

GREAT LAKES BREWING CO.

LXMT 720 | PROF. GINA KWOK-TISCHLER | SNEHA S NAGAR & YAN SHEN



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OVERVIEW

Industry: Beverage Manufacturing

Location: 2516 Market Ave Cleveland, OH, 44113-3434 United States

Employee:185

Revenue: \$41.41 million

Total Assets:23.67M



HISTORY AND KEY FACTS:

- 1880'S-THE BEGINNING:
- 1990'S-BUILDING A STRONG FOUNDATION
- 2000'S - PICKING UP STEAM





COMPANY MISSION AND VALUES

MISSION STATEMENT

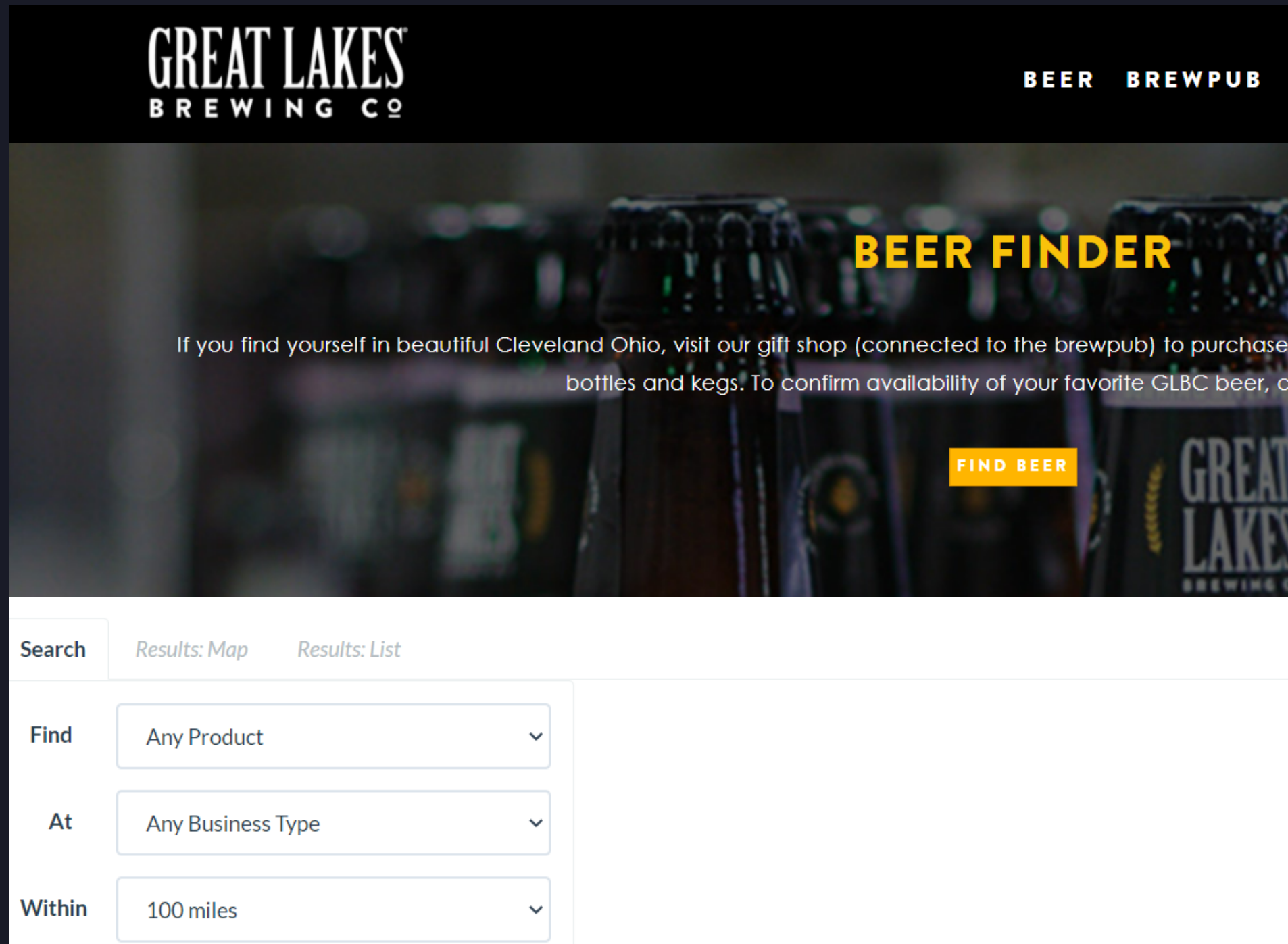
Balancing financial responsibility with social and environmental responsibility.

PHILOSOPHY

Celebrate the abundance of the Great Lakes region in every beer, dish, and story we share.

- PASSION FOR OUR PRODUCT
- RESPECT RESOURCES
- FOSTER RELATIONSHIPS
- SHARE SUCCESS

CHANNELS

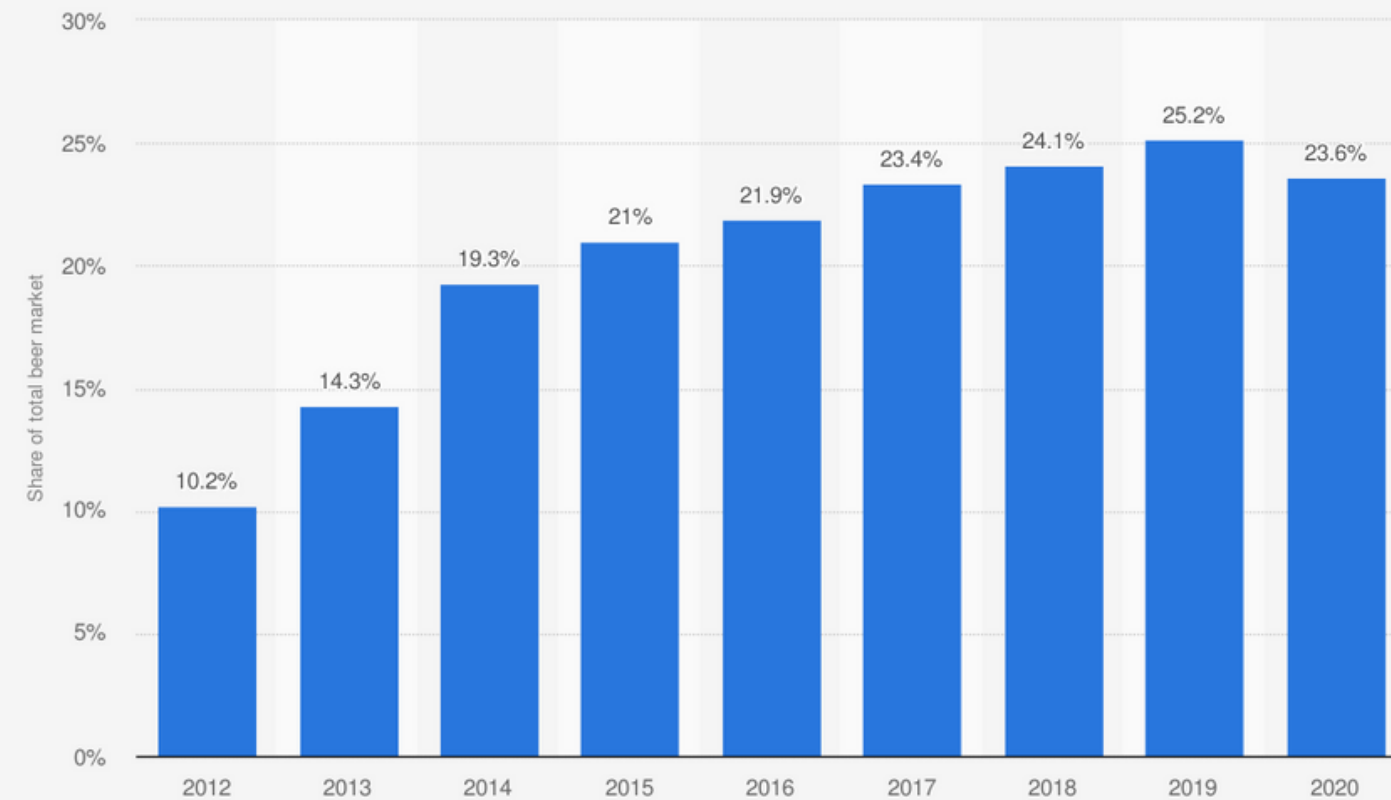


- Heavy distribution: **Cleveland** and **Northeast Ohio**.
- **15 States**: Ohio, Illinois, Michigan, Indiana, Minnesota, Wisconsin, Kentucky, North Carolina, Virginia, West Virginia, New York, New Jersey, Pennsylvania, Maryland, and Washington, D.C.
- **Brewpub, gift shop.**
- Outsource Distributors
- **BEER FINDER TOOL**

MARKET SIZE- 0.034%

Top 50 Overall Brewing Companies: 31

Craft beer share of retail beer market in the United States from 2012 to 2020



Source
Brewers Association
© Statista 2021

Additional Information:
United States; Brewers Association; 2012 to 2020

TOP 50 U.S. CRAFT BREWING COMPANIES



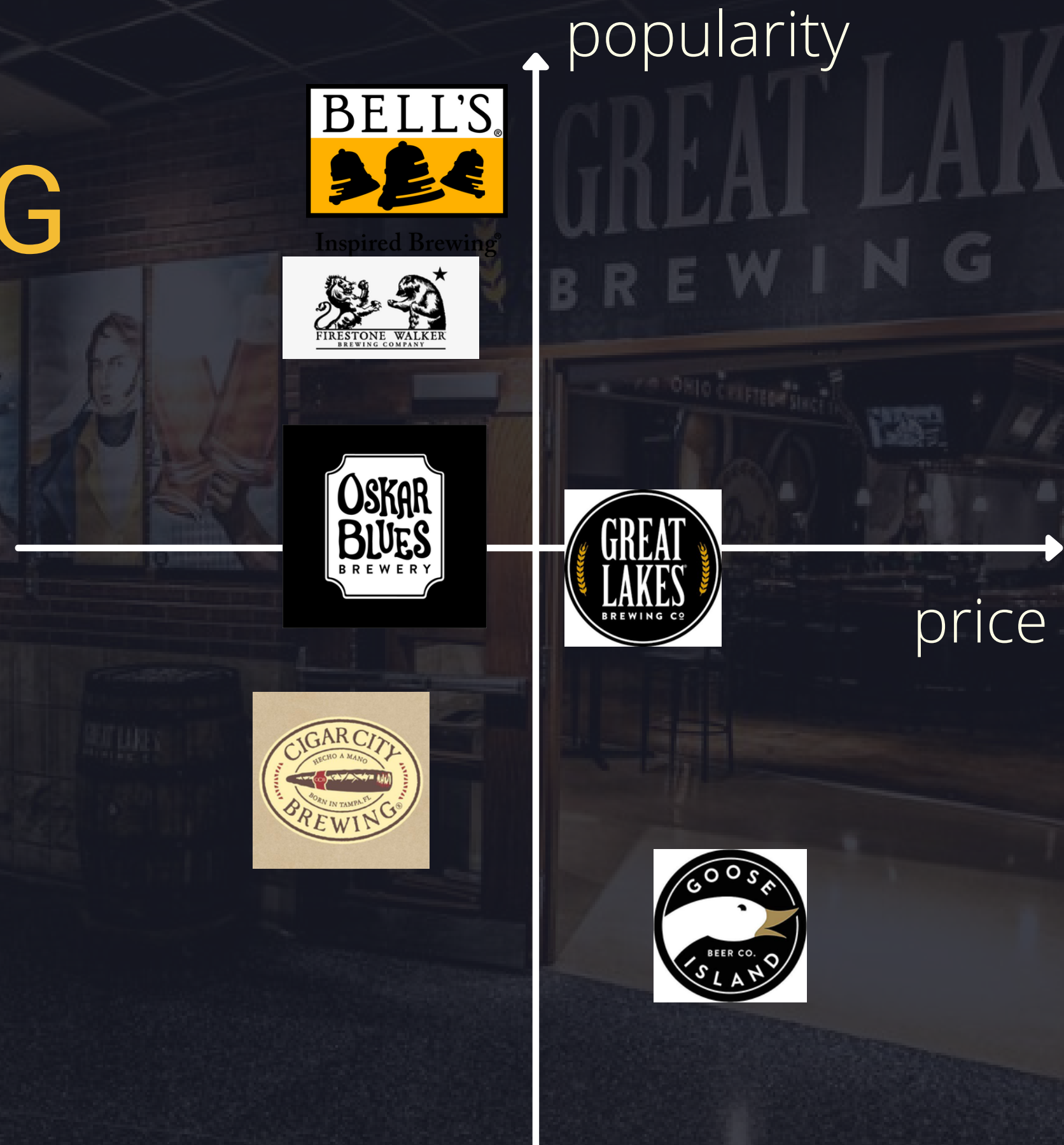
1 D. G. Yuengling & Son, Inc., Pottsville, PA	25 Rhinegeist Brewery, Cincinnati, OH
2 Boston Beer Co., Boston, MA / Milton, DE	26 Alaskan Brewing Co., Juneau, AK
3 Sierra Nevada Brewing Co., Chico, CA	27 Gordon Biersch Brewing Co., San Jose, CA
4 Duvel Moortgat, Paso Robles, CA	28 Georgetown Brewing Co., Seattle, WA
Kansas City, MO / Cooperstown, NY	29 Allagash Brewing Co., Portland, ME
5 Gambrinus, Shiner, TX / Berkeley, CA	30 Kings & Convicts Brewing/Ballast Point, Pleasant Prairie, WI / San Diego, CA
6 CAnarchy, Longmont, CO / Tampa, FL / Salt Lake City, UT	31 Long Trail Brewing Co., Bridgewater Corners, VT
Comstock Park, MI / Inglewood, CA / Dallas, TX	32 Narragansett Brewing Co., Pawtucket, RI
7 Bell's Brewery, Inc., Comstock, MI	33 Ninkasi Brewing Co., Eugene, OR
8 Artisanal Brewing Ventures, Downingtown, PA	34 21st Amendment Brewery, Bay Area, CA
Lakewood, NY / Brooklyn, NY	35 Flying Dog Brewery, Frederick, MD
9 Stone Brewing Co., Escondido, CA	36 Surly Brewing Co., Minneapolis, MN
10 Deschutes Brewery, Bend, OR	37 Rogue Ales Brewery, Newport, OR
11 SweetWater Brewing Co., Atlanta, GA	38 Lost Coast Brewery, Eureka, CA
12 New Glarus Brewing Co., New Glarus, WI	39 Revolution Brewing, Chicago, IL
13 Matt Brewing Co., Utica, NY	40 Modern Times Beer, San Diego, CA
14 Brooklyn Brewery, Brooklyn, NY	41 BrewDog Brewing Company, Canal Winchester, OH
15 Harpoon Brewery, Boston, MA	42 Saint Arnold Brewing Co., Houston, TX
16 Stevens Point Brewery, Stevens Point, WI	43 Toppling Goliath Brewing Co., Decatur, IA
17 Odell Brewing Co., Fort Collins, CO	44 Two Roads Brewing Co., Stratford, CT
18 Minhas Craft Brewery, Monroe, WI	45 Fremont Brewing, Seattle, WA
19 Abita Brewing Co., Covington, LA	46 Shipyard Brewing Co., Portland, ME
20 Troegs Brewing Co., Hershey, PA	47 Left Hand Brewing Co., Longmont, CO
21 Summit Brewing Co., St. Paul, MN	48 Creature Comforts Brewing Co., Athens, GA
22 Great Lakes Brewing Co., Cleveland, OH	49 Montauk Brewing Co., Montauk, NY
23 August Schell Brewing Co., New Ulm, MN	50 New Holland Brewing, Holland, MI

BrewersAssociation.org

An American craft brewer is a small and independent brewer
*The above companies met the craft brewer definition for all or part of 2020.



MARKETING POSITIONING

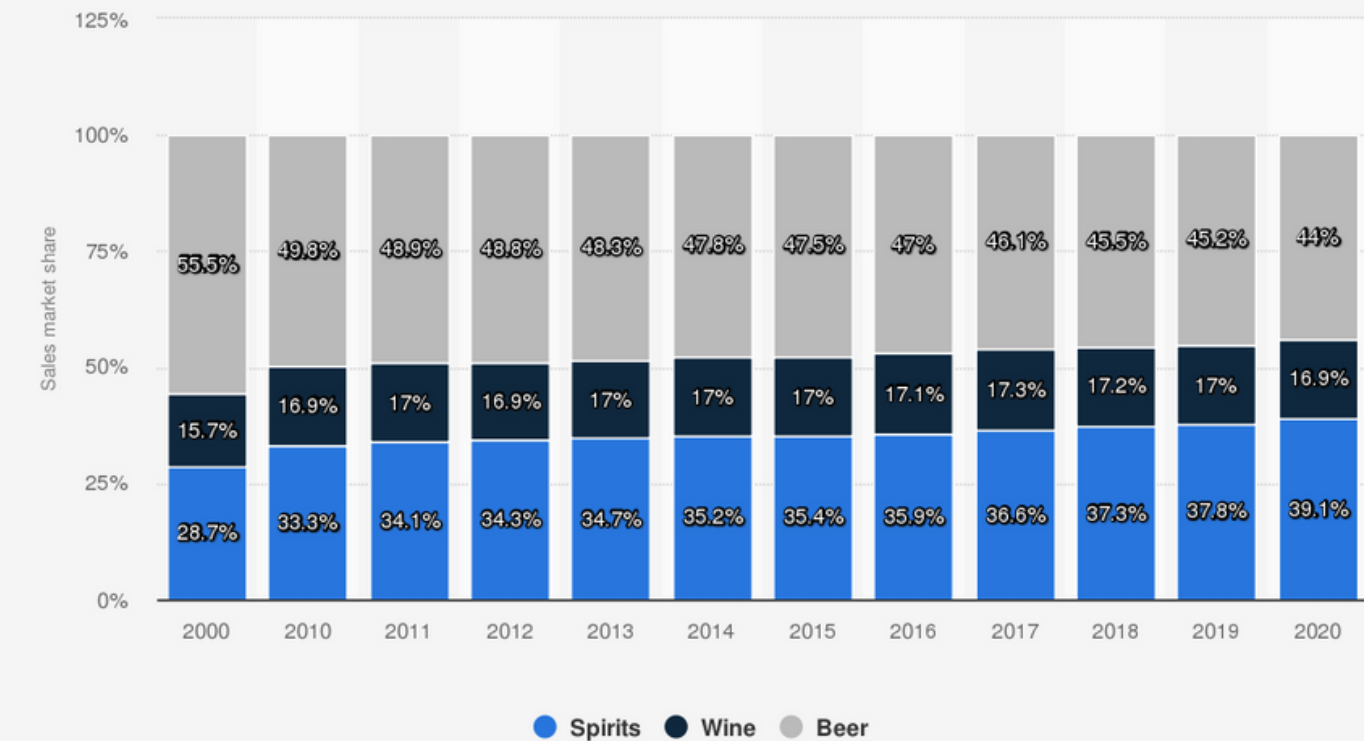


COMPETITIVE LANDSCAPE

Competitors

- Beer manufacturers: 44%.
- Top 10 selling breweries in North Central region of US in 2017.
- Bell's brewery, Inc is one of the biggest competitors in the region.

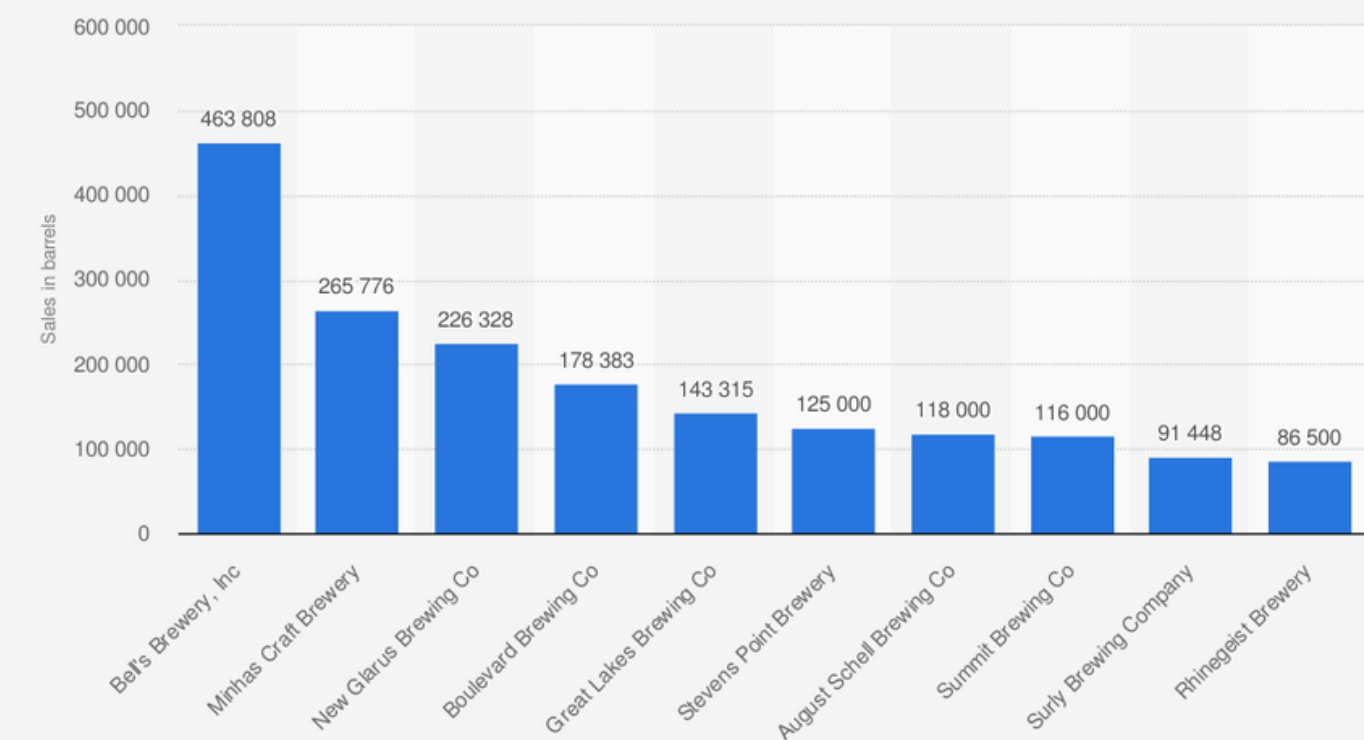
Sales market share of the United States alcohol industry from 2000 to 2020, by beverage



Source
DISCUS
© Statista 2021

Additional Information:
United States; DISCUS; 2000 to 2020

Sales of the top ten craft breweries in the North Central region of the United States in 2017 (in barrels)



Source
Brewers Association
© Statista 2019

Additional Information:
United States; 2017

COMPETITIVE ADVANTAGE

COMMUNITY SUPPORT

PARTNERSHIPS WITH NEIGHBORHOOD
BUSINESSES

INDEPENDENT AND EMPLOYEE-OWNED

AWARD-WINNING PORTFOLIO

SWOT ANALYSIS

STRENGTH

- Community and Sustainability
- Loyal customers
- Local government
- Exclusivity
- Quality
- New and fresh palate

WEAKNESS

- Limited reach
- Brand awareness

OPPORTUNITY

- Mass reach
- Increase in demand for craft beer
- Targeting younger consumers

THREAT

- Growing competition
- Continuous evolution
- Lifestyle changes of customers
- COVID-19 impact

MARKETING STRATEGY

INNOVATION

TARGETING YOUNGER
CONSUMER

REDESIGNING LABELS

SOCIAL MEDIA PLATFORM

SUSTAINABLE
DEVELOPMENT

CSR: BREWING GOOD!

SOLAR ENERGY

BURNING RIVER FEST

WASTE AS AN
OPPORTUNITY

WATER STEWARDSHIP

LOCAL FOODS &
FARMING

ARTS & CULTURE

CODE OF CONDUCT

EQUAL EMPLOYMENT
OPPORTUNITY

RESPONSIBLE ALCOHOL
CONSUMPTION &
MARKETING

CONFIDENTIALITY &
NON-DISCLOSURE

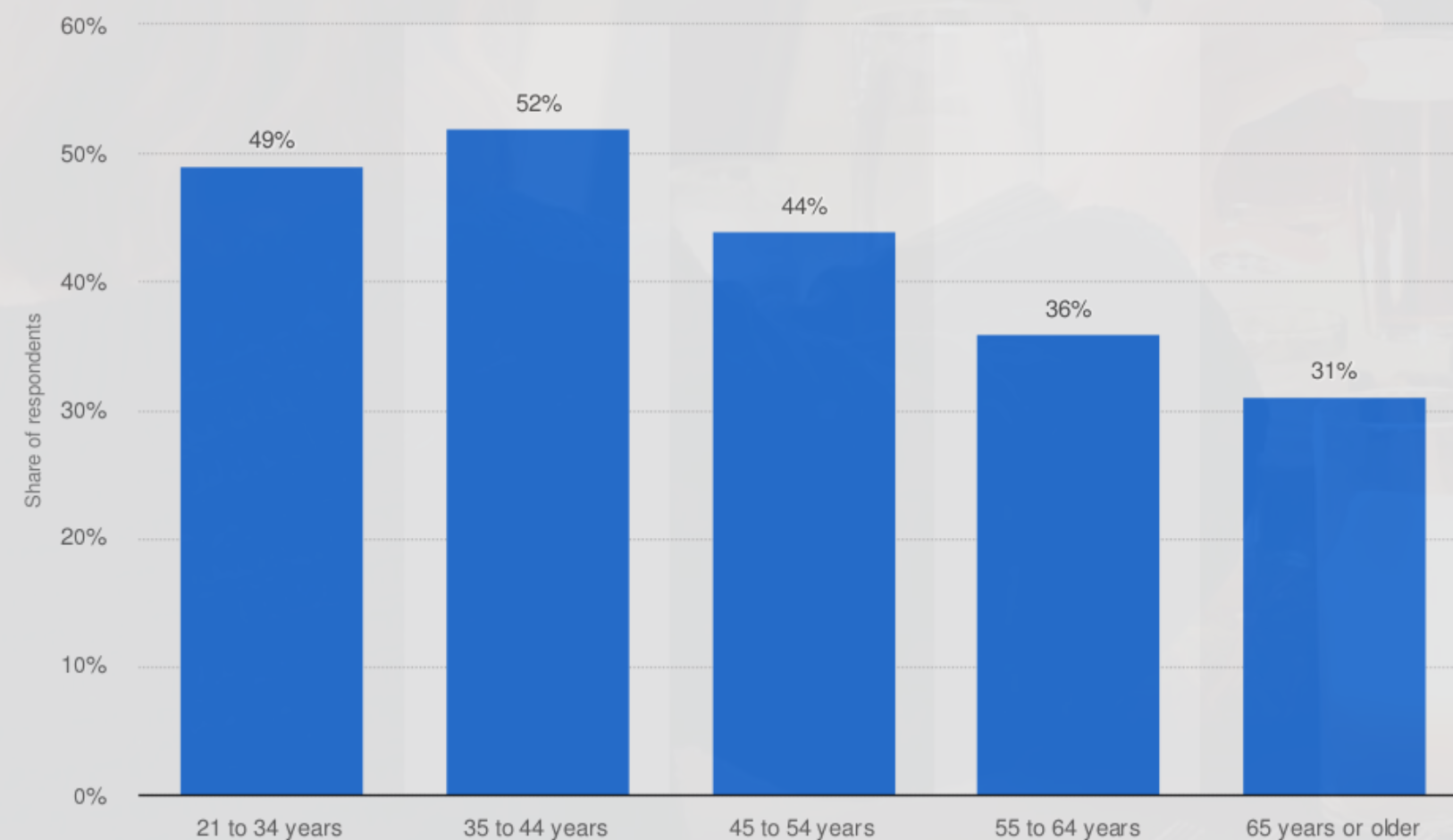
COMPLIANCE WITH LAW

PLEDGE OF CONDUCT

- PROFESSIONALISM
- GOODWILL AND COOPERATION
- SAFE ENVIRONMENT
- RESPONSIBLE USE OF RESOURCES

TARGET MARKET

Distribution of weekly craft beer drinkers in the United States in 2019, by age



Sources
BevNET; Harris Poll; Nielsen
© Statista 2020

Additional Information:
United States; Harris Poll; Nielsen; May 18 to May 26, 2019; 1,100 respondents; 21 years and older; Craft drinkers

AGE GROUP: 21-44

GENDER: ALL

LOCATION: UNITED STATES OF AMERICA

EDUCATION: Well-educated

OCCUPATION: Working professional

MARITAL STATUS: Single or married

LIFESTYLE: Social, Sports enthusiast, Music lover, upscale, more interested in quality than quantity.

MACRO ANALYSIS

UNITED STATES OF AMERICA

POLITICAL

- 21st Amendment to the US Constitution

ECONOMIC

- Prices: **527.66%** higher in 2021 vs 1952.
- The emergence of "**craft**"

SOCIAL

- Media coverage.
- Healthier lifestyle change.

TECHNOLOGY

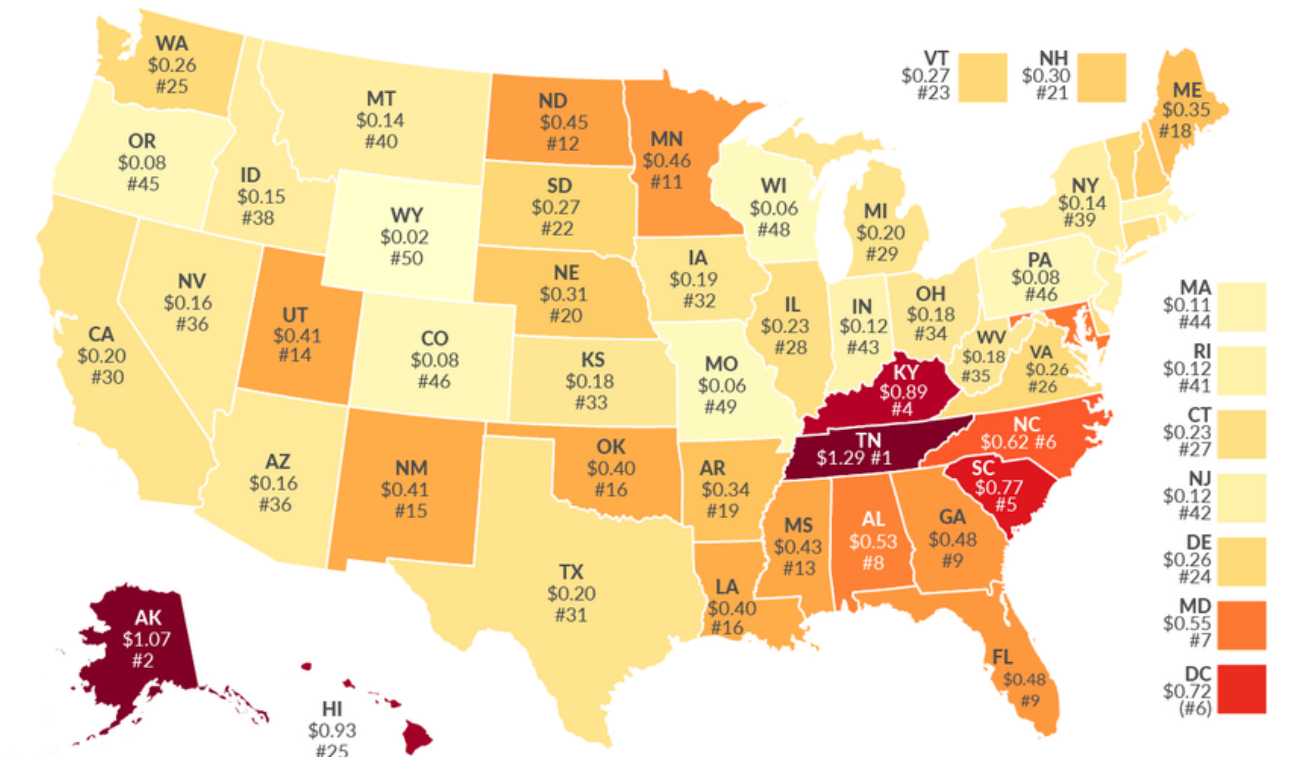
- Advanced computing and AI
- Manufacturing Execution System.

SUSTAINABILITY

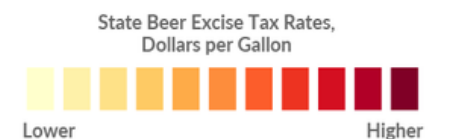
- Call for action
- Conscious
- Eco-friendly production

How High are Beer Taxes in Your State?

State Beer Excise Taxes (Dollars per Gallon), 2021



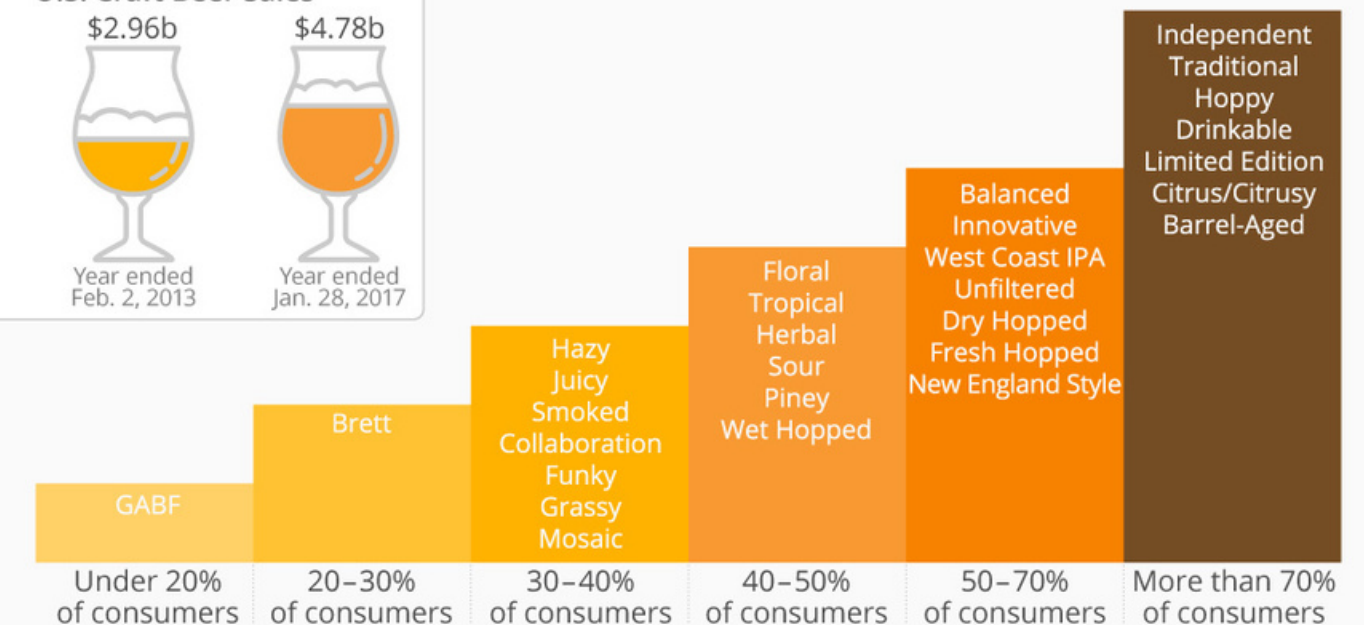
Note: Rates are those applicable to off-premise sales of 4.7% alcohol by volume (a.b.v.) beer in 12-ounce containers which have been imported from outside the state. At the federal level, beer is subject to differing tax rates. Small domestic brewers are taxed between \$0.11/gallon and \$0.516/gallon. All other brewers are taxed at rates between \$0.516/gallon and \$0.58/gallon. D.C.'s rank does not affect states' ranks, but the figure in parentheses indicates where it would rank if included. Different rates are also applicable in FL, GA, HI, ID, IA, KS, MN, NC, ND, OH, OK, TX, UT, VA, WA, and WI according to alcohol content, place of production, size of container, or place.



Beer Is No Longer Just Beer

Consumer awareness of craft beer buzzwords in the United States in May 2017

U.S. Craft Beer Sales



MICRO ANALYSIS

Local Sourcing in Cleveland, Ohio

STRENGTH

- Local connections and sourcing
- Target market
- Built the community

WEAKNESS

Limited awareness and reach

OPPORTUNITY

- Unite the community
- Innovate and experiment

THREAT

- Competition
- Unforeseen situations



TRIPLE CONSTRAINT

TIME:

- Brewing time
- Quality.
- Cultivation time

COST:

- Fluctuation according to raw materials

SCOPE:

- Limited range of distribution
- Limited consumer



PRODUCT OVERVIEW



DORTMUNDER GOLD® LAGER

- A classic balance of sweet malt and dry hops flavors.
- Proudly waving the flag for Cleveland since 1988.
- **WORLD BEER CHAMPIONSHIPS:** 16-Time Medal Winner Since 1994 (World Champion, Gold, Silver)

GREAT AMERICAN BEER

FESTIVAL: 1990 Gold Medal Winner

ON TAP



YEAR ROUND



IMPERIAL IPA SERIES



Product :	Dortmunder Gold Lager	Details:
Year :	2022 Year Round	
Company :	Great Lakes Brewing Company	
Size :	12 oz. Can	

The technical drawing shows two views of a 12 oz aluminum can. The front view (left) has a total width of 2 3/8 in at the top and 2 in at the base. It features a large yellow circular label area with a diameter of 1 in, positioned 1 3/4 in from the top edge. Below this is a black circular area labeled 'A' with a diameter of 1 in. The bottom section is black and tapers to a base of 1/4 in. The side view (right) shows a total height of 5 in. The main body is yellow, with a black base of 3/8 in. A white rectangular label area labeled 'B' is located on the side, measuring 1/2 in wide and 1 in high, positioned 1/8 in from the top edge. The top rim is 2 1/8 in wide.

A

B

12 oz. CAN

C

Bill of Materials			
Materials		Materials	
Product materials	Quantity (per unit)	Container	Quantity(per unit)
US 2-row pale malt	2.2 oz.	Aluminum	22 g
Caramel 60	2.2 oz.	Ink	1 ml
Cascade	0.185 oz.		
Mt.hood	0.185 oz.		
Yeast	0.185 oz.		

Materials		Materials	
Product materials	Quantity (per unit)	Container	Quantity(per unit)
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Caramel 60	2.2 oz.	Ink	1 ml
Cascade	0.185 oz.		
Mt.hood	0.185 oz.		
Yeast	0.185 oz.		

LABEL



EXPIRATION DATE



PACKAGE & PACKING

PRIMARY

CONTAINERS



SECONDARY

PACKING



MATERIALS

HOPS: Cascade, Mt. Hood

Malts: 2-Row Base Malt, Caramel 60

Yeast

Water

Packaging: Aluminum/ Glass

2022 YEAR ROUND

DORTMUNDER GOLD LAGER





A classic award-winning balance of sweet malt and dry hop flavors, proudly waving the flag for Cleveland and refreshing beer drinkers everywhere since 1988.

FLAVOR:	A hometown hero, draped in a people-pleasing blend of smooth malt and crisp hop flavors
ABV:	5.8%
IBU:	30
HOPS:	Cascade, Mt. Hood
MALTS:	2-Row Base Malt, Caramel 60
PAIRS WITH:	Salads, fish, chicken, and pretty much any social function
PACKAGING:	6-Pack 12 oz. Cans, 6-Pack Bottles, 12-Pack Bottles, 15-Pack 12 oz. Cans, 16 oz. Cans, Variety Packs, Draft

BOTTLE



6-PACK BOTTLES



12-PACK BOTTLES



CASE



12 oz. CAN



16 oz. CAN



6-PACK 12 oz. CANS



15-PACK 12 oz. CANS



DORTMUNDER GOLD LAGER IS ALSO
AVAILABLE IN DRAFT

2516 MARKET AVENUE
CLEVELAND, OH 44113



GREATLAKESBREWING.COM

COST ESTIMATES (PER UNIT)



RAW MATERIAL:	COST:
MALT	\$0.10
HOPS	\$0.08
YEAST	\$0.02
LABOR	\$0.02
PACKAGING	\$0.25
BREWERS MARGIN (33%)	\$0.15
SHIPPING	\$0.11
FEDERAL EXCISE TAX	\$0.03
DISTRIBUTORS MARK-UP	\$0.45
RETAIL MARK-UP	\$0.62

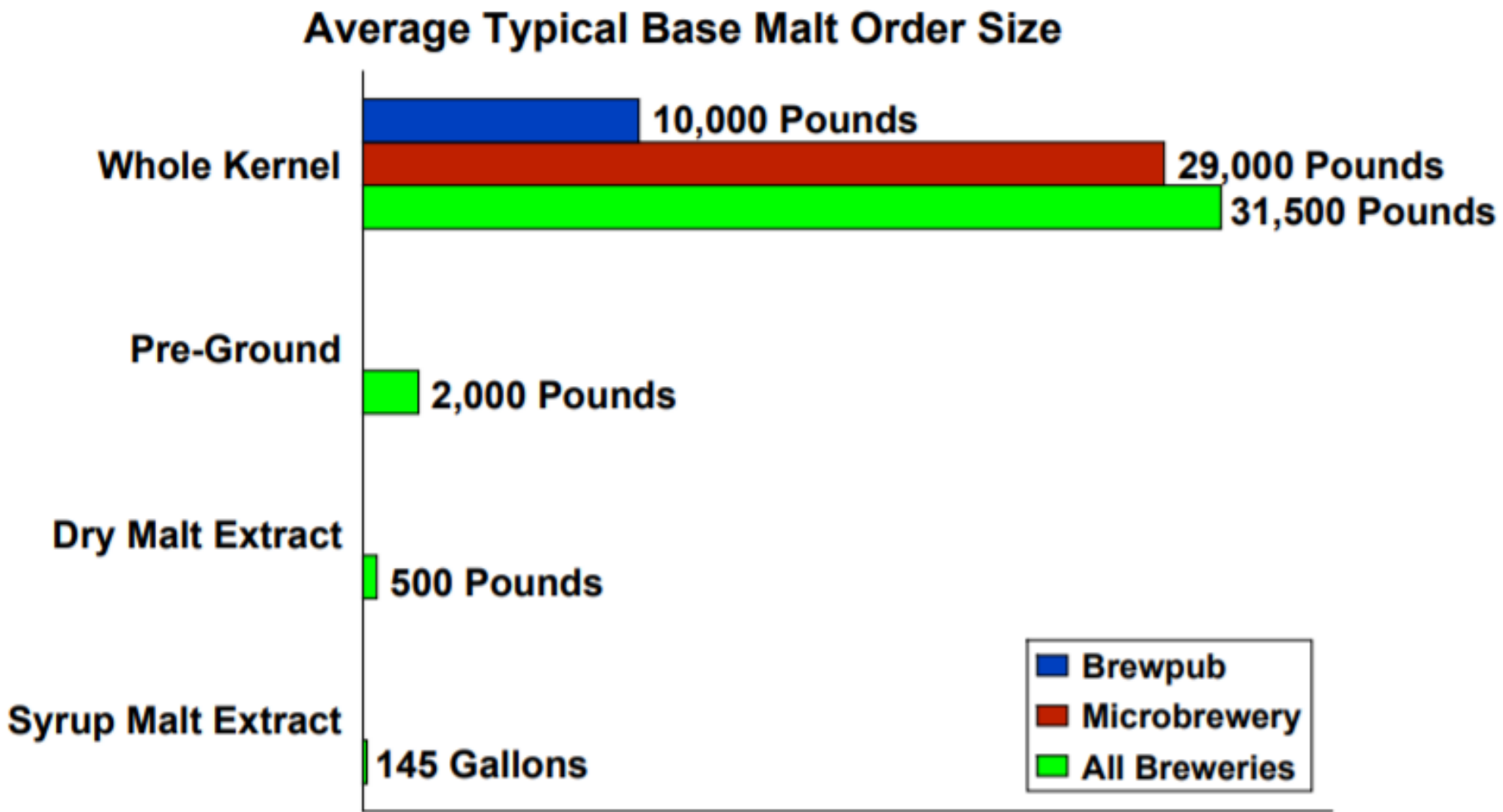
Total Cost : \$2 approximately

ORDERING

● PURCHASE ORDER

TYPE	QUANTITY	PRICE (per lb)
2-Row Base Malt	30 pound	\$2.39
Caramel 60	30 pound	\$2.25
Cascade	2.55 pound	\$2.79
Mt. Hood	2.55 pound	\$2.79
Yeast	2.55 pound	\$3.01

Q. In a typical single order, what is the total quantity of (base) malt you purchase?



● PURCHASE FREQUENCY: Quarterly

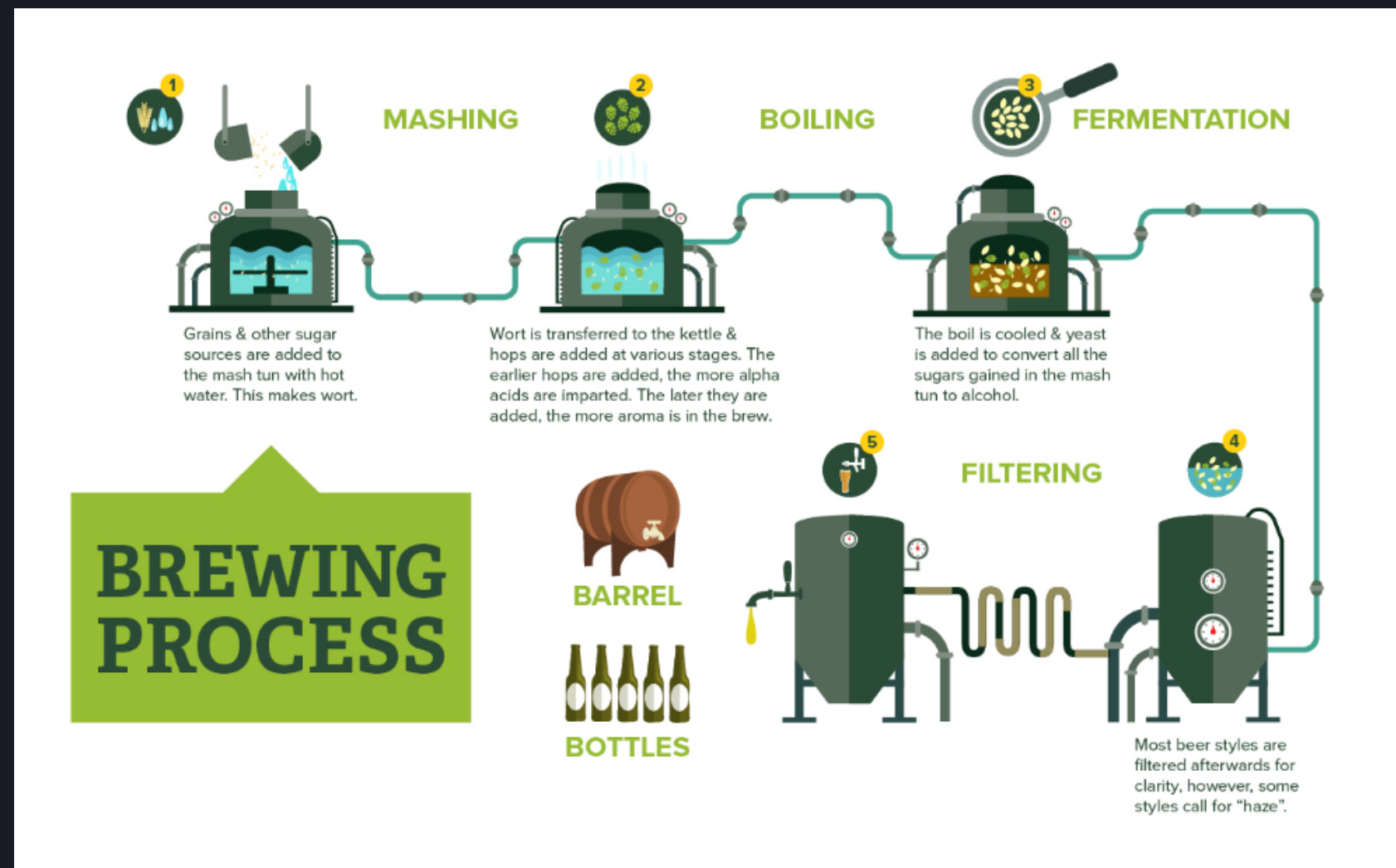
IN HOUSE PRODUCTION

- Production facility and an attached brewpub.
- A mature 7-barrel system is continuously being developed and innovated.
- Production line:



- 2017: Added 2-barrel pilot system.

PRODUCTION PLANNING



Add a Campden tablet to
get rid of the chlorine
compounds:

a day

Mashing:

about 2 hours

Boiling:

about 2 hours

Primary fermentation:

a week

Secondary fermentation

3-4 days

Total:

13 days

TIME AND ACTION

Time and Action						
	Day 1	Day 2 - Day 14	Day 15	Day 16 - Day 19	Day 19- Day 20	Day 21
Hops Supplier	Raw material sourcing					
Malt Supplier						
Yeast Supplier						
Canning line (packaging)	Raw material sourcing		Packaging			
Brewery		Produce Process				
Distributor				Transport		
Rigional Wholesaler					Distribute to Store	
Grocery Store						Sell to consumer

TRANSPORTATION



DISTRIBUTION LOGISTICS: THIRD PARTY LOGISTICS (3PL)

- Transplace Logistic
- Cavalier Distributing
- Backup Beverage

TRANSPLACE



MODE

- Land- Trucks



Manufacturing

Packaging

Distributor

Retail



COST

- Approx. \$5,000 to \$7,000
- 18 pallets, 1 pallet could fit around 80 cases.
- Shipping costs: 67 cents/six-pack



TIMING

1-7 days depending on the state.

WAREHOUSE: CENTRALIZED

ESTABLISHED THEIR OWN WAREHOUSE FACILITY



GREAT LAKES[®]
BREWING CO
EST. 1988 CLEVELAND, OH

- Strongsville facility - 20 miles away.
- Adding cold storage and nine truck bays.
- Establishing a state-of-the-art canning line.

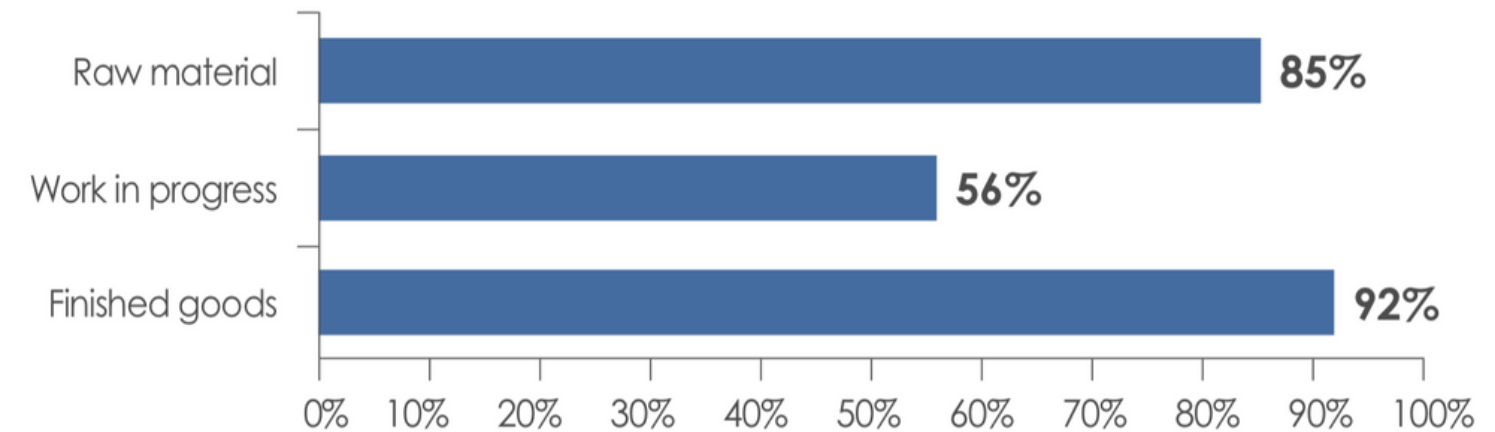
MAINTAINED LONGTIME PARTNERSHIP WITH SUPERIOR BEVERAGE'S FACILITIES

SUPERIOR
beverage group

- Packaged product
- Raw materials

INVENTORY MANAGEMENT PLAN

- Inventory management software.
- Automatic inventory tracking.
- Count stock and your ordering processes.
- Performance reports and analytics.
- 6-9 months of shelf life.
- Distribution is ideal for a beverage as the shelf life is shorter.



Raw material (purchases of the ingredients or components of products to be used in production)

Work in progress (inventory that has been put into the production process but is not a finished good)

Finished goods (inventory that is complete and ready for sale)

- 150,000 barrels of beer production annually, which is approx. 49.6 Million beer annually.
- Quarter Inventory = 12.4 Million

REVERSE LOGISTICS

EXPECTED RETURN RATE

- Minimal
- Returns: spoiled or goods unfit for consumption.

FINANCIAL IMPACT

- Minimal

RETURN MANAGEMENT

- Return or Exchange- Unopened
- Refund
- Repurposing
- Recycling



QUALITY PLAN



High Quality Instrumentation



Sensory programs



Abide by Proper Standards

Brewing Process Quality Controls

- Time (Manual Stopwatch vs Automation)
- Temperature (Thermometer vs Resistance Thermal Detector)
- Pressure
- Gravity of Wort and Beer (Hydrometer vs Handheld Digital Density Meter vs Inline Meter)
- pH
- Level (Sight Glass vs Level Sensor)
- Air Injection into Wort
- Yeast Injection and Pitching Rates
- Yeast Cell Counts
- Yeast Culture and Propagation
- Yeast Viability
- Dissolved Oxygen, Carbon Dioxide, Sulfur Dioxide
- Aerobic and Anaerobic Bacteria Counts
- Microbiological Culturing Media
- Turbidity
- Color (Color Table vs Spectrophotometer)
- IBU (International Bitterness Units) (Spectrophotometer)
- Alcohol (Alcohol by Weight vs Alcohol by Volume)
- Foam Collapse
- Standard Operating Procedures
- Sanitation
- Sensory Evaluation
- Many, many, many, more!

QUALITY PLAN

Trade and Technical Association

- AMBA: American Malting Barley Association, Inc.
- ASBC: American Society of Brewing Chemists
- BA: Brewers Association
- BI: Beer Institute
- EBC: European Brewing Conversation
- MBAA: Master Brewers Association of the Americas
- NBWA National Beer Wholesalers association
- Alcohol and Tobacco Tax and Trade Bureau

A Guideline to Growing Your Quality Laboratory

An Instrument Guide for purchasing lab equipment and expanding your quality program by using the official *Methods of Analysis* of the American Society of Brewing Chemists (ASBC).
A subscription to the *ASBC Methods of Analysis* is free with your ASBC membership.

Volume produced (bbis x 1000) per year	<1	1-15	15-30	30-60	60-90	90+	ASBC Method of Analysis & Method Number
General							
Thermometer							Temperature control
Packaged Beer Archive Shelving							Shelf stability testing
Refrigerator / Cooler							Sample storage, reagent storage
Waterbath							Attemperate samples and media, organoleptic diacetyl testing
Lab Informatics System							Advanced process control software
Raw Materials and Packaging							
Crimp Gauge*							Crimp Determination Test-Crowns (Bottle Closures-6)
Torque Meter*							Removal Torque Procedures for Crown (Bottle Closures-5B)
Double-seam Gauges*							Can double-seam inspection
Double-seam Cross-section Imager*							Can double-seam inspection
Analytical Balance or Top-Loading Scale							Total Contents of Bottles & Cans By Calculation from Measured Net Weight (Fills-1), Grist (Malt-15), media and reagent preparation
Grist Sieves							Malt Modification by Friability (Malt-12), Grist by Standard Sieve (Malt-15A), Grist by Manual Sieve (Malt-15B)
Sieve Shaker							Grist by Standard Sieve (Malt-15A)
Friability Meter							Malt Modification by Friability (Malt-12)
Drying Oven							Moisture (Brewers' Grains-3 & Malt-3), Preparation of Sample (Brewers' Grains-2), Total Contents of Bottles & Cans (Fills-1)
Mash Bath							High-Dried, Caramel, and Black Malts (Malt-9), Soluble Extract (Brewers' Grains-5), Extract (Malt-4)
Universal Lab Disk Mill							Preparation of Sample (Brewers' Grains-2), High-Dried, Caramel, and Black Malts (Malt-9), Extract (Malt-4)
*package testing equipment is recommended to be purchased with associated packaging equipment							
Chemistry							
Hydrometer							Apparent Extract (Beer-3), Apparent Extract by Hydrometer (Wort-4), Extract (Wort-3), Soluble Extract (Brewers' Grains-5), Total Contents of Bottles & Cans By Calculation from Measured Net Weight (Fills-1), Yeast Fermentable Extract (Wort-5)
pH Meter							Beer pH (Beer-8), pH of Water Suspension (Filter Aids-2), Total Acidity (Beer-8), Wort pH (Wort-8)
CO ₂ Meter							Dissolved Carbon Dioxide (Beer-13)
Low-Range Oxygen Meter (ppb)							Dissolved Oxygen for bottle packaged beer (Beer-3-4)
Digital Density Meter							Extract (Wort-3), Malt Extract (Malt-4), Real Extract (Beer-5), Soluble Extract (Brewers' Grains-5), Specific Gravity by Digital Density Meter (Beer-2B), Total Contents of Bottles & Cans By Calculation from Measured Net Weight (Fills-1)
Distillation Equipment						Note	Alcohol (Beer-4A), Diacetyl (Beer-25B) Note: Recommend Gas Chromatograph for Diacetyl above 90K bbls/yr
Alcohol Meter							Alcohol (Beer-4)
UV-Vis Spectrophotometer							Beer Bitterness (Beer-23), Beer Color (Beer-10), Diacetyl (Beer-25B), FAN (Wort-12), Iron (Beer-18), G. Total Bitterness (Beer-23), Wort Color (Beer-10), Wort Iron (Beer-18), Wort FAN (Wort-12), Wort Iron (Beer-18)

Volume produced (bbis x 1000) per year	<1	1-15	15-30	30-60	60-90	90+	ASBC Method of Analysis & Method Number
Chemistry (continued)							
Centrifuge							Beer Bitterness (Beer-23), Color (Beer-10), Yeast Solids % by Spin-down (Yeast-5B)
Shaker Table and/or Wrist Shaker							Beer Bitterness (Beer-23), Diacetyl (Beer-25B), Beer Decarboxylation by Rotary Shaker (Beer-1 D), Headspace equilibration for Total Package Oxygen
Fumehood							Chemical preparation (various analytical methods)
Titration Burette							Total Acidity (Beer-8)
Turbidimeter or Haze Meter							Physical Stability (Beer-27)
Gas Chromatograph							Alcohol Determined by GC (Beer-4D), Diacetyl (Beer-25F), Lower Boiling Volatiles in Beer or Ale (Beer-29)
Foam Meter							Foam Collapse Rate-Sigma Value (Beer-22)
High-Range Oxygen Meter (ppm)							Dissolved Oxygen for wort
Microbiology							
Microscope							Dead Yeast Cell Stain (Yeast-3A), Differential Staining (Microbiological Control-3), Microscopic Yeast Cell Counting (Yeast-4), Presence of Bacteria (Yeast-2B), Yeast Morphology (Yeast-2A), Yeast Viability Slide Culture (Yeast-6)
Hemocytometer							Dead Yeast Cell Stain (Yeast-3A), Microscopic Yeast Cell Counting (Yeast-4)
ATP Luminometer							Swab Surface Hygiene Using ATP Bioluminescence (Microbiological Control-1)
Autoclave or Pressure Cooker							Sterilization, Culture Media (Microbiological Control-4 & 5)
Incubator with CO ₂ Packs, or Anaerobic Incubator							Anaerobic growth conditions (Microbiological Control-5)
Vacuum Apparatus							Yeast Fermentable Extract (Beer-16, Wort-5), Detection of Microorganisms by Membrane Filtration (Microbiological Control-2C)
Stir plate / Hot Plate							Microbiological media preparation, sample homogenization, beer degassing, chemical preparation
Laminar Flow Hood							Sterile environment for microbiological applications
Thermocycler & PCR-related equipment							Real-time PCR for spoiler identification
Sensory							
Quality Assurance Analysis							True-to-brand testing
Sensory Training							Sensory webinar series, Flavor Terminology and Reference Standards (Sensory-12), Flavor Standard Spiking Calculator (Tools)
Descriptive Analysis							Descriptive Analysis (Sensory-10)
Difference Testing							Choice of Method (Sensory-3), Paired Comparison Test (Sensory-6), Triangular Test (Sensory-7), Duo-Trio Test (Sensory-8)
Threshold Sensory							Threshold of Added Substances—Ascending Method of Limits Test (Sensory-9)
Dedicated Tasting Area							Test Room, Equipment, Conduct of Test (Sensory Analysis-2)
Other Useful Tools Located Online in the <i>ASBC Methods of Analysis</i>							
Standards and other useful calculators, lab basics instructional videos, training presentations, fishbones and identification guides for all types of troubleshooting.							
Getting Started—Suggested Reading Visit asbcnet.org							
Brewing Microbiology, Third Edition - F. G. Priest and Iain Campbell Control Charting Guidelines for Quality Control in the <i>ASBC Methods of Analysis</i> Hops: The Practical Guide to Aroma, Bitterness, and the Culture of Hops - Stan Hieronymus Malt: A Practical Guide from Field to Brewhouse - John Mallett Water: A Comprehensive Guide for Brewers - John Palmer and Colin Kaminski Yeast: The Practical Guide to Beer Fermentation - Chris White							



asbcnet.org



PERFORMANCE MANAGEMENT: BALANCED SCOREBOARD



PERFORMANCE MANAGEMENT: KPI

CRITICAL METRICS

INTERNAL

- Brewhouse yield
- Process yield
- Filler efficiency
- Key product attributes
- Water and energy usage
- Productive warehousing

EXTERNAL

- Consumer complaints
- Product freshness in the market
- Packaging conformance to schedule



PERFORMANCE MANAGEMENT: KPI

Employee's Performance KPI Template Examples

	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>
KPI: Labor Hours per BBL Brewed				
BBL Brewed				
Labor Hours				
Hours per BBL				
KPI Goal: Max Hours per BBL				
<i>Goal: Keep the labor hours per BBL under the amount above</i>				
KPI: Labor Hours per BBL Packaged				
BBL Packaged				
Labor Hours				
Hours per BBL				
KPI Goal: Max Hours per BBL				
<i>Goal: Keep the labor hours per BBL under the amount above</i>				
KPI: Beer Loss Rate				
BBLs Brewed				
BBLs Packaged				
BBLs Lost				
BBLs Lost as %				
KPI Goal: Max Beer Loss				
<i>Goal: Keep the Loss under the amount above</i>				

Inventory management KPI Template Examples

	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>
Inventory Turnover				
Average days to Sell Inventory				
Average Inventory				
Inventory Write-off				
Holding Costs				
Customer Backorder Rate				
Inventory Accuracy				
Inventory to Sales Ratio				

KEY TAKEAWAYS:

TARGET CONSUMERS

SUSTAINABLE &
COMMUNITY DEVELOPMENT
STRATEGY

TRANSPORTATION

REVERSE LOGISTICS

IMPORTANCE OF KPI

CONTINUOUS EVOLUTION

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THANK YOU

