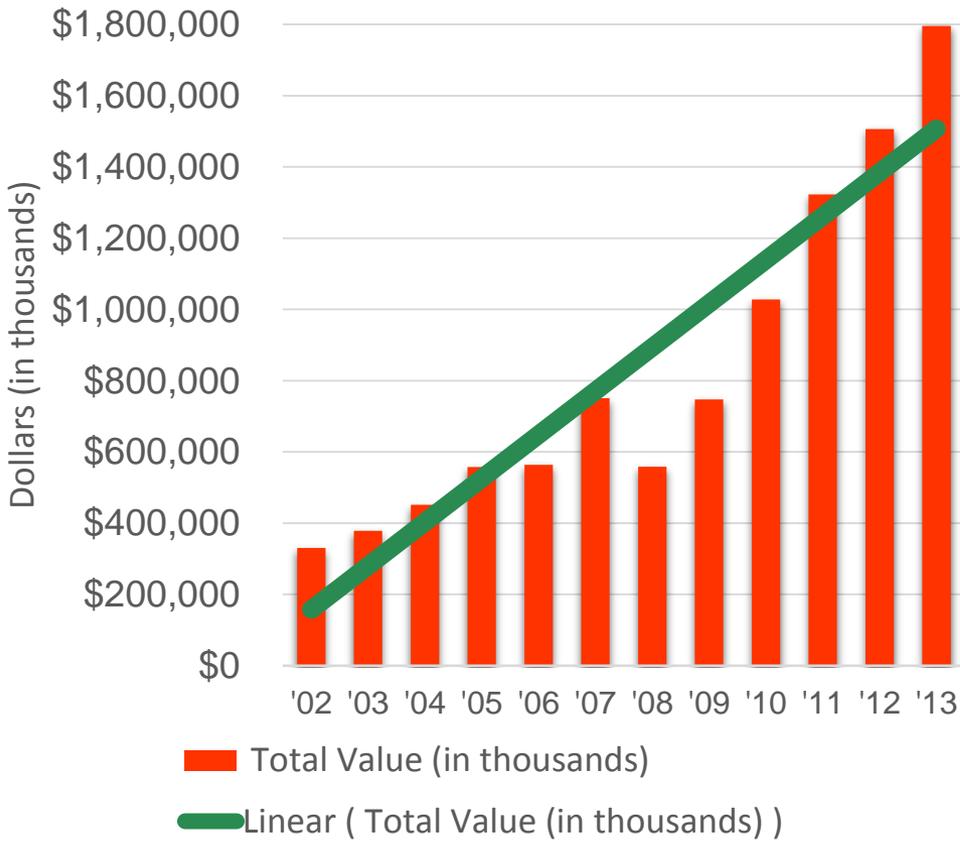
AVERAGE PRICES



Source: CDFA Walnut/Raisin/Prune Report State Summary – 2013 Crop Year

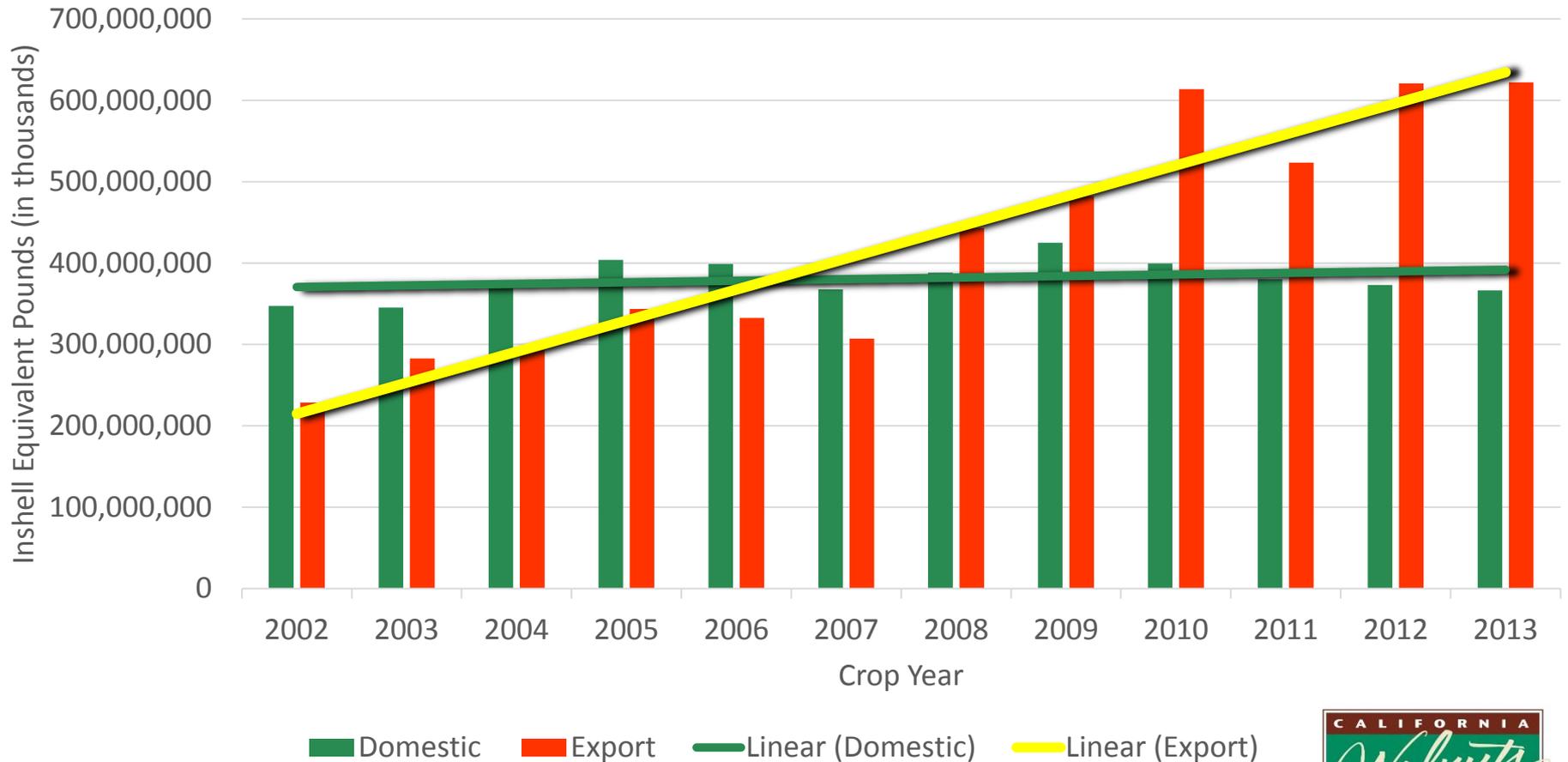
IT'S WORKING

VALUE & PRODUCTION



IT'S WORKING

DOMESTIC & EXPORT SHIPMENTS



IT'S WORKING

NEW RESEARCH: COGNITION

Walnuts & Alzheimer's Disease

Dr. Chauhan – NY State Institute

- Improvement in Learning skills, memory, anxiety, and motor development in mice fed a walnut-enriched diet



67 million U.S. media impressions



IT'S WORKING

NEW RESEARCH: CANCER

Walnuts & Prostate Cancer

Dr. Davis – UC Davis

- Walnuts and walnut oil slowed prostate cancer growth in mice.
- Reduced cholesterol and increased insulin sensitivity.
- Reduced levels of the hormone IGF-1, linked to both prostate and breast cancer.



IT'S WORKING

SUSTAINABILITY

- **Integrated Pest Management (IPM)**
 - Use of low environmental risk Pesticides
 - Pheromone Mating Disruption for CM
 - Use of Ethrel reduces NOW Pest Pressure
 - Walnut Blight research results in Section 3 for Mancozeb in 2013. Antibiotic “Kasugamycin” is closer to a Section 18 approval.



IT'S WORKING



SUSTAINABLE FARMING PRACTICES

American agriculture puts nutritious food on the table, and the California Walnut industry certainly plays its part.



AIR QUALITY

Walnut farmers in California address air quality issues using contemporary technologies that reduce pesticides, minimize dust and smoke, and reduce airborne particulate matter less than 10 microns.



OTHER EFFORTS TO IMPROVE AIR QUALITY

Includes information on truck updates, engine retrofits, dust control, and more.



WATER MANAGEMENT



SOIL MANAGEMENT



ENERGY MANAGEMENT