













Brewing: The Basics



Grain



Malting barley varieties suited for Virginia

Virginia Tech's malting barley work is focusing on developing varieties that yield well, tolera the taste and quality characteristics demanded by brewers.



③ 3 Min Read



Murphy & Rude to Triple Malt Production

Apr 19, 2023 | Beer, Brew News, News



Today, Bloem works directly with harvesters at Brann Farms (Christiansburg), Wheatland Springs Farm (Waterford), Hill View Farms (Danville), Three Monkeys Farm (Reston), Piedmont Grain & Cattle (Rochelle), and Bay's Best Feed (Heathsville).



Yeast



VP PRO Q&A

Jasper Akerboom Is Cultivating Custom Yeast Strains for Hundreds of Craft Brewers

WORDS: MEG ST-ESPRIT











Produce





Produce From The Farm

Pears

tomatoes peach tree leaves raspberries

hawthorn berries elder flowers persimmons

chamomile lemongrass cantaloupe

elderberries ginger spicebush

plums strawberries raspberry

hibiscus honeysuckle

yarrow red clover chicory

grapes lavender butternut

cherries blackberries pumpkins

cucumber sweet potatoes

mint Aronia berries figs

rose hips



The Challenge of Hops







Staples planted five acres of hops and built a hops-processing facility on his new farm. It just so happens it's also the largest processing plant in the



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dependence claimed the title of "Hop Center of the World," largely due to the enormous fields at "Bird Island," made up of

1.11 Commercial hop production in the United

The Best Hop Varieties for Hazy IPAs

BRU-1TM: Not only is BRU-1TM just dripping with juicy, ripe pineapples, but it also appears to offer some unique polyphenols that may help contribute to a better and more stable haze. Strong enough to carry a beer on its own, but works best as an accent hop.

Cascade: It's a classic and for good reason. Cascade's signature grapefruit aroma is a great fit in any IPA, but it also offers some precursors and free thiols in the form of 4-MMP, 3-MH, and 3-MHA. Cascade plays well as a supporting character and synergizes well with other classics like Chinook and Nugget.

Chinook: This is our favorite sleeper variety that often gets overlooked. Chinook offers the perfect aroma that is packed with biotransformation compounds like Geraniol and Linalool, as well as a little bit of 4-MMP. Hotside, whirlpool, or dry hop, Chinook has amazing things to offer. So basically, just use it in all your beers.

Citra®: This one has it all. Citra® is undisputedly the best hop for Hazy IPAs. From key biotransformation compounds like Linalool and Geraniol to free thiols like 4-MMP, Citra® offers everything you could want in your NEIPA. Citra® is the easy button for brewing the best hazies around.

CTZ: Another variety that often gets overlooked, but it is a certifiable banger in Hazy IPAs. Columbus is loaded with Linalool for biotransformation as well as aromas of ripe oranges. Columbus often gets a bad rap as an alpha variety, but when Columbus is picked as an aroma variety, it is bright, beautiful, and fits perfectly in your hazy.

El Dorado®: Its nickname of The Tropical Hop is well deserved. El Dorado® is sweet with melons, pineapple, and stone fruit. It plays well with many popular hops including Citra®, Mosaic®, and Galaxy® and adds a perfect splash of fruit juice to any recipe. El Dorado® performs well in single-hopped-hazies, but really excels when surrounded by her friends.

Mosaic®: Mosaic® is neck and neck with Citra® for greatest hop of all time. It's a good thing that it is a friendly competition, because Citra® and Mosaic® are the perfect partners. While Citra® and Mosaic® are an unstoppable duo, Mosaic® is a superstar in its own right. It offers up beautiful flavors of blueberries and sweet fruit that can carry any single-hop beer. Mosaic® is the daughter of Nugget, so maybe that's where she gets her good genes from!

Nugget: Another classic variety that has found new life and meaning in hazies. Nugget is packed with biotransformation compounds like Geraniol and 4-MMP and works well on the hotside. Paired up with Chinook, this due stands toe to toe with even the best modern varieties.

Sabro®: Is a newer variety that is right at home in the haze. Sabro® is zesty with tangerine, lemon, and lime. Brewers also report distinctive flavors of pineapple and peaches that really come through in hazies. Sabro® also offers up a unique character of sweet cream and coconut. We love when there is a hint of Sabro™ in a hazy IPA, so even just 10-20% of Sabro® in your hop bill will really kick it up a notch.

Galaxy®: Just like Citra®, Galaxy® doesn't make a bad beer. It is big, bold, and just bursting at the seams with juicy citrus fruit. Galaxy® historically has a very high oil percentage, so it is incredibly impactful and even a little goes a long way. In a single hop or as part of a team, Galaxy® can elevate any beer and make it more than memorable.

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A Local Grain Story

Barley in Virginia

350 breweries, 460,000 barrels of beer produced

23 million lb of malt

4,000-5,000 acres of barley needed

Virginia harvest 7,000 acres/year per USDA

virginia grows roughly 500,000 acres of corn alone

Barley in Fauquier

Climate

Variety

Growing Knowledge

See footnote(s) at end of table.

| State - | Area planted 1 | | | Area harvested | | |
|---------------|----------------|---------------|---------------|----------------|---------------|---------------|
| | 2019 | 2020 | 2021 | 2019 | 2020 | 2021 |
| | (1,000 acres) | (1,000 acres) | (1,000 acres) | (1,000 acres) | (1,000 acres) | (1,000 acres) |
| Alaska | 6 | 6 | 6 | 5 | 5 | 5 |
| Arizona | 18 | 12 | 16 | 15 | 8 | 14 |
| alifornia | 65 | 60 | 40 | 47 | 33 | 13 |
| olorado | 54 | 56 | 52 | 52 | 47 | 47 |
| elaware | 21 | 21 | 21 | 14 | 15 | 14 |
| laho | 550 | 530 | 520 | 530 | 500 | 490 |
| ansas | 14 | 16 | 14 | 4 | 6 | 4 |
| laine | 15 | 15 | 12 | 14 | 14 | 10 |
| laryland | 32 | 34 | 33 | 17 | 21 | 18 |
| lichigan | 11 | 11 | 10 | 8 | 8 | 8 |
| innesota | 70 | 70 | 55 | 55 | 50 | 34 |
| ontana | 950 | 970 | 940 | 760 | 790 | 625 |
| ew York | 10 | 9 | 9 | 4 | 5 | 5 |
| orth Carolina | 11 | 14 | 13 | 6 | 8 | 7 |
| orth Dakota | 580 | 530 | 580 | 445 | 460 | 430 |
| regon | 45 | 45 | 37 | 35 | 30 | 19 |
| ennsylvania | 35 | 45 | 45 | 25 | 30 | 28 |
| outh Dakota | 37 | 35 | 30 | 9 | 14 | 14 |
| tah | 18 | 21 | 17 | 11 | 12 | 9 |
| irginia | 30 | 31 | 30 | 7 | 7 | 7 |
| ashington | 95 | 90 | 83 | 84 | 71 | 70 |
| /isconsin | 24 | 26 | 15 | 8 | 13 | 7 |
| /yoming | 81 | 79 | 82 | 66 | 67 | 70 |
| nited States | 2.772 | 2.726 | 2.660 | 2,221 | 2,214 | 1.948 |

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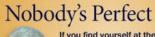
Powers Brewery and Messick's Farm team up to launch local brew

James Jarvis, jjarvis@FauquierNow.com May 18, 2023 💂 1









If you find yourself at the mercy of the Criminal Justice System choose your best defense









Bloody Butcher

Planted & harvested by hand at Powers in 2019, yielded 50# of seed

Planted on 5 acres at Messicks, harvested at 20,000 lb.

- Drying to moisture spec timing, transport, stalk failure
- Harvest
- Storage
- Transport

Malted in Charlottesville

Scale Issues

Yield comparisons

Price comparisons

Drying minimums

Transport minimums

Malting minimums

Batch sizes

