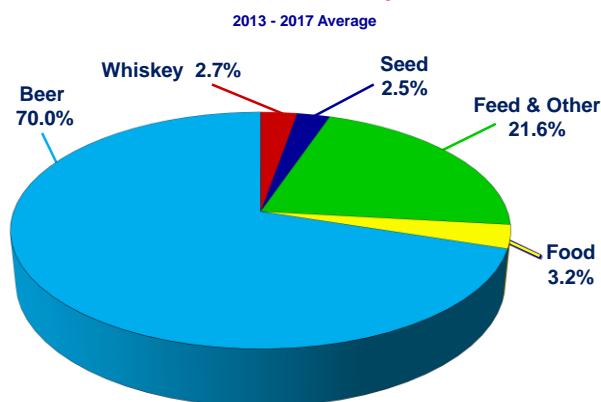


**ECONOMIC SIGNIFICANCE OF BARLEY**

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 \$560 million annually (2012-2016).

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 \$57 million for barley and its milled products, \$226 million for malt and malt extracts, \$609 million for beer, and \$1.06 billion for whiskey (2013-2017).

**BARLEY BALANCE SHEET**

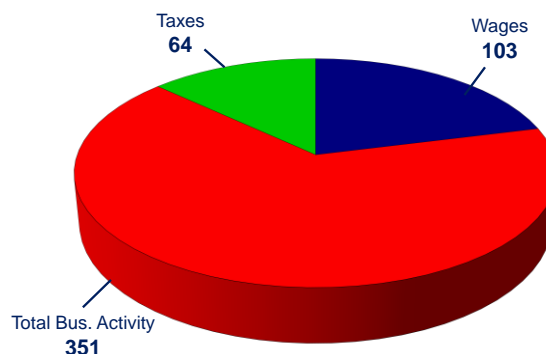
| ANNUAL FEDERAL RESEARCH INVESTMENT*                  | ANNUAL RETURN ON INVESTMENT       |
|--|-----------------------------------|
| \$ 13.978 USDA-Agricultural Research Service (ARS)   | \$ 1.2 Raw agricultural commodity |
| 0.758 Other Grants (NIFA-AFRI, NSF)                  | 350.8 Brewing industry business   |
| NA USDA-NIFA Formula Grants (Hatch Act, Smith-Lever) | 3.7 Federal excise tax revenue    |
| <b>\$14.736 Million</b>                              | 25.9 Federal income tax           |
|  | 2.4 Value-added use as feed       |
|  | NA Value-added use as food        |
|  | <b>\$384.0 Billion</b>            |

\*FY2018 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><br>Production | Crop <sup>1</sup><br>Value | Brewing Industry <sup>2</sup> |                        |                    | Whiskey<br>Distillers <sup>5</sup> | Malt<br>Plants <sup>4</sup> |                      |
|----------------------|-----------------------------------|----------------------------|-------------------------------|------------------------|--------------------|------------------------------------|-----------------------------|----------------------|
|                      |                                   |                            | Employment                    | Total Bus.<br>Activity | Taxes <sup>3</sup> |                                    |                             | Brewers <sup>4</sup> |
|                      | (million bu)                      | (million \$)               |                               | (million \$)           | (million \$)       |                                    |                             |                      |
| Alabama              | 0.0                               | 0.1                        | 22,055                        | 2,826                  | 615                | 28                                 | 7                           | 1                    |
| Alaska               | 0.2                               | 1.0                        | 5,692                         | 830                    | 199                | 32                                 | 5                           |                      |
| Arizona              | 5.0                               | 27.0                       | 47,356                        | 6,483                  | 1,094              | 88                                 | 7                           | 1                    |
| Arkansas             |                                   |                            | 10,836                        | 1,500                  | 280                | 28                                 | 4                           |                      |
| California           | 5.3                               | 29.2                       | 267,576                       | 48,175                 | 9,965              | 635                                | 54                          | 6                    |
| Colorado             | 6.6                               | 42.0                       | 68,705                        | 15,311                 | 2,184              | 341                                | 48                          | 7                    |
| Connecticut          |                                   |                            | 20,468                        | 2,855                  | 596                | 49                                 | 6                           | 3                    |
| Delaware             | 2.8                               | 11.7                       | 5,999                         | 996                    | 142                | 20                                 | 3                           | 1                    |
| District of Columbia |                                   |                            | 9,680                         | 1,159                  | 194                | 10                                 | 3                           |                      |
| Florida              |                                   |                            | 160,706                       | 21,687                 | 3,949              | 196                                | 18                          |                      |
| Georgia              | 0.0                               | 0.2                        | 53,487                        | 8,479                  | 1,400              | 54                                 | 12                          |                      |
| Hawaii               |                                   |                            | 13,756                        | 1,900                  | 366                | 15                                 |                             |                      |
| Idaho                | 51.1                              | 306.1                      | 11,987                        | 1,713                  | 250                | 54                                 | 8                           | 4                    |
| Illinois             | 0.1                               | ---                        | 89,692                        | 13,943                 | 2,356              | 183                                | 21                          | 2                    |
| Indiana              | 0.0                               | 0.5                        | 36,609                        | 4,825                  | 740                | 127                                | 20                          | 2                    |
| Iowa                 | 0.1                               | 0.6                        | 29,233                        | 3,764                  | 587                | 70                                 | 9                           |                      |
| Kansas               | 0.3                               | 2.0                        | 15,582                        | 2,091                  | 302                | 31                                 | 5                           | 1                    |
| Kentucky             | 0.5                               | 2.5                        | 17,191                        | 2,118                  | 413                | 34                                 | 35                          |                      |
| Louisiana            |                                   |                            | 33,995                        | 4,500                  | 772                | 26                                 | 4                           |                      |
| Maine                | 0.9                               | 3.7                        | 16,993                        | 2,328                  | 433                | 77                                 | 7                           | 3                    |
| Maryland             | 3.3                               | 13.2                       | 31,351                        | 4,338                  | 883                | 65                                 | 18                          | 2                    |
| Massachusetts        | ---                               | ---                        | 58,645                        | 9,040                  | 1,615              | 110                                | 12                          | 1                    |
| Michigan             | 0.4                               | 1.8                        | 66,403                        | 9,290                  | 1,492              | 223                                | 27                          | 16                   |
| Minnesota            | 6.1                               | 38.4                       | 53,971                        | 7,894                  | 1,466              | 112                                | 19                          | 5                    |
| Mississippi          |                                   |                            | 11,553                        | 1,516                  | 319                | 9                                  | 3                           |                      |
| Missouri             | 0.1                               | 0.3                        | 57,656                        | 12,457                 | 2,030              | 79                                 | 22                          | 2                    |
| Montana              | 37.5                              | 211.8                      | 10,152                        | 1,351                  | 158                | 68                                 | 15                          | 6                    |
| Nebraska             | 0.1                               | 0.4                        | 16,476                        | 2,263                  | 331                | 42                                 | 4                           | 1                    |
| Nevada               | 0.2                               | 0.7                        | 49,210                        | 7,115                  | 1,212              | 37                                 | 7                           | 3                    |
| New Hampshire        | 0.0                               | ---                        | 13,588                        | 2,206                  | 377                | 56                                 | 8                           |                      |
| New Jersey           | 0.1                               | 0.5                        | 43,901                        | 6,525                  | 1,150              | 83                                 | 6                           | 1                    |
| New Mexico           | ---                               | ---                        | 13,076                        | 1,690                  | 272                | 57                                 | 10                          |                      |
| New York             | 0.3                               | 1.6                        | 130,762                       | 23,588                 | 5,350              | 275                                | 73                          | 12                   |
| North Carolina       | 1.0                               | 3.5                        | 58,949                        | 8,842                  | 1,651              | 201                                | 17                          | 4                    |
| North Dakota         | 60.2                              | 367.7                      | 7,271                         | 939                    | 139                | 10                                 | 2                           | 2                    |
| Ohio                 | 0.2                               | 1.1                        | 81,341                        | 13,269                 | 2,503              | 179                                | 25                          | 6                    |
| Oklahoma             | 0.2                               | 0.8                        | 17,842                        | 3,031                  | 559                | 20                                 | 4                           | 2                    |
| Oregon               | 3.9                               | 20.4                       | 44,910                        | 7,424                  | 975                | 246                                | 30                          | 6                    |
| Pennsylvania         | 3.8                               | 15.7                       | 72,698                        | 11,406                 | 1,812              | 206                                | 37                          | 5                    |
| Rhode Island         |                                   |                            | 7,756                         | 1,000                  | 169                | 15                                 | 2                           |                      |
| South Carolina       | 0.0                               | ---                        | 27,914                        | 3,322                  | 692                | 51                                 | 21                          |                      |
| South Dakota         | 0.8                               | 3.8                        | 8,462                         | 1,044                  | 149                | 15                                 | 3                           |                      |
| Tennessee            | 0.1                               | ---                        | 29,277                        | 3,991                  | 830                | 68                                 | 23                          | 1                    |
| Texas                | 0.2                               | 1.0                        | 165,249                       | 26,729                 | 4,573              | 203                                | 36                          | 3                    |
| Utah                 | 2.0                               | 7.7                        | 12,690                        | 1,587                  | 271                | 27                                 | 5                           | 1                    |
| Vermont              | 0.0                               | ---                        | 8,566                         | 1,137                  | 203                | 51                                 | 7                           | 2                    |
| Virginia             | 2.9                               | 10.9                       | 55,314                        | 9,346                  | 2,050              | 168                                | 24                          | 4                    |
| Washington           | 12.1                              | 61.7                       | 53,619                        | 8,679                  | 1,556              | 340                                | 59                          | 4                    |
| West Virginia        | 0.1                               | 0.5                        | 7,196                         | 1,009                  | 161                | 15                                 | 10                          |                      |
| Wisconsin            | 0.9                               | 3.4                        | 69,163                        | 10,505                 | 1,611              | 143                                | 15                          | 6                    |
| Wyoming              | 5.5                               | 33.7                       | 5,354                         | 806                    | 110                | 23                                 | 3                           | 2                    |
| <b>Total U.S.</b>    | <b>215.1</b>                      | <b>1,228.2</b>             | <b>2,227,913</b>              | <b>350,820</b>         | <b>63,541</b>      | <b>5,297</b>                       | <b>823</b>                  | <b>128</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, 2016 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.<br>SanTan Brewing Co.  | Tempe<br>Chandler  |
| California | 21 <sup>ST</sup> Amendment Brewery<br>AleSmith Brewing Co.<br>Anchor Brewing Co.<br>Anderson Valley Brewing Co.<br>Anheuser-Busch, Inc.<br>Anheuser-Busch, Inc.<br>Ballast Point Brewing Co.<br>Bear Republic Brewing Co.<br>BJ's Chicago Pizza & Brewery<br>Coronado Brewing Co.<br>Drakes Brewing/Triple Rock Brewery<br>Fieldwork Brewing<br>Figueroa Mountain Brewing<br>Firestone Walker Brewing Co.<br>Golden Road Brewery<br>Gordon Biersch Brewing Co.<br>Green Flash Brewing Co.<br>Hangar 24 Craft Brewery<br>Hermitage Brewing Co.<br>Karl Strauss Breweries<br>Knee Deep Brewing Co.<br>Lagunitas Brewing Co.<br>Lost Coast Brewery and Café<br>Mendocino Brewing Co.<br>MillerCoors, LLC<br>Modern Times Beer<br>Mother Earth Brew Co.<br>North Coast Brewing Co.<br>Pizza Port<br>Russian River Brewing Co.<br>Saint Archer Brewing Co.<br>Sierra Nevada Brewing Co.<br>Speakeasy Ales and Lagers<br>Stone Brewing Co.<br>Trumer Brauerei | San Francisco<br>San Diego<br>San Francisco<br>Boonville<br>Fairfield<br>Los Angeles<br>San Diego<br>Healdsburg<br>Huntington Beach<br>Coronado<br>Berkeley<br>Berkeley<br>Buellton, California<br>Paso Robles<br>Los Angeles<br>San Jose<br>San Diego<br>Redlands<br>San Jose<br>San Diego<br>Auburn<br>Petaluma<br>Eureka<br>Ukiah<br>Irwindale<br>San Diego<br>Vista<br>Fort Bragg<br>Carlsbad<br>Santa Rosa<br>San Diego<br>Chico<br>San Francisco<br>San Marcos<br>Berkeley |
| Colorado   | Anheuser-Busch, Inc.<br>Avery Brewing Co.<br>Blue Moon Brewing Co.<br>Boulder Beer Co.<br>Breckenridge Brewery<br>CraftWorks Brewery & Restaurant<br>Crazy Mountain Brewing Co.<br>Dry Dock Brewing Co.<br>Great Divide Brewing Co.<br>Left Hand Brewing Co.<br>MillerCoors, LLC<br>New Belgium Brewing Co.<br>Odell Brewing Co.  | Fort Collins<br>Boulder<br>Denver<br>Boulder<br>Littleton<br>Broomfield<br>Edwards<br>Aurora<br>Denver<br>Longmont<br>Golden<br>Fort Collins<br>Fort Collins   |

|                      |                                    |                 |
|----------------------|------------------------------------|-----------------|
| Colorado (cont.)     | Oskar Blues Brewery                | Longmont        |
|                      | SKA Brewing                        | Durango         |
|                      | Sleeping Giant Brewing Co.         | Denver          |
|                      | Upslope Brewing Co.                | Boulder         |
| Connecticut          | Thomas Hooker Brewing Co.          | Bloomfield      |
|                      | Stony Creek Brewery                | Branford        |
|                      | Two Roads Brewing Co.              | Stratford       |
| Delaware             | Dogfish Head Craft Brewery         | Milton          |
| District of Columbia | DC Brau Brewing                    | Washington      |
| Florida              | Anheuser-Busch, Inc.               | Jacksonville    |
|                      | Brew Hub LLC                       | Lakeland        |
|                      | Cigar City Brewing Co.             | Tampa           |
|                      | D.G. Yuengling & Son               | Tampa           |
|                      | Florida Beer Co.                   | Cape Canaveral  |
|                      | Funky Buddha Brewery               | Oakland Park    |
| Georgia              | Anheuser-Busch, Inc.               | Cartersville    |
|                      | Creature Comforts Brewing Co.      | Athens          |
|                      | MillerCoors, LLC                   | Albany          |
|                      | Sweetwater Brewing Co.             | Atlanta         |
|                      | Terrapin Beer Co.                  | Athens          |
| Hawaii               | Maui Brewing Co.                   | Lahaina         |
| Illinois             | Goose Island Beer Co.              | Chicago         |
|                      | Half Acre Beer Co.                 | Chicago         |
|                      | Revolution Brewing                 | Chicago         |
|                      | Two Brothers Brewing Co.           | Warrenville     |
| Indiana              | Sun King Brewing                   | Indianapolis    |
|                      | Three Floyds Brewing Co.           | Munster         |
|                      | Upland Brewing Co.                 | Bloomington     |
| Kansas               | Tallgrass Brewing Co.              | Manhattan       |
| Kentucky             | Lexington Brewing & Distilling Co. | Lexington       |
| Louisiana            | Abita Brewing Co.                  | Abita Springs   |
| Maine                | Allagash Brewing Co.               | Portland        |
|                      | Baxter Brewing Co.                 | Lewiston        |
|                      | Shipyard Brewing Co.               | Portland        |
| Maryland             | DuClaw Brewing Co.                 | Baltimore       |
|                      | Evolution Craft Brewing Co.        | Salisbury       |
|                      | Flying Dog Brewing Co.             | Frederick       |
|                      | Heavy Seas Beer                    | Baltimore       |
| Massachusetts        | Berkshire Brewing Co.              | South Deerfield |
|                      | Boston Beer Co.                    | Boston          |
|                      | Cisco Brewers                      | Nantucket       |
|                      | Harpoon Brewery                    | Boston          |
|                      | Ipswich Ale Brewery                | Ipswich         |
|                      | Jack's Abby Brewing                | Framingham      |
|                      | Lord Hobo Brewing Co.              | Woburn          |
|                      | Night Shift Brewing                | Everett         |
|                      | Notch Brewing                      | Salem           |
|                      | Wachusett Brewing Co.              | Westminster     |
|                      | Wormtown Brewery                   | Worcester       |
| Michigan             | Arcadia Brewing Co.                | Kalamazoo       |
|                      | Atwater Brewing Co.                | Detroit         |
|                      | Bell's Brewery, Inc.               | Galesburg       |
|                      | Dark Horse Brewing Co.             | Marshall        |
|                      | Founders Brewing Co.               | Grand Rapids    |

|                  |  |  |
|------------------|--|--|
| Michigan (cont.) | New Holland Brewing Co.<br>Perrin Brewing Co.<br>Shorts Brewing Co.  | Holland<br>Comstock<br>Bellaire  |
| Minnesota        | August Schell Brewing Co.<br>Bent Paddle Brewing Co.<br>Fulton Beer<br>Granite City Food & Brewery<br>Summit Brewing Co.<br>Surly Brewing Co.<br>Third Street Brewhouse  | New Ulm<br>Duluth<br>Minneapolis<br>Maple Grove<br>St. Paul<br>Minneapolis<br>Cold Spring  |
| Mississippi      | Lazy Magnolia Brewing Co.  | Kiln   |
| Missouri         | 4 Hands Brewing Co.<br>Anheuser-Busch, Inc.<br>Boulevard Brewing Co.<br>Schlafly Beer<br>Urban Chestnut Brewing Co.  | St. Louis<br>St. Louis<br>Kansas City<br>Maplewood<br>St. Louis  |
| Montana          | Big Sky Brewing Co.<br>Kettlehouse Brewing Co.   | Missoula<br>Missoula   |
| New Hampshire    | Anheuser-Busch, Inc.<br>Redhook Ale Brewery, Inc.<br>Smuttynose Brewing Co.  | Merrimack<br>Portsmouth<br>Portsmouth  |
| New Jersey       | Anheuser-Busch, Inc.<br>Flying Fish Brewing Co.  | Newark<br>Somerdale  |
| New Mexico       | Marble Brewery<br>Santa Fe Brewing Co.   | Albuquerque<br>Santa Fe  |
| New York         | Anheuser-Busch, Inc.<br>Blue Point Brewing Co.<br>Brewery Ommegang<br>Brooklyn Brewery<br>Captain Lawrence Brewing Co.<br>Genesee Brewing Co.<br>Ithaca Beer Co.<br>Lake Placid Craft Brewing Co.<br>The Matt Brewing Co.<br>Shmaltz Brewing Co.<br>Sixpoint Brewery<br>Southern Tier Brewing Co.<br>Olde Saratoga Brewing Co. | Baldwinsville<br>Patchogue<br>Cooperstown<br>Brooklyn<br>Elmsford<br>Rochester<br>Ithaca<br>Lake Placid<br>Utica<br>Clifton Park<br>Brooklyn<br>Lakewood<br>Saratoga Springs |
| North Carolina   | Aviator Brewing Co.<br>Catawba Brewing<br>Foothills Brewing Co.<br>Highland Brewing Co.<br>LoneRider Brewing Co.<br>Natty Green's Brewing Co.<br>New Belgium Brewing Co.<br>NoDa Brewing Co.<br>Olde Mecklenburg Brewery<br>Oskar Blues Brewery<br>Red Oak Brewing Co.<br>Sierra Nevada Brewing Co.<br>Wicked Weed Brewing     | Fuquay Varina<br>Morganton<br>Winston Salem<br>Asheville<br>Raleigh<br>Greensboro<br>Asheville<br>Charlotte<br>Charlotte<br>Brevard<br>Whitsett<br>Mills River<br>Asheville  |

|                             |                                |                    |
|-----------------------------|--------------------------------|--------------------|
| Ohio                        | Anheuser-Busch, Inc.           | Columbus           |
|                             | Boston Beer Co.                | Cincinnati         |
|                             | Brewdog                        | Columbus           |
|                             | Christian Moerlein Brewing Co. | Cincinnati         |
|                             | Columbus Brewing Co.           | Columbus           |
|                             | 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               |
|                             | Breakside Brewery & Taproom    | Portland           |
|                             | Bridgeport Brewing Co.         | Portland           |
|                             | Crux Fermentation Project      | Bend               |
|                             | Deschutes Brewing Co.          | Bend               |
|                             | Fort George Brewery            | Astoria            |
|                             | Full Sail Brewing Co.          | Hood River         |
|                             | GoodLife Brewing Co.           | Bend               |
|                             | Hop Valley Brewing Co.         | Springfield        |
|                             | McMenamins Breweries           | Portland           |
|                             | Ninkasi Brewing Co.            | Eugene             |
|                             | Pelican Brewing Co.            | Pacific City       |
|                             | pFriem Family Brewers          | Hood River         |
| Pyramid Breweries           | Portland                       |                    |
| Rogue Ales                  | Newport                        |                    |
| Widmer Brothers Brewing Co. | Portland                       |                    |
| Pennsylvania                | Boston Beer Co.                | Breinigsville      |
|                             | City Brewing Co.               | Latrobe            |
|                             | D.G. Yuengling Son, Inc.       | Pottsville         |
|                             | Lancaster Brewing Co.          | Lancaster          |
|                             | The Lion Brewery, Inc.         | Wilkes-Barre       |
|                             | 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         |
| South Carolina              | Thomas Creek Brewery           | Greenville         |
| Tennessee                   | City Brewing Co.               | Memphis            |
|                             | Wiseacre Brewing Co.           | Memphis            |
|                             | Yazoo Brewing Co.              | Nashville          |
| Texas                       | Anheuser-Busch, Inc.           | Houston            |
|                             | Austin Beerworks               | Austin             |
|                             | BJ's Chicago Pizza & Brewery   | Temple             |
|                             | Community Beer Co.             | Dallas             |
|                             | Deep Ellum Brewing Co.         | Dallas             |
|                             | Independence Brewing Co.       | Austin,            |
|                             | Karbach Brewing Co.            | Houston            |
|                             | Live Oak Brewing co.           | Del Valle          |
| MillerCoors, LLC            | Fort Worth                     |                    |

|               |  |   |
|---------------|--|---|
| Texas (cont.) | Rahr and Sons Brewing Co.<br>Real Ale Brewing Co.<br>Revolver Brewing<br>Saint Arnold Brewing Co.<br>Spoetzl Brewery, Inc.   | Fort Worth<br>Blanco<br>Granbury<br>Houston<br>Shiner   |
| Utah          | Epic Brewing Co.<br>Uinta Brewing Co.<br>Utah Brewers Cooperative  | Salt Lake City<br>Salt Lake City<br>Salt Lake City  |
| Vermont       | The Alchemist<br>Harpoon Brewery<br>Long Trail Brewing Co.<br>Magic Hat Brewing Co.  | Stowe<br>Windsor<br>Bridgewater Corners<br>South Burlington   |
| Virginia      | Anheuser-Busch, Inc.<br>Devils Backbone Brewing Co.<br>MillerCoors, LLC<br>Port City Brewing Co.<br>Starr Hill Brewing Co.<br>Stone Brewing  | Williamsburg<br>Lexington<br>Elkton<br>Alexandria<br>Crozet<br>Richmond   |
| Washington    | Bale Breaker Brewing Co.<br>Elysian Brewing Co.<br>Fremont Brewing Co.<br>Georgetown Brewing Co.<br>Iron Horse Brewery<br>Mac and Jack's Brewery<br>Pyramid Breweries<br>RAM Restaurant & Brewery<br>Redhook Ale Brewery<br>Silver City Brewery  | Yakima<br>Seattle<br>Seattle<br>Seattle<br>Ellensburg<br>Redmond<br>Seattle<br>Lakewood<br>Woodinville<br>Silverdale  |
| Wisconsin     | Ale Asylum<br>Capitol Brewing Co.<br>Central Waters Brewery<br>City Brewing Co.<br>Jacob Leinenkugel Brewing Co.<br>Lakefront Brewery Inc.<br>MillerCoors, LLC<br>Milwaukee Premium Brewing Co.<br>Minhas Craft Brewery<br>New Glarus Brewing Co.<br>Rhineland Brewing Co.<br>Sprecher Brewing Co.<br>Stevens Point Brewery<br>Wisconsin Brewing Co. | Madison<br>Middleton<br>Amherst<br>La Crosse<br>Chippewa Falls<br>Milwaukee<br>Milwaukee<br>Milwaukee<br>Monroe<br>New Glarus<br>Rhineland<br>Glendale<br>Stevens Point<br>Verona |
| Wyoming       | Melvin Brewing Co.   | Alpine  |

<sup>1</sup> Breweries with production of 15,000 barrels or more in 2016.

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

| <b>STATE</b>  | <b>COMPANY</b>                | <b>CITY</b>      |
|---------------|-------------------------------|------------------|
| Alabama       | Old South Malt House          | Birmingham       |
| Arizona       | Sinagua Malt                  | Camp Verde       |
| California    | Adams Grain Co.               | Arbuckle         |
|               | Admiral Maltings              | Alameda          |
|               | California Malting Co.        | Santa Ynez       |
|               | Eckert Malting & Brewing Co.  | Chico            |
|               | Grizzly Malt                  | Santa Rosa       |
|               | Watermark Farms               | West Sacramento  |
| Colorado      | Colorado Malting Company      | Alamosa          |
|               | Grouse Malting & Roasting Co. | Wellington       |
|               | Leopold Bros. Distilling      | Denver           |
|               | MillerCoors, LLC              | Golden           |
|               | Proximity Malt                | Monte Vista      |
|               | Root Shoot Malting            | Loveland         |
|               | Troubador Maltings LLC        | Ft. Collins      |
| Connecticut   | Rooster Malt Co.              | Newtown          |
|               | Thrall Family Malt            | Windsor          |
|               | Yankee Malting                | Willington       |
| Delaware      | Proximity Malt                | Laurel           |
| Idaho         | Anheuser-Busch, Inc.          | Idaho Falls      |
|               | Great Western Malting Co.     | Pocatello        |
|               | InteGrow Malt                 | Idaho Falls      |
|               | Mountain Malt                 | Idaho Falls      |
| Illinois      | Heartland Malting             | Normal           |
|               | Mammoth Malt                  | Thawville        |
| Indiana       | Academy Malt Co.              | Indianapolis     |
|               | Sugar Creek Malt Co.          | Lebanon          |
| Kansas        | Amber Waves Malt              | Garden Plain     |
| 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 |
|               | Emergent Malt                 | Zeeland          |
|               | Empire Malting Co.            | Empire           |
|               | Fedora Malthouse              | DeWitt           |
|               | Great Lakes Malting Co.       | Traverse City    |
|               | Koops' Malt Haus              | Mount Pleasant   |
|               | Macon Creek Malt              | Saline           |
|               | Michigan Malt                 | Shepherd         |
|               | Mitten State Malt             | Okemos           |
|               | Motorcity Malt House LLC      | Macomb           |
|               | Mushroom Head Malts           | Saranac          |
|               | Pilot Malt House              | Byron Center     |
|               | Superior Malt                 | Escanaba         |
|               | U.P. Malt Company             | Marquette        |
|               | Valley View Farm LLC          | East Jordan      |



|                |  |   |
|----------------|--|---|
| Minnesota      | Anheuser-Busch, Inc.<br>Malteurop North America<br>Maltwerks<br>Rahr Malting Company<br>Vertical Malt  | Moorhead<br>Winona<br>Detroit Lakes<br>Shakopee<br>Fisher   |
| Missouri       | Gateway Custom Malt<br>Sparrow Malting   | Montgomery City<br>Ozark  |
| Montana        | Big Sky Malts<br>Bridger Malt House<br>Farm Power Malt<br>Gallatin Valley Malt<br>Malteurop North America<br>Montana Craft Malt  | Bozeman<br>Bozeman<br>Power<br>Bozeman<br>Great Falls<br>Butte  |
| Nebraska       | Nebraska Malt  | Lincoln   |
| Nevada         | Bently Heritage Estate Distillery<br>Frey Ranch Estate Distillery<br>Rebel Malt  | Reno<br>Fallon<br>Reno  |
| New Jersey     | Rabbit Hill Farms  | Shiloh  |
| New York       | 1886 Maltings<br>Argyle Craft Malt & Hops<br>Black Dirt Malt<br>Convergence Craft<br>Farmhouse Malt<br>Hillrock Estate Distillery<br>Hudson Valley Malt<br>Murmuration Malts<br>New York Craft Malt<br>Niagara Malt<br>Pioneer Malting<br>Subversive Malting & Brewing | Fulton<br>Argyle<br>Pine Island<br>Albany<br>Newark Valley<br>Ancram<br>Germantown<br>Bloomfield<br>Batavia<br>Cambria<br>Rochester<br>Catham |
| North Carolina | Carolina Malt House<br>Epiphany Craft Malt<br>Farm Boy Farms<br>Riverbend Malt House   | Cleveland<br>Durham<br>Pittsboro<br>Ashville  |
| North Dakota   | Cargill Malt<br>Two Track Malting  | Spiritwood<br>Bismarck  |
| Ohio           | Barley Five Malt House<br>Haus Malts<br>Ohio Malting Company<br>Rustic Brew Farm<br>Sweet Acres Malt<br>West Branch Malts  | Columbus Grove<br>Cleveland<br>Wakeman<br>Marysville<br>New Vienna<br>Brunswick   |
| Oklahoma       | 46 Grain<br>Native Malt House  | Ames<br>Tulsa   |
| Oregon         | Christensen Farms Malting Co.<br>Gold Rush Malt LLC<br>High Desert Malt & Grain, Inc.<br>Mecca Grade Estate Malt<br>Mountain Malting<br>Rogue Ales Farmstead Malthouse   | McMinnville<br>Baker City<br>Bend<br>Madras<br>Bend<br>Newport  |

|              |  |  |
|--------------|--|--|
| Pennsylvania | Appalachian Malting<br>C’N’C Malting Company<br>Deer Creek Malthouse<br>Double Eagle Malt<br>Sprague Farm and Brew Works   | Portage<br>Butler<br>Glen Mills<br>Philadelphia<br>Venango               |
| Tennessee    | Corsair Artisan Distillery   | Nashville  |
| Texas        | Blacklands Malt<br>Maverick Malt House<br>TexMalt  | Leander<br>Vega<br>Fort Worth  |
| Utah         | Solstice Malt  | Salt Lake City   |
| Vermont      | Peterson Quality Malt<br>Slow Hand Malting   | Monkton<br>Hinesburg   |
| Virginia     | Copper Fox Distillery & Maltings<br>Foster Malt<br>Mount Gilead Malt<br>Murphy & Rude Malting Co.  | Sperryville<br>Suffolk<br>Lovettsville<br>Charlottesville                |
| Washington   | Great Western Malting Company<br>LINC Foods (Palouse Pint Malt)<br>Mainstem Malt<br>Skagit Valley Malting  | Vancouver<br>Spokane<br>Walla Walla<br>Mt Vernon                         |
| Wisconsin    | Autumn Moon Farm<br>Malteurop North America<br>Briess Malt & Ingredients Company<br>Briess Malt & Ingredients Company<br>Briess Malt & Ingredients Company<br>Cargill Malt | Belleville<br>Milwaukee<br>Chilton<br>Manitowoc<br>Waterloo<br>Sheboygan |
| Wyoming      | Wyoming Malting Co.<br>Wyoming High Desert Malt  | Pine Bluffs<br>Powell  |

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