



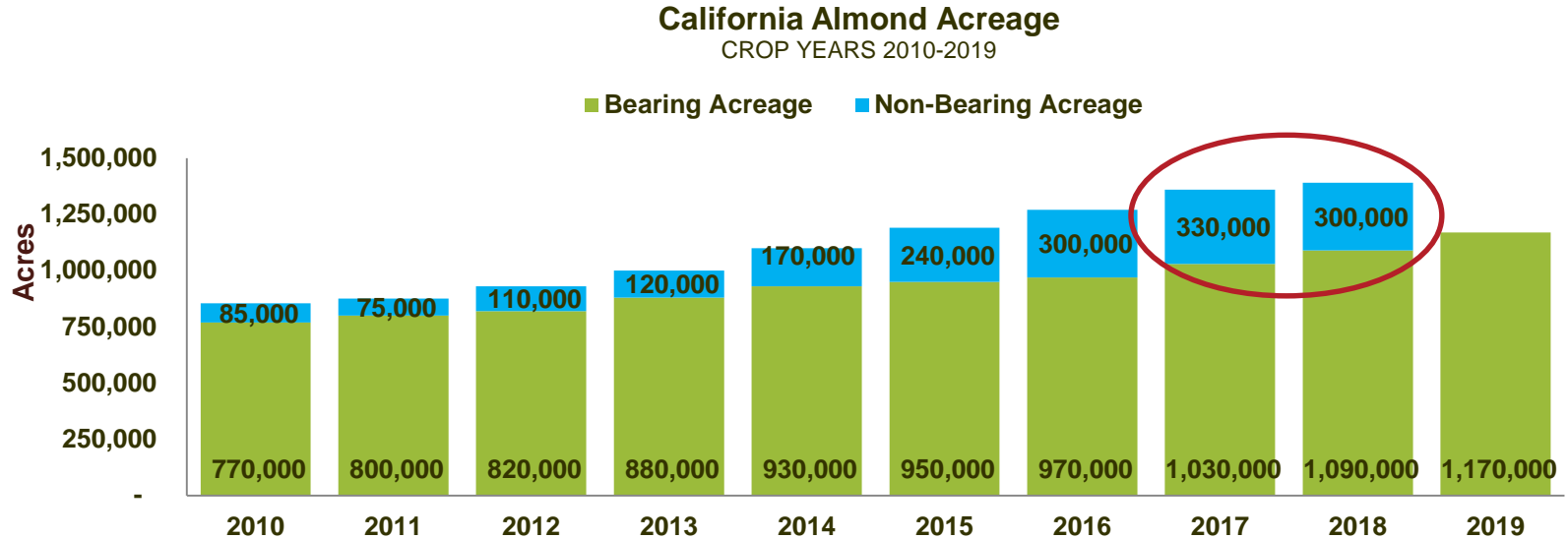
## Almonds & Pollination

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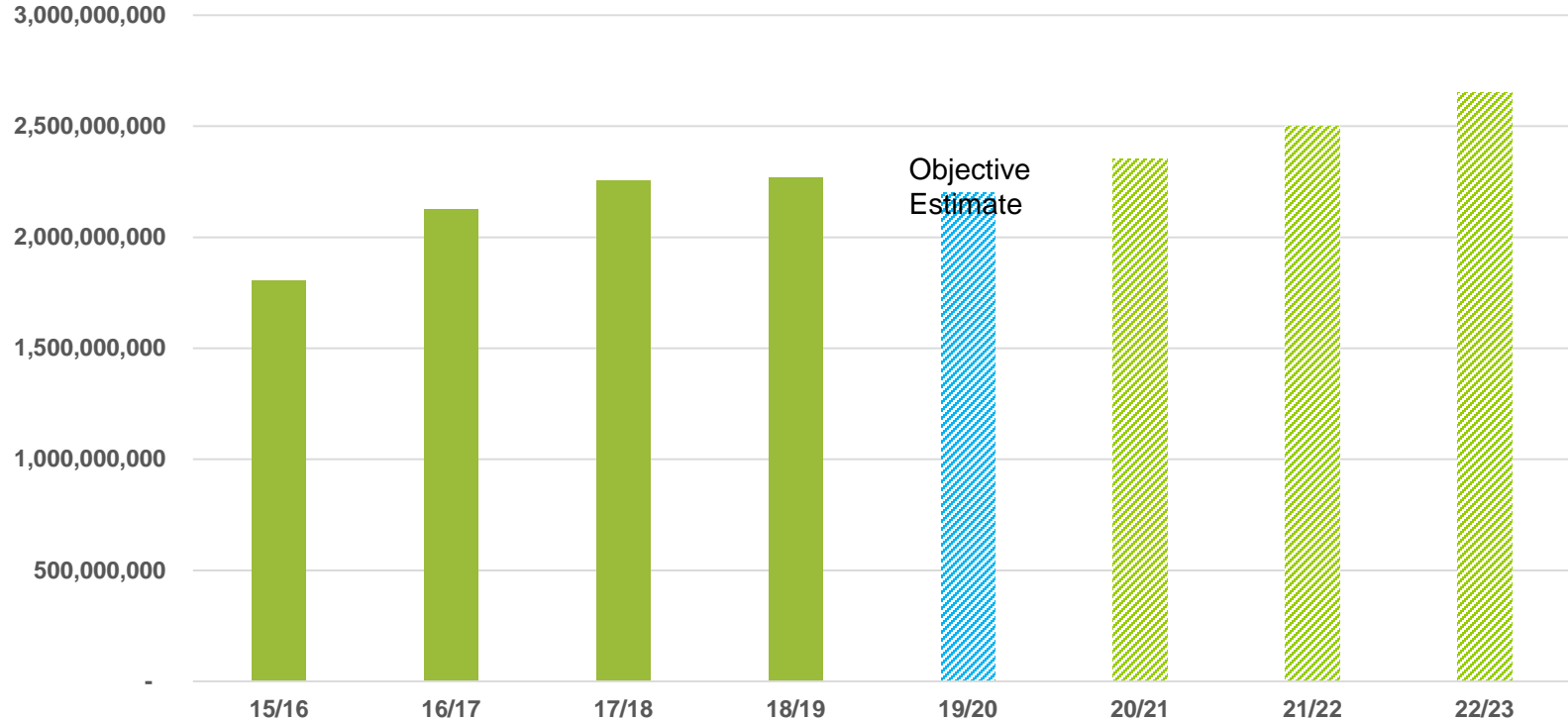
# Not yet at peak almonds



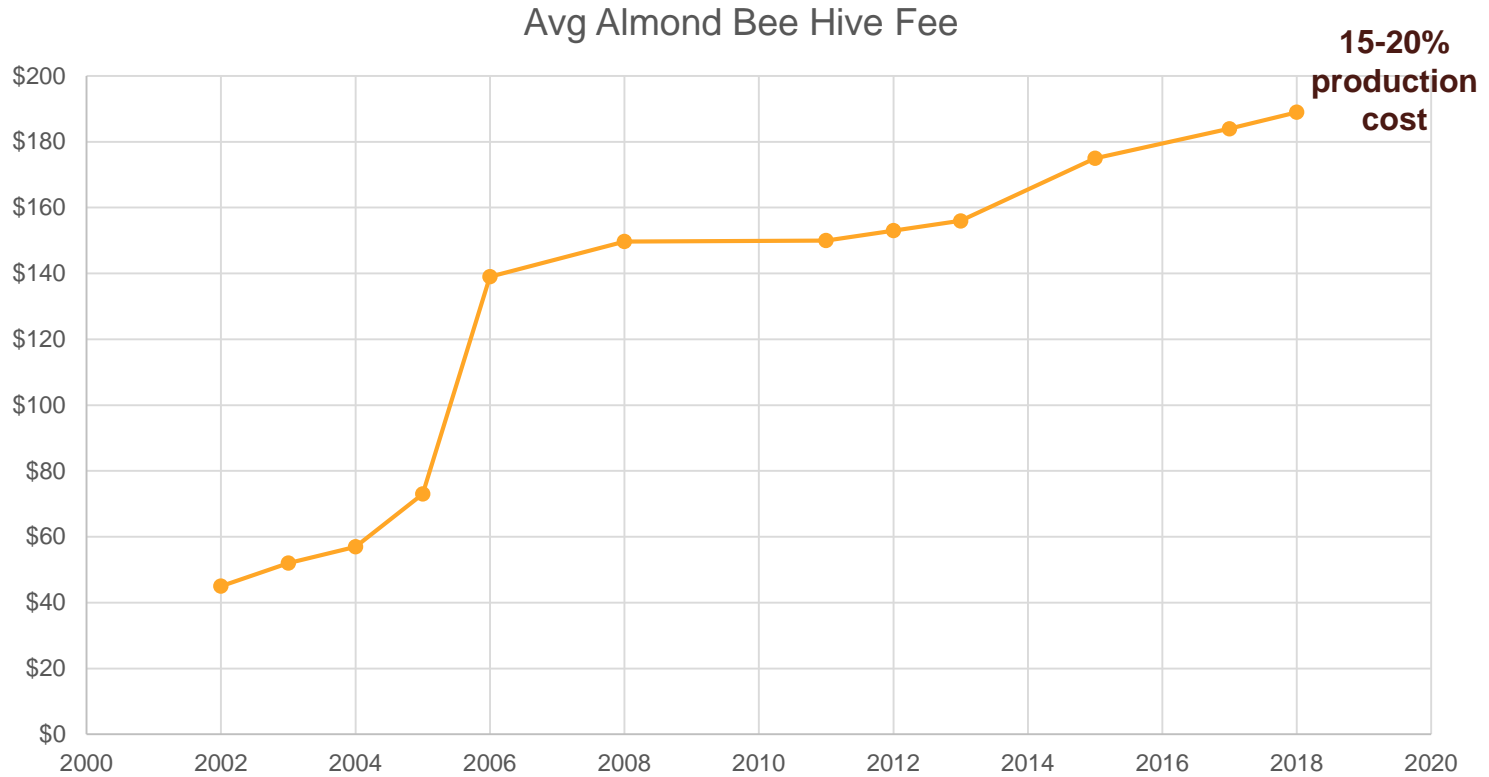
Source: USDA Agricultural Statistics Service, Pacific Region (NASS/PR) 2018 Acreage Report

# Production outlook

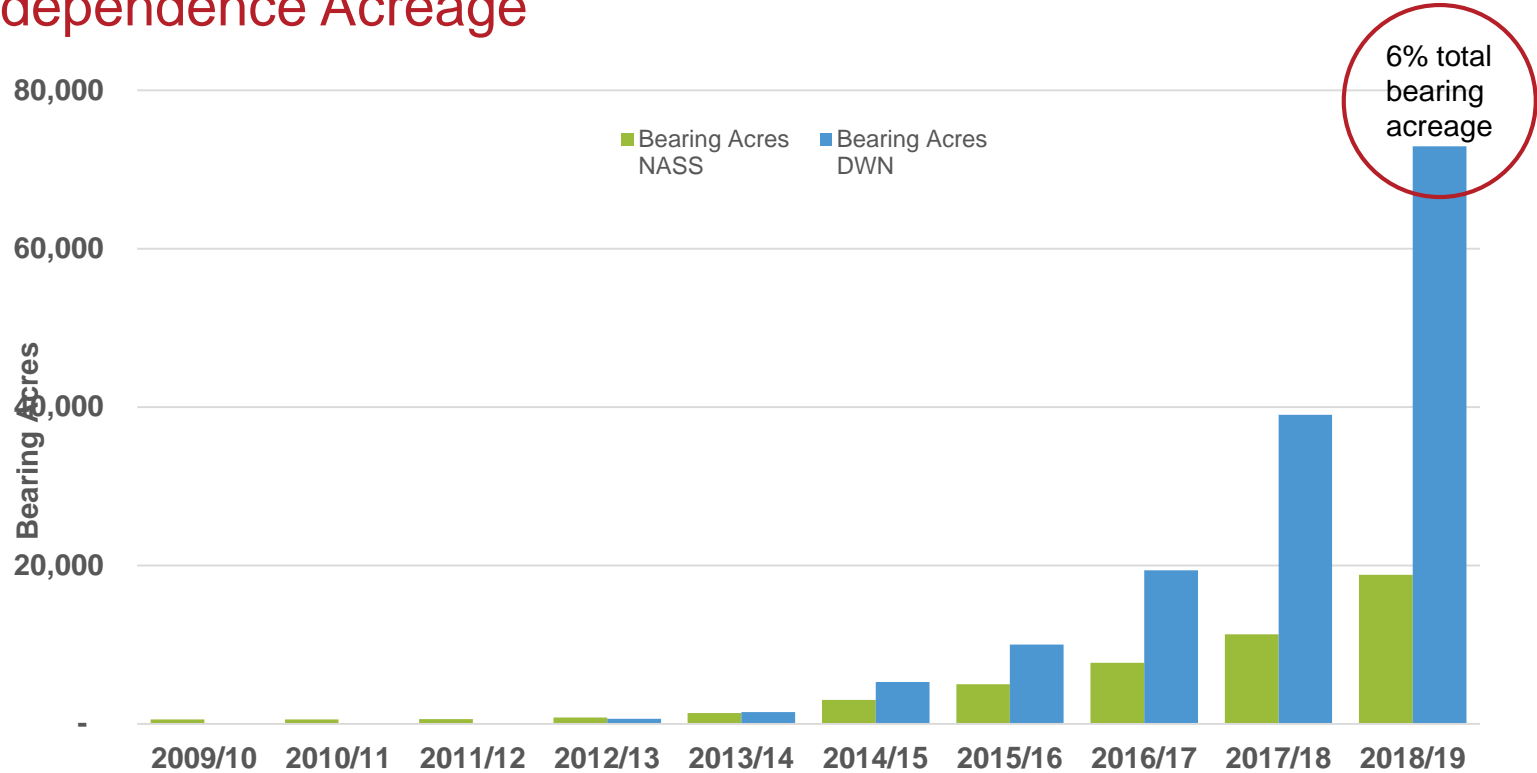
FY2015/16 Actual to FY2022/23 Projected (Pounds)



# Pollination costs: 2 hives per acre



# Independence Acreage



## Reputational Risk

- *Food & Environ. Reporting Network* “**An unhealthy alliance between almonds and honeybees**”
- *Mother Jones* “**Are Your Delicious, Healthy Almonds Killing Bees?**”
- *Huffington Post* “**Our Love Of Almonds Is Seriously Jeopardizing Honeybees**”
- *Popular Science* “**The almond milk craze could be bad news for bees**”

## Petition to list native bees as endangered

- Cite land conversion, pesticides & competition with honeybees for forage

## Next steps for the Almond Board

- Research hive stocking rates
- Expand emphasis on planting forage and habitat
- Elevate messaging around adjuvants & surfactants
- Keeping an eye on research on cold storage and CO<sub>2</sub> treatments
- Facilitate bee research collaboration



## water efficiency

FURTHER REDUCING THE WATER USED TO GROW ALMONDS



## air quality

IMPROVING LOCAL AIR QUALITY DURING ALMOND HARVEST



## pest management

INCREASING ADOPTION OF ENVIRONMENTALLY FRIENDLY PEST MANAGEMENT TOOLS



## zero waste

ACHIEVING OPTIMAL USE OF EVERYTHING WE GROW





## **pest management**

**INCREASING ADOPTION OF  
ENVIRONMENTALLY  
FRIENDLY PEST MANAGEMENT  
TOOLS**

**PROVEN CULTURAL PRACTICES  
& ALTERNATIVES TO REDUCE  
SPRAYING  
+  
REDUCING SPRAY DRIFT  
+  
BEE BEST MANAGEMENT  
PRACTICE**