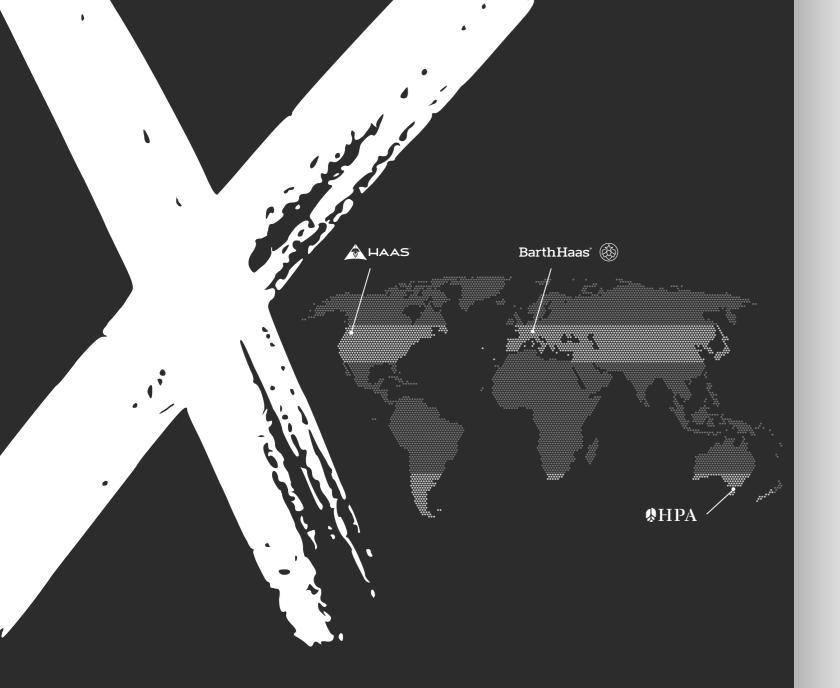


## CUSTOM FIT TO CRAFT AND INDEPENDENT BREWERS

BarthHaas X is a fully integrated part of BarthHaas, the largest supplier of hops and hop products in the world. Because of this, we have the full range of products from a portfolio that offers access to great flavors and aromas often not available from any other supplier. We offer the highest quality through world-leading processing techniques, piece of mind through the BarthHaas guarantee, increased profits and efficiency through our innovative hop products and world-leading technical and brewing support through our Brewing Solutions team.

The best part of this for you, is that by way of BarthHaas X all of this is available from a supplier that is specifically set up to meet your needs as a craft or independent brewer. We understand the time and space restrictions you may face, as well as flexibility of service you require. So rather than make you fit the needs of our business, we have made sure that through BarthHaas X, BarthHaas can fit yours.

| <b>GLOBAL HOP PORTFOLIO</b><br>T90 PELLETS      | 04 |
|---|----|
| HOP FLAVOR EVOLUTION THE BBC™ PELLET LUPOMAX®   | 10 |
| LIQUID HOP REVOLUTION SPECTRUM INCOGNITO® FLEX® | 14 |
| BREWING AIDS HOPAID® ANTIFOAM HOPHAZE®          | 20 |
| <b>QUALITY GUARANTEE</b> SECURITY SYSTEM        | 24 |



# A GLOBAL HOP PORTFOLIO FOR EVERY BEER.

BarthHaas X can offer one of the world's most extensive and finest hop variety portfolios. We give you access to the American greats via our joint ownership of the Hop Breeding Company. Exclusive access to legendary Australian varieties comes from our sibling company Hop Products Australia. And the finest traditional and noble varieties of Europe are brought to you through BarthHaas; a business that has been supporting the hop industry for over 225 years. All varieties are available in traditional T90 format.

You can also get more flavor and efficiency from your hops by using our LUPOMAX®, BBC™ pellet, SPECTRUM or INCOGNITO® technologies. Please check with us for availability and prices.





| יי <i>י</i>         | VARIETY               | INFO & CHARACTER  | GREAT FOR BREWING  |
|---------------------|-----------------------|---|--|
| AUSTRALIAN          | Eclipse®              | Brand new in 2020. Sweet mandarin, citrus peel and pine needles.        | IPA, especially West Coast style   |
|                     | Ella™                 | Orange, tropical.   | Lager, with a more tropical edge   |
|                     | Enigma®               | Intense white fruit, white wine, melon, grape with a tropical finish.   | Saison and very pale ales in combination with piney flavors                          |
|                     | Galaxy®               | High impact aroma hop. Passion fruit and citrus.                        | IPA and pale ales. Defines the category of Pacific Pale Ales                         |
|                     | Topaz™                | High alpha, multi-use. Fruity lychee                                    | Often used for bittering but finding a new home in darker beers, dry or late hopped. |
|                     | Vic Secret™           | Pineapple and tropical fruits.  | Part of the dry hop and whirlpool mix for NEIPA or saison                            |
| ЕСН                 | Aurora                | Hybrid super Styrian. Dried fruits, apple blossom and lime.             | Great for pale ale styles  |
| SLOVENIAN AND CZECH | Bobek                 | Soft citrus. Pleasant classic and clean hop flavor                      | Perfect for modern lagers and new session pale ales                                  |
| IN AI               | Celeia                | Classic clean spicy orange.   |  |
| ENIA                | Kazbek                | Spicy, lemon citrus.  | Widely used in saison and session ales   |
| SLOV                | Saaz                  | Classic noble aroma, spicy, citrus and herbal.                          | Lager of course!   |
|                     | Savinjski Golding     | Delicate, slightly spicy aroma.   | Lager  |
|                     | Sladek                | Bred to replace Saaz. Noble type aroma with some fruit.                 |  |
| GERMAN              | Ariana                | Cross of Herkules and wild male. Sweet fruits and floral notes.         | Excellent for Euro IPA   |
|                     | <b>Brewers Gold</b>   | Spicy, earthy, fruity.  | Use from saison to pale ales, especially classic Belgians                            |
|                     | Cascade               | Deeper citrus than US version.<br>Limoncello, passion fruit, raspberry. | Great for Pales  |
|                     | Callista              | Pear, strawberry & orange.  | Great for Euro IPA   |
|                     | Comet                 | Northern hemisphere classic.<br>Pine, citrus, blueberry.                | West Coast IPA, session IPA  |
|                     | Hallertau Hersbrucker | Classic German. Noble, spicy.   | Lager  |
|                     |                       |   |  |

|         | VARIETY               | INFO & CHARACTER   | GREAT FOR BREWING  |
|---------|-----------------------|--|--|
| GERMAN  | Hallertau Mittelfrueh | Classic German. Noble, lilac, carnation, lemon and bergamot.             | Lager, and lager. Amazing lager.   |
|         | Hallertau Blanc       | Tropical, spicy, grapefruit. Great in combination with Mandarina         | Spicy pale ales, modern saison and<br>Berliner styles                    |
|         | Hallertau Tradition   | Spicy but with fruity edge.  |  |
|         | Herkules              | Robust, high alpha, with some citrus.                                    | Higher flavored beers, needing hefty bitterness:<br>Imperial Stouts etc. |
|         | Huell Melon           | Distinct melon, white fruit aroma.                                       | Fantastic in saison, pale ales, summery blond beers                      |
|         | Magnum                | Classic spicy clean alpha variety.                                       | Whisper clean bitterness.  |
|         | Mandarina Bavaria     | Modern classic. Orange, fruity, citrus.                                  | Wide use in many styles  |
|         | Monroe                | Newer aroma variety. Red fruits, raspberry, cherry and orange.           | Pale ales, saison, wheat beers and Czech summer ale                      |
|         | Northern Brewer       | High alpha bittering. Also good for noble aroma.                         | Steam beer styles  |
|         | Perle                 | Herbal, spicy.   | Multi-purpose variety  |
|         | Polaris               | Floral, some say minty. High alpha.                                      |  |
|         | Relax                 | Originally bred for tea making with a nice lemongrass flavor. Near 0% AA | Great dry hop addition   |
|         | Saphir                | Fine aroma, lemon, fruity, floral.                                       | Perfect in Italian style pils  |
|         | Smaragd (Emerald)     | Floral, spicy, fruity.   | Excellent in pale ales   |
|         | Spalt Spalter         | Oldest hop variety in Germany.<br>Traditional fine noble aroma.          |  |
|         | Spalter Select        | Spalt-like; spicy, floral.   | Perfect in Italian style pils  |
|         | Tettnanger            | Mild and slightly spicy.   | Classic lager hop. Also modern bitters and pils                          |
| FRENCH  | Barbe Rouge           | New Alsace-bred hop. Ripe red fruit and zesty citrus.                    |  |
|         | Strisselspalt         | Classic lager-type hop, medium intense pleasant.                         | Biere de Gardes. Lighter saisons   |
| SH      | <b>Bramling Cross</b> | Fruity, black currant notes.   | English pale ales, and stouts  |
| BRITISH | Challenger            | Dual purpose, floral, spicy.   | English summer blond ales  |

7

BRITISH

AMERICAN

| (6) |
|-----|

|  | VARIETY            | INFO & CHARACTER   | GREAT FOR BREWING   |
|--|--------------------|--|---|
|  | East Kent Goldings | Classic spicy, citrus, earthy.   | Kentish style summer blond ales   |
|  | First Gold         | Late kettle dwarf hop. Spicy and citrus notes.                                   | Saisons, pale ales, anything light, golden and spicy will benefit from First Gold                                     |
|  | Fuggle             | Legendary English hop, soft, with spice, wood.                                   | Porters, stouts and anything classic British  |
|  | <b>Golding UK</b>  | Spicy, citrus and earthy.  | For British summer ale, Goldings plus an American variety is ace.   |
|  | Target             | Classic English, fruity, excellent dry hop.                                      | For British IPAs, think Target.   |
|  | Adeena®            | Latest ADHA release. Citrus with spicy notes.                                    | Super new, works really well in British summer ales, and English pale ales  |
|  | Amarillo®          | American classic. Citrus and peach.  | Essential in any West Coast style   |
|  | Azacca®            | Dual purpose high alpha. Mango, apricot, pears.                                  | Dry hop classic, amazing mixed with Enigma in Golden strong ales  |
|  | BRU-1™             | Notable for its distinct sweet fruit aroma that is often described as pineapple. | Super popular in the new wave NEIPA   |
|  | Cascade            | Classic American hop. Consistent citrus, grapefruit and spicy flowers            | This is the hop for American Pale Ale and<br>British golden ales  |
|  | Cashmere           | Dank tropical and melons   | Exciting in Lager to pale ales  |
|  | Centennial         | Classic floral, citrus.  | Excellent dry hop in many West Coast styles   |
|  | Chinook            | Classic American alpha variety. Spicy, pine, some earthiness.                    | Base of many classic or legendary ales, plus<br>finding homes in dry hopped stouts, as well<br>as punchy summer beers |
|  | Citra®             | The Craft Brewers Hop! Lemon, orange, lime and grapefruit. Clean.                | Amazing as dry hop, whirlpool, stand-alone or with many other hops as a supporting role                               |
|  | Columbus           | Lemon, black pepper, green onion, mango.   | Excellent dry hop in light pale ales  |
|  | Comet              | Pineapple, citrus, earthy. Blueberry; "Simcoe® lite"                             | Use as part of a dry hop mix for classic<br>West Coast aroma  |
|  | Crystal            | Woody, spicy, grassy   | Great in Belgian/saison styles  |
|  | El Dorado®         | High alpha. Tropical, watermelon and stone fruits.                               | Modern dry hop pale ales and modern hazy beers  |

| VARIETY     | INFO & CHARACTER  | GREAT FOR BREWING   |
|-------------|---|---|
| Ekuanot®    | Green pepper, papaya, lime, apple blossom.  | Excellent dry hop in light pale ales  |
| Mosaic®     | Modern classic, a mosaic of flavor,<br>heavy on blueberry. Daughter of<br>Simcoe®                 | Alone or with Citra in NEIPA/session IPAs.<br>Also very good in lagers.                                       |
| Mount Hood  | Easy, earthy, spicy and fruity.   | Excellent in English session ales   |
| Nugget      | Mild pleasant herbal aroma.   | Low levels in lagers, as well as late hopped in British pale ales   |
| Pahto™      | Super clean, super high alpha. Excellent value bittering. Possible substitute for Herkules/Magnum |   |
| Sabro®      | Strong coconut, wood, tropical and spice. If unavailable, 472 is a great substitute               | Amazing in stouts as much the modern classic NEIPA  |
| Sorachi Ace | Lemon, herbal to dill type.   | Excellent in saison and wheat beers   |
| Summit®     | Citrus, orange, tangerine and grapefruit.   | Excellent dry hop   |
| Talus®      | Grapefruit, floral, stone fruit, potpourri, woody, cream, pine.                                   | Perfect dry hop for IPA   |
| Willamette  | Clean, spicy, easy-going flavor.  | Excellent in a multitude of styles including lagers. Great combo with Cascade in pale ale                     |
| HBC 472     | Heavy wood citrus, bourbon cask vanilla, & coconut, Neo-mexicanus. Sister to Sabro™.              | Amazing in lagers and big dark, red, and rich ales like Imperial Stouts and Mexican/Vienna style lagers       |
| HBC 431     | Berry bomb. Strong strawberry and soft red fruits. Excellent in partnership with Ekuanot™         | Works well with characterful yeast strains whether in pale ales or in saison/Belgian styles                   |
| HBC 522     | Floral and citrus like Cascade, but with added soft stone fruit notes.                            | Amazing in modern pale ales and IPA, leaning to West Coast styles.  |
| HBC 586     | Intense tropical fruit punch notes of guava, mango & citrus.                                      | Perfect for hazy, fruit-forward IPA styles  |
| HBC 630     | Big on red berry or cherry notes.   | Finding favor with revival styles as much contemporary mainstream beers: NEIPA, pales, or newer dark/red ales |

AMERICAN

# THE HOP FIAVOR

If you're looking for a bigger bang or higher efficiency from your pellets, then our evolved pellet technologies deliver.



BarthHaas

**BBC**<sup>™</sup>
PURE HOP PELLET



BarthHaas





# **BBC**<sup>™</sup> PURE HOP PELLET

# JUST THINK OF IT AS A "SUPER T90"

The BBC™ pellet was developed in the USA in a collaboration between our global partner John I. Haas and the Boston Beer Company (hence BBC). They were looking to create a pellet that allowed them to create greater efficiency in their brewing, while keeping as much of the original hop as possible.

The result has proved to be a big hit, particularly within the craft community. It's a great middle ground between tradition and experimentation. When it comes down to the foundation of the pellet,

its composition is most like the T90; As much of the original whole hop retained as possible, except for losing a significant percentage of the Coarse Fraction. The difference is that the pellet is then ground to a far finer uniform grade and then processed at subzero temperatures in a process akin to how we produce a T45 pellet. The **BBC™ pellet** offers the lupulin-rich fraction combined with the best part of a whole hop, pressed into an incredibly fine and soft formed pellet, designed around increasing operational benefits. The **BBC™ pellet** is the best of both worlds and a great pellet for your dry hopping needs.









# OPTIMIZED AND STANDARDIZED FOR CONSISTENT FLAVOR

LUPOMAX® is a highly consistent, concentrated lupulin pellet designed to deliver optimized hop flavor. Standardization of its lupulin content delivers true-to-type hop flavor and reliable brewing performance.

The secret behind the **LUPOMAX®** pellet is that it is produced using our sensory-based selection and production process, Sensory Plus®. This means it delivers a true-to-type concentrated varietal flavor and aroma, and it does so consistently and

repeatedly. As a brewer you can dial-in the hop flavor with greater accuracy and rely on the fact that this will not change. The process even significantly reduces the variance between crop years.

As an enhanced pellet, **LUPOMAX®** offers efficiency gains by reducing the vegetative matter to provide a cleaner, more intense hop flavor without undesirable grassy, astringent flavors. This means you can brew big, using fewer pellets and creating less waste.

LUPOMAX® is currently available in the following varieties... (but there's always more coming along, so call us if you're looking for something you don't see here!)

| ORIGIN  | VARIETY          | INFO & CHARACTER  |  |
|---------|------------------|---|--|
| America | Amarillo®        | American classic. Citrus and peach.   |  |
|         | Azacca®          | Dual purpose high alpha. Mango, apricot, pears.   |  |
|         | BRU-1™           | Notable for its distinct sweet fruit aroma that is often described as pineapple.              |  |
|         | Cashmere         | Dank tropical and melons.   |  |
|         | Centennial       | Classic floral, citrus.   |  |
|         | Citra®           | The Craft Brewers Hop! Lemon, orange, lime and grapefruit. Clean.                             |  |
|         | Columbus         | Lemon, black pepper, green onion, mango.  |  |
|         | <b>Ekuanot</b> ® | Green pepper, papaya, lime, apple blossom. High alpha. Tropical, watermelon and stone fruits. |  |
|         | El Dorado®       |   |  |
|         | Mosaic®          | Modern classic, a mosaic of flavor, heavy on blueberry. Daughter of Simcoe®                   |  |
| Germany | Ariana           | Cross of Herkules and wild male. Sweet fruits and floral notes.                               |  |
|         | Callista         | Pear, strawberry & orange.  |  |
|         | Huell Melon      | Distinct melon, white fruit aroma.  |  |
| Czech   | Saaz             | Classic noble aroma, spicy, citrus and herbal.  |  |
|         |                  |   |  |

# COMTHE LIQUID HOP REVOLUTION

Hops in liquid form which deliver the best flavor and aroma while making your brewing more sustainable, more cost efficient and simpler...

...That's a GAME CHANGER!





BarthHaas'
INCOGNITO®



BarthHaas' **FLEX**®



NEXT GENERATION LIQUID DRY HOPPING

With SPECTRUM you can dry hop in a way that achieves a substantial increase in yields, and a reduction in tank turnover times, while maintaining the full dry hop flavor in your beer.

Unlike any other dry hopping product, **SPECTRUM** is the only product that is 100% hops in liquid form, with no carriers or synthetic solvents. Plus, it completely dissolves in cold beer, leaving you with more beer to sell and less cleaning. It delivers the full range of true-to-type dry hop flavor compounds, including all of the glycosidically

bound fractions, making them available for amazing bio-transformation reactions in your beer. Imagine the finest hop pellets in liquid form and you will understand the impact and efficiency gained.

SPECTRUM is true-to-type which means it offers the attributes that you would expect of a specific hop variety.

SPECTRUM is currently available in 1kg, 5kg or 10kg in CITRA®, MOSAIC®, GALAXY® and ECLIPSE® varieties with more to follow.



"We have seen a lower and more consistent loss rate on the beers we have trialed it in and are really impressed with the flavor profile it gives. We have taken it up to 50% of the dry hop in one of our beers and saw a much shorter tank time due to lower amount of hop creep and a smaller spike in VDK."

Sophie De Ronde Head Brewer - Burnt Mill Brewery UK



#### **INCOGNITO**°

#### **BIG HOP FLAVOR POURED STRAIGHT INTO YOUR** WHIRLPOOL



INCOGNITO® makes it easier to brew hop-forward beers in a more sustainable way that saves you money and time.

Today the love of hop-forward beers is driving brewers to use more hops than ever before. Every brewer knows that the more pellets you use, the more beer you lose in the process. Now there's **INCOGNITO**<sup>®</sup>, a soluble hop product specifically designed to be used in the whirlpool – and to deliver the impactful, variety-specific flavor outcomes you want. **INCOGNITO**® is flowable at room temperature and completely soluble so is quick and simple to dose without the need for special equipment. It offers reduced storage and transportation costs, a low nitrate load and reduces waste products, so it is an ideal way to help make your brewing more sustainable and efficient.

**INCOGNITO®** is currently available in 1kg or 2kg resealable flasks in the following varieties... (with new varieties released regularly)

#### VARIETY CHARACTER

Sabro®

Centennial Classic floral, citrus.

Chinook Classic American variety. Spicy, pine, some earthiness. Citra®

The Craft Brewers Hop!

Lemon, orange, lime and grapefruit. Clean. Ekuanot® Green pepper, papaya, lime, apple blossom.

El Dorado<sup>®</sup> High alpha. Tropical, watermelon and stone fruits. Modern classic, a mosaic of flavor, heavy on blueberry. Mosaic<sup>®</sup>

Daughter of Simcoe®

Strong coconut, wood, tropical and spice.



#### **NATURAL HOP BITTERNESS** THAT FLOWS INTO YOUR KETTLE

**FLEX®** provides a better way to bitter. It is pure concentrated hops. There's no vegetal matter, so there's no wort loss. It's easier to handle and dose, with less shipping and storage costs, and no disposal of spent hops or hop pellets.

**FLEX®** contains approximately 65% alpha acids. It provides greater efficiency in shipping and storage due to its more than 75% reduction in product weight compared to standard T90 hop pellets.

Because the alpha acids from **FLEX®** are dosed in a liquid form, bitterness utilization is typically improved over T90 hop pellets by 10 - 20%, relative. Our proprietary processing technology results in a CO<sub>2</sub> hop resin with low viscosity at room temperature, which makes it easy to measure and dose. We recommend dosing **FLEX®** directly to the brew kettle at the beginning of boil. Use a typical formula for alpha dosing assuming 25 – 35% utilization to the final beer; adjust as needed.

FLEX® is available in 2kg resealable flasks.





# THINGS THAT WAKE BREWING ALITTLE BIT FASIER







#### HOPAID° ANTIFOAM

# ANTIFOAM MADE FROM HOPS!

**HOPAID® Antifoam** provides more capacity and cleaner brewing for you. It is not like other antifoam agents: it is the world's only hop-based product that inhibits foaming during fermentation, offering unique benefits and terrific value for money to you and your customers.

By inhibiting foaming during main fermentation, **HOPAID® Antifoam** allows you to make increased use of your tank capacity. It can be used for top and bottom fermented beers and in all types of fermenters, to brew more beer from the same brewing kit.



Excessive foam is a major microbiological contamination risk. **HOPAID® Antifoam** significantly reduces this and can also help reduce IBU and protein losses during fermentation. It is fully metabolized or separated along with spent yeast at the end of the fermentation process, meaning it has no negative impact on your beer.

Recognized as food safe in both the USA and the EU, HOPAID® Antifoam is a silicate free, clean label product. HOPAID® Antifoam is extracted from hops giving your customers a safe, natural alternative. HOPAID® Antifoam can make CIP and tank farm cleaning easier saving you time and money. With less over-foaming, cleaning is easier no matter what kind of brew kit you are using. You and your team get more time to make great beer.

"...you don't really notice it's in the beer until you forget to put it in."

Rob Orton Production Manager - St Austell Brewery



# HAZE FOR DAYS (OR EVEN YEARS)

In recent years, hazy style beers – New England IPAs, Hazy IPAs, Juicy IPAs, and more – have exploded in popularity, helping propel the craft industry to new heights of success and winning over a generation of new beer drinkers along the way. While there are many ways to achieve haze in beers, maintaining the stability of that haze during packaging, distribution and storage can be tricky.

Enter HOP HAZE®. Launched in July 2022, HOP HAZE® is a new brewing solution designed to create remarkably stable haze in beer. It's an all-natural, 100% hop-derived product that is added to beer after filtration and before the bright tank, prepackaging. It is flavor-neutral and will not impact the flavor or aroma of finished beer. Our year-long trials have shown that HOP HAZE® will last the entire shelf life of the beer, without settling out of solution.



# OUR QUALITY CONTROL GUARANTEE

In 2012 BarthHaas GmbH & Co. KG introduced the unique and comprehensive BARTH Quality Control Guarantee, which refers to the quality control measures and analyses of active compounds to which our hops and hop products are subject. In 2013 the guarantee was further extended to the BarthHaas Guarantee.



\* The BarthHaas guarantee refers to the comprehensive quality control measures and analysis of active compounds to which BarthHaas hops and hop products are subject.

It is not a guarantee of the 100% purity of the product.

# THE BARTHHAAS SECURITY SYSTEM

## THE MOST COMPREHENSIVE QUALITY CONTROL PROGRAM IN THE INDUSTRY

All hops and hop products obtained from BarthHaas are combined as composite samples in a standardised form and comprehensively analysed.

Only after the results of the analysis are made available are hops released for processing and marketing.

Details of the schematic approach and the defined spectrum of active compounds can be found on the BarthHaas website.

# OUR "EARLY WARNING SYSTEM" RECOGNIZES POTENTIAL PROBLEMS IN ADVANCE

Early forecasts are achieved through both close collaboration and exchange of information with the growers, as well as targeted advice from our skilled procurement experts worldwide.

In suspected cases BarthHaas tests hops for pesticide residues before the crop has even been harvested.

Instances of pests and diseases are observed, documented and corresponding measures derived through the regular "BarthHaas Hop Tour", which visits selected hop gardens throughout all major growing regions.



#### TRACEABILITY OF ALL HOPS AND PRODUCT LOTS

Our IT system allows comprehensive data storage and makes it possible for hops to be correctly allocated to meet customer needs.

This means that all growers lots in any given product batch can be easily traced.

Reference samples of all hop and product lots are retained for at least five years.

#### THE BARTHHAAS QUALITY MANAGEMENT

The HACCP concept is an integral component of our ISO 9001 quality management systems.

The plant protection sheet is a BarthHaas innovation and has become the established standard within the German hop industry. Similar spray records are being requested from all BarthHaas suppliers worldwide.

#### **COMMUNICATION IS GREAT**

Whether you want to place an order for some awesome new hops, discuss the progress of your contract, ask for some brewing advice or just need to chat, give us a call or email. Talking always helps us all do better.

Contact your territory manager. You probably have their number already but if not email enquiries@barthhaasx.com and we'll get you talking to the correct person.

Disclaimer!
All of our advice on usage is solely our opinion and in no way concrete fact.
Why? Well if you ask 6 brewers a question, you'll get 12 different answers.







Let's brew a future together

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