### US Onion & Garlic Crop Report

#### KAREN DEFRANCHI OLAM SPICES & VEGETABLE INGREDIENTS





April 23-26, 2017 Austin, Texas | Hilton Austin



## US Onion & Garlic Overview



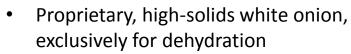
- Market Structure
- 2016 Market Summary
- 2017 Factors Affecting Supply and Demand
- 2017 Market Outlook



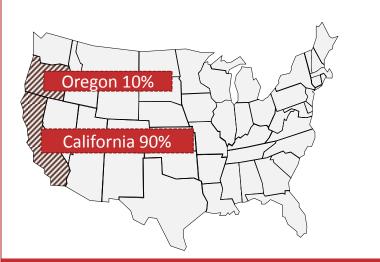
## Market Structure – US Onion

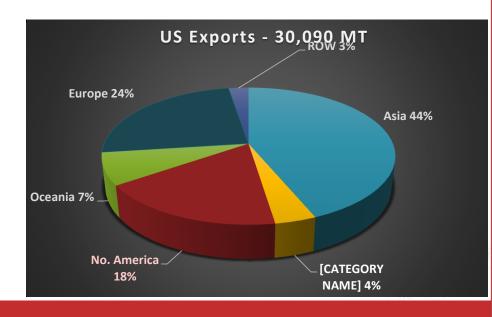


- Largest global producer
- Typically 50 55% of global supply
- 110 125 MT annual production
- Planting Season August April
- Harvest Season: May November
- Highly mechanized planting/ harvesting
- Continuous dehydration process
- Complete traceability
- Robust food safety controls



- Contract between grower and processor
- Sustainable, energy efficient production
- Growing region diversity
- Price stability





## US Onion Market Recap - 2016



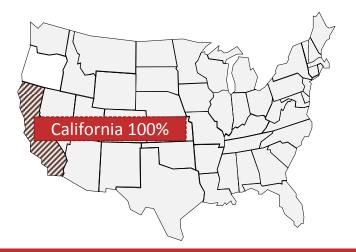
- Limited carry-in from prior years crop
- Harvest in southern most region completed on time
- Yields drop-off by mid-summer
- Overall crop down by 8%
  - Reduced water allocation & erratic spring weather conditions takes its toll on the San Joaquin Valley crop
  - Extreme heat in July/August
  - Above average dependency on ground water increases soil salinity
  - End of season harvest challenged due to excessive rain and early snow storms
- Second successive shortfall in production due to weather & water
- Costs move up due to shortened crop
- Processors continue to modify grower landscape to secure land with consistent access to water

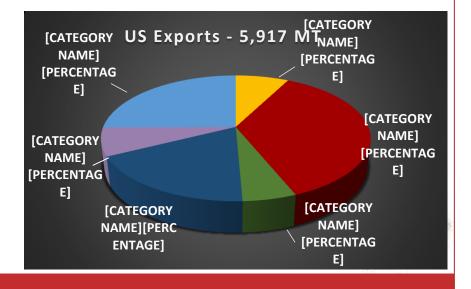
## Market Structure – US Garlic



- US is typically 14% of global supply
- 16 25 MT annual production
- Planting Season September October
- Harvest Season: July October
- Highly mechanized planting/harvesting
- Continuous dehydration process
- Complete traceability
- Robust food safety controls

- Grown exclusively for dehydration
  - No overlap with fresh or seed markets
- Contract between grower & processor
- Sustainable
- Energy efficient production
- Growing region diversity
- Price stability





## US Garlic Market Recap - 2016



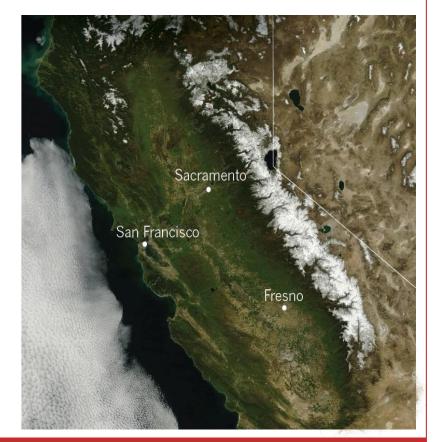
- Limited carry-in from prior year's crop
- Crop started off strong, yields declined as crop progressed
- Crop down by more than 35%
  - Extended periods of high temperatures
  - Above average dependency on ground water increases soil salinity
  - Small bulbs
- Sharp increase in costs due to shortened crop
- Demand intensifies for US garlic due to peanut allergens detected in Chinese garlic, linked to agricultural co-mingling
  - Significant increase in spot demand began in January

### US Onion & Garlic California Drought – 2016 summary



- Rain and snow melt are crucial to meet commercial irrigation needs
- 5<sup>th</sup> year of consecutive statewide drought
- 5% Federal water allocation
- State adopts permanent water conservation measures
- Local agencies prepare for a drier future
- Sierra Nevada snowpack is low

#### March 2016 Sierra Nevada Snowpack



US Onion & Garlic Factors Affecting Supply & Demand - 2017



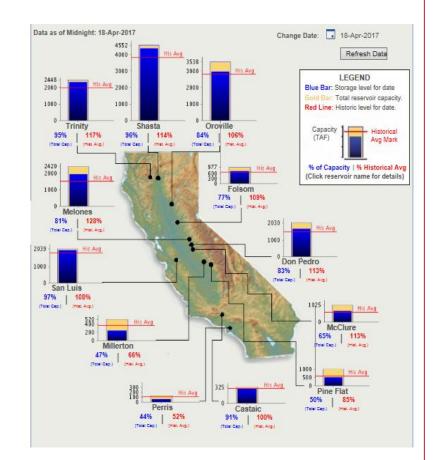
- Water Availability
- Regulations
- Developing Conditions
  - FSMA readiness
  - Allergen risk assessment
  - Consumer expectations



### US Onion & Garlic Water Availability



- California experienced record rain and snowfall during the 2016-2017
- Sierra snowpack is at 165% of historical average
- Drought emergency lifted, declared over
- Most reservoirs near capacity
- Ca. continues to ban wasteful water practices
- Contingency plans & water-use efficiency programs are on-going
- Strong storms continued throughout April, projected into May



2016 –74% of the State in severe drought 2017 – 8% of the State in moderate drought, 0% severe

### US Onion & Garlic Water Availability & Regulations



- US Bureau of Reclamation water allocation at 100% supply for the first time since 2006
  - Primarily benefiting 2018 crop
- Years of over-pumping caused water tables to plunge, farmland to sink
  O Primarily impacting areas of the San Joaquin Valley
- Ground Water Regulation
  - Regional agencies to develop & implement plans to stop chronic over-pumping
  - It will take more than one historical wet year to replenish California aquifers



US Onion & Garlic Developing Conditions to Participate



- Food Safety and Modernization Act (FSMA)
  - Ensures safe food supply, traceability
- Allergen Risk Assessment
  - Genuine concern with detectable peanut allergens in garlic
- Consumer Expectations
  - Product transparency, Ingredient sensitivity





### US Onion Market Outlook - 2017

- Inventory adequate to service demand prior to 2017 harvest
- Plantings similar to last year
- Improved soil conditions, pushing salts below the root zone
- Improved yields expected
- Water allocation at 100%, primarily benefiting 2018
- 2017 crop costs established a year ago
- Some plantings delayed due to intense spring rain
- Foliar disease developing
- Adequate land available for onion to remain a stable California crop



### US Garlic Market Outlook - 2017



- Limited inventory to service demand to 2017 harvest
- Increased pressure on US supply due to shortened 2016 crop and peanut allergen concern associated with Chinese garlic
- Plantings similar to slightly up compared to last year
- Water allocation at 100%, primarily benefiting 2018
- 2017 crop costs established a year ago
- Improved soil conditions, pushing salts below the root zone, expected to improve yields & raw material quality
- Initial fields show early signs of rust disease
- Demand continues to strengthen
- Pricing to remain strong





# Thank you!

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2017 ANNUAL MEETING AND EXHIBITS

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