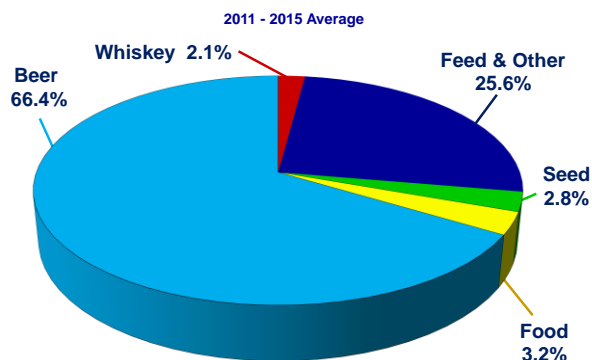


ECONOMIC SIGNIFICANCE OF BARLEY

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 has averaged 202 million bushels per year with an estimated annual value of \$910 million as a raw agricultural commodity (2005-2014).

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 \$549 million annually (2010-2014).

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 \$65 million for barley and its milled products, \$216 million for malt and malt extracts, \$496 million for beer, and \$1.03 billion for whiskey (2011-2015).

BARLEY BALANCE SHEET

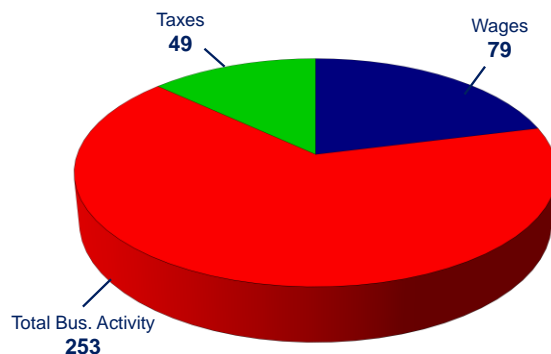
ANNUAL FEDERAL RESEARCH INVESTMENT*		ANNUAL RETURN ON INVESTMENT	
\$ 13.4	USDA-Agricultural Research Service (ARS)	\$ 0.9	Raw agricultural commodity
0.1	Other Grants (NIFA-AFRI, NSF)	252.6	Brewing industry business
NA	USDA-NIFA Formula Grants (Hatch Act, Smith-Lever)	3.6	Federal excise tax revenue
\$13.5 Million		17.6	Federal income tax
		2.4	Value-added use as feed
		NA	Value-added use as food
		\$277.1 Billion	

*FY2016 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 ¹ Production	Crop ¹ Value	Brewing Industry ²			Malt Plants ⁴	
			Employment	Total Bus. Activity	Taxes ³		Brewers ⁴
	(million bu)	(million \$)		(million \$)	(million \$)		
Alabama			15,045	2,020	395	19	
Alaska	0.2	0.7	3,928	518	88	22	
Arizona	4.9	22.0	38,627	4,277	811	53	
Arkansas			8,560	1,442	166	19	
California	3.5	15.9	201,567	32,841	6,290	438	1
Colorado	7.6	35.9	50,256	10,313	1,890	239	6
Connecticut			14,525	2,038	337	27	
Delaware	2.1	6.9	4,340	559	74	12	
Florida			125,402	14,055	3,207	112	
Georgia			49,051	7,527	1,262	42	1
Hawaii			8,346	1,047	198	11	
Idaho	48.9	240.4	8,932	1,151	151	43	3
Illinois			71,612	10,427	1,753	105	1
Indiana			39,239	4,630	715	80	1
Iowa			27,260	3,284	457	46	
Kansas	0.4	1.6	16,064	2,023	306	22	
Kentucky	0.7	1.7	16,322	2,194	429	18	
Louisiana			25,200	3,433	534	15	
Maine	0.9	2.8	12,916	1,277	281	52	3
Maryland	3.2	9.8	24,575	2,875	629	40	
Massachusetts			41,860	5,491	929	61	1
Michigan	0.5	1.5	58,673	6,642	1,157	159	3
Minnesota	4.9	22.3	42,912	5,413	998	73	3
Mississippi			8,194	1,119	204	7	
Missouri			48,954	9,689	1,714	56	
Montana	37.7	184.2	8,685	901	125	44	2
Nebraska			14,845	1,786	240	32	
Nevada	0.1	0.5	21,929	2,550	592	25	1
New Hampshire			9,836	1,409	272	28	
New Jersey	0.1	0.4	34,300	5,215	873	33	
New Mexico			10,891	1,106	231	36	
New York	0.5	1.8	85,792	15,335	3,998	186	7
North Carolina	1.1	3.4	47,734	7,796	2,327	102	3
North Dakota	55.2	241.5	7,138	810	158	6	1
Ohio	0.3	0.7	75,260	10,791	1,816	112	2
Oklahoma			17,270	2,816	412	10	
Oregon	2.6	10.4	31,053	4,500	521	219	5
Pennsylvania	3.6	12.1	70,636	9,218	1,611	137	5
Rhode Island			5,180	531	114	11	
South Carolina			21,224	2,321	505	31	
South Dakota	1.1	3.9	7,107	771	106	12	
Tennessee			23,948	3,098	680	40	1
Texas			123,938	19,159	3,174	119	1
Utah	2.1	8.0	9,993	1,326	172	20	
Vermont			5,732	708	126	41	1
Virginia	3.4	10.5	44,282	8,072	2,890	80	1
Washington	10.3	39.9	41,477	6,081	1,086	258	2
West Virginia			8,655	941	195	11	
Wisconsin	1.2	3.9	56,454	8,030	1,116	101	5
Wyoming	6.1	30.1	4,046	493	84	22	
Total U.S.	202.2	910.2	1,754,303	252,577	48,521	3,499	60

¹ Average annual production and crop values (2005-2014). (Source: USDA\NASS). Data not available for all years for some minor states.

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

³ Taxes paid and generated - business, consumption & personal.

⁴ Various published and unpublished sources.

MAJOR & REGIONAL BREWERS IN THE UNITED STATES¹

STATE	COMPANY	CITY
Alabama	Good People Brewing Co.	Birmingham
Alaska	Alaskan Brewing Co.	Juneau
Arizona	Four Peaks Brewing Co. SanTan Brewing Co.	Tempe Chandler
California	21 ST Amendment Brewery 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. Drakes Brewing Co. Firestone Walker Brewing Co. Golden Road Brewery Gordon Biersch Brewing Co. Green Flash Brewing Co. Hangar 24 Craft Brewery Karl Strauss Breweries Lagunitas Brewing Co. Lost Coast Brewery and Café Mendocino Brewing Co. MillerCoors, LLC Mother Earth Brew Co. North Coast Brewing Co. Pizza Port Pyramid Breweries Saint Archer Brewing Co. Sierra Nevada Brewing Co. Speakeasy Ales and Lagers Stone Brewing Co. Trumer Brauerei	San Francisco San Francisco Boonville Fairfield Los Angeles San Diego Healdsburg Huntington Beach Coronado San Leandro Paso Robles Los Angeles San Jose San Diego Redlands San Diego Petaluma Eureka Ukiah Irwindale Vista Fort Bragg Solana Beach Berkeley San Diego Chico San Francisco San Marcos Berkeley
Colorado	AC Golden Brewing Co. Anheuser-Busch, Inc. Avery Brewing Co. Blue Moon Brewing Co. Boulder Beer Co. Breckenridge Brewery CraftWorks 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. Oskar Blues Brewery SKA Brewing Upslope Brewing Co.	Golden Fort Collins Boulder Denver Boulder Denver Broomfield Edwards Aurora Denver Longmont Golden Fort Collins Fort Collins Longmont Durango Boulder

¹ Breweries with production of 15,000 barrels or more in 2014.

Connecticut	Thomas Hooker Brewing Co. Two Roads Brewing Co.	Bloomfield Stratford
Delaware	Dogfish Head Craft Brewery Fordham & Dominion Brewing Co.	Milton Dover
Florida	Anheuser-Busch, Inc. Cigar City Brewing Co. D.G. Yuengling & Son Florida Beer Co.	Jacksonville Tampa Tampa Melbourne
Georgia	Anheuser-Busch, Inc. MillerCoors, LLC Sweetwater Brewing Co. Terrapin Beer Co.	Cartersville Albany Atlanta Athens
Hawaii	Kona Brewing Co. Maui Brewing Co.	Kailua-Kona 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. D.L. Geary Brewing Co. Shipyard Brewing Co.	Portland 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 Wachusett Brewing Co.	South Deerfield Boston Nantucket Boston Ipswich Westminster
Michigan	Atwater Brewing Co. Bell's Brewery, Inc. Dark Horse Brewing Co. Founders Brewing Co. Greenbush Brewing Co. New Holland Brewing Co. Shorts Brewing Co.	Detroit Galesburg Marshall Grand Rapids Sawyer Holland Bellaire
Minnesota	August Schell Brewing Co. Fulton Beer Granite City Food & Brewery Summit Brewing Co. Surly Brewing Co. Third Street Brewhouse	New Ulm Minneapolis Maple Grove St. Paul Minneapolis Cold Spring
Mississippi	Lazy Magnolia Brewing Co.	Kiln
Missouri	Anheuser-Busch, Inc. Boulevard Brewing Co. Schlafly Bottleworks	St. Louis Kansas City Maplewood
Montana	Big Sky Brewing Co.	Missoula

¹ Breweries with production of 15,000 barrels or more in 2014.

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
	Sixpoint Brewery	Brooklyn
	Southern Tier Brewing Company	Lakewood
	Olde Saratoga Brewing Co.	Saratoga Springs
	North Carolina	Foothills Brewing Co.
Highland Brewing Co.		Ashville
LoneRider Brewing Co.		Raleigh
MillerCoors, LLC		Eden
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
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
	MillerCoors, LLC	Trenton
Oregon	10 Barrel Brewing Co.	Bend
	Boneyard Beer Co.	Bend
	Bridgeport Brewing Co.	Portland
	Deschutes Brewing Co.	Bend
	Full Sail Brewing Co.	Hood River
	GoodLife Brewing Co.	Bend
	Hop Valley Brewing Co.	Springfield
	Laurelwood Public House & Breweries	Portland
	McMenamins Breweries	Portland
	Ninkasi Brewing Co.	Eugene
	Pyramid Breweries	Portland
Rogue Ales	Newport	
Widmer Brothers Brewing Co.	Portland	

¹ Breweries with production of 15,000 barrels or more in 2014.

Pennsylvania	Boston Beer Co.	Breinigsville
	City Brewing Co.	Latrobe
	D.G. Yuengling Son, Inc.	Pottsville
	The Lion Brewery, Inc.	Wilkes-Barre
	Pittsburgh Brewing Co.	Pittsburgh
	Sly Fox Brewing Co.	Pottstown
	Straub Brewery, Inc.	St. Mary's
	Tröegs Brewing Co.	Harrisburg
	Victory Brewing Co.	Downingtown
	Weyerbacher Brewing Co.	Easton
Yards Brewing Co.	Philadelphia	
Rhode Island	Narragansett Brewing Co.	Providence
Tennessee	City Brewing Co.	Memphis
	Yazoo Brewing Co.	Nashville
Texas	Anheuser-Busch, Inc.	Houston
	Karbach Brewing Co.	Houston
	MillerCoors, LLC	Fort Worth
	Rahr and Sons Brewing Co.	Fort Worth
	Real Ale Brewing Co.	Blanco
	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	Park 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	Craft Brew Alliance	Woodville
	Elysian Brewing Co.	Seattle
	Fish Brewing Co.	Olympia
	Fremont Brewing Co.	Seattle
	Georgetown Brewing Co.	Seattle
	Mac and Jack's Brewery	Redmond
	Pyramid Breweries	Seattle
	Redhook Ale Brewery	Woodinville
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	

¹ Breweries with production of 15,000 barrels or more in 2014.

MALTING PLANTS IN THE UNITED STATES

STATE	COMPANY	CITY
California	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
	Troubador Maltings LLC	Ft. Collins
Georgia	Lone Pine Malt	Atlanta
Idaho	Anheuser-Busch, Inc.	Idaho Falls
	Great Western Malting Company	Pocatello
	InteGrow Malt	Idaho Falls
Illinois	Mammoth Malt	Thawville
Indiana	Sugar Creek Malt Co.	Lebanon
Maine	Blue Ox Malthouse	Lisbon Falls
	Maine Craft Distilling	Portland
	Maine Malt House	Mapleton
Massachusetts	Valley Malt	Hadley
Michigan	Michigan Malt	Shepherd
	Motorcity Malt House LLC	Macomb
	Pilot Malt House	Byron Center
Minnesota	Anheuser-Busch, Inc.	Moorhead
	Malteurop North America	Winona
	Rahr Malting Company	Shakopee
Montana	Malteurop North America	Great Falls
	Big Sky Malts	Bozeman
Nevada	Rebel Malt	Reno
New York	Farmhouse Malt	Newark Valley
	Hillrock Estate Distillery	Ancram
	Hudson Valley Malt	Germantown
	New York Craft Malt	Batavia
	Niagara Malt	Cambria
	Pioneer Malting	Rochester
	Queen City Malting	Buffalo
North Carolina	Epiphany Craft Malt	Durham
	Farm Boy Farms	Pittsboro
	Riverbend Malt	Ashville
North Dakota	Cargill Malt	Spiritwood
Ohio	Ohio Malting Company	Wakeman
	Haus Malts	Cleveland
Oregon	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

STATE	COMPANY	CITY
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
Vermont	Peterson Quality Malt	Monkton
Virginia	Copper Fox Distillery	Sperryville
Washington	Great Western Malting Company	Vancouver
	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