

Advances in Walnut Production

UC Davis



Processing and Marketing California Walnuts
Charles R. Crain, Jr.



Unless otherwise noted, statistical data
sourced from CWB, CASS, NASS and USDA.

Introduction



- ▶ Family Owned and Operated since 1961
- ▶ Growers, Processors and World Wide Marketers
- ▶ Grower Base Throughout all Major Growing Regions
- ▶ Retail, Food Service, Ingredient Manufacturers
- ▶ Headquarters in Los Molinos, CA



Crain Walnut Shelling and C.R. Crain & Sons



Today's Discussion



- ▶ **Processors' Goal – Produce What Consumers Want**
- ▶ **Premium Variety Characteristics and Values**
- ▶ **Supply Trends**
- ▶ **Key Markets**
- ▶ **Global Production**
- ▶ **Marketing Hurdles**
- ▶ **Looking Forward**

Processors' Goal

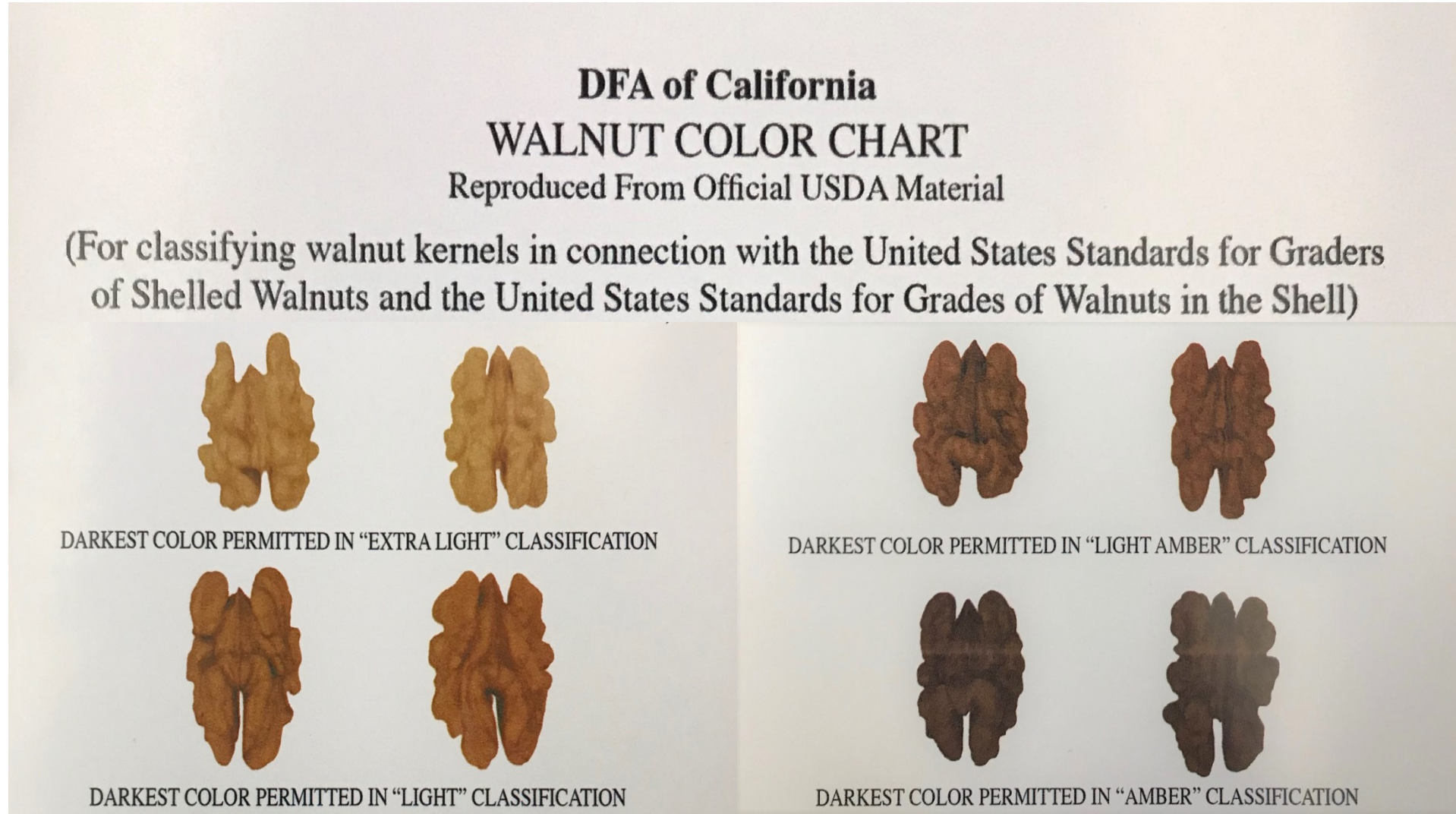
Produce What Consumers Want to Buy



Color is King



USDA Walnut Color Chart



Premium Variety Characteristics and Values





Premium Variety Characteristics and Values

Produce What Consumers Want

IN-SHELL PREMIUMS

- ▶ In-shell Size
- ▶ Shell Cleanliness
- ▶ Light Kernel Color
- ▶ High Kernel Yield
- ▶ Void of Shell Damage
- ▶ Void of Kernel Damage

KERNEL PREMIUMS

- ▶ Light Kernel Color
- ▶ High Kernel Yield
- ▶ Half Yield
- ▶ Void of Damage

Larger In-Shell Size and Smooth Shell Characteristics



Super Jumbo

34 mm +

Jumbo

32–34 mm

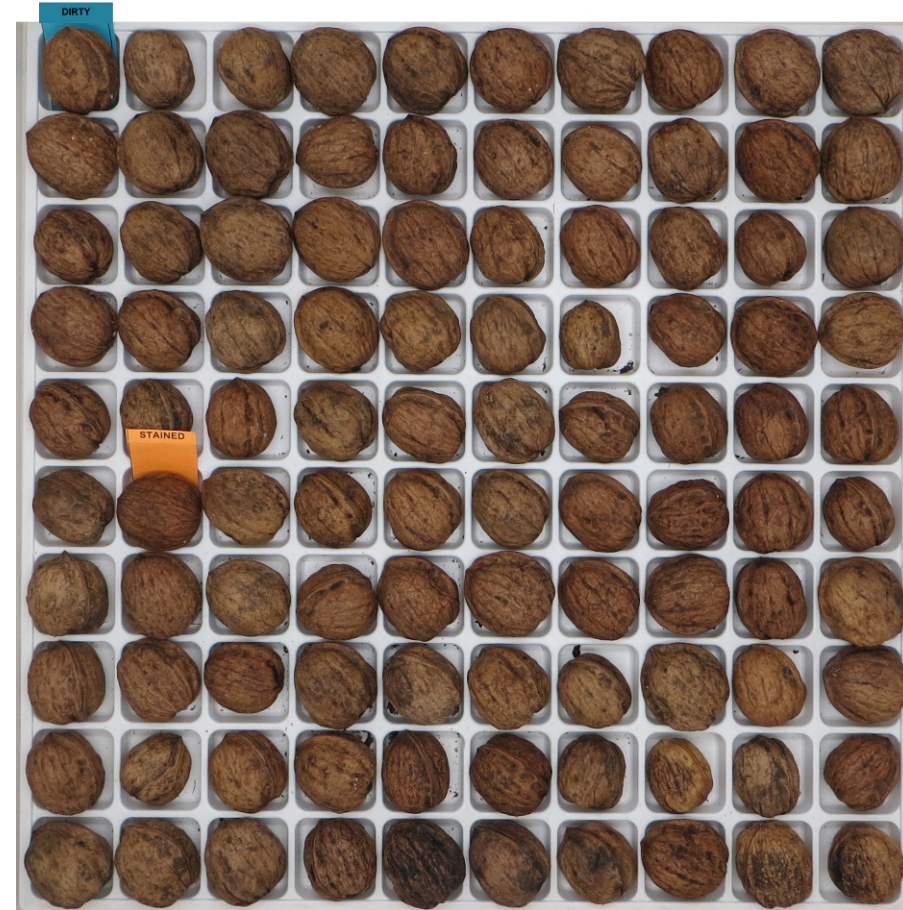
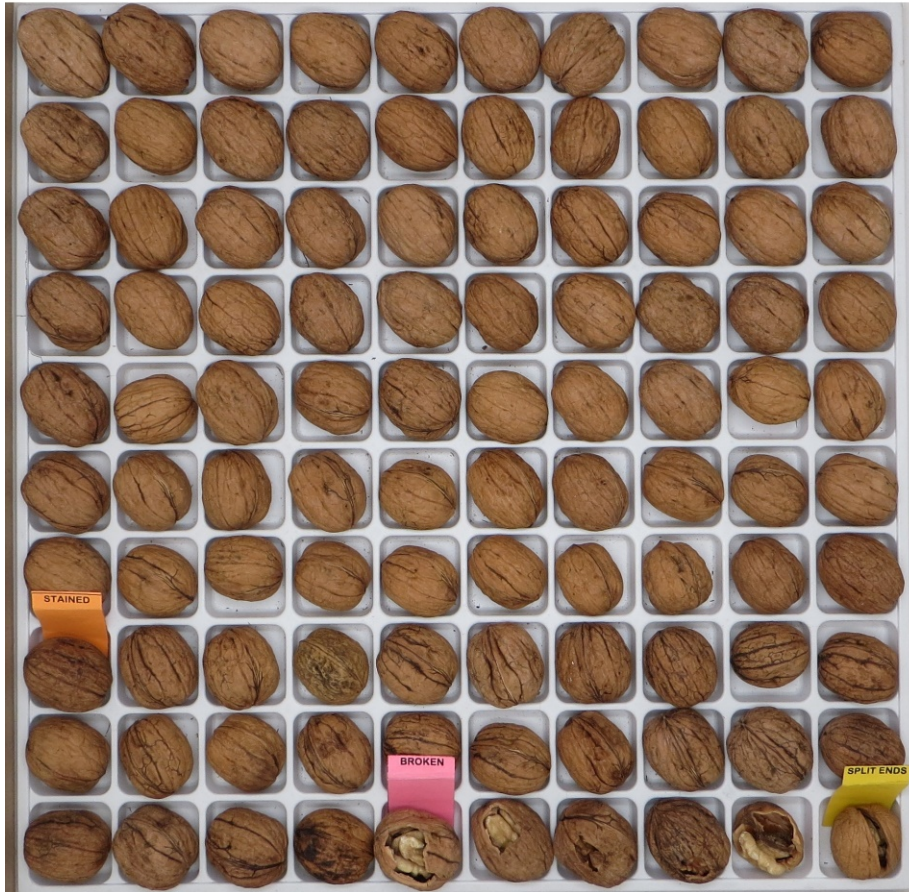
Large

30–32 mm

Kernels Characteristics



In-Shell Characteristics





Premium Varieties

Producing What Consumers Want to Buy

Perceived Quality Characteristics

▶ **Chandler**

- Smooth Shell
- Light Kernel Color
- Thin Shell
- High Half Yields
- Varietal Recognition

▶ **Howard**

- Large In-shell Size
- Superior Flavor Profile
- Thicker Shell Suitable for Inshell Market
- Varietal Recognition

▶ **Tulare**

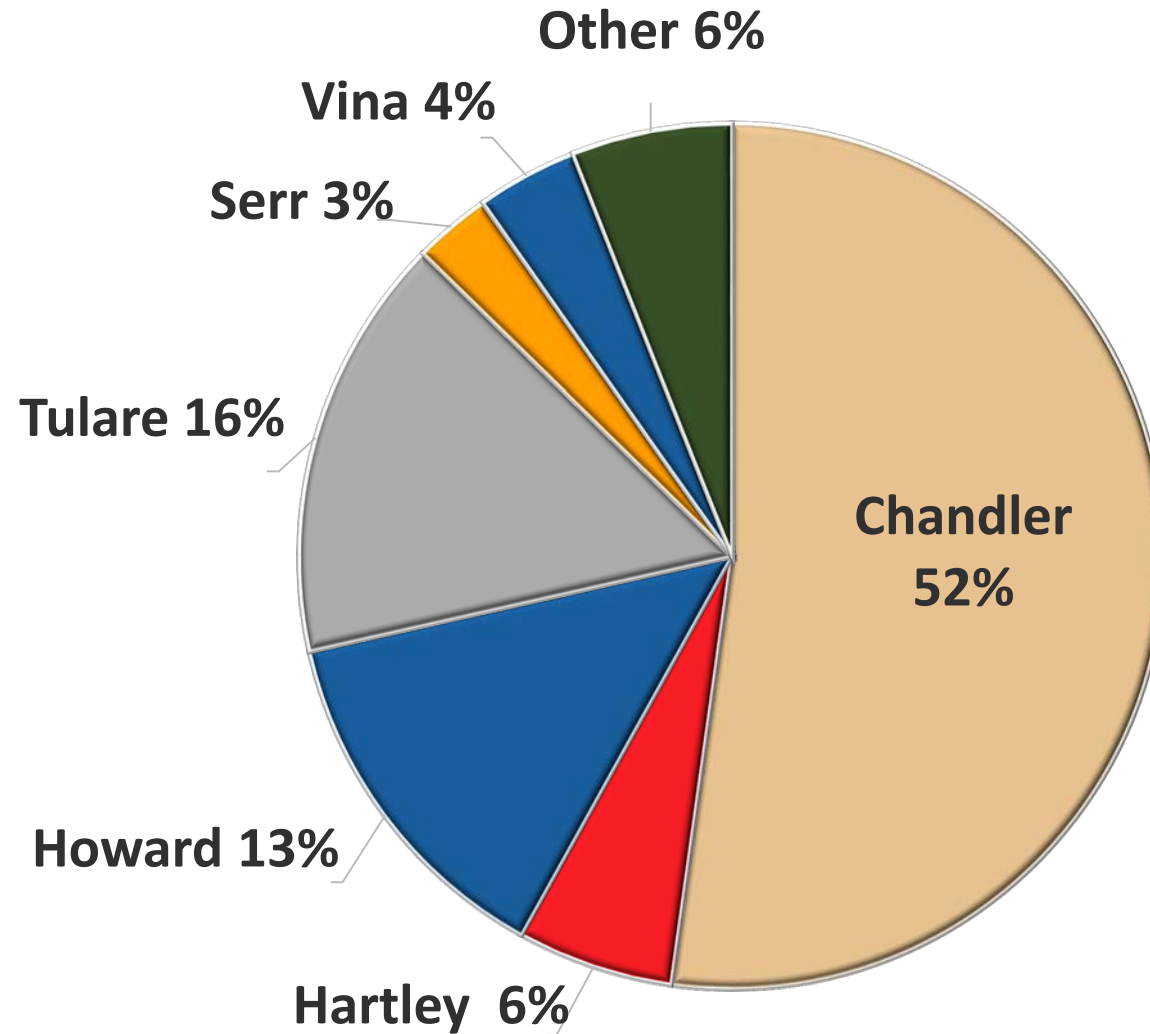
- High Kernel Yield
- Early Harvest

▶ **Hartley**

- Shape
- Thicker Shell Suitable for Inshell Market
- Varietal Recognition

California Production By Variety

2018 Crop Est.



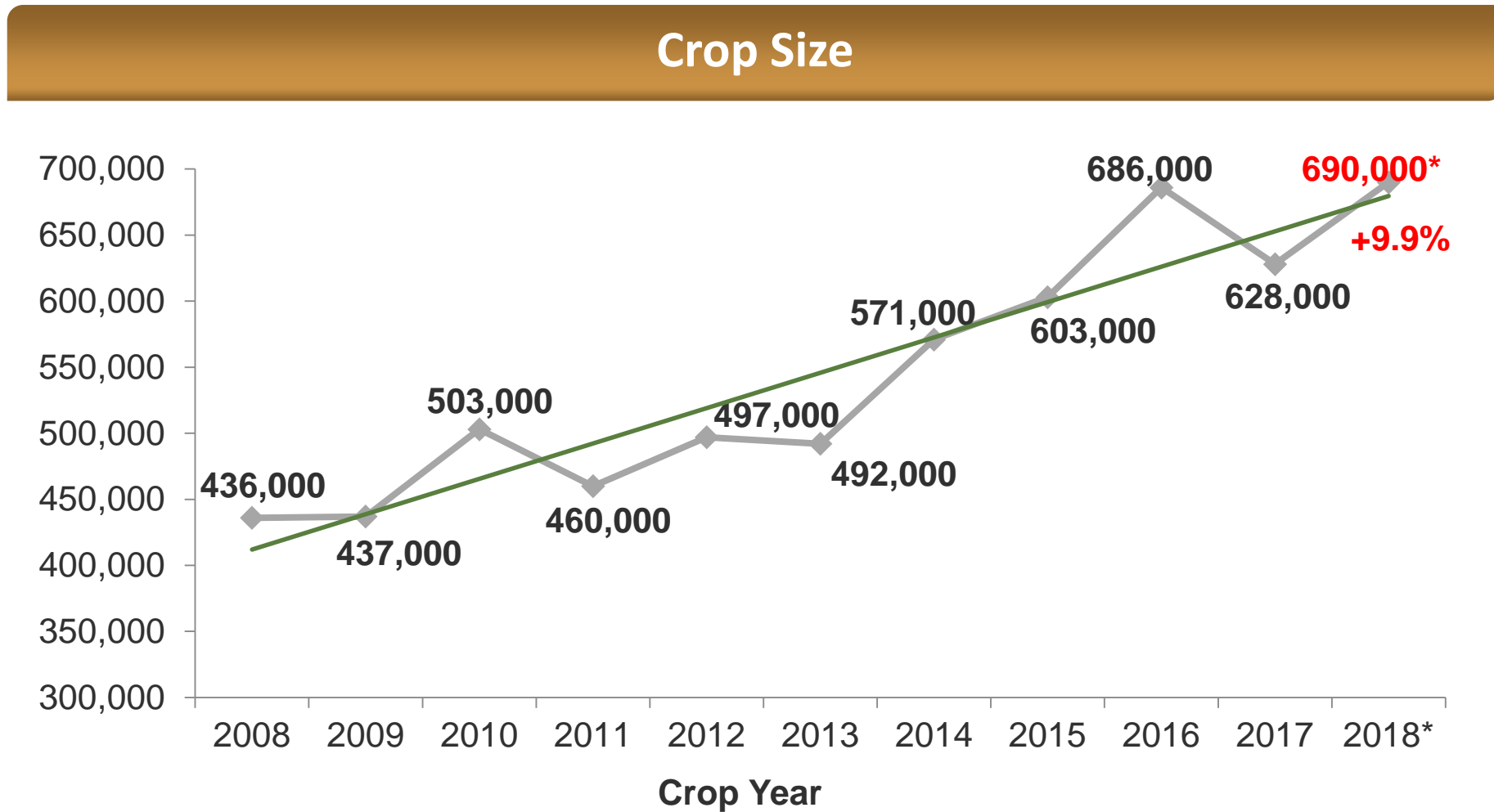
Supply Trends





California Walnut Crop Size

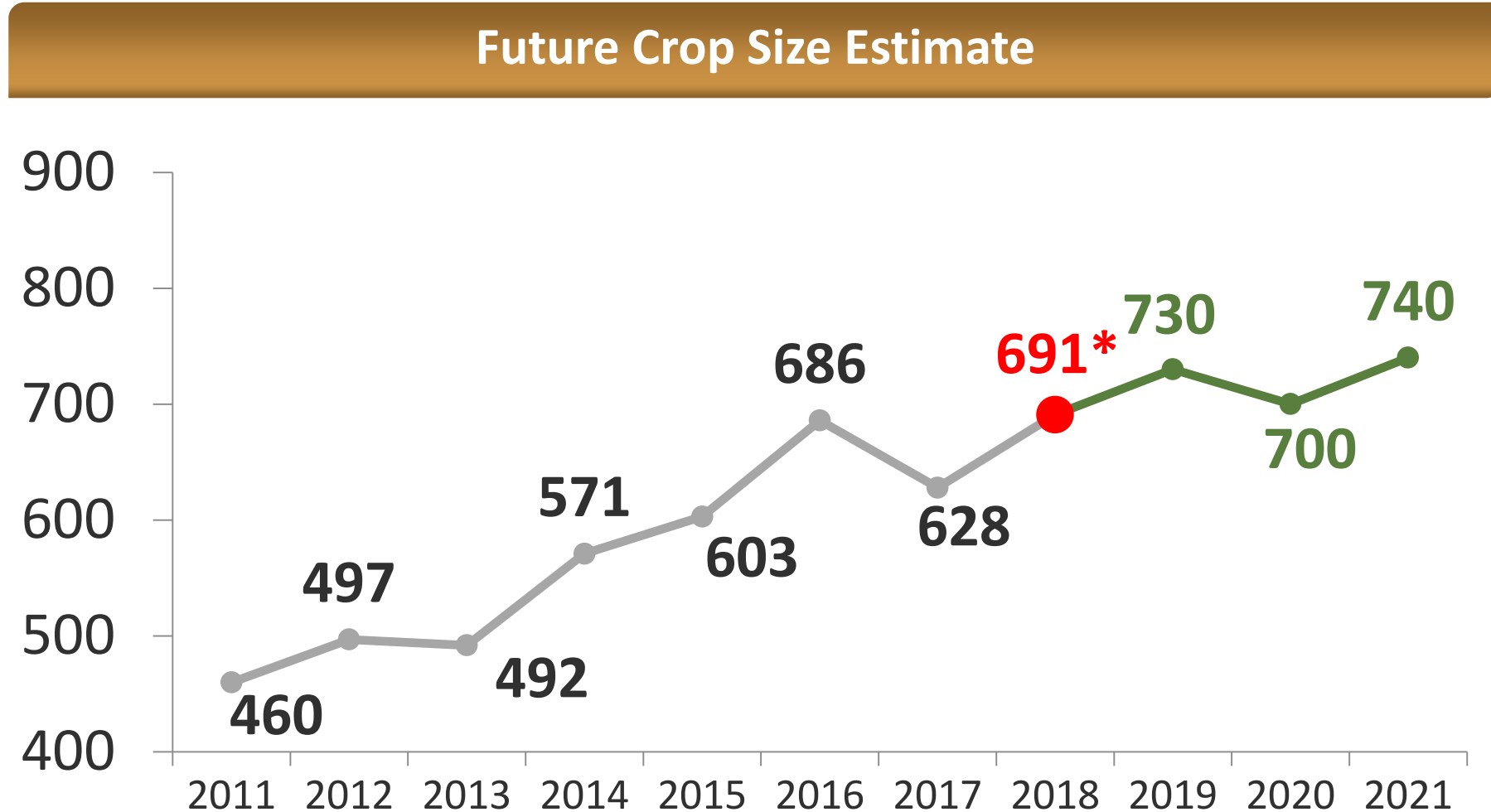
In-Shell Basis (Tons)





California Walnut Crop Projection

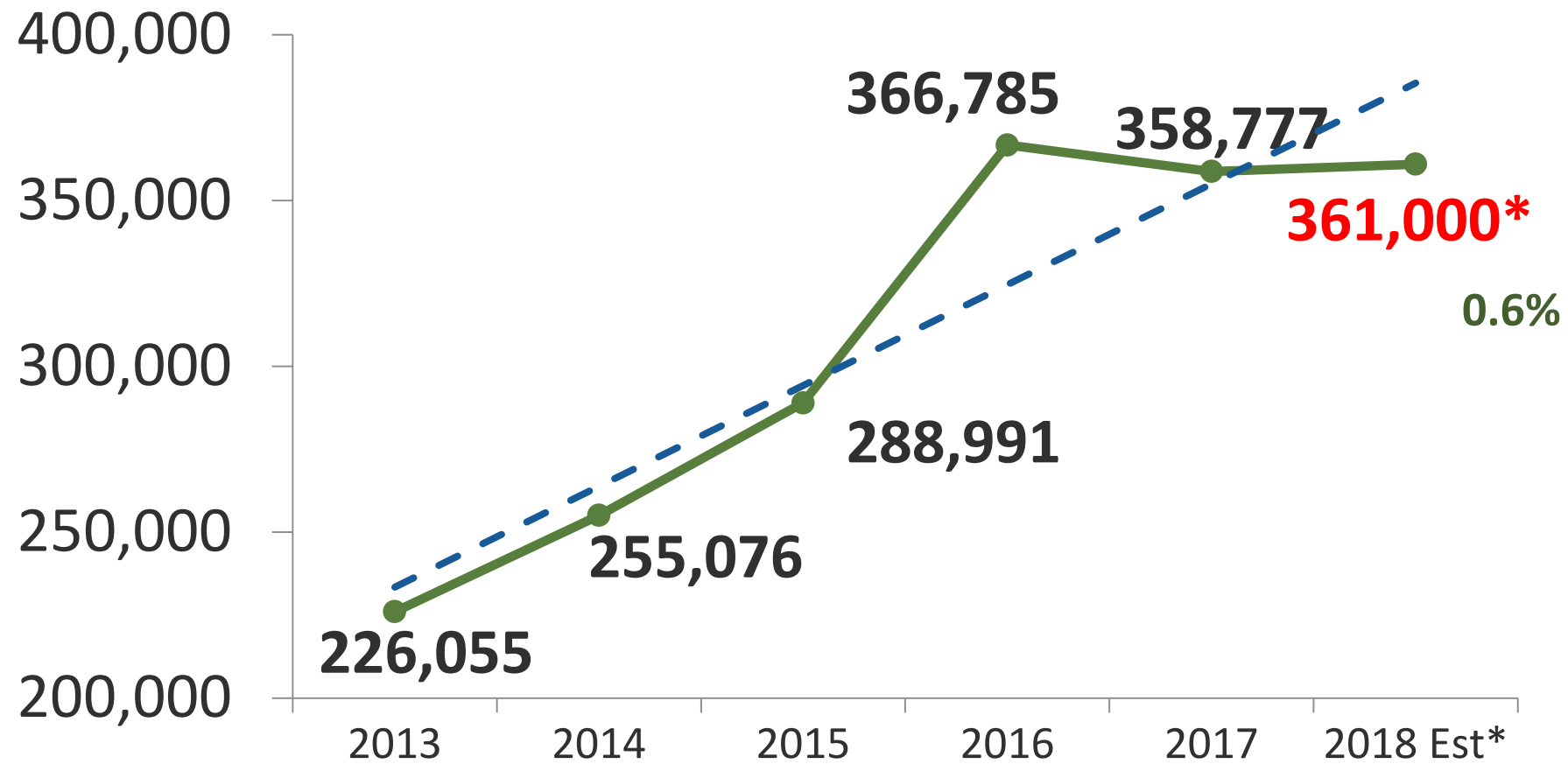
In-Shell Basis in Tons





Chandler

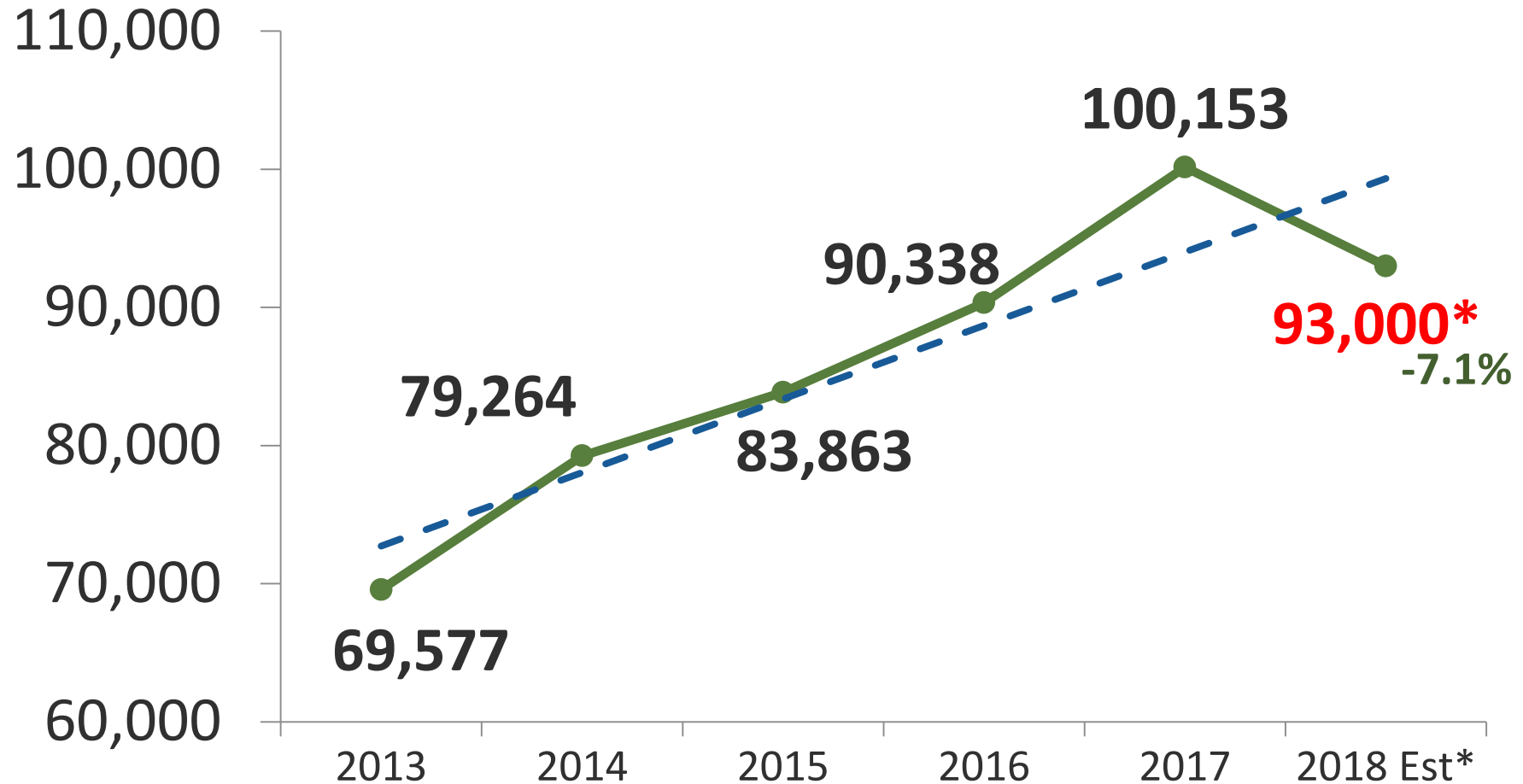
In-Shell Basis in Tons



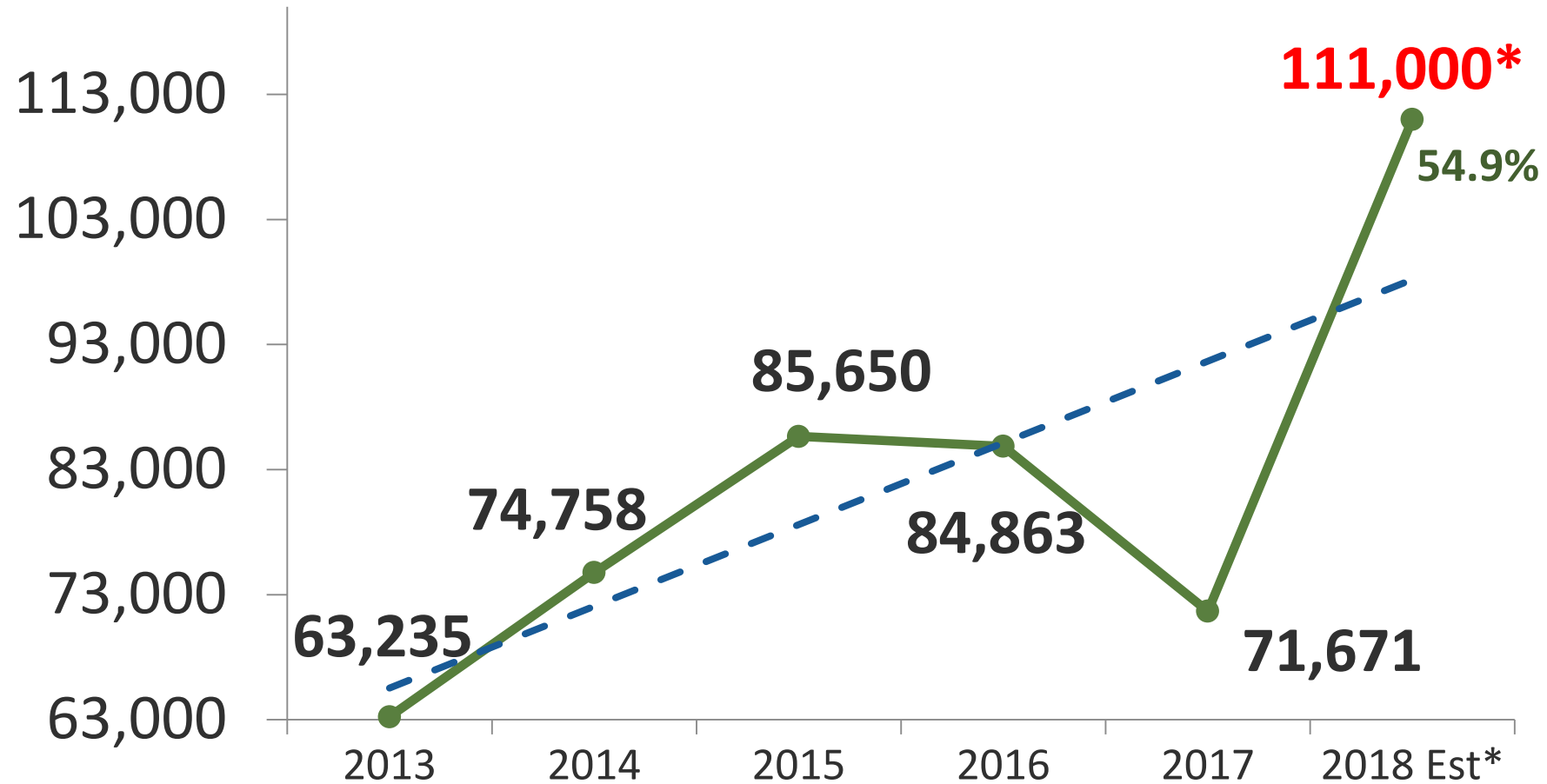


Howard

In-Shell Basis in Tons



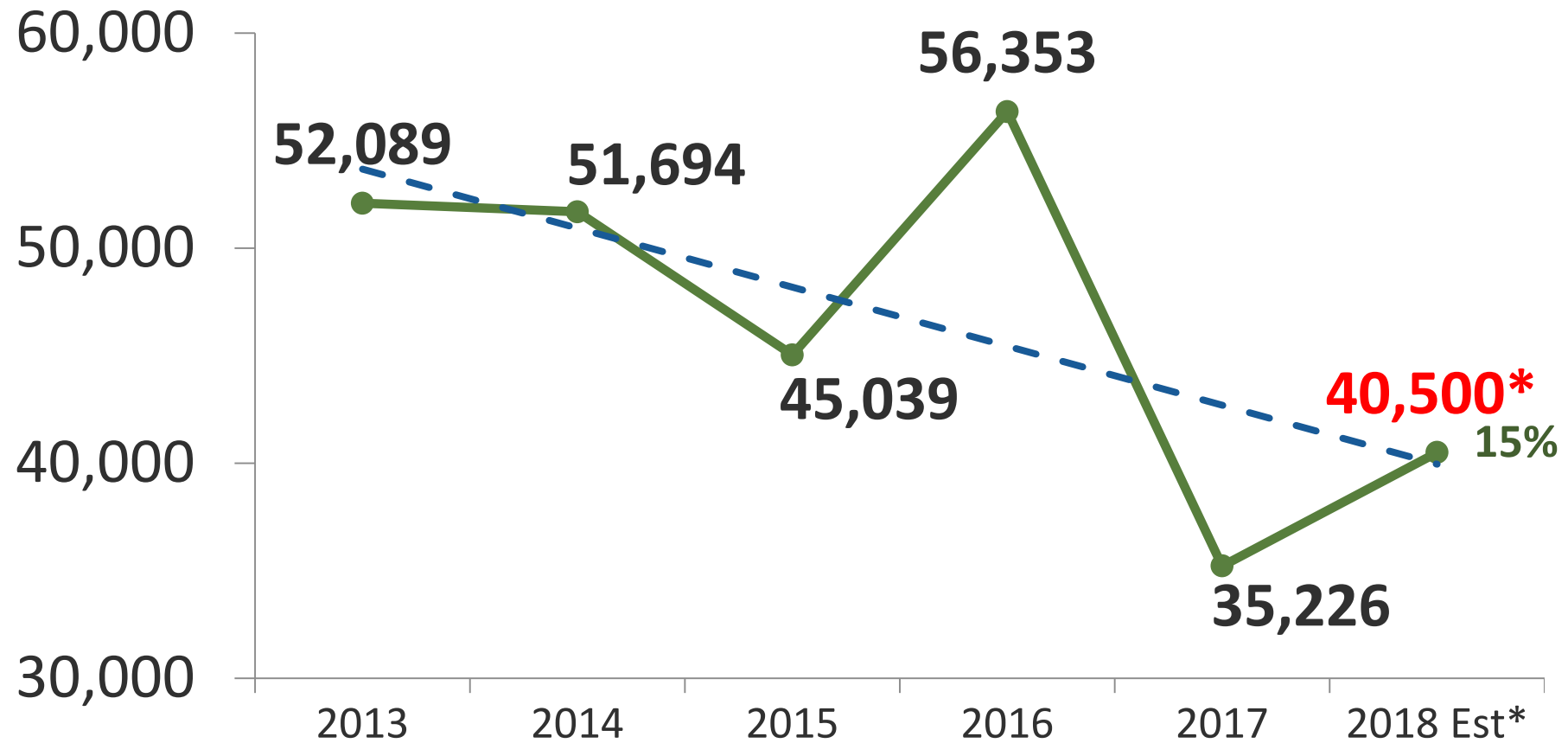
In-Shell Basis in Tons





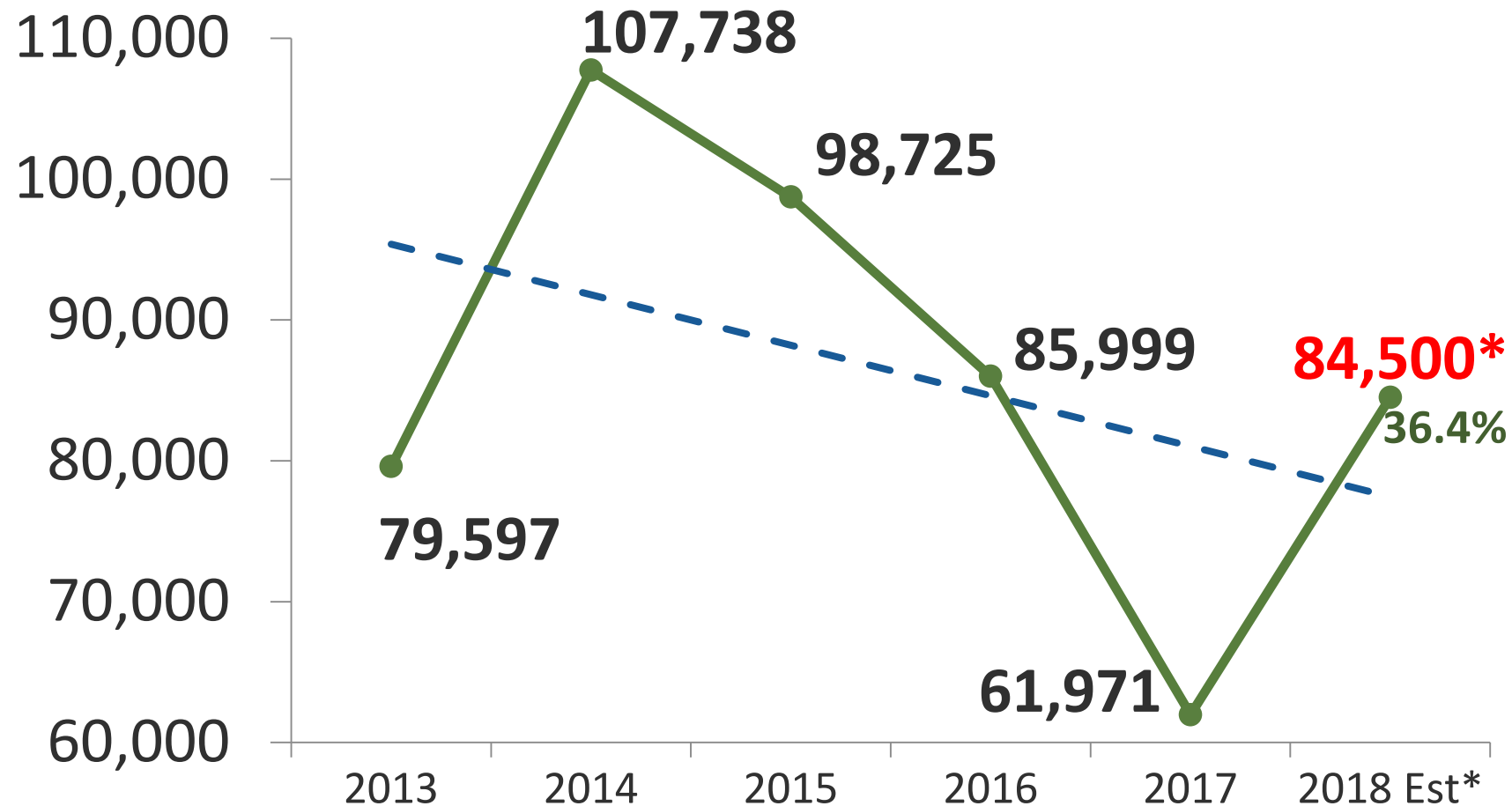
Hartley

In-Shell Basis in Tons



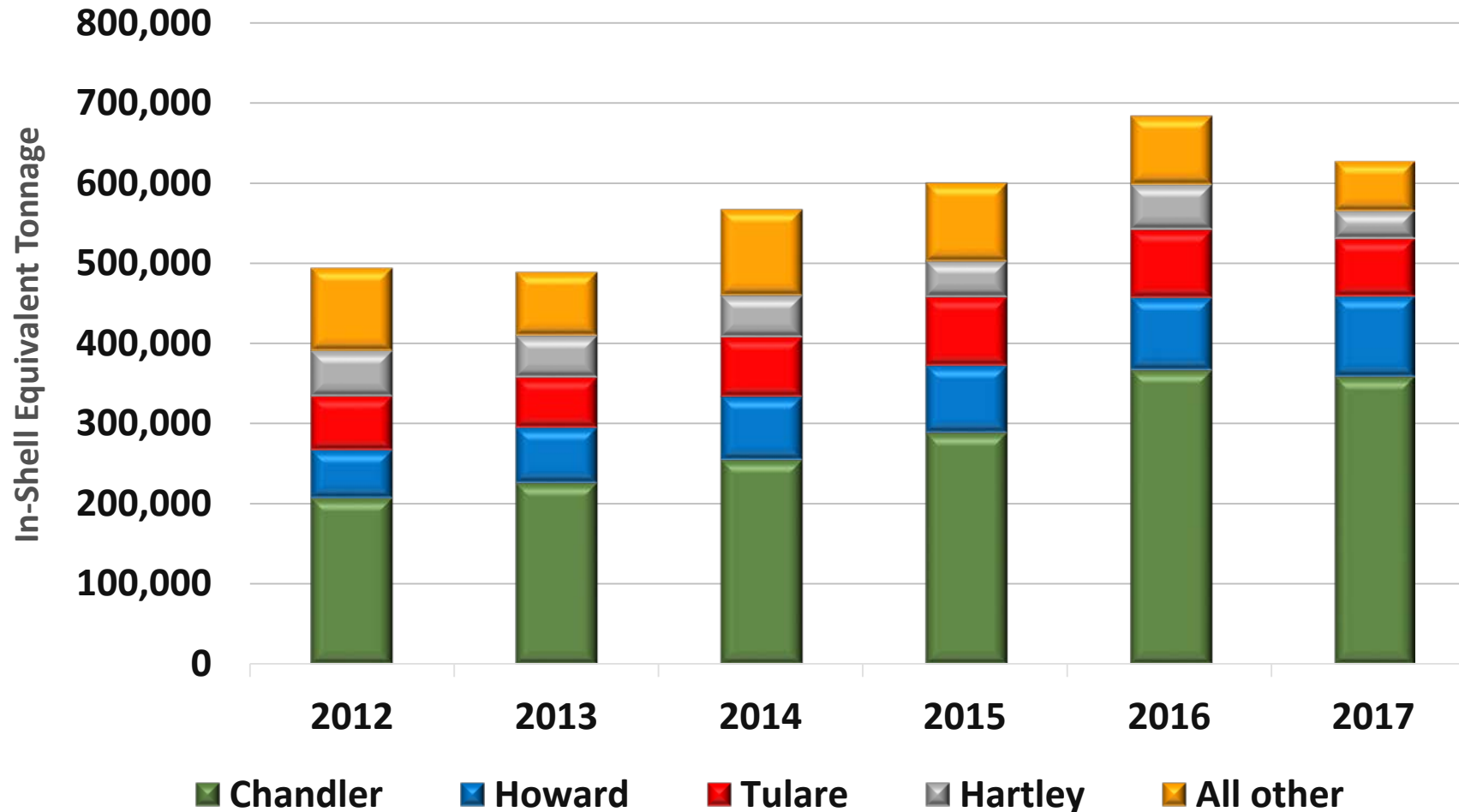
Other Varieties

In-Shell Basis in Tons



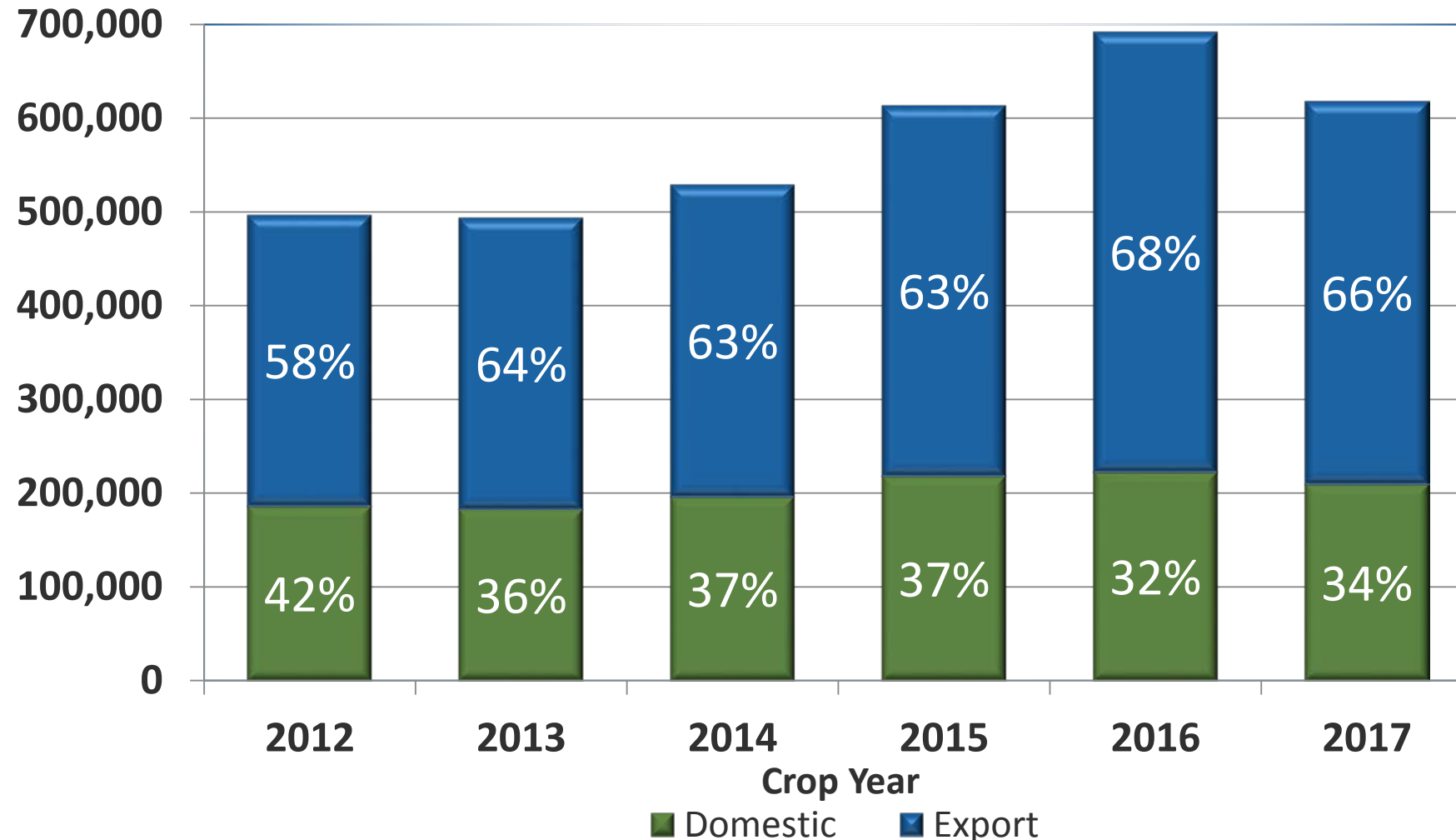
Producing What Consumers Want

Varietal Production



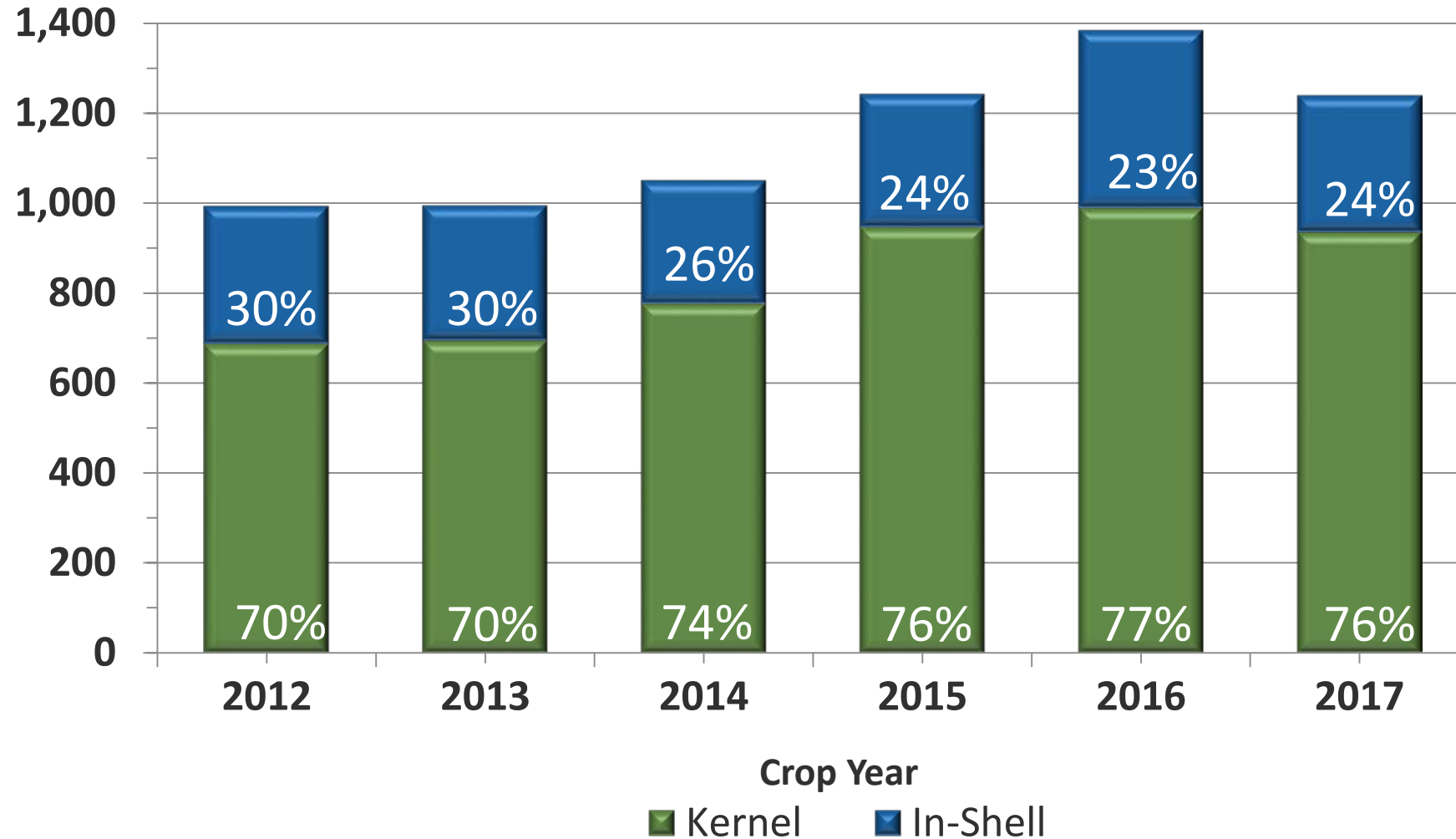
Export vs. Domestic Shipments

In-Shell Ton Equivalent



Kernel vs. In-Shell Shipments

In-Shell Equivalent in Pounds (Millions)

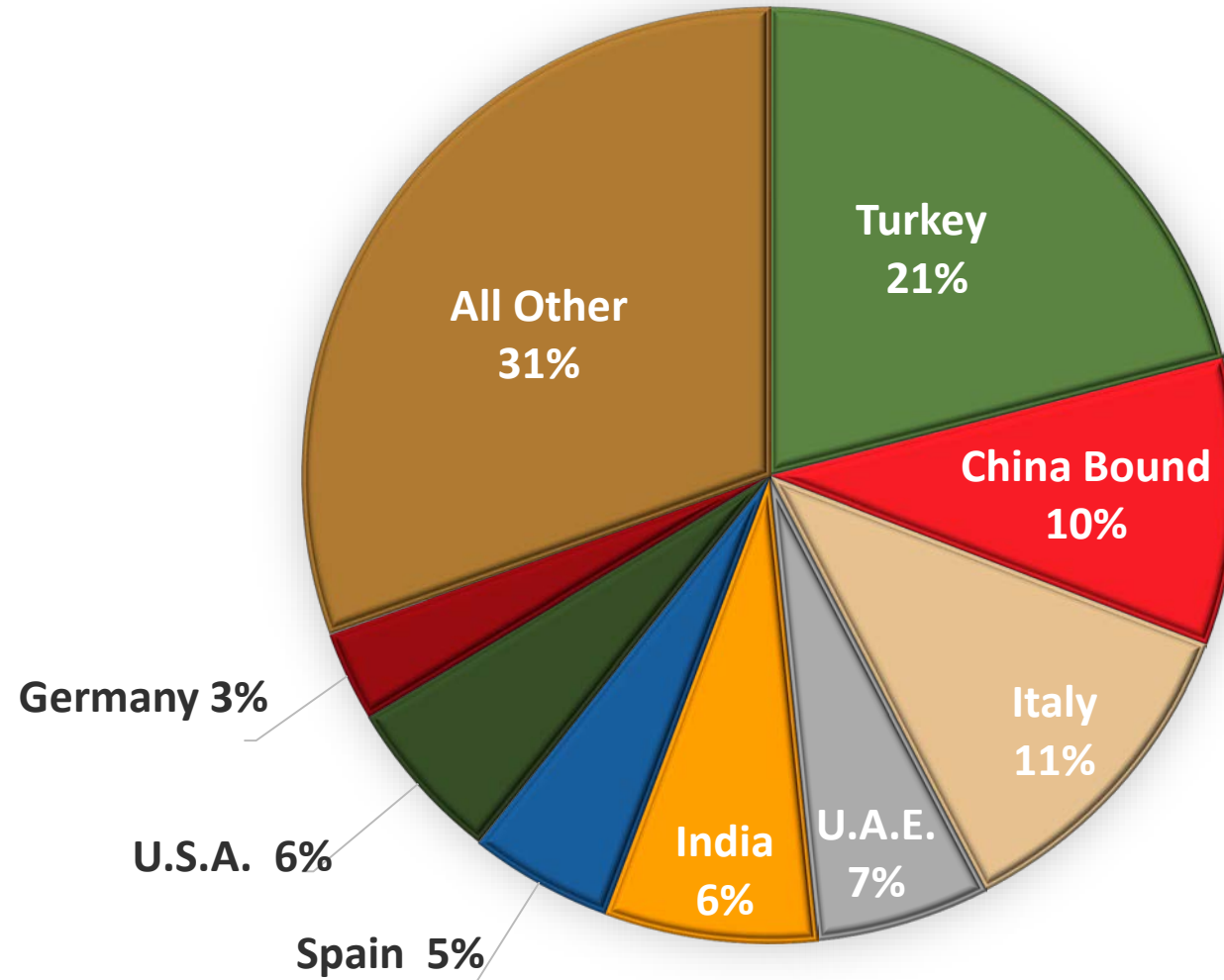


Key Markets



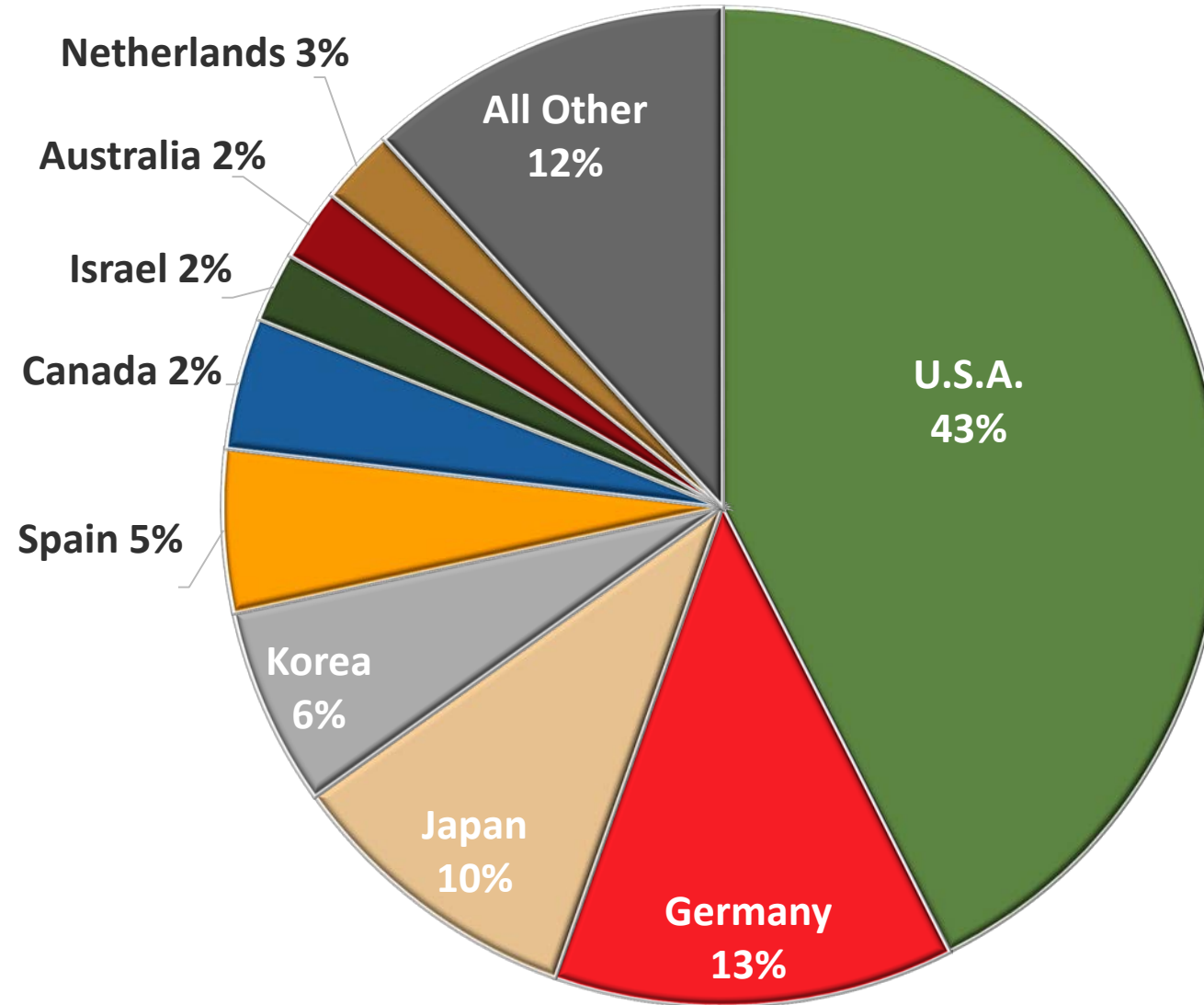
Top In-shell Consuming Countries

2017



Top Kernel Consuming Countries

2017



Global Production



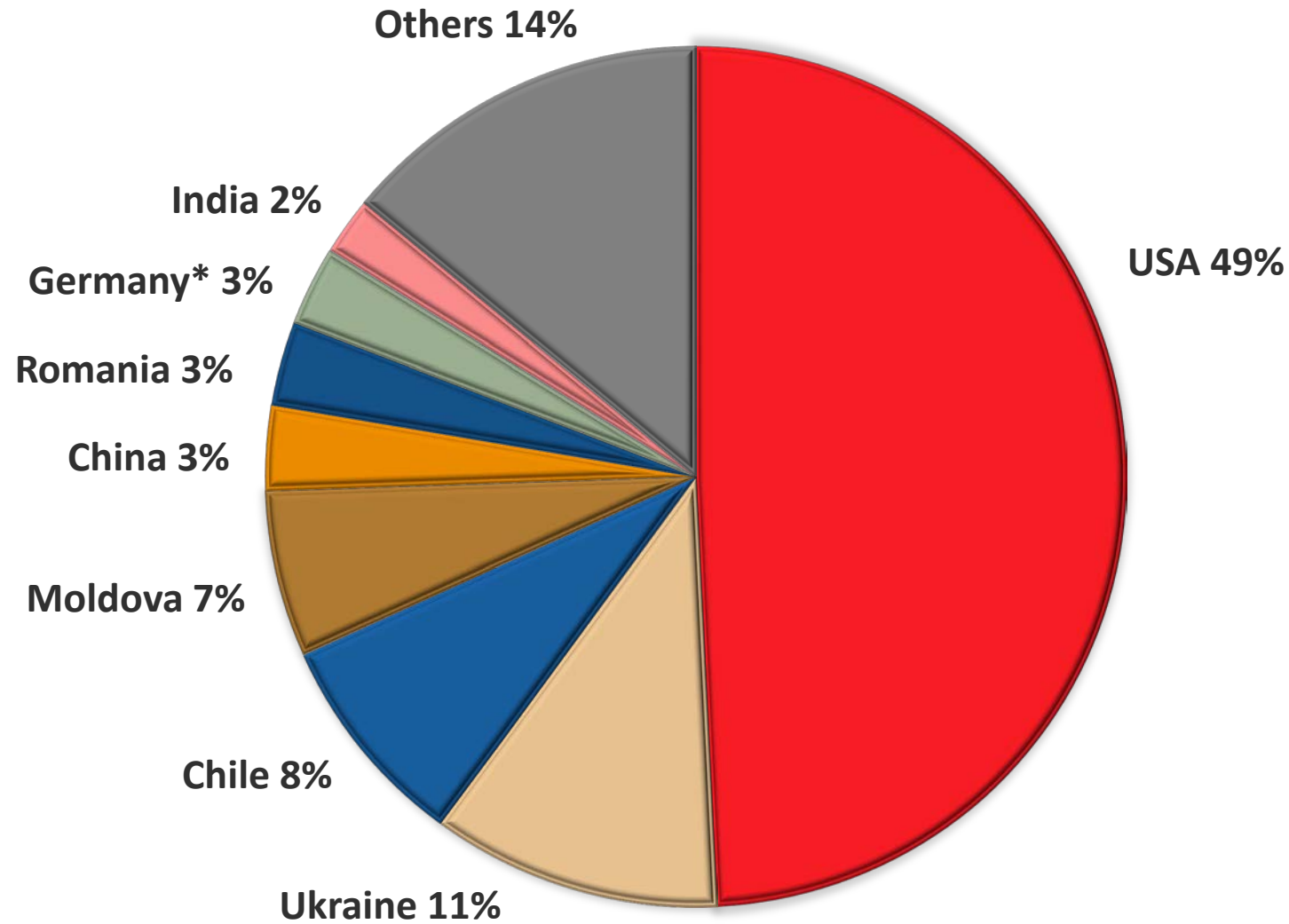
Global Production

In-Shell Short Tons

Country	2015	2016	2017	2018 Projection	% Change ('17 vs '18)
U.S.A.	603	684	628	690	9.9%
China	639	992*	924	825	-10.8%
Turkey	22	22	29	28	-3.4%
East Bloc*	240	177	245	255	4.1%
Iran	—	—	105	99	-5.3%
Chile	79	79	117	148	+17.9%
France	44	40	39	39	—
India	38	40	39	39	—
Italy	19	17	20	18	-10.0%
Global	1,684	2,051	2,146	2,141	-0.2%

Exporting Countries

5-Year Average



Marketing Hurdles



Export Tariffs and Currency Roadblocks

- ❖ March 8th - U.S. Secretary of Commerce announces tariff on steel and aluminum imports of 25% and 10% respectively
- ❖ June 1st - tariffs went into effect. Immediately thereafter the retaliatory walnut tariffs came into effect
- ❖ Walnuts were not included in China's list of tariffs to be imposed effective September 24th.
- ❖ Turkey's unofficial ban on issuing permits to free enterprise zone has (reportedly) been lifted.

Country	2017		January 1, 2018		Current	
	In-Shell	Kernels	In-Shell	Kernels	In-Shell	Kernels
China	40%	35%	40%	35%	65%	60%
India	30%	30%	30%	30%	100%	30%
Turkey	43%	43%	15%	15%	25%	25%

Looking Forward



Looking Forward



- ▶ Larger Crops Projected
- ▶ Reduce Dependence on China & Turkey
- ▶ Increase Domestic Demand
- ▶ Promote Superior California Crop Characteristics
- ▶ Promote California's Food Safety Environment
- ▶ Produce What Buyers Want to Buy
- ▶ Reduce Trade Barriers



Thank you
