

CGX™

CRYOGENIC  
LUPULIN PELLETS



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**CROSBY HOPS™**



#### **CROSBY HOPS™**

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# CONTENTS

3	What Is CGX?™
4	Best Uses
6	Partnerships
8	CGX vs T-45
10	A Sustainable Difference
12	Recipe Feature





# WHAT IS CGX?

**CGX™ Cryogenic Lupulin Pellets** are made possible through the use of advanced, patent-pending technology which separates lupulin from whole-hop cones to deliver pellets jam-packed with resins and oils that will transform your beers and your business.

With up to **twice the potency of traditional T-90s**, CGX pellets allow you to brew aggressively hopped beers while gaining significant efficiencies which improve yield and reduce environmental impact.



## Increase Brewing Yield

Less plant material during brewing reduces trub loss, increasing the amount of usable beer.



## Reduce Shipping & Storage Costs

With more impact per pound, CGX makes logistics easy.



## Reduce Environmental Impact

Less packaging, less fuel, and less refrigeration mean a smaller carbon footprint.



## Increase Revenue per Batch

The more beer you get from each batch, more can be sold, improving margins.



## Decrease Hop Creep

CGX can reduce hop creep, increase turn times, and brewery capacity.



## Amplify Flavor & Aroma

More lupulin and less plant material allow you to push hop expression.






# BEST USES

## Where to Use CGX™ in the Brewhouse

Use CGX throughout the brewing process to enhance your beer's hop profile and reduce trub loss.

- ✓ Late-Addition Kettle
- ✓ Fermentation
- ✓ Whirlpool
- ✓ Dry Hopping

## How to Use CGX

-  CGX can be used wherever T-90 hop pellets or whole cone hops are traditionally used in beer recipes.
-  CGX shines when used with T-90s and / or whole cone hops, giving your beer bright hop notes while maintaining good body and mouthfeel.
-  When developing new recipes, start by using CGX at a dosing rate of approximately 40–50% of the T-90 pellets typically used.







*Indie Hops*  
FLAVOR PROJECT



**HOP  
REVOLUTION**  
*New Zealand*

# THREE PREMIER PROVIDERS, ONE INNOVATIVE TECHNOLOGY

In an age where new products and efficiency in the hop and brewing worlds continue to proliferate at breakneck speed, **Crosby Hops** decided it was time to take a different approach to expanding its product line.

**So for the first time ever, a proprietary hop-processing technology is being shared within the industry.**

In a bold move for a new product rollout, **Crosby Hops** is sharing its cutting-edge patent-pending technology with two other premier global hop providers—**Indie Hops** and **Hop Revolution**. Both will have access to CGX™ in a united effort to broaden availability to brewers who crave the benefits of cryogenic lupulin products.

**Crosby Hops** is excited to offer **Indie Hops'** wildly successful Strata® variety in the new CGX format. Thanks to this collaboration, cryogenically-processed Strata will be available for the first time ever through both **Crosby Hops** and **Indie Hops'** distribution channels.

Other exciting new offerings will be available in CGX, including **Hop Revolution's** Nelson Sauvin™, Riwaka™, and Motueka™.





**Minimal processing, maximum impact**



Much **colder processing** environment due to cryogenic technology (down to -70°F is possible)



More **controlled environment**, minimal oxygen contact during production due to cryogenic injection techniques in key processing areas



Only concentrated hop pellet process with **no mechanical milling** of lupulin prior to sieving and separation



Only concentrated hop pellet process that **does not use mechanical augers** to convey delicate lupulin glands during processing



**Uses nitrogen (N2) enriched pneumatic conveyance** to gently convey hops and lupulin powder during processing



**More access:** CGX reseller program is an innovative, one-of-a-kind way to allow brewers broader access to cryogenically processed hops



Liquid nitrogen (LN2) cold pellet processing and proper pellet die compression ratios create **a softer, craft friendly pellet**

# T-45

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- **Lacks a brand promise and quality guarantee**
- **Uses mechanical refrigeration** to freeze hops for lupulin separation
- Pellet processing temperatures are typically higher compared to cryogenic alternatives which **can cause volatilization of key flavor and aroma compounds**
- Requires more intensive processing, including mechanical milling of lupulin, which **can damage lupulin glands and increase hop enzymatic activity**
- **Antiquated process** from the 1960's—much of the equipment still in operation today is from this era
- More **difficult to achieve higher levels of concentration** due to limitations of mechanical refrigeration
- Originally **designed for large industrial brewers**, to reduce shipping and handling costs
- The physical T-45 pellet is **typically harder and denser** than cryogenically produced pellet products, which can create challenges for modern craft hopping techniques



# MAKE AN IMPACT WITHOUT LEAVING A FOOTPRINT

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## Positive Impact on the Planet

While the process for creating CGX™ is complex, the math behind its **sustainability is simple**. The increased potency provides a green value chain that positively impacts everything from packaging and shipping to refrigeration and wastewater.

## Produced Using Renewable Energy

Over the past several years, we've made great strides in becoming **energy independent**. What energy we don't produce on our own via solar panels we get by purchasing renewable energy through PGE.

## Less Packaging

With up to twice the potency of T-90s, the reduced volume of CGX means we're able to use **roughly half the packaging** to give you the same impact on flavor.

## Less Trub in Wastewater

One of the benefits of CGX is **reduced trub loss**, which has a positive impact on yield and revenue per batch. This reduction also benefits the environment by decreasing trub that ends up in wastewater and aquatic ecosystems.

## Less Refrigeration

More condensed packaging means **drawing less electricity** per impact pound, **reducing refrigerant particulates** released into the atmosphere, and **increased cold storage space**.

## Less Fuel & Emissions

The need for smaller volumes and the ability to use less packaging translates into **less fossil fuel being consumed** per order shipped.





# RECIPE FEATURE

## Fort George FOCUS

West Coast IPA

Fort George's FOCUS pairs CGX™ with their traditional T-90 counterparts to create a light-bodied West Coast IPA bursting with Northwest flavor: sweet pine, citrus zest, and fresh berry. Super aromatic Nelson Sauvin™ comes in with some light citrus and white wine on the nose. Crosby's cryogenic lupulin pellets add depth and complexity to a classic beer style.

6.5% ABV



| X |



Hop Revolution Nelson Sauvin™ **CGX**

Meridian® **CGX**

Strata® **CGX**

Meridian® (an Indie Hops variety)

Strata® (an Indie Hops variety)

### GRAIN BILL

Pilsner Malt	84%
White Wheat	9%
Carafoam	5%
Acidulated Malt	1.7%

### MASH TEMP

149° F (65° C)

### YEAST

American Ale

### HOP SCHEDULE

#### Kettle Additions

Strata®	(0.03 lb/bbl) 80 mins
Meridian®	(0.1 lb/bbl) 5 mins
Nelson Sauvin™ CGX™	(0.07 lb/bbl) 5 mins

#### Whirlpool

Nelson Sauvin™ CGX™	(0.4 lb/bbl)
Strata® CGX™	(0.4 lb/bbl)

#### Dry Hop

Nelson Sauvin™ CGX™	(0.6 lb/bbl)
Nelson Sauvin™	(0.4 lb/bbl)
Strata® CGX™	(0.4 lb/bbl)
Meridian® CGX™	(0.4 lb/bbl)
Strata®	(0.4 lb/bbl)





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