



MERCHANT *Panel*

66th Annual
**AMERICAN
HOP
CONVENTION**

January 19-21, 2022

2022 Merchants Panel Presentors

- Alex Barth, John I Haas
- Louis Gimbel IV, Hopsteiner
- Missy Raver, Yakima Chief Hops
- JD Dempsey, BSG Hops
- Christopher Holden, NY Hop Guild

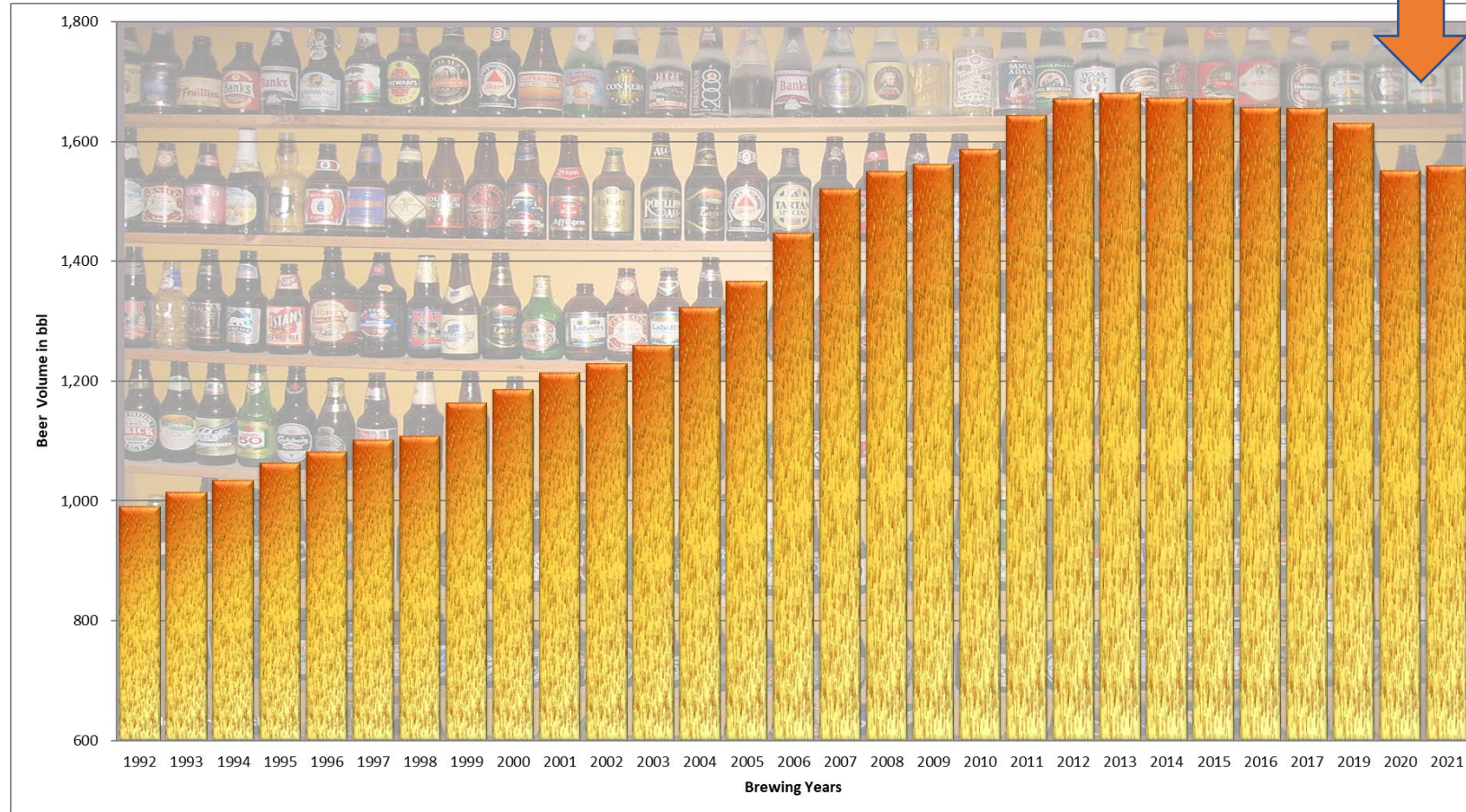
Tributes to Industry Figures





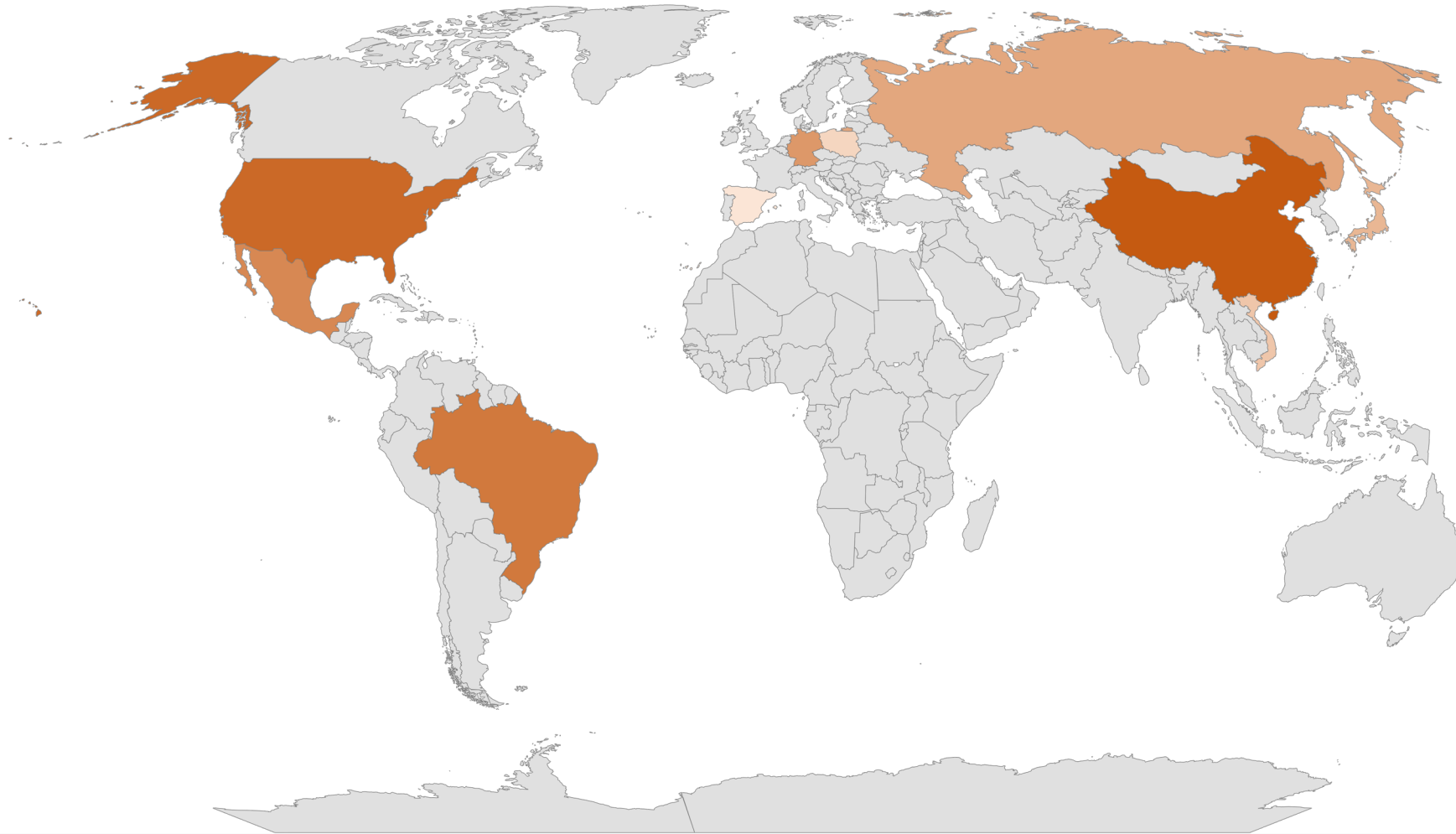
Global & US Beer Trends

Global & US Beer Trends



- Volume decline in 2020 less severe than expected “only” -4.9%
- Solid start in 2021 was dampened by Delta in Summer and Omicron in Winter
- Expectation for 2021 is about flat to marginally increasing

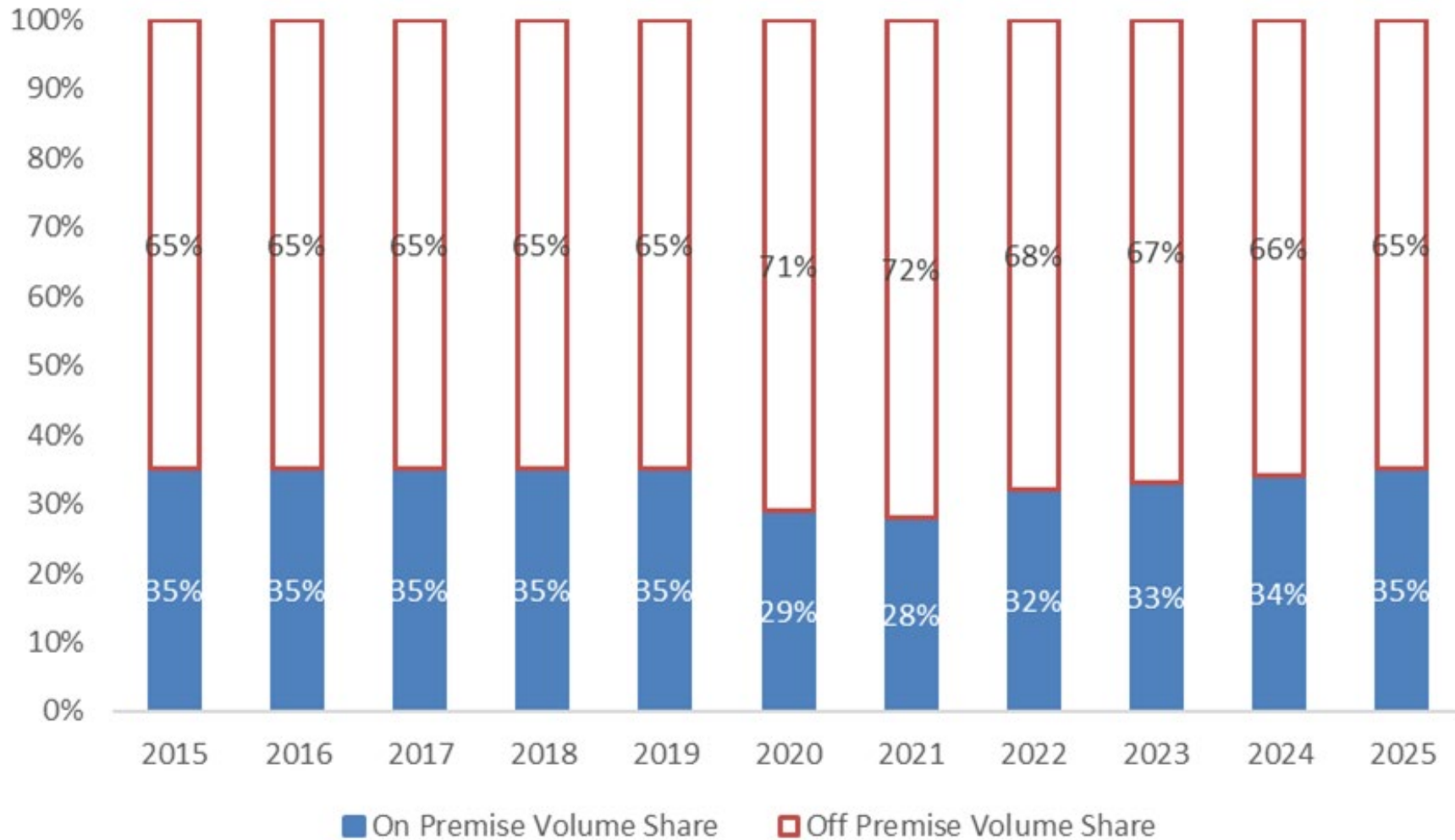
Top 10 Beer Producing Countries in 2020



	Million bbl
1	China 291
2	USA 180
3	Brazil 129
4	Mexico 108
5	Germany 74
6	Russia 68
7	Japan 40
8	Vietnam 34
9	Poland 33
10	Spain 30
	Subtotal 987

Nearly 2/3 of world beer is produced in these 10 countries

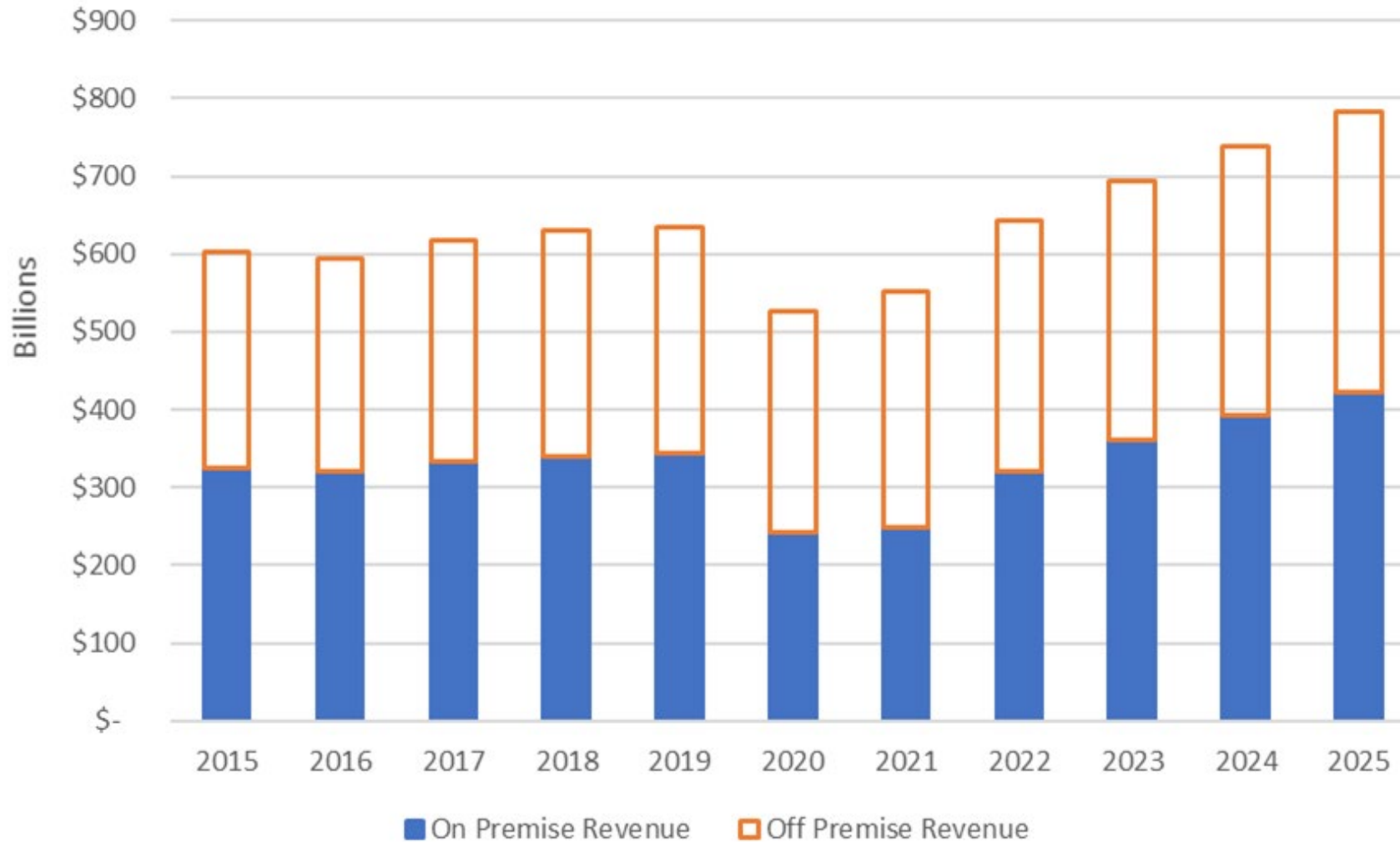
World Beer On/Off Premise Volume Share



Source: Statsita

- On vs. Off Premise volume had been steady ~1/3 : 2/3
- Pandemic closures, subsequent restrictions and customer hesitations severely decrease on premise consumption
- Certain regions in Europe nearly 50% on premise, US Craft about 40% compared to just under 20% US wide
- On premise share to gradually recover by 2025

World Beer Revenue



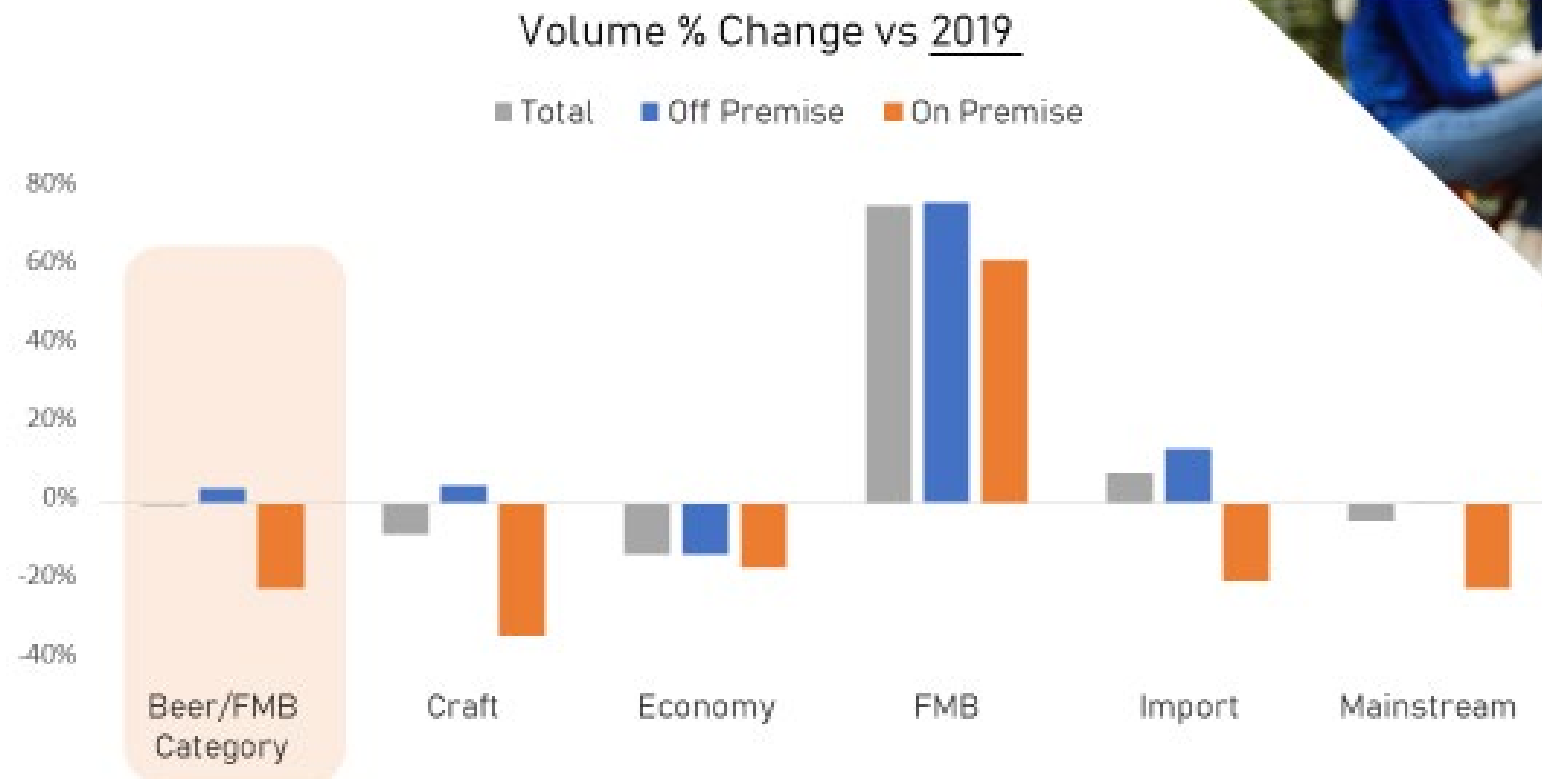
Source: Statsita

- On Premise value about equal to Off Premise (as paid by consumer)
- On Premise estimated to have lost ~\$100 billion vs. Off Premise under \$10 billion
- Value recovery estimated by 2023 for both, strong growth thereafter
- Reason: premiumization and inflation



- On Premise most important channel for hop industry
- On Premise = Test Kitchen
- Channel to experiment, fail early and cheaply
- Introduction of new varieties / flavors in taprooms – immediate consumer responses
- Support your local taprooms and experiment with tomorrow's beers

CORE BEER LAGS GROWTH OF FMB/SELTZER



Source: Beer Institute; YTD ending October 2021 vs YTD 2019

The Blurring of Lines – Beer vs. FMB vs. RTD's



The Blurring of Lines – Beer vs. FMB vs. RTD's



No Hops...Not Beer!

Headwinds

<https://www.cnbc.com/2021/12/28/why-the-lines-between-beer-soda-and-spirits-are-blurring.html>



MARKETS

BUSINESS

INVESTING

TECH

POLITICS

CNBC TV

WA

The lines between beer, soda and spirits are blurring as beverage companies seek sales growth

PUBLISHED TUE, DEC 28 2021-7:00 AM EST | UPDATED TUE, DEC 28 2021-10:58 AM EST



Amelia Lucas
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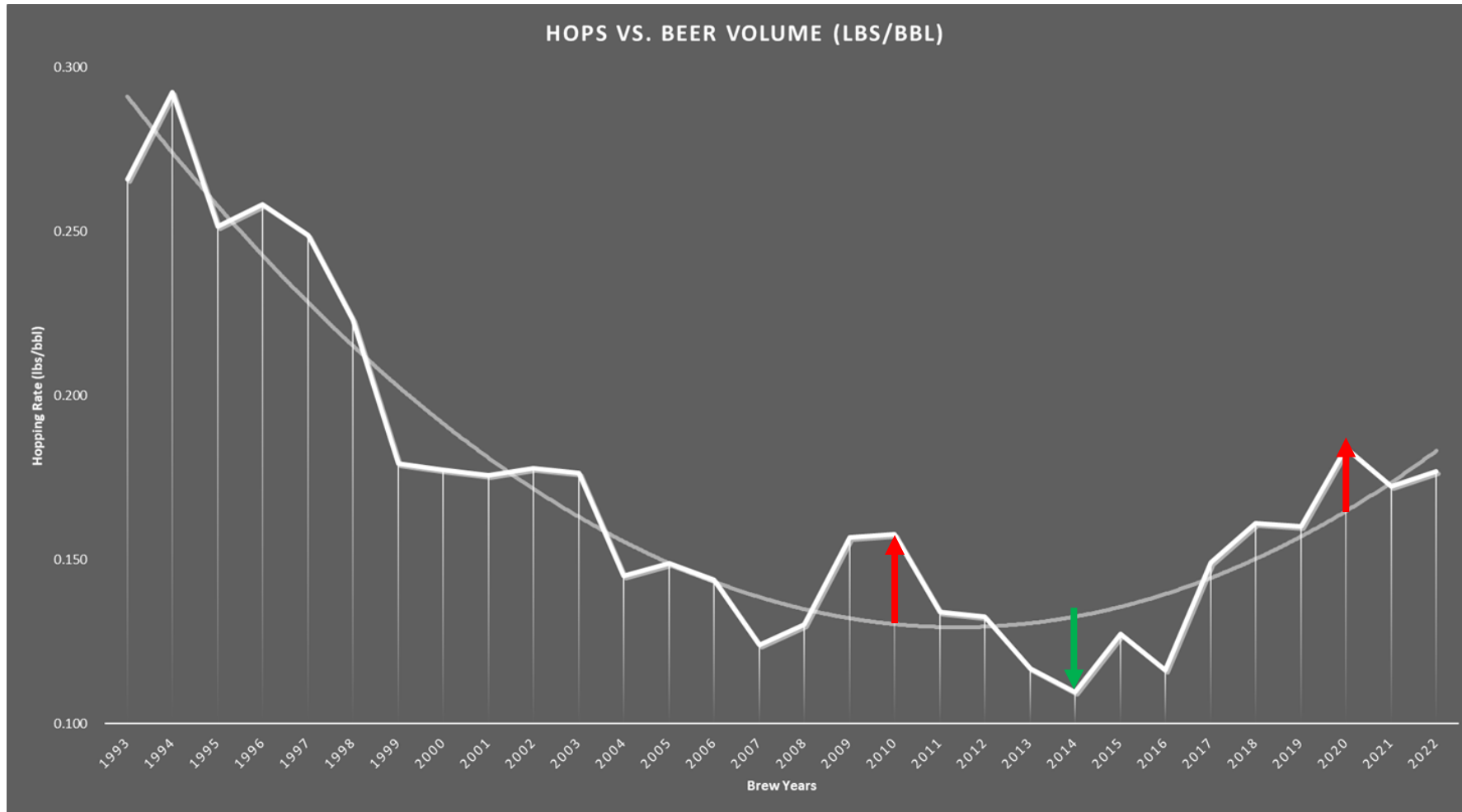
SHARE



KEY POINTS

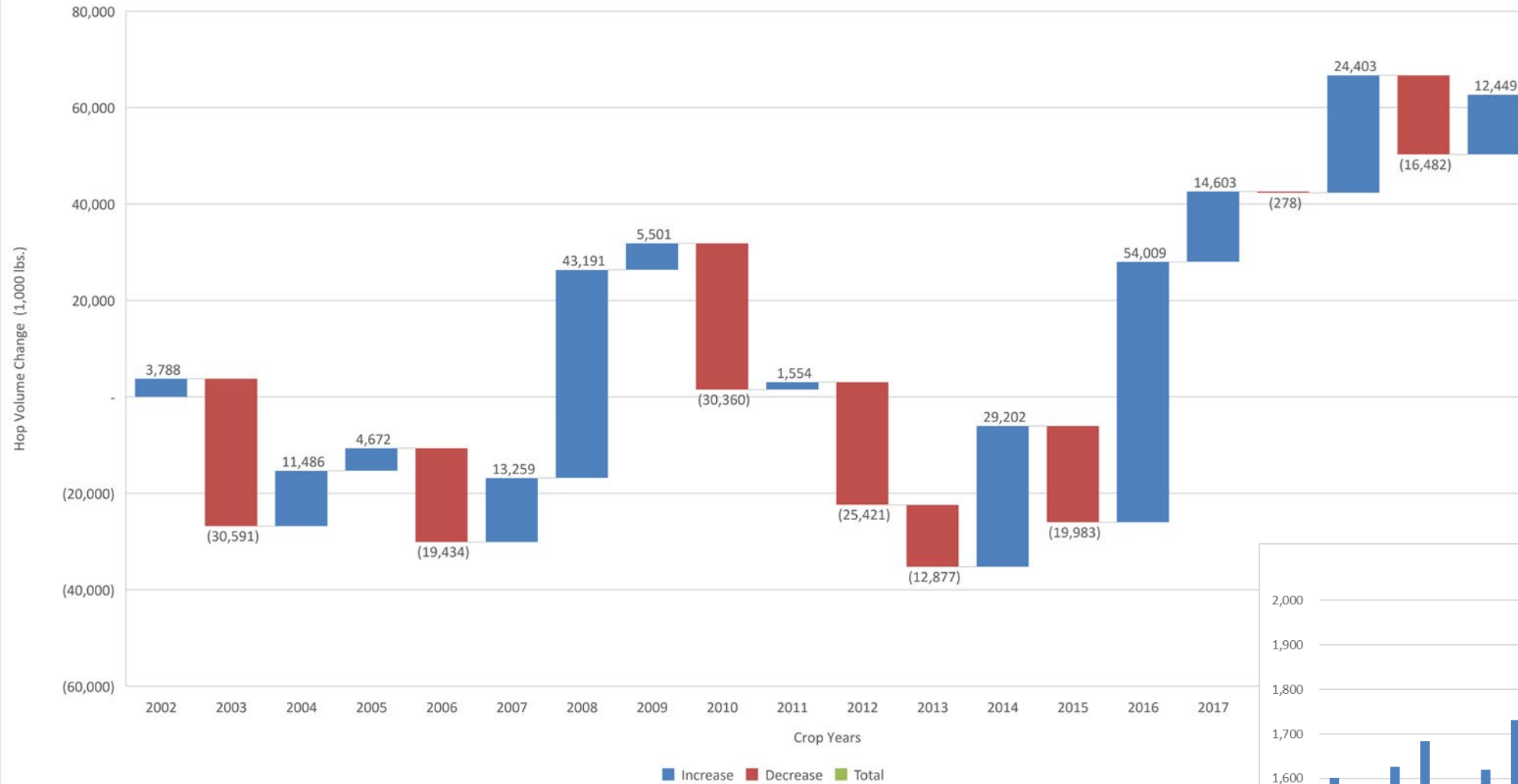
- In the hunt for growth, beverage companies are experimenting in new categories, blurring the lines between beer, soft drinks and spirits.
- Nonalcoholic beverage giants Coca-Cola and PepsiCo are entering alcohol, while beer brewers are pushing into hard soda and spirits.
- New entrants mean tougher competition, which is stirring worry among some alcohol companies about the effect on the three-tier system that has long governed that industry.

Estimating World Hop Supply / Demand Balance



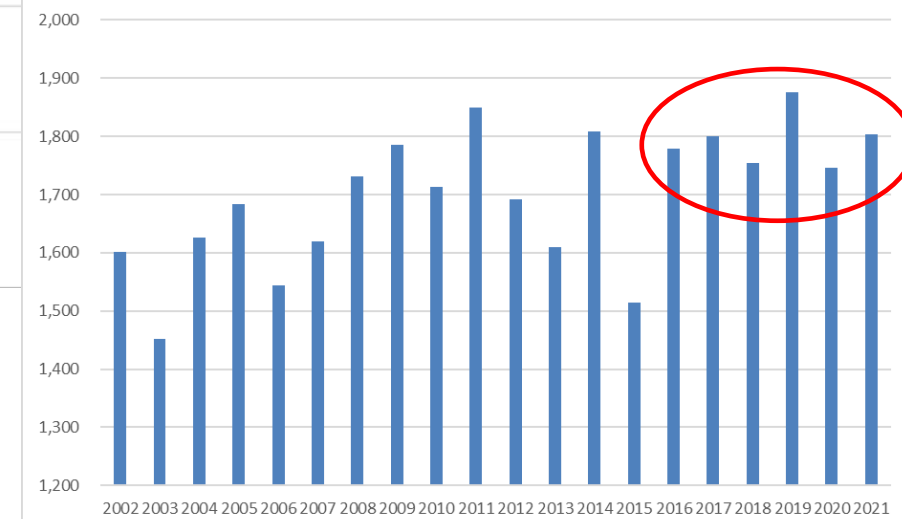
- Matching Hops and Beer volumes over time, indicates surplus period
- 2021/2022 skewed due to “end of data”
- 2010 Brew Year (2009 Crop) – calculated excess 43 million lbs.
- 2016 (2015 Crop), shortfall 40 million lbs.
- 2020 (2019 Crop) excess 30 million lbs.

Year-to-Year World Crop Fluctuations (1,000 lbs.)



- Since 2002, the world hop crop increased by ~60 million lbs. or 26% in 20 years
- About 40 million lbs. added when yields fluctuated less over last 6 years

Yield (lbs/A)



Annual World Crop Fluctuations

The Great Hesitation – Indecision 2022

- Fear of over-contracting, too many hops
- Fear of contracting the wrong varieties
- Fear of paying too much right now...will it be cheaper tomorrow?



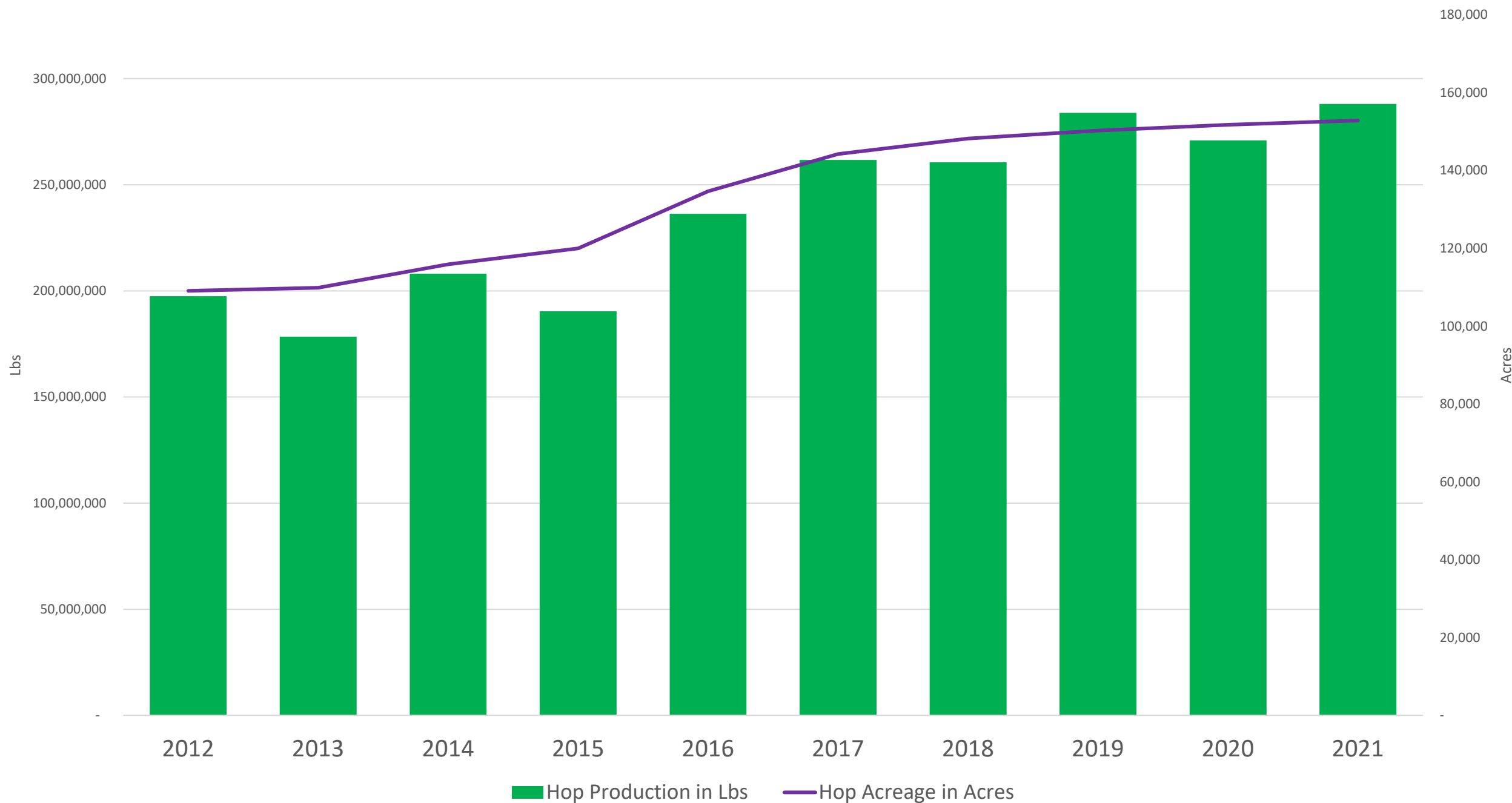
- There will be life after Omicron
- Beer and its makers have proven to be more resilient than thought
- Keep the conversation going...planting or acreage removal decision by hop industry needs input from our brewers

We live in an era of climate change – it's better to have a buffer

Global Hop Trends

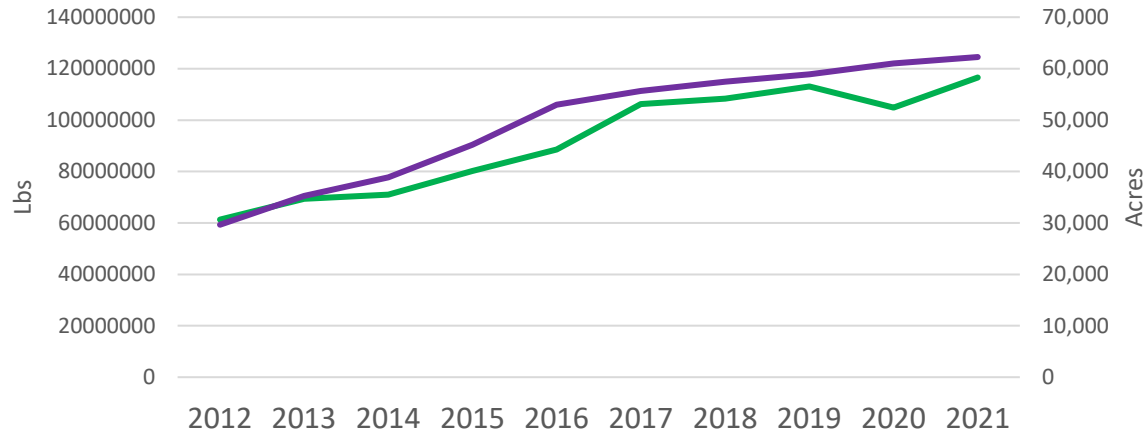


Global Hop Production and Hop Acreage

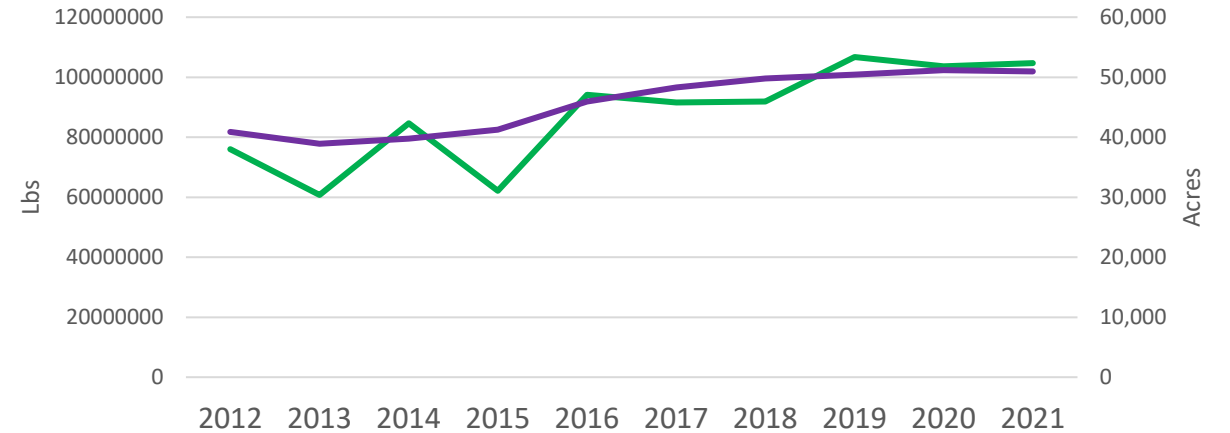


Hop Acreage And Production By Region

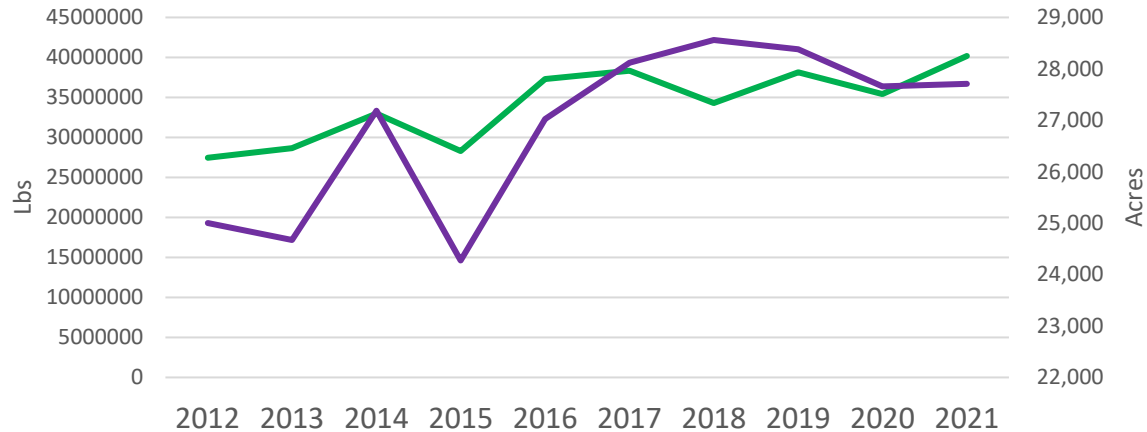
US



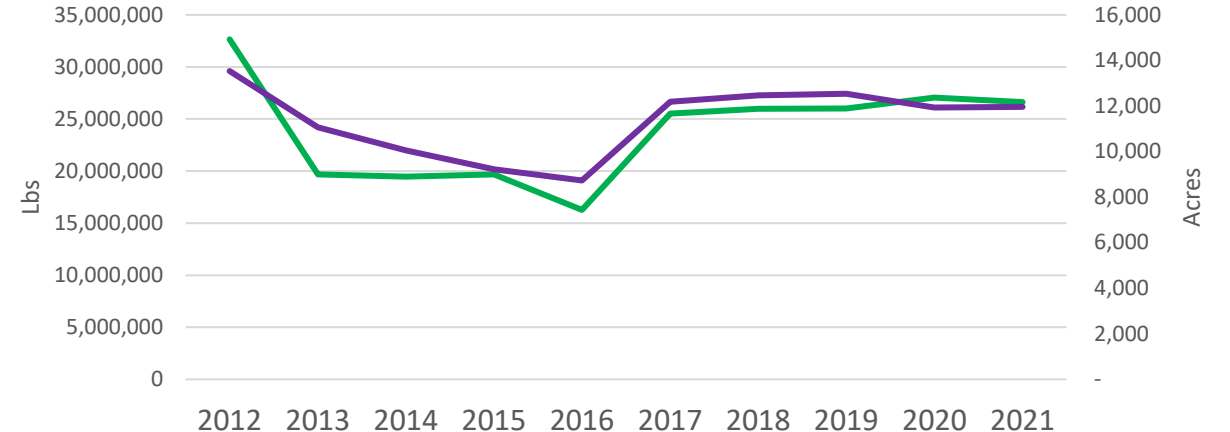
Germany



EU less Germany



World (rest)



 Hop Production in Lbs  Hop Acreage in Acres

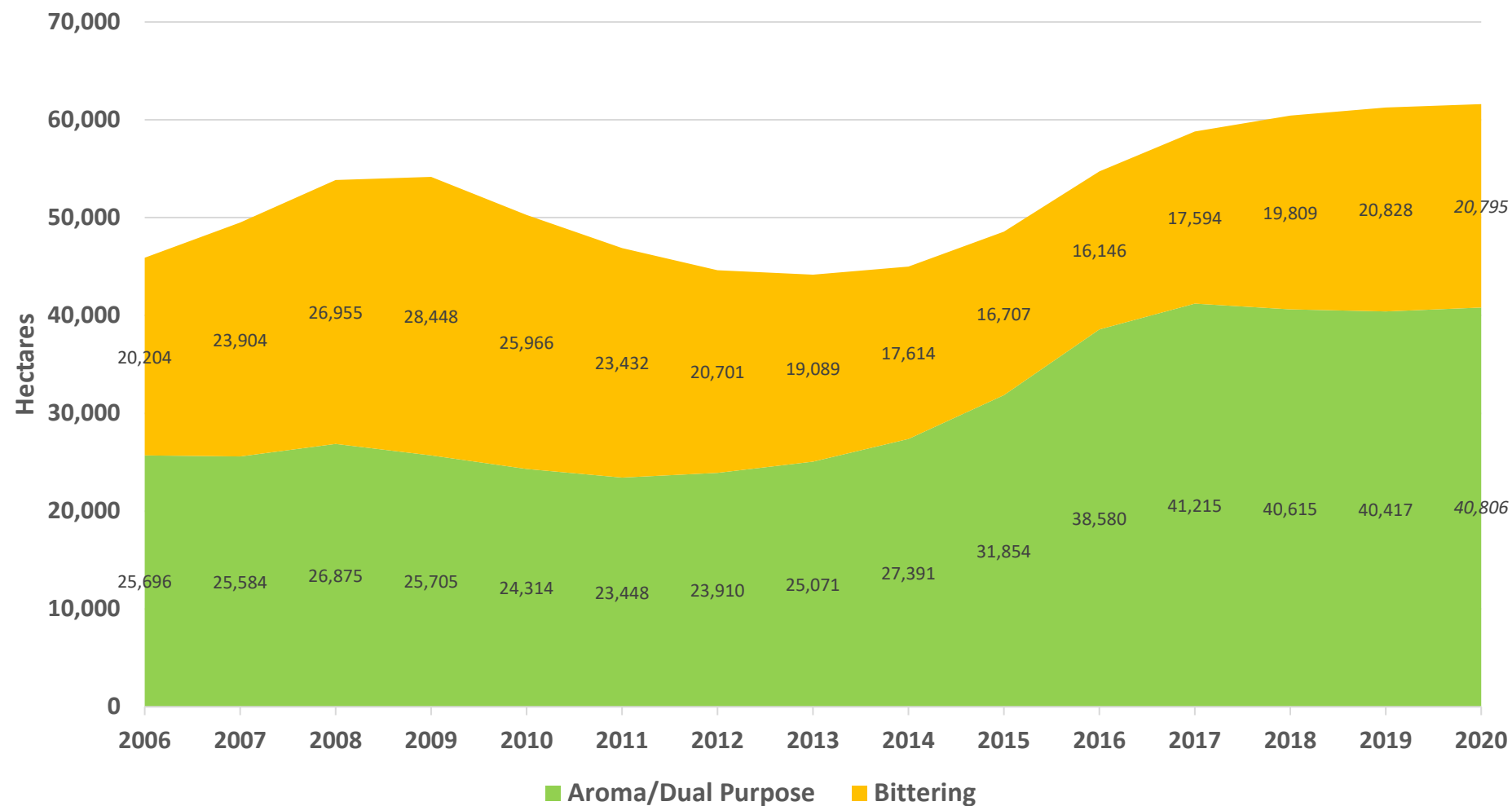
Hop Acreage 2018-2021

Acreage in Acres					+/- %		
	2018	2019	2020	2021	18/19	19/20	20/21
Czech Republic	12,404	12,362	12,271	12,325	-0.3	-0.7	+0.4
England	2,343	2,367	2,142	1,653	+1.1	-9.5	-22.8
France	1,226	1,231	1,236	1,376	+0.4	+0.4	+11.4
Poland	4,107	4,354	4,344	4,344	+6.0	-0.2	0.0
Slovenia	4,119	3,944	3,657	3,793	-4.3	-7.3	+3.7
Spain	1,324	1,315	1,374	1,404	-0.7	+4.5	2.2
Germany	49,776	50,450	51,165	50,954	+1.4	+1.4	-0.4
USA	57,332	58,914	61,128	63,223	+2.8	+3.8	+3.4
Australia	1,611	1,730	1,836	1,945	+7.4	+6.1	5.9
P.R. China	5,688	5,683	5,807	6,573	-0.1	+2.2	+13.2
South Africa	1,055	1,055	1,055	1,013	-0.0	+0.0	-4.0
Rest	8,043	8,661	8,327	8,270	+7.7	-3.9	-0.7
World Total	149,028	152,065	154,341	156,874	+2.0	+1.5	+1.6

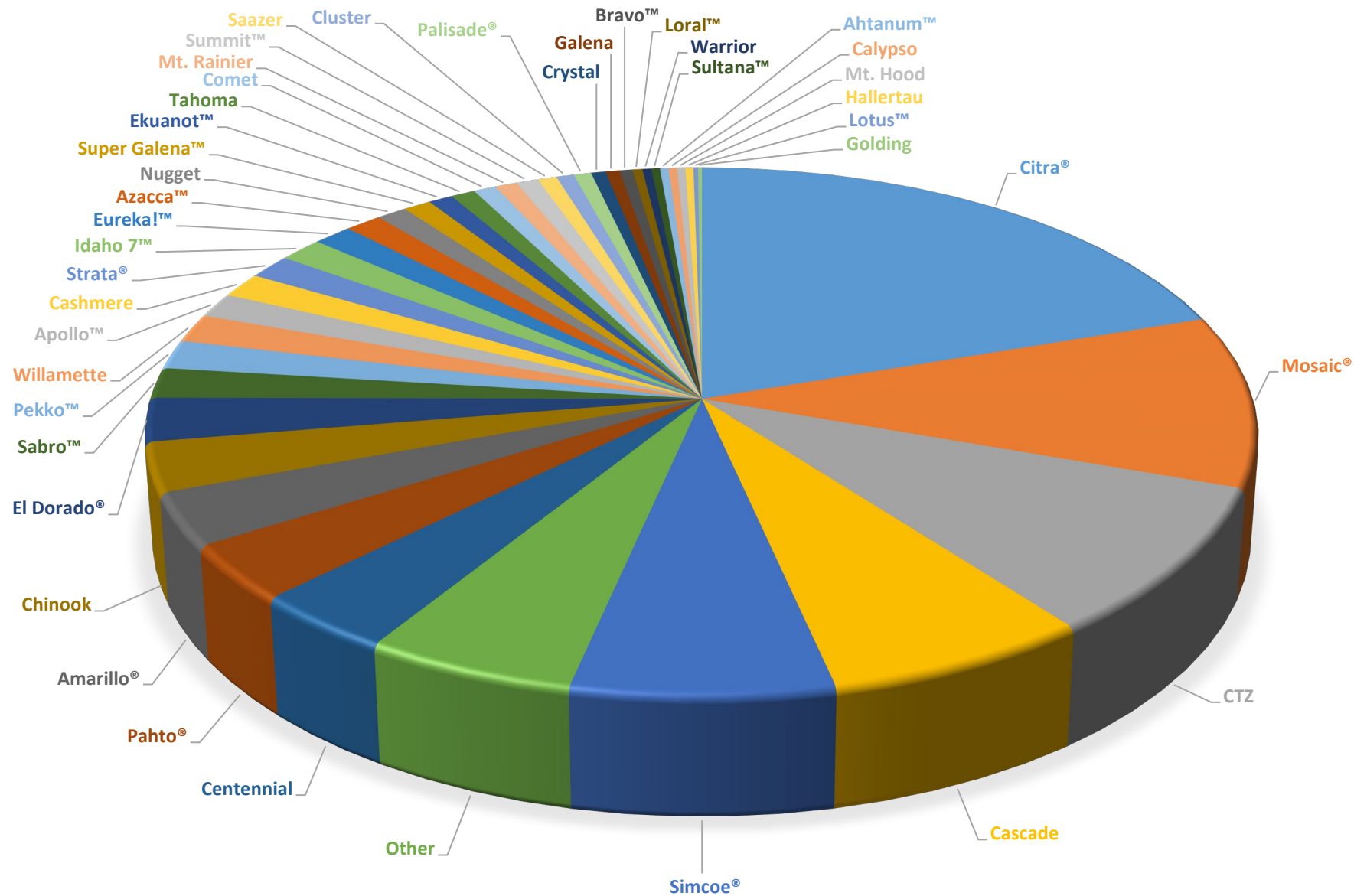
Crop Quantities & Average Yields 2018-2021

Crop Quantities in 1,000's of Lbs.					+/- %			Ø 'Yields in lbs / acre			
	2018	2019	2020	2021	18/19	19/20	20/21	2018	2019	2020	2021
Czech Republic	11,302	15,752	13,062	18,698	+39.4	-17.1	+43.1	911	1,274	1,064	1,517
England	3,036	3,153	2,037	1,841	+3.9	-35.4	-9.6	1,296	1,332	951	1,114
France	1,905	1,812	1,691	2,260	-4.9	-6.7	+33.6	1,554	1,473	1,369	1,642
Poland	7,072	8,301	8,018	7,165	+17.4	-3.4	-10.6	1,722	1,907	1,846	1,649
Slovenia	6,786	5,732	6,003	3,788	-15.5	+4.7	-36.9	1,647	1,453	1,641	999
Spain	1,984	1,852	2,002	2,072	-6.7	+8.1	+3.5	1,498	1,409	1,457	1,476
Germany	92,141	106,863	103,349	104,577	+16.0	-3.3	+1.2	1,851	2,118	2,020	2,052
USA	108,648	113,838	104,810	113,102	+4.8	-7.9	+7.9	1,895	1,932	1,715	1,789
Australia	3,488	3,627	3,779	3,757	+4.0	+4.2	-0.6	2,165	2,097	2,058	1,932
P.R. China	12,368	12,084	12,147	13,448	-2.3	+0.5	+10.7	2,174	2,126	2,092	2,046
South Africa	1,907	1,565	1,662	1,662	-17.9	+6.2	0.0	1,808	1,484	1,575	1,640
Rest	9,740	10,169	10,390	9,919	+4.4	+2.2	-4.5	1,211	1,174	1,248	1,199
World Total	260,377	284,748	268,950	282,289	+9.4	-5.5	+5.0	1,747	1,873	1,743	1,799

The growth of aroma varieties' share of global acreage



Pacific Northwest Hop Acreage 2021



We're all in this together

Our Supply Chains Face Many Common Challenges



Inflation Woes Affect Thanksgiving Dinner

Average price of a ten-person Thanksgiving dinner in the U.S. from 2000 to 2021



Source: American Farm Bureau



People are Hops!

Photo: USA HOPS

Labor Costs Continue to Increase

WA State Loss of Overtime Exception

In 2022 Washington growers will pay overtime for any hours >55.

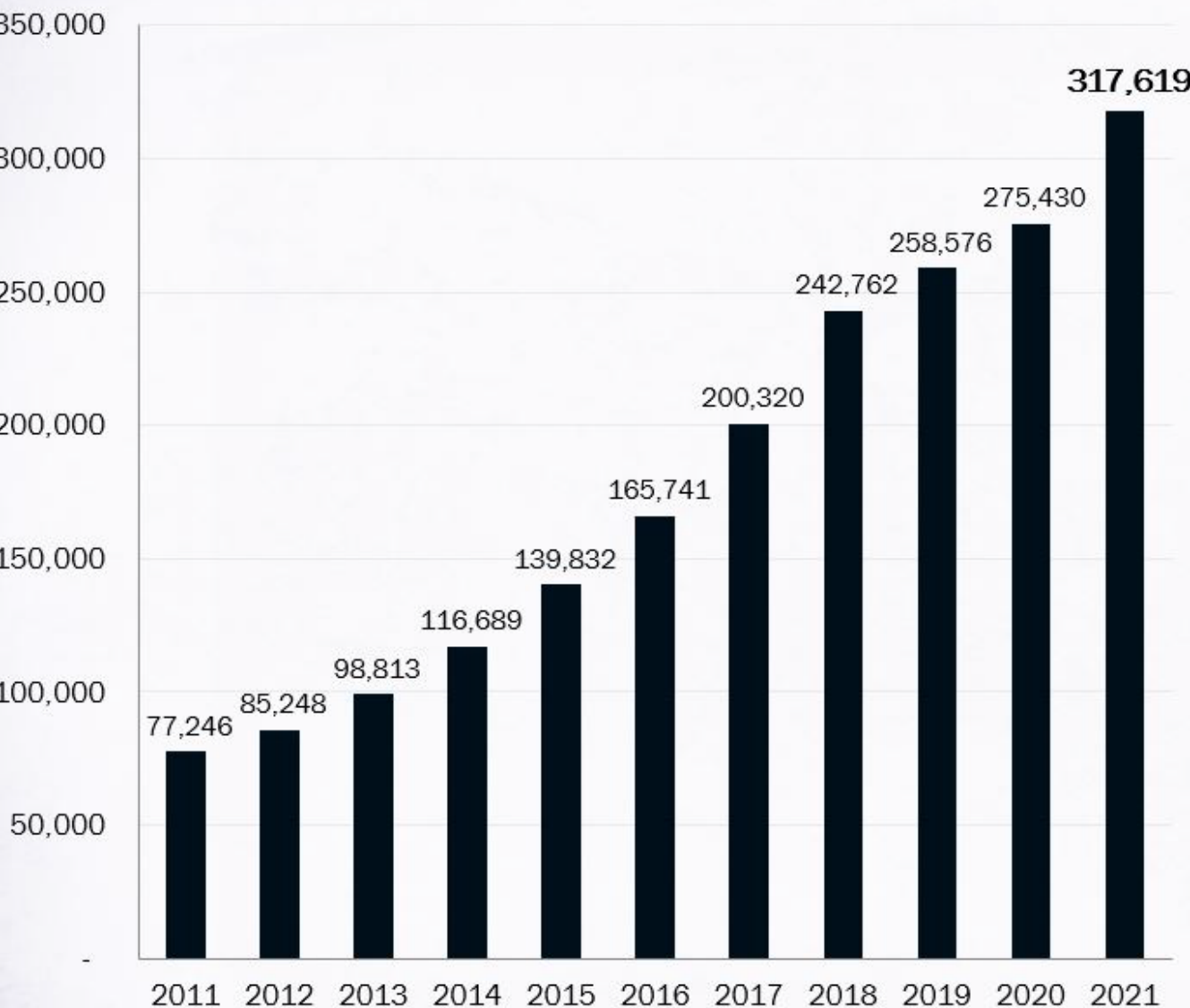
This will be implemented in a phased in approach.

In 2023 any hours greater than 48,

In 2024 hours greater than 40.



Certified H-2A Positions by Fiscal Year



Fiscal Year-Over-Fiscal Year Percentage Change in Certified H-2A Positions



Increased Wages: H-2A employees and U.S. employees in corresponding employment must be paid the Adverse Effect Wage Rate.

WA & OR

2022 AEWR is \$17.41 per hour

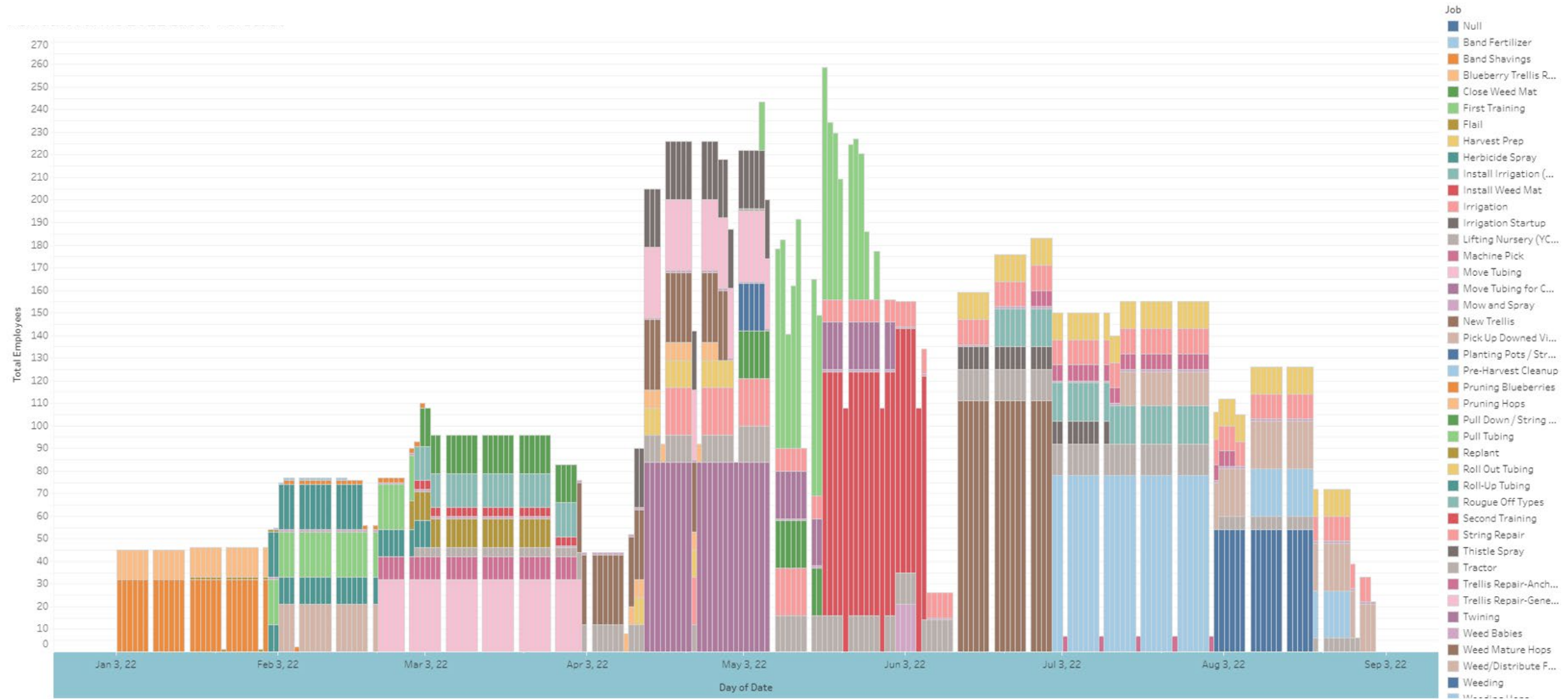
Idaho

2022 AEWR is \$14.68 per hour

Housing: Housing is a barrier for many prospective H-2A users. Regardless if you build, rent, or use an existing business owned residence, housing is an substantial cost.

Transportation: Inbound and outbound transportation needs to be paid by the employer. Fees, subsistence pay, overnight lodging, and travel equated to about \$688.00 per foreign H-2A employee in 2021.

Labor Needs in Hops are Unique



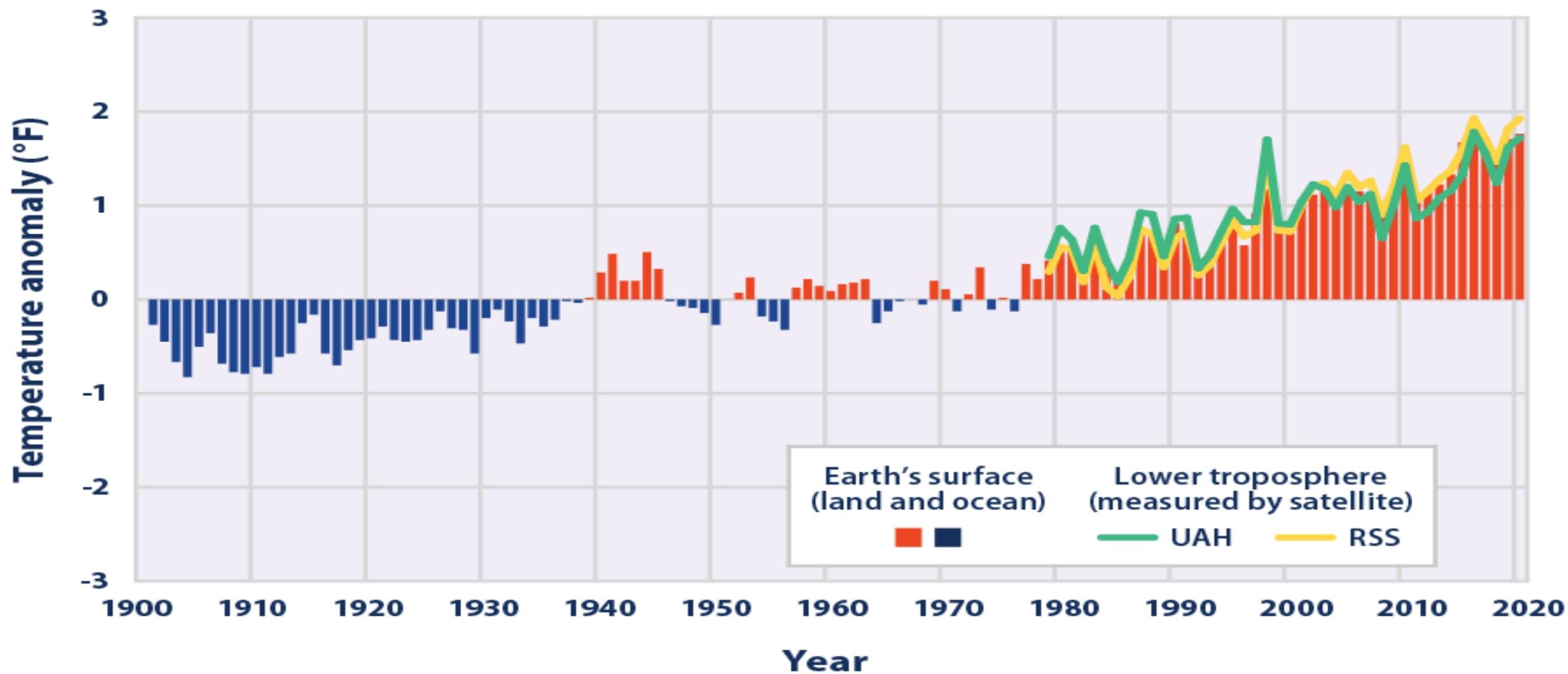
Source: Jeff Perrault

Environmental Impacts

- Water Management
- Climate Change
- MRL's / Export Requirements



Temperatures Worldwide, 1901–2020

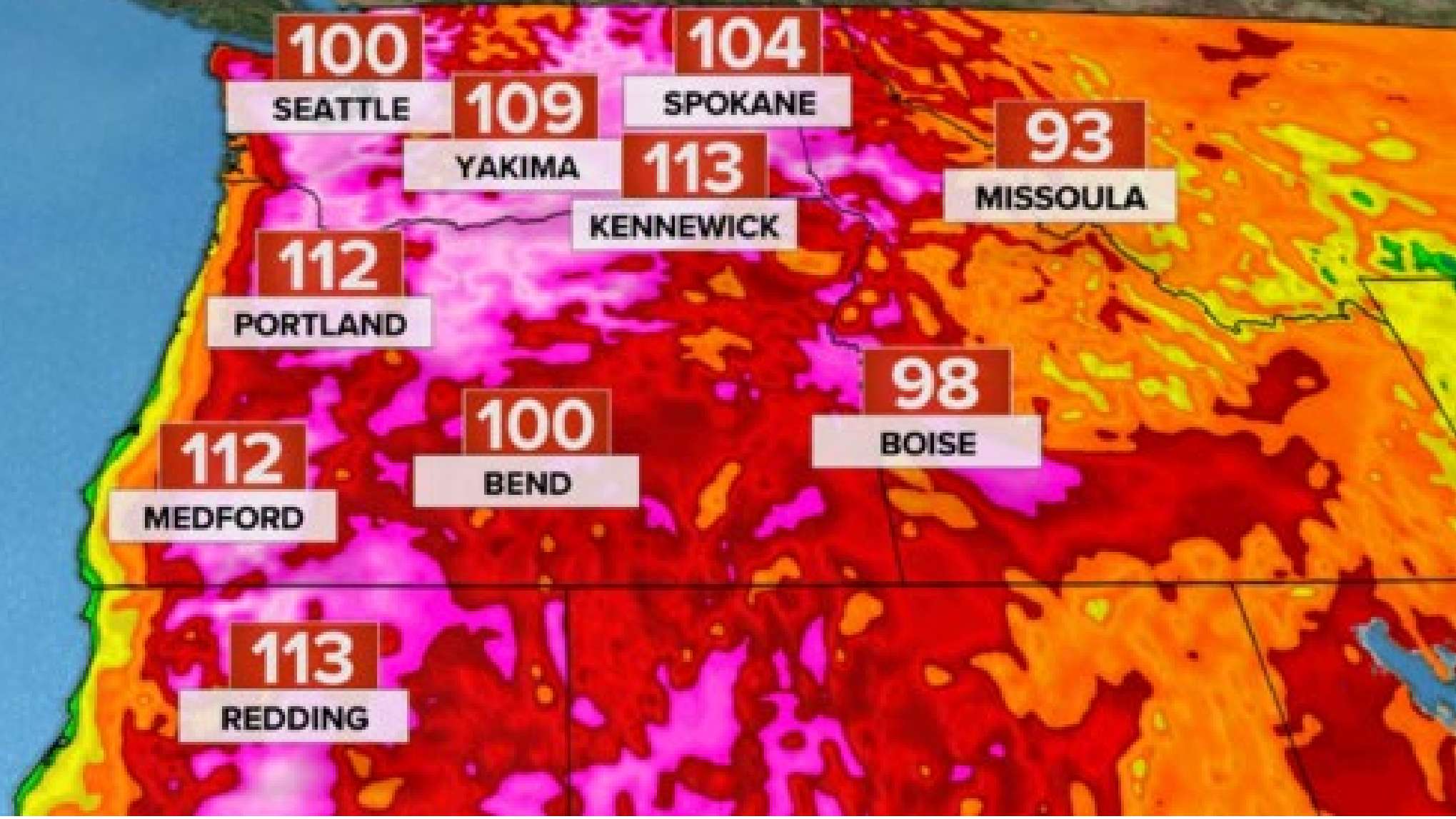


Data source: NOAA (National Oceanic and Atmospheric Administration). 2021. Climate at a glance. Accessed February 2021. www.ncdc.noaa.gov/cag.

For more information, visit U.S. EPA's "Climate Change Indicators in the United States" at www.epa.gov/climate-indicators.

RECORD SHATTERING HEAT

HIGH TEMPERATURES - SUNDAY



EU Pesticide Policies

- 2019 European Green Deal
 - Goal: Sustainable EU Economy
- 2020 EU Farm To Fork Strategy
 - Reduce dependency on Pesticides and Antimicrobials
 - 50% reduction and risk in Chemical Pesticides
 - 50% Reduction in Hazardous Pesticides by 2030
 - Reduce Excess Fertilization
 - Increase Organic Farming – goal of 25% by 2030
 - Improve Animal Welfare
 - Reverse Biodiversity Loss



EU Pesticide Policies

- Continuing to ship US Hops to EU will require innovated solutions
 - Pest resistant varieties
 - Integrated Pest Management
 - Organic strategies
 - Continued research on spray timings, effectiveness and residues



Other Countries

- China's new MRL requirements has limited hop import MRL's
- Taiwan has limited MRL's
- Korea has made progress in establishing MRL's
- Merchants working with growers and customers to find common solutions
 - Supporting research
 - Increased education for customers
 - Working with growers to find the balance of quality and compliance

Hops are Here for Beer!

- Stable quality across varieties
- Substantial annual investment in quality and service
- Innovation not only meets but spurs demand
 - New hop varieties, new hop products
- Industry moving forward to sustainability and brewers and consumers goal for lower carbon footprints
 - Less water consumption
 - Less pesticide consumption
 - Increasing yields
 - Cost benefit



Outlook 2022 & Beyond

Hops

- US acreage – flat overall, shifting of fields, rebalancing
- Germany – flat
- Rest of World – flat

Worldwide

- High end growth - premiumization
- Spirits and RTD growth
- Convenience in packaging
- Convenience in ecommerce
- Health and wellness/low and no-alc
- Positive Experiences