

Hello and Welcome to Global Beerco and HouseBrew.  
We've been producing and marketing craft brewing products globally since 1989.

## **HouseBrew**

HouseBrew is a self-contained Mini-Micro Brewery that produces popular naturally brewed, fresh beers for the least cost, in minimal space with minimal labor in a semi-automated process. Distinguish your restaurant, bar or pub with your own branded beers tailored to your customers tastes with a HouseBrew made Craft Beer.

## **Technology**

After the traditional steps of ingredient preparation are completed, prior to the process of fermentation, the ingredients are spray dried to remove all the water and transformed into a Beer Mix powder ready for fermentation at any point when water is reintroduced and brewers yeast is added.

## **The Beer Mix**

The “Just Add Water” professionally prepared powdered malt extract eliminates labour, space, storage and energy costs. With HouseBrew you simply add water, yeast and your choice of hops to create the taste and beer style of your choice. Brewing quality craft beer on premise has never been easier or more profitable

## About Global Beerco

The company's management and directors have the combined expertise of more than 100 years in the brewing industry and possess a rare depth of scientific support and practical business operations experience that provides the HouseBrew operator with exceptional support, intelligence and a true depth of experience to deliver a premium quality crafted product with each brew.

### History – 25 Years of Experience

HouseBrew is a “breakthrough” application of a time-proven, highly successful and very efficient process for producing naturally brewed, high quality, fresh, premium-tasting beers at unbelievable savings. This patented beer making process was originally developed for a personal mini-micro brewery called The Beer Machine®. This popular beer making system is marketed in fourteen countries worldwide, being used by hundreds of thousands of beer consumers with several million servings to date. This process for making beer was developed at the University of California Davis in 1985 under the direction of Dr. Michael J. Lewis, one of the brewing industry's most highly regarded and accredited scientists. The process was originally designed for The Beer Machine® and our HouseBrew® system is a highly practical, scaled-up version of the same process for use in commercial establishments.

### HouseBrew – join the ‘micro-brew’ trend

Cater to a fast-growing market and profit from the explosive transformation in the beer market. HouseBrew is a totally self-contained micro-brewery for your restaurant, bar, pub or entertainment facility – wherever craft beers are consumed. HouseBrew lets you create your own brand of beer, for YOUR customers – and creates an amazing craft beer experience.



### The Team

## Our Brewing Scientists



### **Professor Emeritus Michael J. Lewis, Ph.D. F.I. Brew.**

Michael J. Lewis PhD Professor Lewis conducted the program in Brewing Science at the University of California, Davis since 1962. He accepted emeritus status in 1995 but remains active in the profession; he is the Academic Director of brewing programs in University of California Davis Extension. His accomplishments at U.C. Davis are many, leading to his selection as a Fellow of the Institute of Brewing and Distilling (London) in 1985. In 1986 he received the prestigious Award-of-Merit of the Master Brewers Association of the Americas (MBAA); in 1992 he was invited to be a Senior Member of the International Brewers Guild (London) and is Life Member of the American Society of Brewing Chemists; in 2008 Dr Lewis received the Recognition Award of the Brewers

Association (USA) for service to the industry. Dr. Lewis has published many scientific papers on brewing topics mostly related to brewing processes including: yeast physiology and fermentation; the behavior of cereal grains in brewing systems; biochemistry of proteins; interrelations among enzyme systems; sensory science (beer flavor). His book "Brewing", now in several printings, has been well received and a third edition is in the works. Dr. Lewis maintains a busy consulting practice working with brewing companies, with companies who supply brewers' raw materials and equipment, and with government agencies. Dr. Lewis writes a beer column for his local newspaper entitled Point of Brew that celebrates beer in modern life; he appears from time-to-time on TV and radio. Graduates of Dr. Lewis' programs are well represented in the brewing industry in the major North American breweries (large and small) as well as in Europe, Asia, Africa and South America. Dr. Lewis is an outstanding speaker, lecturer and teacher. In 1990 he received the esteemed Distinguished Teaching Award of the University of California. He has lectured and taught courses by invitation in many parts of the world including Britain, Canada, Mexico, Venezuela, New Zealand, Ireland, Japan, Australia and has returned many times to Africa to teach special courses for South African Breweries. Dr. Lewis continues to offer several specialized courses through University of California Extension (UNEX) for different audiences within the brewing industry. These include the accredited five-month Master Brewers Program leading to an internationally recognized professional qualification in brewing science and engineering (the Diploma Examination of the Institute of Brewing and Distilling), and a short (eight-week) form of this program called the Professional Brewers Certificate Program.

Dr. Lewis earned his Ph.D. degree in 1960 in microbiology and biochemistry at the University of Birmingham (England) where he also studied and (later) taught at the British School of Malting and Brewing. He immigrated to the USA in 1960. Dr. Lewis has served on the Board of Governors of the Master Brewers Association of the Americas and is a member of the MBAA, the American Society of

Brewing Chemists, and the Institute of Brewing & Distilling (London). Dr. Lewis has served the University in several administrative capacities including Assistant Vice-Chancellor of Academic Affairs and Associate Dean of the College of Agricultural and Environmental Sciences as well as Director of several programs.



**Chris White, Ph.D, B.S.**

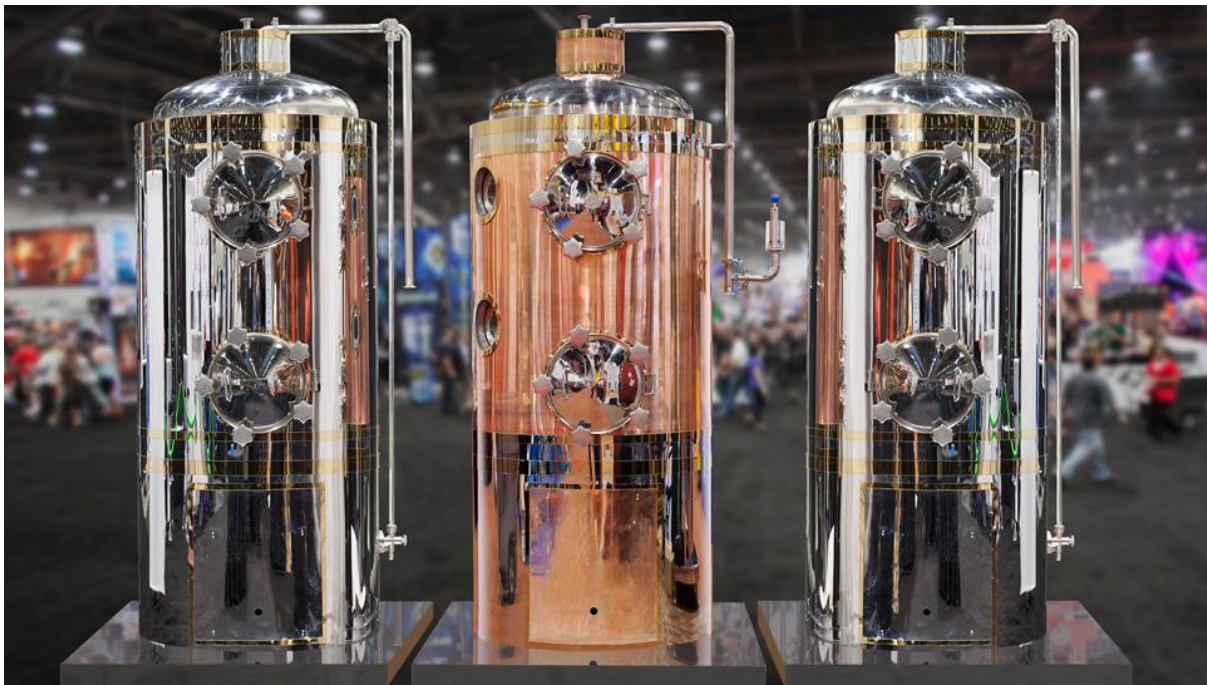
Chris White is President, CEO and founder of White Labs Inc. White Labs produces yeast cultures and provides fermentation services to the brewing, wine, and distilling industries. Chris previously worked at Genentech Inc, the world's first biotechnology company, and he holds a Ph.D. in Biochemistry from the University of California San Diego and a B.S. in Biochemistry from the University of California Davis. White is coauthor of *Yeast: The Practical Guide To Beer Fermentation*, co-designer of *BrewMaster: The Craft Beer Game*, and has published numerous articles on yeast, beer, and fermentation. Chris White was a lecturer in the Chemistry and Biochemistry Department at the University of California San Diego from 1999-2007, and is currently a faculty member of the Siebel Institute of Technology in Chicago.

## HouseBrew Self-contained Mini-Micro Brewery

HouseBrew is a self-contained Mini-Micro Brewery that greatly reduces cost of making great beer and increases profit.

HouseBrew produces popular naturally brewed, fresh beers for the least cost, in minimal space, with minimal labor, in a semi-automated process. HouseBrew eliminates many traditional brewing steps by using our powdered ingredients and aseptic bag-to-bag-to bag process. Brewing quality craft beer on premise has never been easier, requiring only two days of training at our HouseBrew 101 course. Our bag and powder technology is cost efficient and eco-friendly. Just add water, beer mix powder, hops and yeast to an eco-friendly aseptic proprietary brew bag. HouseBrew's bag to bag technology, combined with our proprietary powder technology, ensures consistent sanitary conditions for quality brewing.

The highly-polished stainless steel and copper tanks are an immediate attention getter to customers and showcase your freshly brewed craft beer on tap.



**3 Tank System**

### Benefitting Your Business

#### **Enhance your customer experience**

HouseBrew adds real “bottom line” asset value to your business. Much more than “beer on tap”, HouseBrew lets you create your own private label craft beer product. Distinguish your restaurant, bar or pub with your own branded beers tailored to your customers’ tastes with a HouseBrew made Craft Beer.

#### **Increase your profitability**

Double or triple your profits by producing premium quality beer with HouseBrew. Join the future of small-scale brewing – it’s eco-friendly and your banker will love you.

**Low Start-up Costs**

No Grain Storage. No Boilers. No Grinders. No gumboots. Minimal Floor Space. Modest Water and Power Costs.

**No expertise required!**

HouseBrew is EASY to operate and requires no BrewMaster. You can make quality beer, as good as you can buy anywhere. Delicious craft brewed beer made by you on the premises!

Brew 500 liters /132 gallons (1,400 servings) on premise every week.

Fresh, naturally brewed popular tastes and premium full-bodied flavors.

**Highly Scalable**

Want more beer styles? Add more storage tanks. To double production to 1000 litres per week, add an additional fermentation tank.

## Equipment 3 Tank System

### Hardware



1 Fermentation Tank with dimple jacket  
Disposable Brewing Bags  
Glycol Chiller

#### Specifications

Overall Height: 7'(2200mm)  
Tank Diameter: 34" (880mm)  
Base: 51" x 51"  
Weight (empty): 586 lb (266kg)  
Weight (full): 1,687 lb (765kg)  
Capacity: 132 gal (500L)

Annual Production: 25,000 litres  
Brews 500 litres every 7 days



2 Brite Beer Tanks with dimple jacket

#### Specifications

Overall Height: 7'(2200mm)  
Tank Diameter: 34" (880mm)  
Base: 51" x 51"  
Weight (empty): 551 lb (250kg)  
Weight (full): 1,652 lb (749kg)  
Capacity: 132 gal (500L)



## Raw Materials

HouseBrew preprocessed Barley Malt Extract powder – 15lb bags

White Labs live Liquid Yeast

Granulated Hops

UV treated water

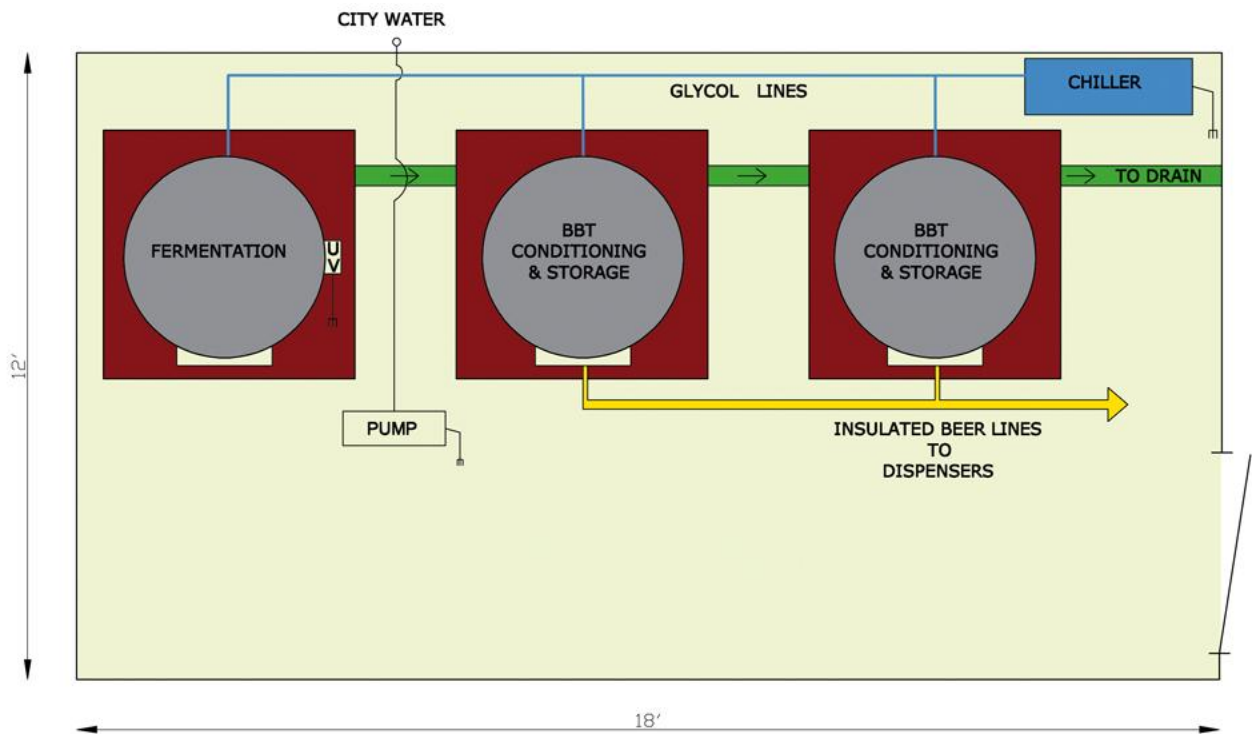
## Water and Power

City water connection

110V – 20Amp breaker

## Floor Space Required

18 feet x 12 feet



## Technology Craft Brewing Made Easy!

HouseBrew's patented technology has been developed during many years of practical application and experience supported with professional accredited scientific research by some of the most respected names in the brewing industry.

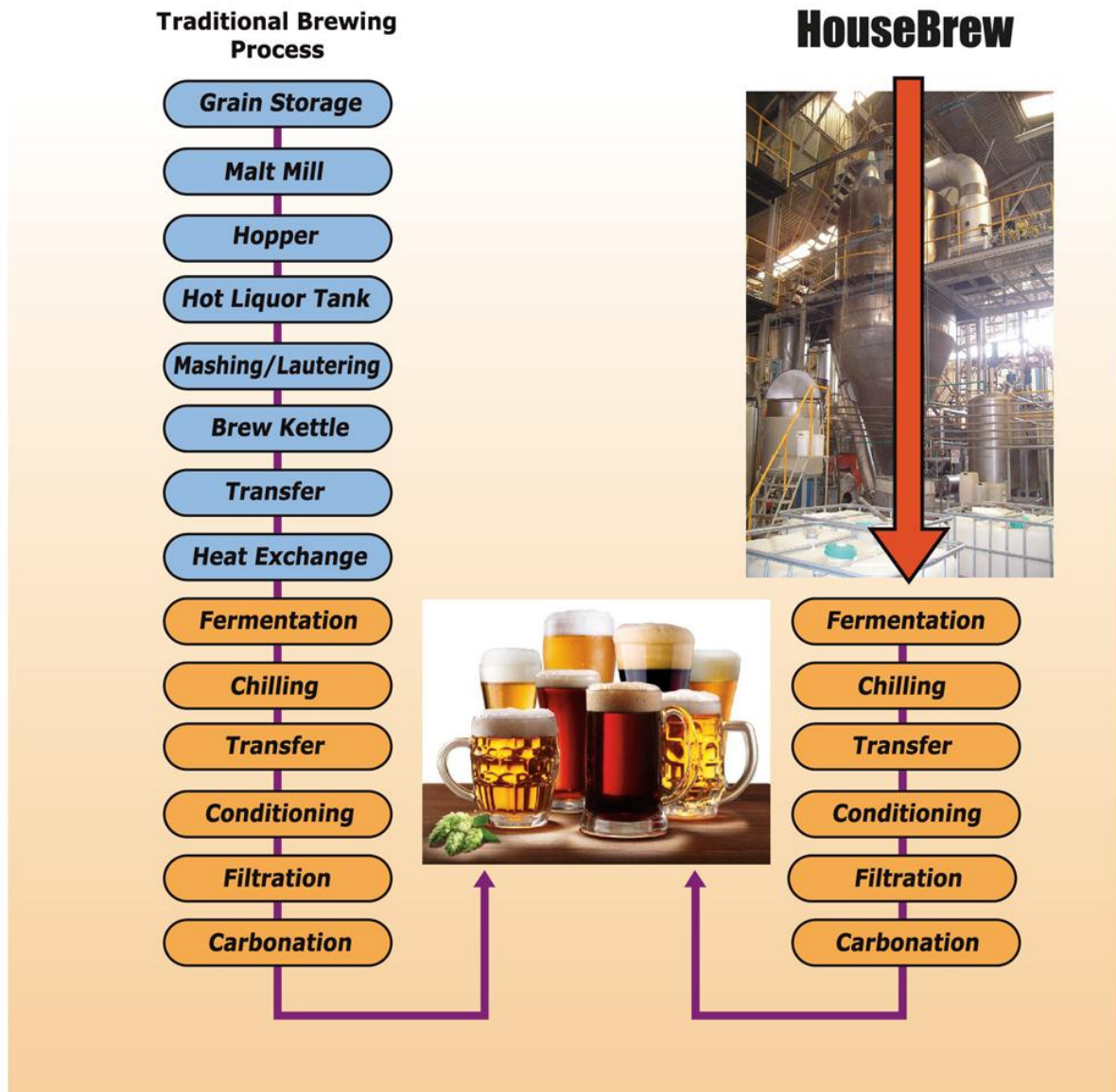
The objective of HouseBrew has been to eliminate the costly and complicated traditional steps of beer ingredient preparation performed at the typical micro brewery or brew pub. These same traditional steps in the brewing process for the preparation of ingredients still takes place however, the equipment and preparation of ingredients is centralized and the process is managed by professional, highly experienced brewing scientists. After the traditional steps of ingredient preparation are completed, but prior to the process of fermentation, the ingredients are spray dried to remove all the water and transformed into a Beer Mix powder ready for fermentation when water is reintroduced and brewers yeast is added.

The HouseBrew system automatically completes the final steps in the brewing process and fermenting the Beer Mix ingredients into delicious fresh beer, on location. The HouseBrew computerized controller regulates the brewing process

throughout the entire fermentation and conditioning of the beer. The optimum micro brewing environment is created by HouseBrew's Brew Bag technology producing up to 500 litres/132 gallons/1400 12oz servings of high quality, craft-brewed beer in a 7 day brewing cycle.

HouseBrew makes fresh beers in styles and flavors of your choice from the same ingredients brewed by the most popular micro breweries in the world, the only difference being in the process whereby the Beer Mix ingredients are prepared in high volume quantities and spray dried before fermentation to a fine powder that is microbiologically stable and can be shipped worldwide on a cost-effective basis. The HouseBrew bag-to-bag-to-bag encapsulation of the complete brewing process insures a sanitary brewing environment and an eco-friendly solution to waste management. The high capital cost of equipment and operating expenses for beer ingredient preparation is eliminated and the considerable reduction in costly equipment and space needed makes HouseBrew a valuable asset to any food and beverage establishment serving craft brewed beers.

## How it Works



## Brew Bag Technology





**GLOBAL BEERCO**

# HOUSEBREW

## The Beer Mix

This powdered Beer Mix is made from the highest quality dry malted barley which has been professionally prepared and premixed for convenient use. Only the addition of water and a brewer's yeast is required to produce 50 liters of pure, natural micro brewery quality beer.

Reno, Nevada, 89509 USA

## The Beer Mix No BrewMaster Required

The “Just Add Water” professionally prepared powdered malt extract eliminates labour, space, storage and energy costs. With the proprietary, patented HouseBrew system you simply add water, yeast and your choice of hops to create the taste and beer style of your choice. We have been globally producing and marketing this proven award winning product in Beer brewing products for over 25 years.

The preferred beer styles and flavors that have propelled the explosion in popularity of craft brewed beers in North America are made from whole grains and blends of 2 row and 6 row pure malted barley grown in the American heartlands stretching from eastern Montana, to Wisconsin across the American and Canadian prairies.

This is the source of the highest quality barley that is grown and malted in North America and then blended to formulate the most flavorful of today’s most popular craft beers. Global Beerco’s Beer Mixes have been made from those same high quality ingredients with only the water removed so they can be fermented on location in the HouseBrew system. There is no loss of quality or flavor due to the instantaneous spray drying process which “locks in” the purity and stability of the powdered malt so that, with the introduction of water in the HouseBrew fermentor and White Labs’ world-famous high quality brewing yeasts, each brew is always the most fresh and flavorful beer possible.

## Types of Beer



BeerVarieties.MIXESBasically, beer is categorized into one of three different types: lagers, ales and specialty beers. The difference between a lager and an ale is the type of yeast used in fermentation.

### Ales

An ale yeast is called “top fermenting” because of its tendency to flocculate (gather) at the surface of the brew during the first few days, before settling to the bottom.

To brew an ale, fermentation must take place in warmer temperatures for the yeast to multiply and do its magic. Ales are usually higher in alcohol and will be noticeable fuller and more complex.

### Lagers

The lager yeast flocculates (below the surface) and sinks to the bottom. Therefore, it is known as “bottom fermenting”. Lager yeasts need cool temperatures during fermentation to perform their magic.

Lagers tend to be lighter in color and usually taste drier than ales. They are generally less alcoholic and complex. This is the most common beer type sold in the USA.

## Specialty Beers

Specialty beers are either ales or lagers (or a hybrid of the two) that will contain other ingredients that differentiate it from a true ale or lager style.

## HouseBrew Beer Mixes

A selection of long standing popular beers are available in a completely premixed package. All the ingredients for more than 20 popular beer selections from around the world have been meticulously prepared under the supervision of our professional brewmasters in state-of-the-art ISO 9002 facilities to exacting laboratory standards. Each beer mix is prepared from the highest quality of raw ingredients and made ready for brewing in HouseBrew's computer controlled fermenter.

These are our best selling beer mixes, derived and perfected over more than 25 years of meticulous refinement and global distribution:

**Pilsner Light** – A light, golden coloured natural beer with a mild hop aroma.

**American Ale** - A rich, malty ale with a good strong hop aroma.

**Golden Lager** - A smooth, golden lager with a premium European taste.

**Canadian Light** – A typical North American lightly hopped beer with a distinctive malty flavour.

**Canadian Red Lager** – Deep red in colour and often compared to favorite premium beers and ales.

**Canadian Dark Ale** - A creamy, dark ale often preferred for its smooth distinctive taste.

**Dutch Lager** – A richly flavoured, all natural lager, distinctively Dutch with a pleasant hop aroma.

**Golden Light** - A golden light beer with a dry aftertaste.

**American Blonde** - A golden lager with a distinctive hop bitterness.

**American Brown Ale** – A full-bodied ale, dark brown in colour with a distinctive bitterness.

**Irish Stout** – The classic traditional stout often compared to the world's best known brand.

**Golden Light** - A golden light beer with a dry aftertaste.

**Vienna** – A rich harvest-time malt produces a smooth amber lager. An Oktoberfest beer.

**Golden Ale** - Light-bodied and golden brown with a slight hop background.

**Pale Ale** – A golden light-bodied beer with a dry aftertaste and medium hop character.

**Porter** – This traditional dark beer consists of a crystal malt & a roasted blend delivering a slightly sweet taste.

**Honey Beer** - A light crisp lager beer with a dry sweet aftertaste.

**IPA** - India Pale Ale. A true premium pale ale with just the right touch of "bitter".

All of these popular beers may be brewed in the HouseBrew system from a premixed package requiring only the addition of water and the appropriate brewer's yeast for the desired style and flavor. Our HouseBrew 101 workshop seminar thoroughly covers the procedures and process for brewing additional styles and flavors.

## White Labs Yeast Determines the final beer flavor and character.



Contrary to popular belief, it is not the BrewMaster who makes the beer – it is the brewer’s yeast that is responsible for making your beer. In the traditional brewing process, the BrewMaster plays a critical role because he or she must insure that all the preparations\* and the sanitary conditions\* for the brewer’s yeast to ferment the “brewers wort” (beer mix ingredients) creates the desired beer. Hence, the quality and type of brewer’s yeast used to perform the fermentation will determine the final beer flavor and character. Global Beerco has teamed up with White Labs, based in San Diego, California where some of the most popular craft beers in America have been developed, largely because of the support and guidance

afforded by White Labs’ founder and president, Dr. Chris White. In his graduate studies in biochemistry, Chris White’s doctoral thesis on high cell density growth led to his development of over 500 strains of brewers yeast from around the world. Today, White Labs is at the heart of craft beer’s tremendous growth and is a widely-recognized world leader in fermentation sciences for the brewing industry. Dr. Chris White is a featured presenter at our unique HouseBrew 101 training course in Global Beerco’s educational and training facilities at the University of California Davis Extension Course, where HouseBrew operators learn how they can, using hands-on experience, make many different varieties and styles of popular craft beers.

\*In HouseBrew, the preparations are all complete in the Beer Mix powders and the sanitation is insured by the patented bag- to-bag-bag process inside the temperature-controlled fermentation and bright beer tanks.