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Chinese Garlic Crop Report

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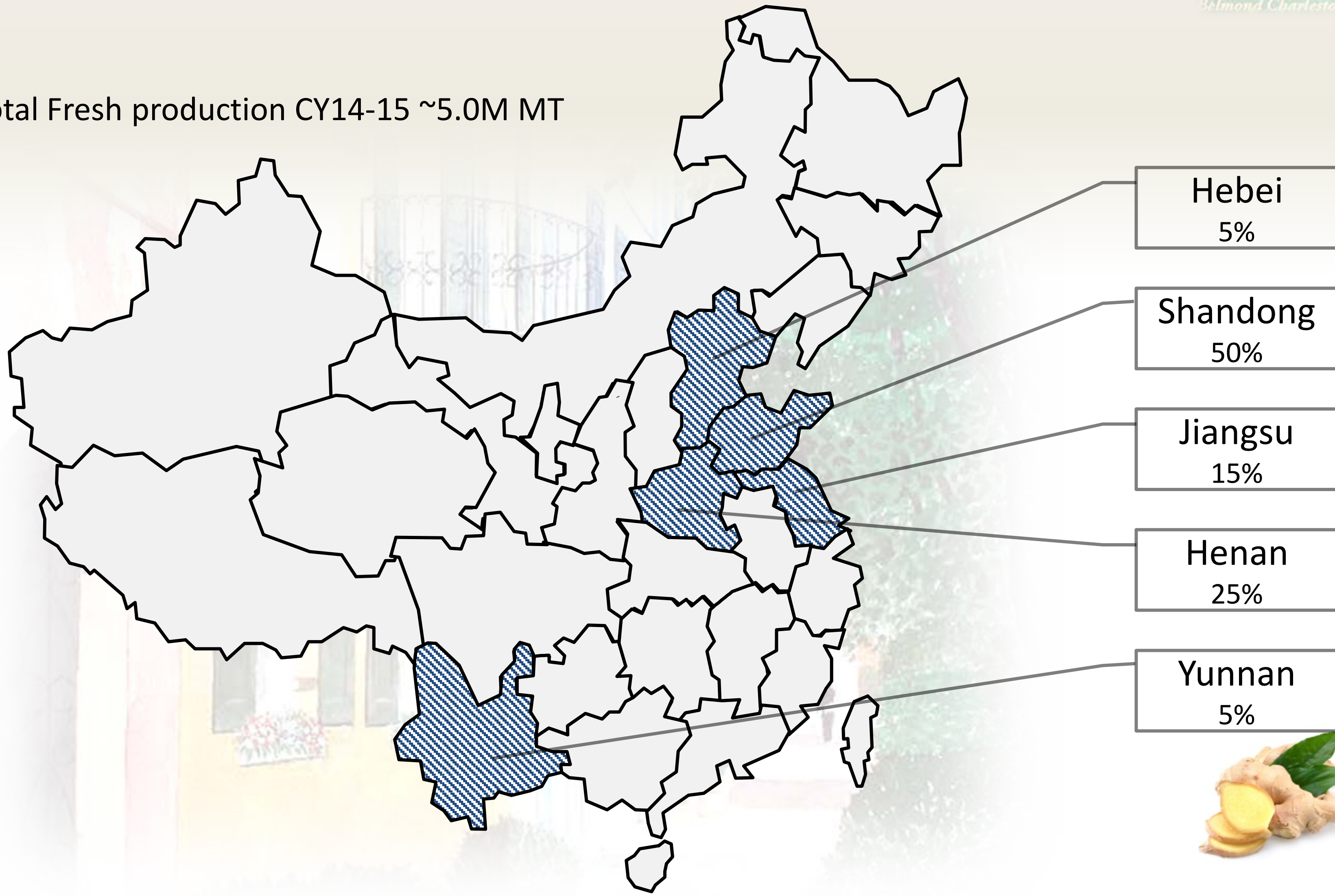
Chinese Garlic Growing Regions

*Total Fresh production CY14-15 ~5.0M MT

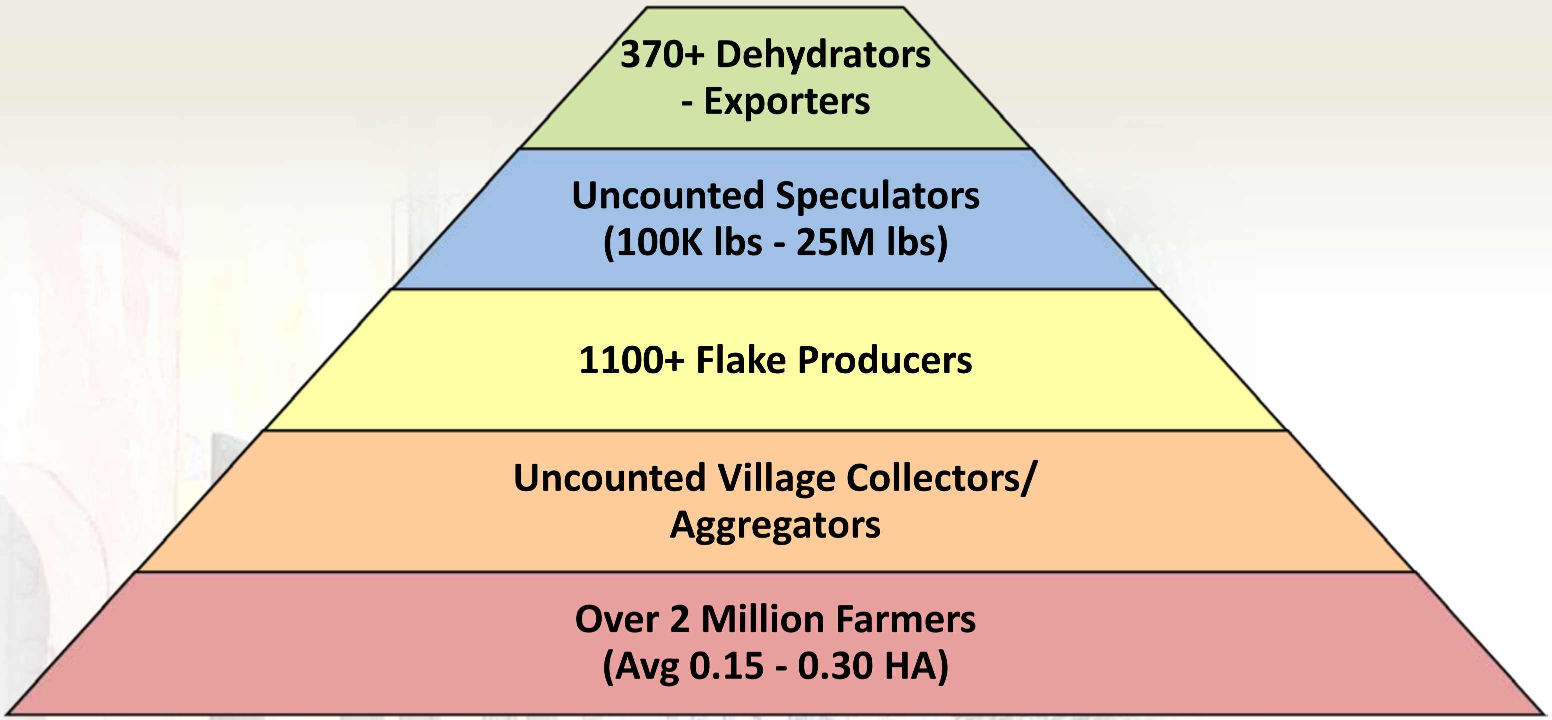


Chinese Garlic Origin Dynamics

- Fresh Garlic (~5.0M MT)
  - Edible Segment (3.7M - 4.0M MT)
    - Domestic (2.2M – 2.3M MT)
    - Exports (1.5M – 1.7M MT)
  - Derived Products (1.0M – 1.3M MT)
    - Dehydrates (400k – 500k MT Fresh)
    - Garlic Oil / Cloves (100k – 150k MT Fresh)
    - Garlic Seed (500k – 650k MT Fresh)

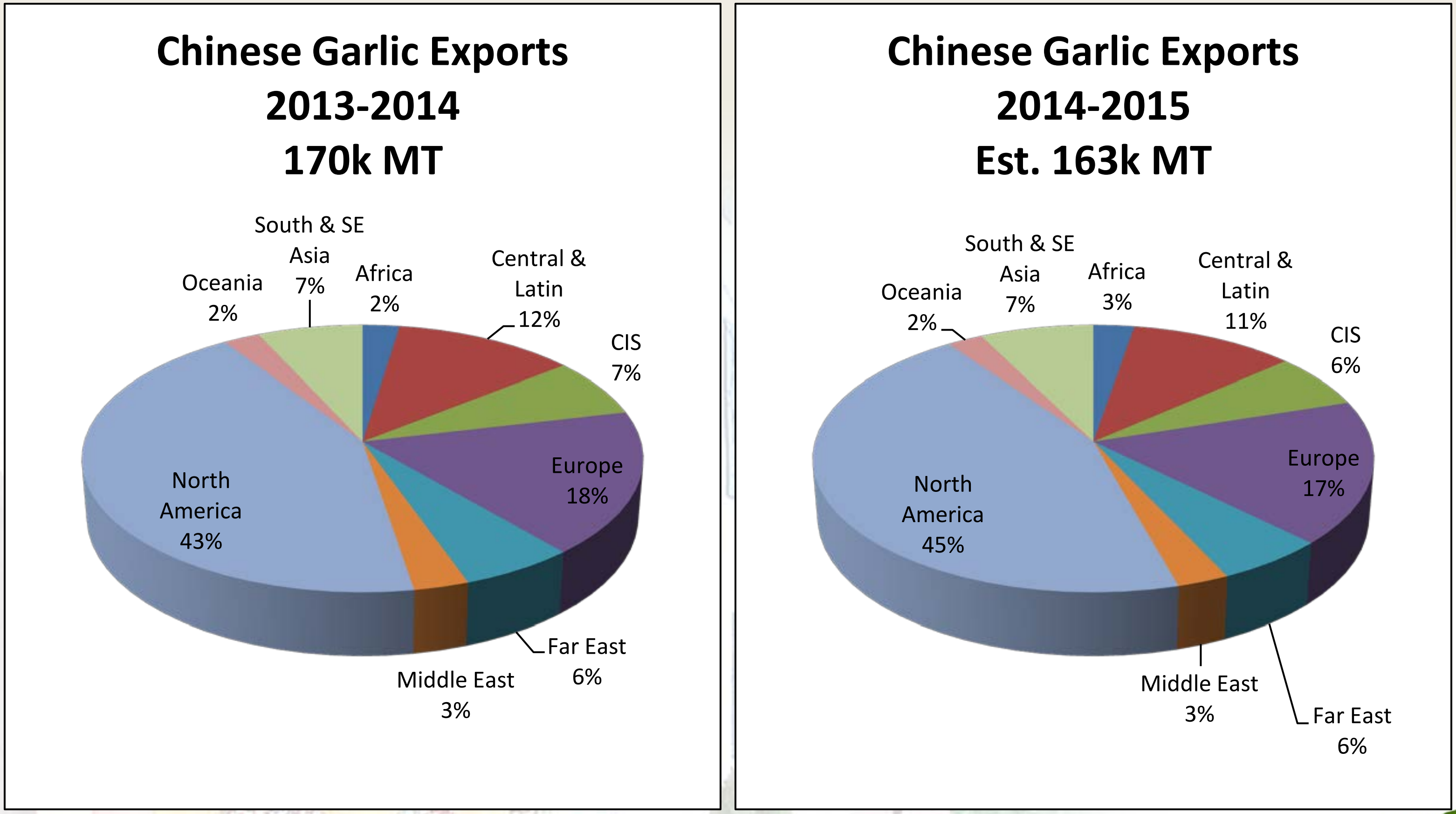
- Dehydration involves removal of moisture from fresh garlic and causes a shrinkage of about 75-80% by weight
- Conversion factor from fresh to dry is 4:1

Fragmented Supply Chain



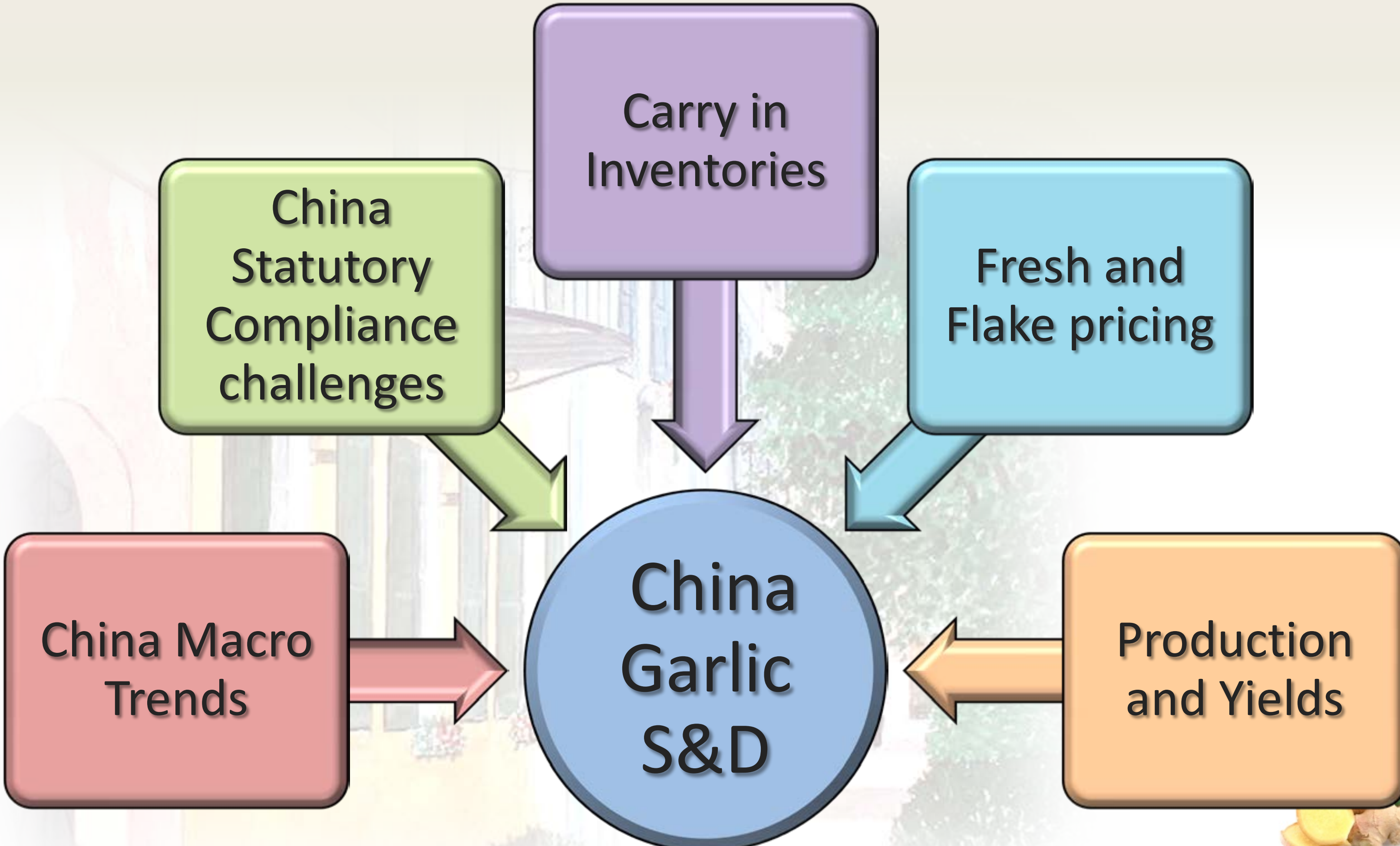
- Top 10 Players own 35% Market Share
- Chinese Garlic agronomy is a small-grower agronomy
- High degree of fragmentation at all levels

Chinese Dehydrated Garlic Exports

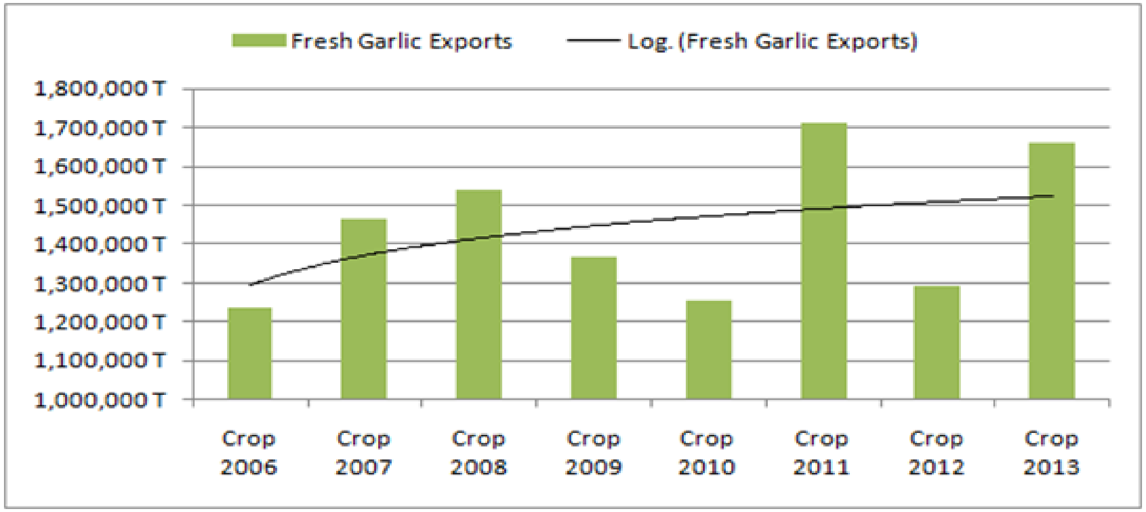


- Both years represent all-time high export volumes from China
- 2014-15 has a slight decline in exports vs. 2013-14.
- Main decreases in Central & Latin America, Russia, and Europe regions.

Factors Affecting China Garlic S&D



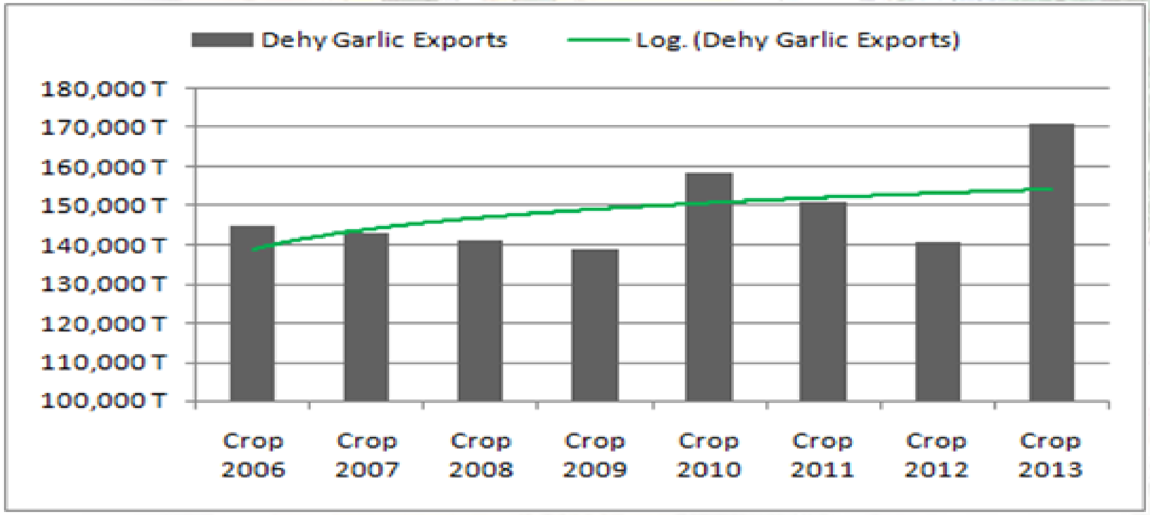
China Macro trends : Garlic exports



Fresh Garlic Exports from China growing @ 3.75% per annum

Crop 2006 : 1.24 Million MT
Crop 2013 : 1.66 Million MT

Fresh Garlic exports prone to pricing volatility leading to stocking / de-stocking at destination
Despite this, export trajectory is still positive @ 1.90% per annum

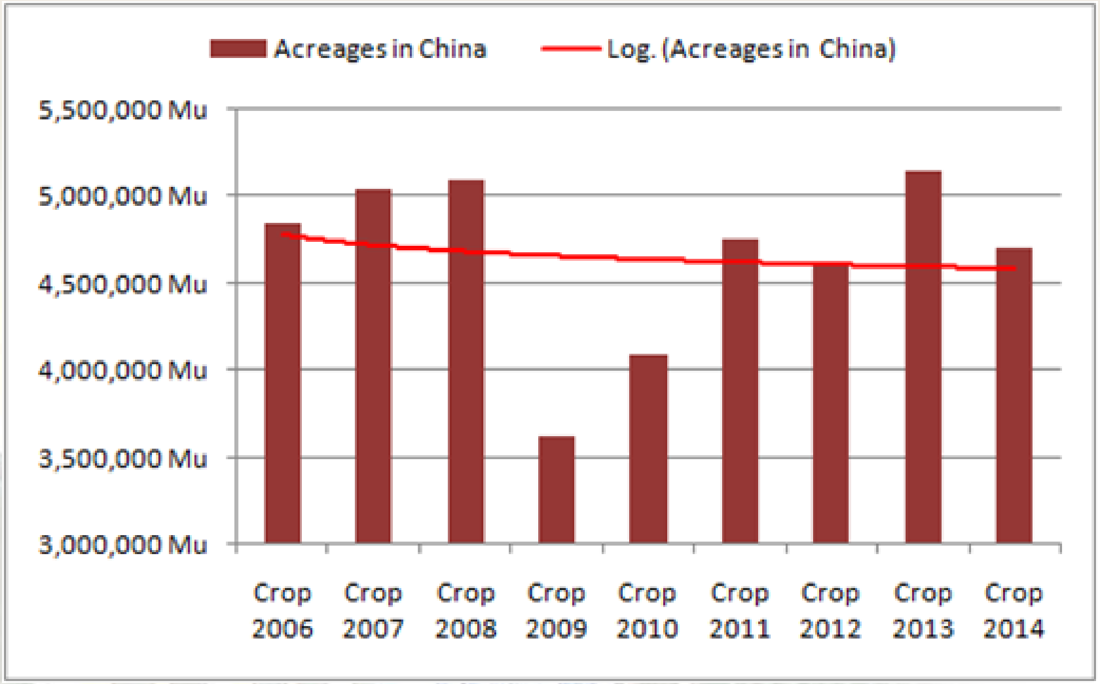


Dehydrated Garlic Exports from China growing @ 2.10% per annum

Crop 2006 : 145K MT
Crop 2013 : 171K MT

Dehy Garlic exports prone pricing volatility leading to stocking / de-stocking at destination.
Despite this, export trajectory is positive @ 0.40% per annum.

China Macro Trends : Shrinking acreage



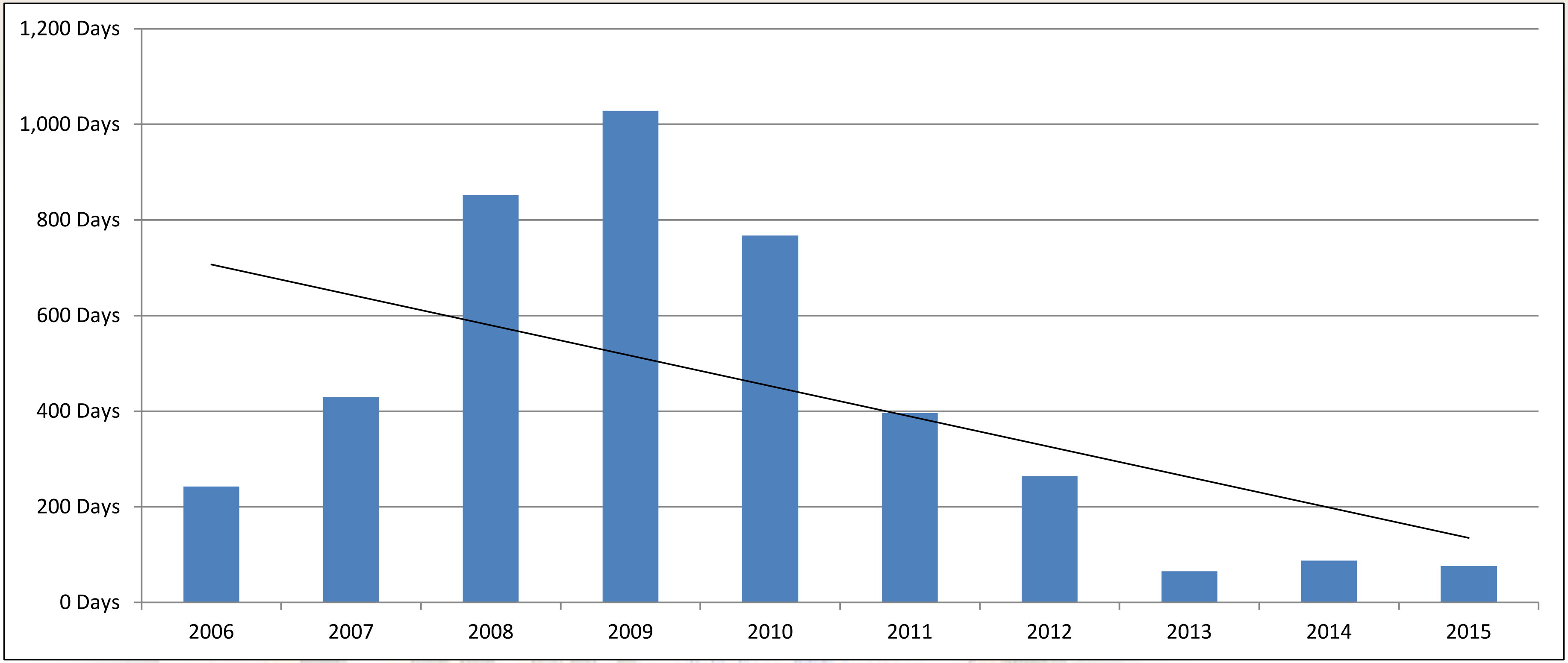
Average Acreages (Due to price volatility & Farm Returns) : **Reduced by 0.45% per annum** since Crop 2006. Main reasons

1. Increasing labor cost
2. Ageing farmer population
3. Industrialization – lower arable land
4. Garlic farming – cumbersome
5. Hurdle Rate for Incomes from Garlic farming inching up vs easy crops like Wheat etc

China Statutory Compliance Challenges

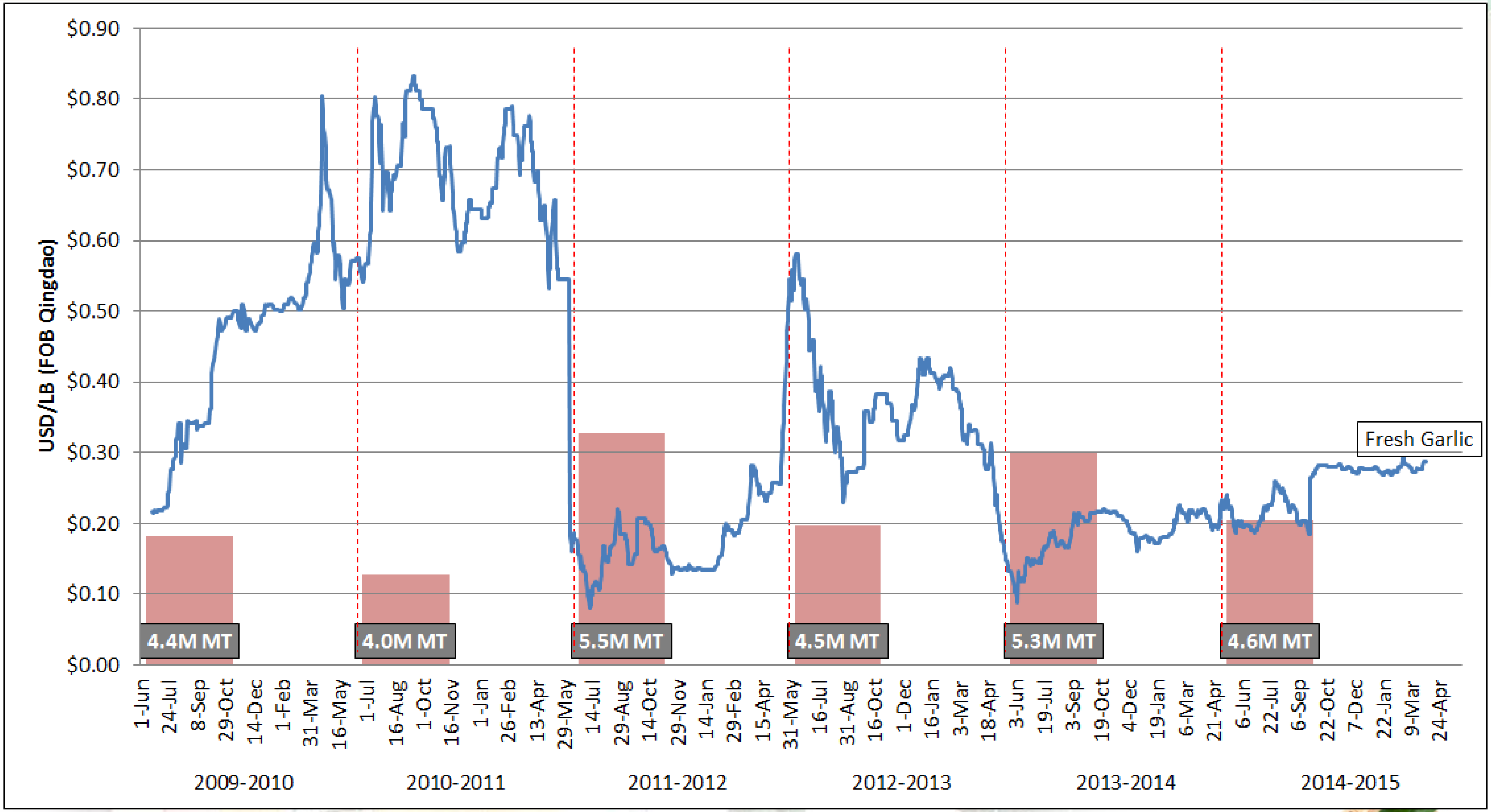
- Tightened environmental compliance norms
  - Banning of coal driers
  - Limited life span for coal based boilers
  - Stricter BOD/ COD norms
  - Heightened sensitivity to direct water discharge near streams/ rivers/ lakes
- Changing raw material and customer profile
  - Reduced availability of natural extra low micro product
  - Higher % of garlic skin
  - Potential for reduced water washing in cleaning stages
  - Stricter testing of heavy metals and foreign matter
  - Increased testing for allergens, pesticides and radiation

Carry-In Inventory



- Carry-In Inventory decreasing since 2009, the last 3 years have seen extremely low stocks going in to harvest
- Greater scope for pricing volatility

Fresh Garlic Availability and Pricing

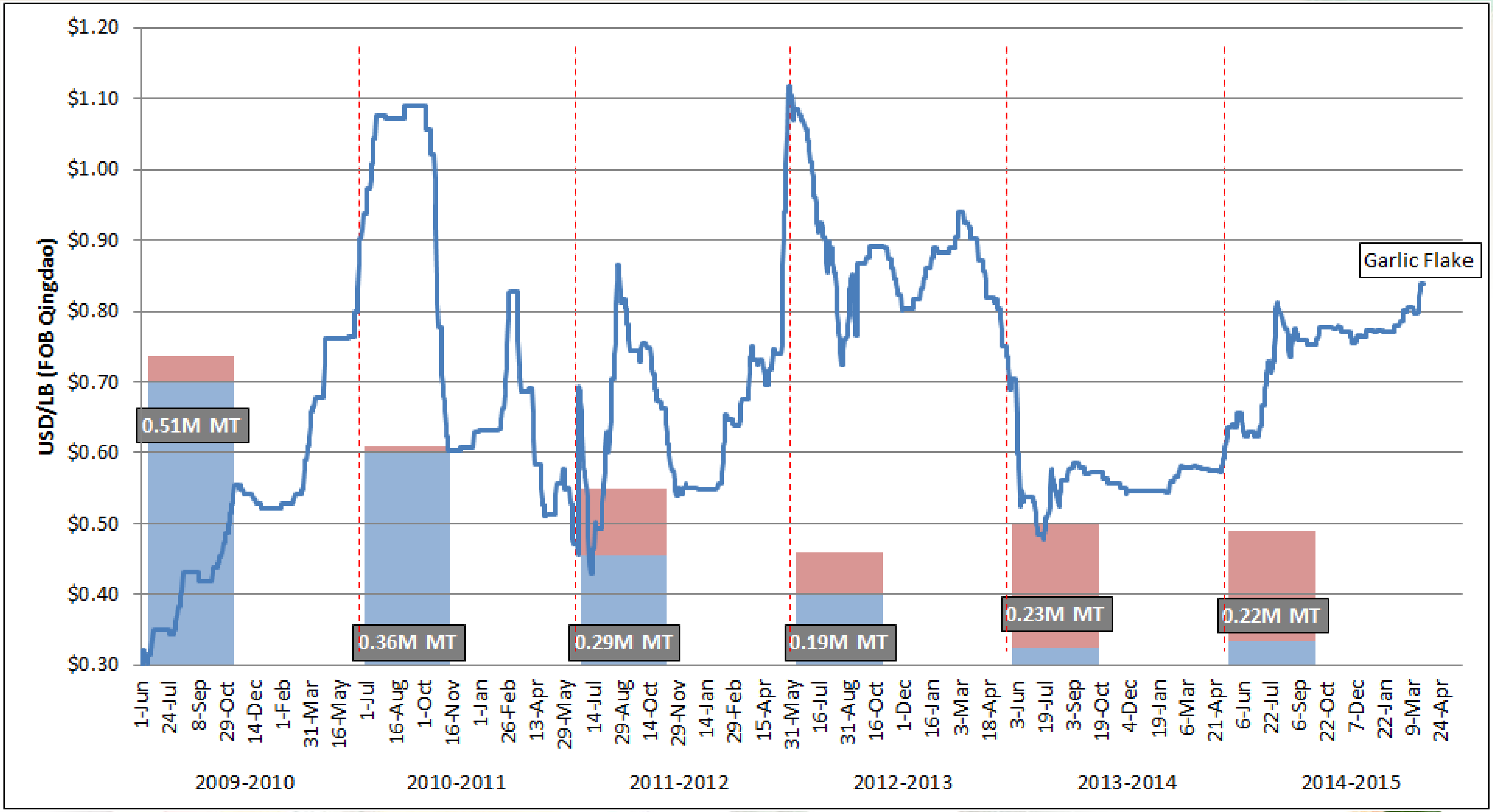


- Production - the largest price driver
- Low production years show sharp upward price movement ; fresh and flake pricing convergence + extended volatility

Fresh-Flake Pricing History

- High correlation with fresh pricing; Flake is the dependent variable
- Low production years show sharp upward pricing pressure
- Price impact of carry-in inventories unclear

Garlic Flake Availability and Pricing

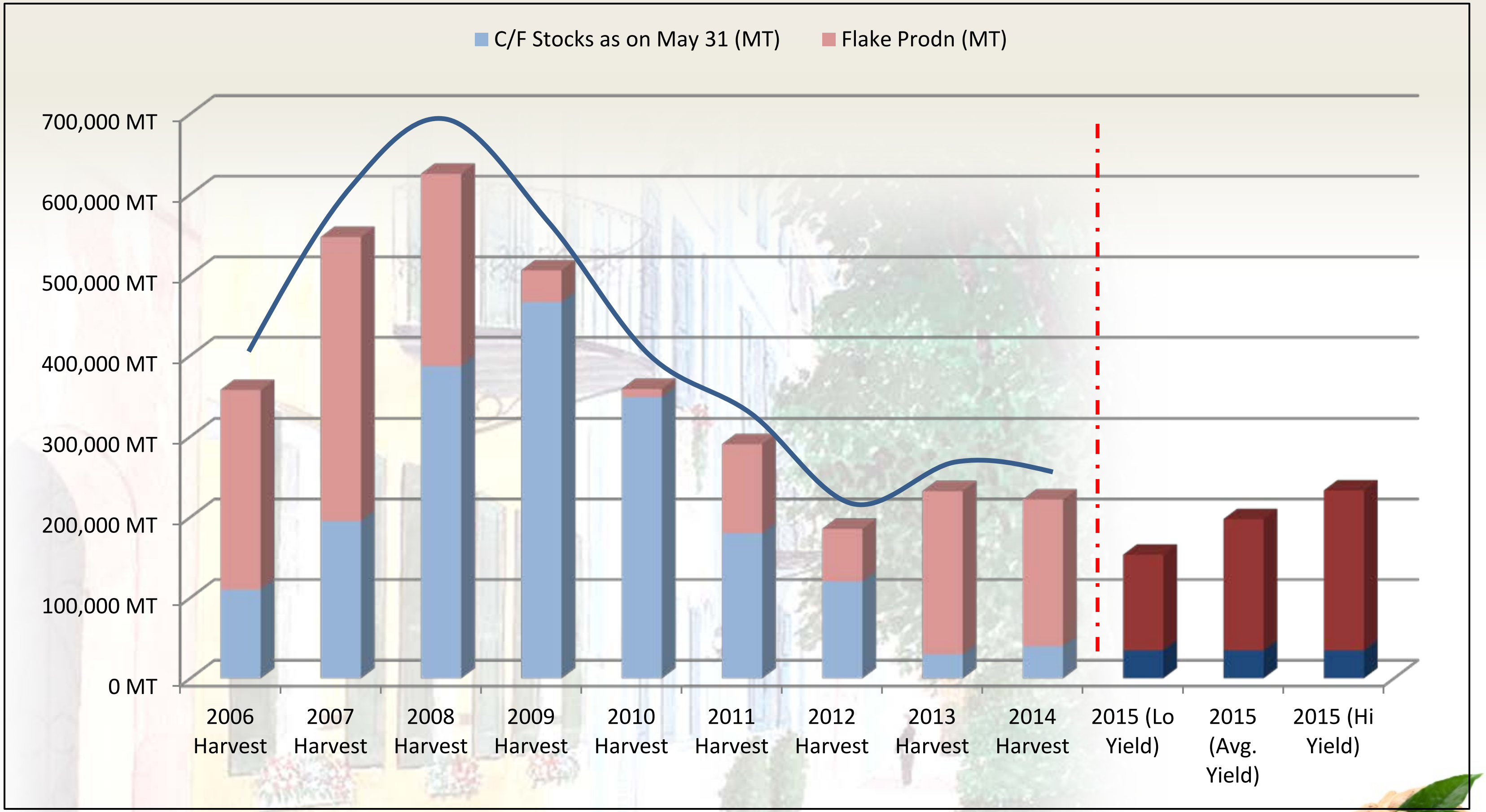


- Bars represent relative carry-in (blue) and production (red) for given crop year.

China Garlic – 2014 Market Recap

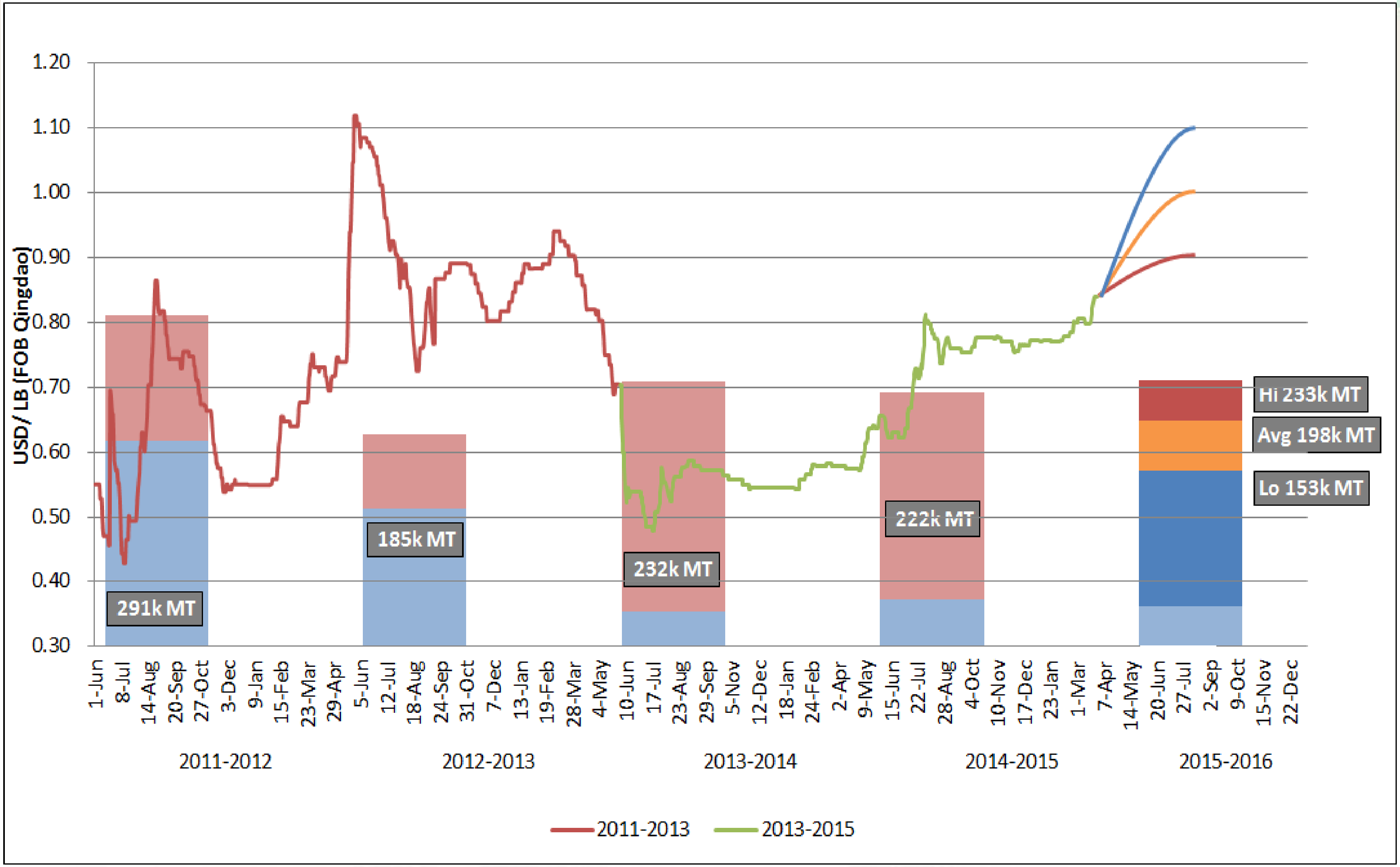
- Stable dehydrated garlic pricing in Q1
- Chinese flake prices firm once 2014 harvest begins
- Exporters expect large scale flake production
- Short market aggressively in Q2-Q3
- Market corrects upwards seen towards the end of Q3
- Pricing remains stable at elevated levels until Chinese New Year

2015 Market Outlook



- Lo Yield : Fresh Prodn. 5 M MT
- Avg Yield : Fresh Prodn. >=5 M MT
- Hi Yield : Fresh Prodn. > 5 M MT

2015 Market Outlook



2015 Market Outlook

- CY 2015 prelim estimates : 8-10% less than last year
- CY 2015 Chinese dehydrated garlic pricing will depend on crop yields
- Yields estimates expected early May
  - Low Yields : Fresh Prodn. < 5 M MT

    Extended pricing volatility with sharp upward pricing pressure
  - Average Yields : Fresh Prodn. =< 5 M MT

    Short term pricing volatility with medium upward pricing pressure
  - High Yields : Fresh Prodn. > 5M MT

    Low pricing volatility with limited upward pricing pressure

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Thank You

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