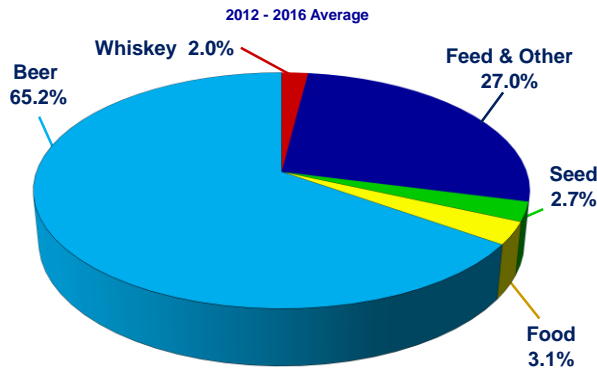


**ECONOMIC SIGNIFICANCE OF BARLEY**

One of the strengths of the U.S. economy is its crop production and agricultural based industries. Crop and value-added product exports reduce the unfavorable trade balance and generate new employment, grower income, and federal revenue. Maintenance of U.S. strength in agriculture requires continuing efforts to improve crop productivity and quality. U.S. agricultural production that can supply both domestic demands and can compete in world markets will only be accomplished by strong investments in agricultural research programs. Innovative and competitive research will keep the U.S. at the forefront of the development and implementation of new agricultural technologies.

**Domestic Use of Barley in the US**



Barley is a significant U.S. crop. Barley production is approximately 215 million bushels with an estimated value of \$1.2 billion as a raw agricultural commodity (2012 Census).

Barley producers stimulate the rural economy through the purchase of fertilizer, seed, chemicals, fuel, labor, other supplies and farm equipment. These variable cash expenses averaged \$618 million annually (2011-2015).

The impact of barley on the U.S. economy is even more significant if the value-added products resulting from its utilization as an animal feed, in malt beverages, and in food products are considered. The economy also benefits from exports which annually average \$63 million for barley and its milled products, \$223 million for malt and malt extracts, \$545 million for beer, and \$1.05 billion for whiskey (2012-2016).

**BARLEY BALANCE SHEET**

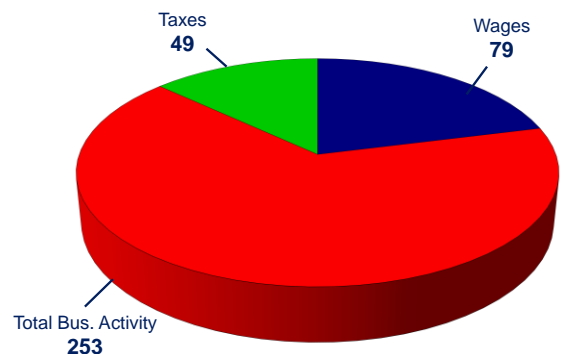
ANNUAL FEDERAL RESEARCH INVESTMENT*		ANNUAL RETURN ON INVESTMENT	
\$ 12.98	USDA-Agricultural Research Service (ARS)	\$ 1.2	Raw agricultural commodity
0.13	Other Grants (NIFA, NSF)	252.6	Brewing industry business
NA	USDA-NIFA Formula Grants (Hatch Act, Smith-Lever)	3.6	Federal excise tax revenue
<b>\$13.11 Million</b>		17.6	Federal income tax
		2.4	Value-added use as feed
		NA	Value-added use as food
		<b>\$277.4 Billion</b>	

\*FY2017 Funding Levels  
NA: Not Available

**ECONOMIC CONTRIBUTION OF THE BREWING INDUSTRY**

Barley is a critical and primary raw material for beer. **Without malting barley, there would be no beer.** The economic value of the U.S. brewing industry is substantial.

**Economic Contribution of Brewing**  
Billions of Dollars



**BARLEY: ECONOMIC SIGNIFICANCE BY STATE**

State	Annual <sup>1</sup> Production	Crop <sup>1</sup> Value	Brewing Industry <sup>2</sup>			Whiskey Distillers <sup>5</sup>	Malt Plants <sup>4</sup>	
			Employment	Total Bus. Activity	Taxes <sup>3</sup>			
	(million bu)	(million \$)		(million \$)	(million \$)			
Alabama	0.0	0.1	15,045	2,020	395	24	7	1
Alaska	0.2	1.0	3,928	518	88	27	5	
Arizona	5.0	27.0	38,627	4,277	811	78	7	
Arkansas			8,560	1,442	166	26	4	
California	5.3	29.2	201,567	32,841	6,290	518	60	2
Colorado	6.6	42.0	50,256	10,313	1,890	284	47	8
Connecticut			14,525	2,038	337	35	6	
Delaware	2.8	11.7	4,340	559	74	15	3	1
District of Columbia			4,538	528	119	10	3	
Florida			125,402	14,055	3,207	151	18	
Georgia	0.0	0.2	49,051	7,527	1,262	45	12	
Hawaii			8,346	1,047	198	13		
Idaho	51.1	306.1	8,932	1,151	151	50	8	3
Illinois	0.1	---	71,612	10,427	1,753	157	20	1
Indiana	0.0	0.5	39,239	4,630	715	115	20	2
Iowa	0.1	0.6	27,260	3,284	457	58	9	
Kansas	0.3	2.0	16,064	2,023	306	26	5	
Kentucky	0.5	2.5	16,322	2,194	429	24	35	
Louisiana			25,200	3,433	534	20	4	
Maine	0.9	3.7	12,916	1,277	281	59	7	3
Maryland	3.3	13.2	24,575	2,875	629	60	18	2
Massachusetts	---	---	41,860	5,491	929	84	11	1
Michigan	0.4	1.8	58,673	6,642	1,157	205	26	7
Minnesota	6.1	38.4	42,912	5,413	998	105	19	5
Mississippi			8,194	1,119	204	8	3	
Missouri	0.1	0.3	48,954	9,689	1,714	71	22	
Montana	37.5	211.8	8,685	901	125	49	15	3
Nebraska	0.1	0.4	14,845	1,786	240	33	4	1
Nevada	0.2	0.7	21,929	2,550	592	34	7	1
New Hampshire	0.0	---	9,836	1,409	272	44	8	
New Jersey	0.1	0.5	34,300	5,215	873	51	5	1
New Mexico	---	---	10,891	1,106	231	45	9	
New York	0.3	1.6	85,792	15,335	3,998	208	70	9
North Carolina	1.0	3.5	47,734	7,796	2,327	161	17	3
North Dakota	60.2	367.7	7,138	810	158	9	2	2
Ohio	0.2	1.1	75,260	10,791	1,816	143	24	5
Oklahoma	0.2	0.8	17,270	2,816	412	14	3	
Oregon	3.9	20.4	31,053	4,500	521	228	29	6
Pennsylvania	3.8	15.7	70,636	9,218	1,611	178	35	5
Rhode Island			5,180	531	114	14	2	
South Carolina	0.0	---	21,224	2,321	505	36	21	
South Dakota	0.8	3.8	7,107	771	106	14	3	
Tennessee	0.1	---	23,948	3,098	680	52	22	1
Texas	0.2	1.0	123,938	19,159	3,174	189	33	2
Utah	2.0	7.7	9,993	1,326	172	22	5	
Vermont	0.0	---	5,732	708	126	44	6	2
Virginia	2.9	10.9	44,282	8,072	2,890	124	23	1
Washington	12.1	61.7	41,477	6,081	1,086	305	59	3
West Virginia	0.1	0.5	8,655	941	195	12	10	
Wisconsin	0.9	3.4	56,454	8,030	1,116	121	15	5
Wyoming	5.5	33.7	4,046	493	84	23	3	1
<b>Total U.S.</b>	<b>215.1</b>	<b>1,228.2</b>	<b>1,754,303</b>	<b>252,577</b>	<b>48,521</b>	<b>4,411</b>	<b>809</b>	<b>87</b>

<sup>1</sup> 2012 Census production and crop values. (Source: USDA\NASS). (---) Data not available for some minor states.

<sup>2</sup> Source: Economic Impact, 2014 Prepared for the Beer Institute by John Dunham and Associates.

<sup>3</sup> Taxes paid and generated - business, consumption & personal.

<sup>4</sup> Various published and unpublished sources. Malting companies include those under construction.

<sup>5</sup> Sku's Recent Eats "The Complete List of American Whiskey Distilleries & Brands"

MAJOR & REGIONAL BREWERS IN THE UNITED STATES<sup>1</sup>

STATE	COMPANY	CITY
Alaska	Alaskan Brewing Co.	Juneau
Arizona	Four Peaks Brewing Co. SanTan Brewing Co.	Tempe Chandler
California	21 <sup>ST</sup> Amendment Brewery AleSmith Brewing Co. Anchor Brewing Co. Anderson Valley Brewing Co. Anheuser-Busch, Inc. Anheuser-Busch, Inc. Ballast Point Brewing Co. Bear Republic Brewing Co. BJ's Chicago Pizza & Brewery Coronado Brewing Co. Figueroa Mountain Brewing Firestone Walker Brewing Co. Golden Road Brewery Gordon Biersch Brewing Co. Green Flash Brewing Co. Hangar 24 Craft Brewery Hermitage Brewing Co. Karl Strauss Breweries Lagunitas Brewing Co. Lost Coast Brewery and Café Mendocino Brewing Co. MillerCoors, LLC Modern Times Beer Mother Earth Brew Co. North Coast Brewing Co. Pizza Port Port Brewing Co./The Lost Abbey Russian River Brewing Co. Saint Archer Brewing Co. Sierra Nevada Brewing Co. Speakeasy Ales and Lagers Stone Brewing Co. Triple Rock Brewery/Drakes Brewing Trumer Brauerei	San Francisco San Diego San Francisco Boonville Fairfield Los Angeles San Diego Healdsburg Huntington Beach Coronado Buellton, California Paso Robles Los Angeles San Jose San Diego Redlands San Jose San Diego San Diego Petaluma Eureka Ukiah Irwindale San Diego Vista Fort Bragg Carlsbad San Marcos Santa Rosa San Diego Chico San Francisco San Marcos Berkeley Berkeley
Colorado	Anheuser-Busch, Inc. Avery Brewing Co. Blue Moon Brewing Co. Boulder Beer Co. Breckenridge Brewery Crazy Mountain Brewing Co. Dry Dock Brewing Co. Great Divide Brewing Co. Left Hand Brewing Co. MillerCoors, LLC New Belgium Brewing Co. Odell Brewing Co.	Fort Collins Boulder Denver Boulder Littleton Edwards Aurora Denver Longmont Golden Fort Collins Fort Collins

Colorado	Oskar Blues Brewery SKA Brewing Sleeping Giant Brewing Co. Upslope Brewing Co.	Longmont Durango Denver Boulder
Connecticut	Thomas Hooker Brewing Co. Two Roads Brewing Co.	Bloomfield Stratford
Delaware	Dogfish Head Craft Brewery Fordham & Old Dominion Brewing	Milton Dover
District of Columbia	DC Brau Brewing	Washington
Florida	Anheuser-Busch, Inc. Brew Hub LLC Cigar City Brewing Co. D.G. Yuengling & Son Florida Beer Co. Funky Buddha Brewery	Jacksonville Lakeland Tampa Tampa Cape Canaveral Oakland Park
Georgia	Anheuser-Busch, Inc. MillerCoors, LLC Sweetwater Brewing Co. Terrapin Beer Co.	Cartersville Albany Atlanta Athens
Hawaii	Maui Brewing Co.	Lahaina
Illinois	Goose Island Beer Co. Half Acre Beer Co. Revolution Brewing Two Brothers Brewing Co.	Chicago Chicago Chicago Warrenville
Indiana	Sun King Brewing Three Floyds Brewing Co. Upland Brewing Co.	Indianapolis Munster Bloomington
Kansas	Tallgrass Brewing Co.	Manhattan
Kentucky	Lexington Brewing & Distilling Co.	Lexington
Louisiana	Abita Brewing Co.	Abita Springs
Maine	Allagash Brewing Co. Baxter Brewing Co. D.L. Geary Brewing Co. Shipyard Brewing Co.	Portland Lewiston Portland Portland
Maryland	DuClaw Brewing Co. Flying Dog Brewing Co. Heavy Seas Beer	Baltimore Frederick Halethorpe
Massachusetts	Berkshire Brewing Co. Boston Beer Co. Cisco Brewers Harpoon Brewery Ipswich Ale Brewery Jack's Abby Brewing Wachusett Brewing Co.	South Deerfield Boston Nantucket Boston Ipswich Framingham Westminster
Michigan	Atwater Brewing Co. Bell's Brewery, Inc. Dark Horse Brewing Co. Founders Brewing Co. New Holland Brewing Co. Perrin Brewing Co. Shorts Brewing Co.	Detroit Galesburg Marshall Grand Rapids Holland Comstock Bellaire
Minnesota	August Schell Brewing Co. Fulton Beer Granite City Food & Brewery	New Ulm Minneapolis Maple Grove

Minnesota	Summit Brewing Co.	St. Paul
	Surly Brewing Co.	Minneapolis
	Third Street Brewhouse	Cold Spring
Mississippi	Lazy Magnolia Brewing Co.	Kiln
Missouri	Anheuser-Busch, Inc.	St. Louis
	Boulevard Brewing Co.	Kansas City
	Schlafly Beer	Maplewood
	Urban Chestnut Brewing Co.	St. Louis
Montana	Big Sky Brewing Co.	Missoula
	Kettlehouse Brewing Co.	Missoula
New Hampshire	Anheuser-Busch, Inc.	Merrimack
	Redhook Ale Brewery, Inc.	Portsmouth
	Smuttynose Brewing Co.	Portsmouth
New Jersey	Anheuser-Busch, Inc.	Newark
	Flying Fish Brewing Co.	Somerdale
New Mexico	Santa Fe Brewing Co.	Santa Fe
New York	Anheuser-Busch, Inc.	Baldwinsville
	Blue Point Brewing Co.	Patchogue
	Brewery Ommegang	Cooperstown
	Brooklyn Brewery	Brooklyn
	Captain Lawrence Brewing Co.	Elmsford
	Genesee Brewing Co.	Rochester
	Greenpoint Beer Works Inc.	Brooklyn
	Ithaca Beer Co.	Ithaca
	The Matt Brewing Co.	Utica
	Shmaltz Brewing Co.	Clifton Park
	Sixpoint Brewery	Brooklyn
	Southern Tier Brewing Company	Lakewood
	Olde Saratoga Brewing Co.	Saratoga Springs
North Carolina	Aviator Brewing Co.	Fuquay Varina
	Foothills Brewing Co.	Winston Salem
	Highland Brewing Co.	Ashville
	LoneRider Brewing Co.	Raleigh
	Natty Green's Brewing Co.	Greensboro
	New Belgium Brewing Co.	Asheville
	Oskar Blues Brewery	Brevard
	Red Oak Brewing Co.	Whitsett
	Sierra Nevada Brewing Co.	Mills River
	The Olde Mecklenburg Brewery	Charlotte
Ohio	Anheuser-Busch, Inc.	Columbus
	Boston Beer Co.	Cincinnati
	Christian Moerlein Brewing Co.	Cincinnati
	Fat Head's Brewery & Tap House	Middleburg Heights
	Great Lakes Brewing Co.	Cleveland
	MadTree Brewing	Cincinnati
	MillerCoors, LLC	Trenton
	Rhinegeist Brewing	Cincinnati
Thirsty Dog Brewing Co.	Akron	
Oregon	10 Barrel Brewing Co.	Bend
	Boneyard Beer Co.	Bend
	Bridgeport Brewing Co.	Portland
	Deschutes Brewing Co.	Bend
	Full Sail Brewing Co.	Hood River

Oregon	GoodLife Brewing Co.	Bend
	Hop Valley Brewing Co.	Springfield
	Laurelwood Public House & McMenamins Breweries	Portland
	Ninkasi Brewing Co.	Portland
	Pyramid Breweries	Eugene
	Rogue Ales	Portland
	Widmer Brothers Brewing Co.	Newport
Pennsylvania	Boston Beer Co.	Portland
	City Brewing Co.	Breinigsville
	D.G. Yuengling Son, Inc.	Latrobe
	The Lion Brewery, Inc.	Pottsville
	Sly Fox Brewing Co.	Wilkes-Barre
	Straub Brewery, Inc.	Pottstown
	Tröegs Brewing Co.	St. Mary's
	Victory Brewing Co.	Harrisburg
	Weyerbacher Brewing Co.	Downingtown
Yards Brewing Co.	Easton	
Rhode Island	Narragansett Brewing Co.	Philadelphia
Rhode Island	Narragansett Brewing Co.	Providence
South Carolina	Thomas Creek Brewery	Greenville
Tennessee	City Brewing Co.	Memphis
	CraftWorks Brewery	Chattanooga
	Yazoo Brewing Co.	Nashville
Texas	Anheuser-Busch, Inc.	Houston
	Austin Beerworks	Austin
	Deep Ellum Brewing Co.	Dallas
	Karbach Brewing Co.	Houston
	MillerCoors, LLC	Fort Worth
	Rahr and Sons Brewing Co.	Fort Worth
	Real Ale Brewing Co.	Blanco
	Revolver Brewing	Granbury
	Saint Arnold Brewing Co.	Houston
Spoetzl Brewery, Inc.	Shiner	
Utah	Epic Brewing Co.	Salt Lake City
	Uinta Brewing Co.	Salt Lake City
	Utah Brewers Cooperative	Salt Lake City
Vermont	Harpoon Brewery	Windsor
	Long Trail Brewing Co.	Bridgewater Corners
	Magic Hat Brewing Co.	South Burlington
	Otter Creek Brewing Co.	Middlebury
Virginia	Anheuser-Busch, Inc.	Williamsburg
	Devils Backbone Brewing Co.	Lexington
	MillerCoors, LLC	Elkton
	Starr Hill Brewing Co.	Crozet
Washington	Elysian Brewing Co.	Seattle
	Fremont Brewing Co.	Seattle
	Georgetown Brewing Co.	Seattle
	Iron Horse Brewery	Ellensburg
	Mac and Jack's Brewery	Redmond
	Pyramid Breweries	Seattle
	RAM Restaurant & Brewery	Lakewood
Redhook Ale Brewery	Woodinville	

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Wisconsin	Ale Asylum	Madison
	Capitol Brewing Co.	Middleton
	City Brewing Co.	La Crosse
	Jacob Leinenkugel Brewing Co.	Chippewa Falls
	Lakefront Brewery Inc.	Milwaukee
	Minhas Craft Brewery	Monroe
	MillerCoors, LLC	Milwaukee
	New Glarus Brewing Co.	New Glarus
	Rhineland Brewing Co.	Rhineland
	Sprecher Brewing Co.	Glendale
	Stevens Point Brewery	Stevens Point

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<sup>1</sup> Breweries with production of 15,000 barrels or more in 2015.

MALTING PLANTS IN THE UNITED STATES<sup>1</sup>

<b>STATE</b>	<b>COMPANY</b>	<b>CITY</b>
Alabama	Old South Malt House	Birmingham
California	Admiral Maltings	Alameda
	Eckert Malting & Brewing Company	Chico
Colorado	Colorado Malting Company	Alamosa
	Grouse Malting & Roasting Company	Wellington
	Leopold Bros. Distilling	Denver
	MillerCoors, LLC	Golden
	Our Mutual Friend Malt & Brew	Denver
	Proximity Malt	Monte Vista
	Root Shoot Malting	Loveland
	Troubador Maltings LLC	Ft. Collins
Delaware	Proximity Malt	Laurel
Idaho	Anheuser-Busch, Inc.	Idaho Falls
	Great Western Malting Company	Pocatello
	InteGrow Malt	Idaho Falls
Illinois	Mammoth Malt	Thawville
Indiana	Academy Malt Co.	Indianapolis
	Sugar Creek Malt Co.	Lebanon
Maine	Blue Ox Malthouse	Lisbon Falls
	Maine Craft Distilling	Portland
	Maine Malt House	Mapleton
Maryland	Chesapeake Malting	Havre de Grace
	Dark Cloud Malthouse	Cooksville
Massachusetts	Valley Malt	Hadley
Michigan	Arrowhead Malt House LLC	Spring Arbor
	Artisan Malts LLC	Sault Ste. Marie
	Great Lakes Malting Co.	Traverse City
	Macon Creek Malt	Saline
	Michigan Malt	Shepherd
	Motorcity Malt House LLC	Macomb
	Pilot Malt House	Byron Center
Minnesota	11 Wells Spirits	St. Paul
	Anheuser-Busch, Inc.	Moorhead
	Malteurop North America	Winona
	Rahr Malting Company	Shakopee
	Vertical Malt	Fisher
Montana	Big Sky Malts	Bozeman
	Far Power Malt	Power
	Malteurop North America	Great Falls
Nebraska	Nebraska Malt	Lincoln
Nevada	Rebel Malt	Reno
New Jersey	Rabbit Hill Farms	Shiloh
New York	Black Dirt Malt	Pine Island
	Empire Malt Works	Albany
	Farmhouse Malt	Newark Valley
	Hillrock Estate Distillery	Ancram
	Hudson Valley Malt	Germantown



New York	New York Craft Malt	Batavia
	Niagara Malt	Cambria
	Pioneer Malting	Rochester
	Queen City Malting	Rochester
North Carolina	Epiphany Craft Malt	Durham
	Farm Boy Farms	Pittsboro
	Riverbend Malt House	Ashville
North Dakota	Cargill Malt	Spiritwood
	Two Track Malting	Bismarck
Ohio	Barley 31	Raymond
	Haus Malts	Cleveland
	Little Miami Farms	Spring Valley
	Ohio Malting Company	Wakeman
	Rustic Brew Farm	Marysville
Oregon	Christensen Farms Malting Co.	McMinnville
	Gold Rush Malt LLC	Baker City
	High Desert Malt & Grain, Inc.	Bend
	Mecca Grade Estate Malt	Madras
	Mountain Malting	Bend
	Rogue Ales Farmstead Malthouse	Newport
Pennsylvania	C’N’C Malting Company	Butler
	Deer Creek Malthouse	Glen Mills
	Double Eagle Malt	Philadelphia
	Penns Mault	Spring Mills
	Sprague Farm and Brew Works	Venango
Tennessee	Corsair Artisan Distillery	Nashville
Texas	Blacklands Malt	Leander
	TexMalt	Fort Worth
Vermont	Peterson Quality Malt	Monkton
	Slow Hand Malting	Hinesburg
Virginia	Copper Fox Distillery & Maltings	Sperryville
Washington	Great Western Malting Company	Vancouver
	LINC Foods (Palouse Pint Malt)	Spokane
	Skagit Valley Malting	Mt Vernon
Wisconsin	Malteurop North America	Milwaukee
	Briess Malt & Ingredients Company	Chilton
	Briess Malt & Ingredients Company	Manitowoc
	Briess Malt & Ingredients Company	Waterloo
	Cargill Malt	Sheboygan
Wyoming	Wyoming Malting Co.	Pine Bluffs

<sup>1</sup> Malt plants operating or under construction.