

American Hop Convention State of the Industry

Merchant Panel

January 26, 2018

Topics

World Economic Environment

Overview Beer Industry (World & US)

Overview Hop Industry (World & US)



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World Economic Environment – Factors Impacting our Industry

• Global growth in 2017 – 3% (strongest since 2011)

• Predicted to edge up to 3.1%, with emerging markets est. 4.5%

• Growth is broad based, Brazil and Russia emerged from recession

China's continued slowdown expected to be offset by other countries



World Economic Environment – Factors Impacting our Industry

• Commodities trending up, but inflation still expected to remain low

Monetary policies gradually normalizing – interest rates to increase gently

 US tax reform, both corporate & personal as of 2018 – reform bill includes a 2-year beer excise tax reduction

Euro/Dollar exchange rate trending favorably for US exports



Euro/Dollar Exchange Rate – Favorable Trend





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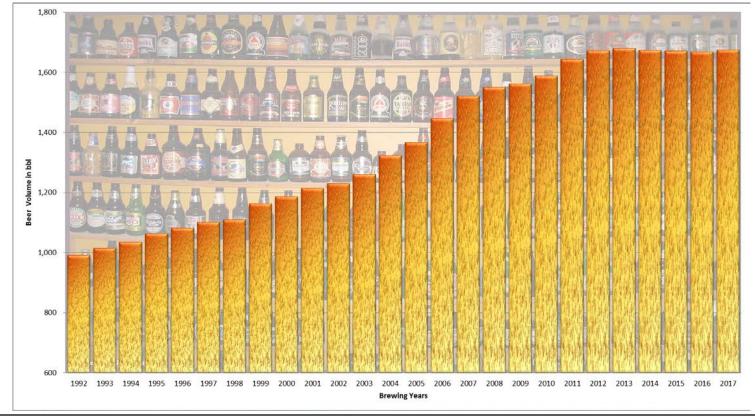


Beer Production Development 2017 - World

- Overall trend largely unchanged, 2017 est. to be about flat, near 1.7 billion bbls
- China likely flat (~400 MM bbls), but growth in other Asian countries; declines in Germany (-1.8%), Russia (-2.4%)
- US down by <1% (just under 210 MM bbls), legacy brands continue their decline; imports, low carb beers and craft all up
- World hopping rates steady for world lagers; increasing world craft contribution continues to push up rate overall



World Beer Production (in bbls) 1992 – 2017 est.





Beer Production Development 2017 - US

- US legacy brands continue their decline in 2017; AB and MC lost a combined 3.1 MM bbls in 2017 and 29 MM bbls since 2008
- Imports strong again in 2017, Constellation up 1.5+MM bbls
- Michelob Ultra up 21% or 1.35 MM bbls; success of "healthier choice" beers brings launch of Corona Premier
- US Craft up ~5% or 1+ MM bbls



Beer Production Development 2017 – US Craft

- 6,000 brewers in US...and counting
- Increasing competitive environment and difficult consumer trend: "this is the best beer I ever had...what else do you have?"
- Legacy craft brands, typically pale ales, difficult to grow against hyper local competition (tap rooms – with very favorable economics)
- Hopping rates increasing slightly, IPA's continue to march on, incl. NE IPA with 3 6 lbs./bbl

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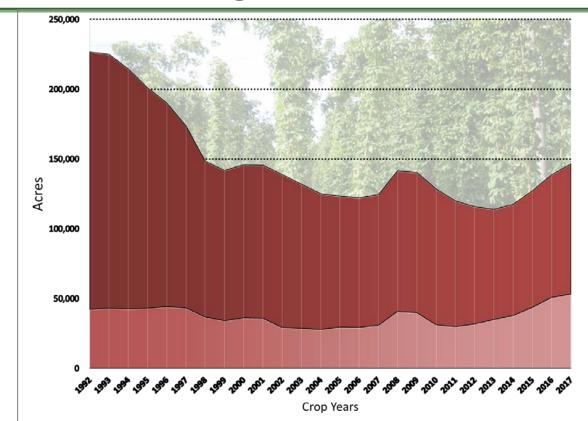
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World & US Acreage 1992 - 2017



 2017 world acreage highest since 1998

 US increased market share in same period from 25% to 36%

 US highest acreage in a century, surpassing previous record from 2016

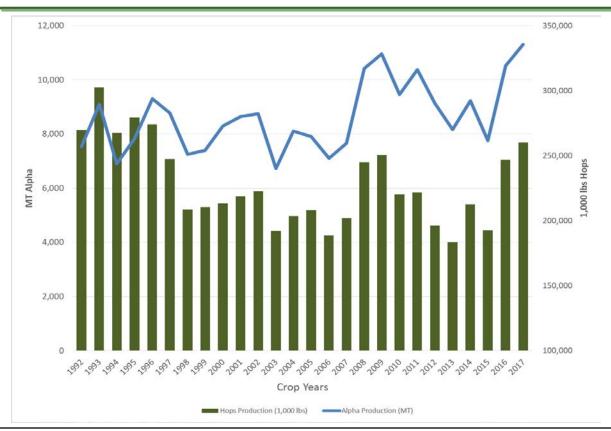


World Acreage Outlook – 2018 (Unofficial Estimates)

- For the US, the chatter is 1,000 1,500 acres net additional; some replanting from aroma to alpha on existing acreage
- For Germany, estimated new acreage about 1,000 to 1,500 acres, good portion will be Herkules (still the most profitable variety in Germany)
- Rest of World: no significant change expected



World Hops & Alpha production 1992 – 2017 est.



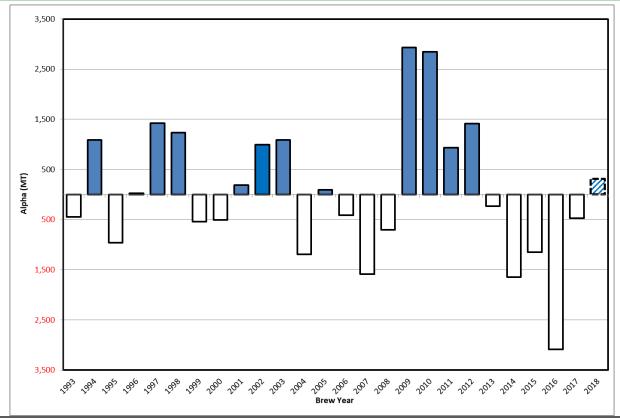
 Highest hop production since 1996

 Highest total alpha production on record, exceeding 2008/2009

 Variety mix vastly different

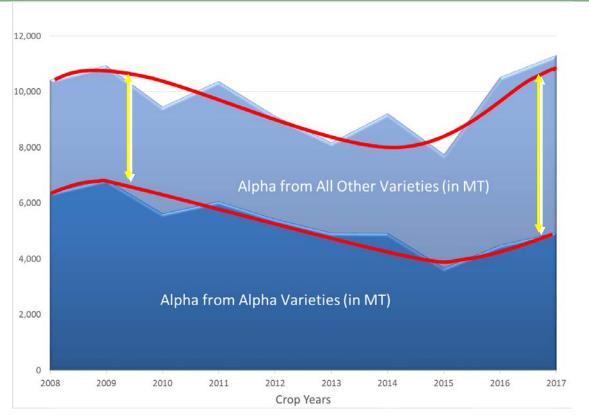


World Alpha Balance Brew Years 1993 – 2018 (est.)





World Alpha Production Varietal Sources 2008 - 2017



- In 2008, 60+% of Alpha came from typical alpha varieties
- In 2017, >45% came from these varieties
- Typical alpha production rebounding, but still tight
- There is 2,000+ MT more alpha produced from "other" in 2017 vs. 2008

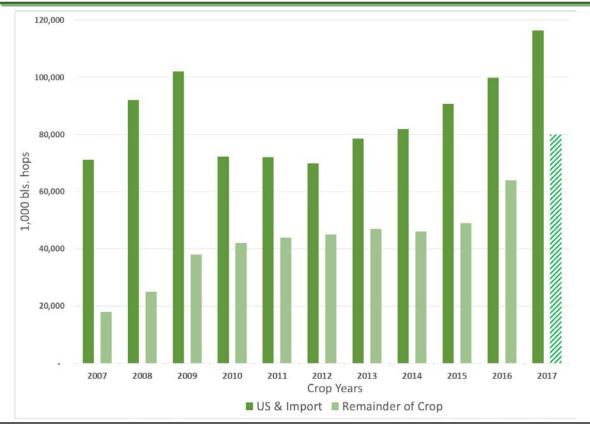


US Crop 2017

- Record year: largest acreage, production both hops and total alpha
- For the first time in 7 years, alpha variety acreage increased and alpha spots sold well
- Brewery contract restructurings have become a repeat occurrence, with classic aroma/flavor varieties (e.g. Cascade) looking to be restructured most or called off/shipped slowly
- Some excess and higher alpha containing aroma/flavor spots found alternate homes (courtesy of a strong alpha market)



US Production + Import vs. Grower/Dealer Stocks Year After



- Production and Imports vs. Grower/Dealer Stocks as of Sept. 1 the year after (shown in same year)
- Shipment rates relatively steady over the years
- Inventory build up, approaching one crop's production (2017 est.)

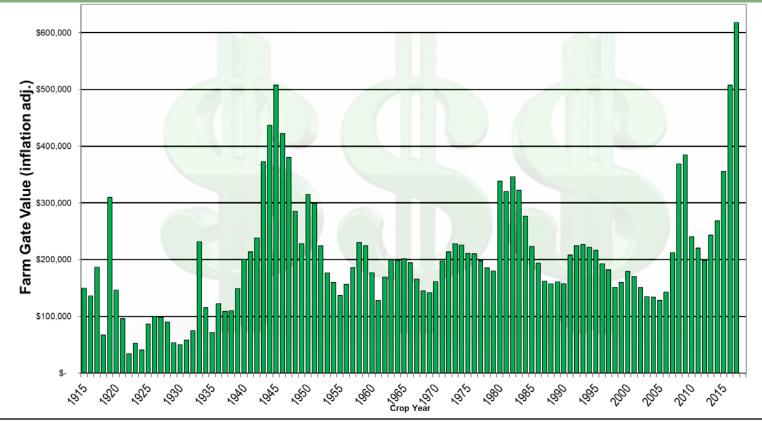


US Crop 2017 - Financial Aspects

- While the season average price increased only nominally over 2016, the total crop value jumped by nearly \$120 MM (due to size) to about \$620 MM
- Revenue per acre jumped to highest level, surpassing the \$11,000 mark
- How do these numbers compare to the industry's historical performance

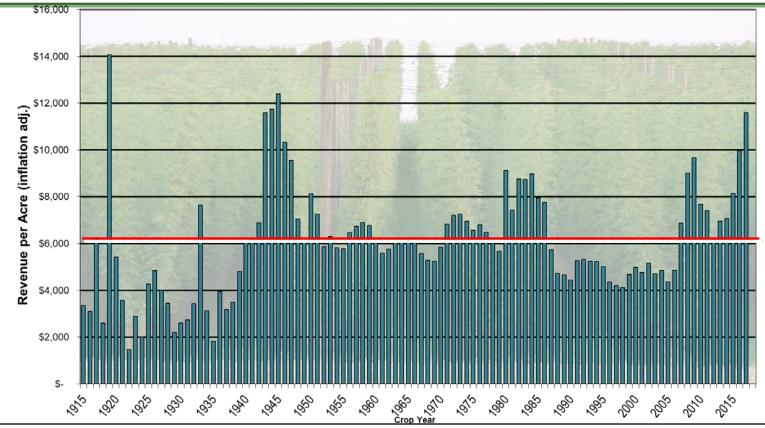


Farm Gate Crop Values (inflation adj.) 1915 - 2017





Per Acre Revenues (inflation adj.) 1915 - 2017





Summary

- World & US economic climate very favorable
- World beer production flat, challenges in the US, multiple trends
- 2017 world crop largest since mid 1990's, record in the US
- World alpha balance in theoretical balance, but in reality tight on alpha, long on aroma (US); acreage expansion/change over in 2018 likely eases alpha tightness somewhat
- The industry has made great investments in acreage and infrastructure, there is now sufficient acreage – no further expansion is needed

Thank You

...and now to our panel discussion