

AMERICAN NOBLE HOPS™

DESIGNED TO PROVIDE PACIFIC NORTHWEST AROMA & FLAVOR WITH REDUCED BITTERNESS



WHAT IS AMERICAN NOBLE HOPS?

AMERICAN NOBLE HOPS pellets are designed to share traditional noble hop variety characteristics, including high aromatics and low alpha acids, while retaining regional hop characteristics that make them unique to America's Pacific Northwest. AMERICAN NOBLE HOPS pellets are a high-quality, consistent solution for providing nuanced flavors and aromas from varieties like Cascade, Citra®, Mosaic® and Simcoe®, making them perfect for Pilsner, Kölsch, Blonde, Saison and/or Sour beer styles.

INTRODUCING AMERICAN NOBLE HOPS INTO BEER

AMERICAN NOBLE HOPS represents the strig, bract and bracteole of whole-leaf hop cones with residual alpha and oil content. It may be applied anywhere traditional hop products are utilized, however the recommended application is kettle additions where AMERICAN NOBLE HOPS can be separated in the whirlpool trub. Some brewers have found success using AMERICAN NOBLE HOPS in the mash to aid runoff and contribute antioxidants on the theory that mash oxidation will be limited.

When formulating recipes, the alpha content of each AMERICAN NOBLE HOPS lot should be utilized to calculate IBUs (as would be done with traditional whole-leaf hop or hop pellet recipes). AMERICAN NOBLE HOPS maintain varietal characteristics at a much lower starting alpha and oil content making it an ideal choice for Pilsner, Kölsch, Blonde, Saison and/or sour beer styles. It is a positive choice for sour beer production due its minimal effect on lactic acid bacteria and contribution of polyphenols, glycosides and flavonoids.

BENEFITS OF UTILIZING AMERICAN NOBLE HOPS

AMERICAN NOBLE HOPS analytically appear similar to traditional low-alpha varieties, however, the bract itself contains many other variety-specific brewing characteristics. AMERICAN NOBLE HOPS contribute pleasant noble bitterness with the unique aroma of higher-resin Northwest varieties due to the extraction of water soluble flavor compounds such as flavonoids, glycosides and polyphenols.

- Unique flavor profiles from high-resin hops
- Noble hop replacement with reliable supply
- High-quality, low-alpha product

- Low cost alternative
- Source of polyphenols & antioxidants
- Controlled, nitrogen-rich production environment
- Solvent, heat, & pressure free processing

PELLETS TYPICAL ANALYSIS

ALPHA BY UV SPECTROMETER
OIL BY DISTILLATION

AVAILABILITY

	1 x 5 kg	ALPHA*	OIL* (ml/g)
Amarillo® VGXP01	✓	1.5%	> 1%
Cascade	✓	0.8%	> 1%
Citra® HBC 394 CV	✓	2.6%	> 1%
Loral® HBC 291	✓	3.0%	> 1%
Mosaic® HBC 369 CV	✓	2.2%	> 1%
Palisade® YCR 4 CV	✓	1.5%	> 1%
Simcoe® YCR 14 CV	✓	2.2%	> 1%

* Actual alpha and oil percentages will vary based on lot and crop year.

COLD PRESSED PELLETS are produced from loose AMERICAN NOBLE hops. To ensure preservation of the essential oils and resins, the production process is conducted at cool temperatures, approximately 30 degrees lower than T-90 pellet production. AMERICAN NOBLE hop pellets perform similar to T-90 hop pellets and have comparable density and dissolving characteristics.