

# **Brewer's Guide**

to Ontario-Grown Hop Varieties  
**2022–2023**



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Published by the Ministry of Agriculture,  
Food and Rural Affairs

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Toronto, Canada

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## **Brewer's Guide to Ontario-Grown Hop Varieties**

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### **Acknowledgements**

The authors would like to thank the following organizations and people whose photos, text, logos, data, and knowledge were used in creating this publication: Ontario hop growers; The Ontario Hop Growers' Association (OHGA) and BrewON program; Scott and Todd Hayhoe, Hayhoe Hops; The University of Guelph; The Ontario Craft Brewers (OCB); Dirk Bendiak, Technical Advisor, OCB; Mirella Amato, Beerology; Chris Gillis, Durham College; The Ontario Fruit and Vegetable Convention (ONHops BrewOff), The Canadian Food and Wine Institute Innovation Centre at Niagara College.

The authors would like to thank the following people for reviewing this publication: Melanie Filotas, OMAFRA; Sean Westerveld, OMAFRA; Jeffery Hanson, OHGA; Scott Hayhoe, OHGA; Scott Simmonds, OCB.

### **Resources**

Information used in this guide has been compiled from a number of sources including Ontario hop industry experience as well as scientific research and extension publications from: OMAFRA, University of Guelph, Durham College, The Canadian Food and Wine Institute Innovation Centre at Niagara College, OHGA, and OCB.

### **Feedback**

As this guide is a work in progress and will be updated on a regular basis, we invite feedback and additional information that better represents Ontario hops to the brewing sector. Brewing values (alpha and beta acids, oils, etc.) will be updated regularly for all varieties across growing regions and seasons in Ontario and this is not possible without the support of Ontario hop growers and brewers. If you have information to share about your Ontario-grown hop varieties please contact Evan Elford, OMAFRA New Crop Development Specialist at [evan.elford@ontario.ca](mailto:evan.elford@ontario.ca).



# Purpose of this Guide

This guide is intended as a resource to connect Ontario brewers with hop varieties currently grown and available from Ontario growers.

Varieties are listed in alphabetical order and grouped in two sections based on selection or registration status (wild, registered trademarked, etc.) or classification by the International Hop Growers Convention (IHGC). Additional information such as brewing values specific to the varieties grown under Ontario conditions (where information is currently available) are provided to assist in recipe planning and development.

Information on specific varieties has been gathered from Ontario research trials, Ontario farms, and from resources in other jurisdictions in cases where Ontario data is not currently available. The information contained within this guide will be updated regularly to provide as much locally available data as possible.

Additional information and resources have been supplied to assist brewers in sourcing and storing locally grown hops. Programs related to marketing and promotion of Ontario beer using Ontario hops are also included.

There is sometimes confusion about the terminology for “varieties” versus “cultivars”. In agriculture, the terms “variety” and “cultivar” are often used interchangeably. Almost all hops available today for commercial production are selected through breeding and their characteristics are maintained through vegetative propagation. Consequently, they are “cultivars” (cultivated varieties) rather than “varieties”, which tend to occur naturally. In this guide we have used the term “variety” as it is more recognizable by the wider industry and is applicable to all hop names contained herein.

We hope you enjoy learning more about Ontario-grown hops and exploring the diversity of varieties available for your brewing needs.



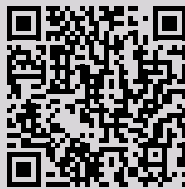




# Sourcing Ontario Grown Hops



Hop varieties are available from many farms across the province in varying quantities and formats (i.e. fresh or dried whole leaf hops and pelletized hops).



The best way to locate a hop grower near you is to access the [Ontario Hop Farm Directory](#) on the [Ontario Hop Growers' Association \(OHGA\)](#) website or search online for "Ontario Grown Hops".

Ontario hop farmers take pride in being good stewards of the land and helping to preserve it for future generations. Buying local also means your hops come from closer to home, and the closer, the fresher! Brewers can be confident that the hops they are purchasing are grown in Ontario by looking for the Foodland Ontario logo on hop packaging. Foodland Ontario is a consumer promotion program of the Ontario Ministry of Agriculture, Food and Rural Affairs.

Using the Foodland Ontario logo on your hops and marketing materials is the best way to help buyers identify Ontario ingredients.



Good Things Grow in Ontario



Follow this link to find out more about using the Foodland Ontario logo for your hops at no charge.

# “Taste Ontario” with the BrewON Program

The [BrewON](#) program provides a logo indicating to consumers that the craft beer or cider they are drinking is made with Ontario-grown hops.

BrewON is about local. Where the hard work, experience and passion of Ontario craft brewers and cider makers and the hop growers of the [Ontario Hop Growers' Association \(OHGA\)](#) make a difference towards an authentic, locally sourced, craft beer and cider.

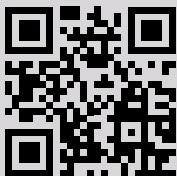
Two labels are available to celebrate locally sourced beer and cider:



**Standard level** recognizes beer or cider using 50%–99% hops from OHGA member growers



**Gold level** celebrates beer or cider using 100% hops from OHGA member growers



For more information about the BrewON program visit the [BrewON website](#), contact [brewon@ohga.ca](mailto:brewon@ohga.ca), or contact any of the hop growers listed on the [OHGA Hop Farm Directory](#).

*BrewON is an initiative of the [Ontario Hop Growers' Association](#). The BrewON logo is a registered trademark of the Ontario Hop Growers' Association.*





# Hop Production and Craft Beer in Ontario

Commercial hop production has re-emerged across Ontario thanks to interest from Ontario's craft brewers. Ontario's hop growers and their families have been working hard by investing in new technology to grow the industry and provide brewers with a consistent supply and wide range of high-quality, hop varieties.



*Ontario's hop acreage has expanded over 1200% in the last decade with over 45 hop varieties currently grown in the province.*

Commercial hop production requires a significant investment in capital and labour and usually takes 2 to 3 years to produce the first viable crop.

Hop quality has rapidly increased in Ontario with investments in hop research, education on cultural management, pest management, harvest and post-harvest practices.

Most Ontario-grown hops sold in the province include brewing values (e.g. alpha and beta acids, hop oils, and hop storage index) from analytical testing facilities to assist brewers with recipe development.

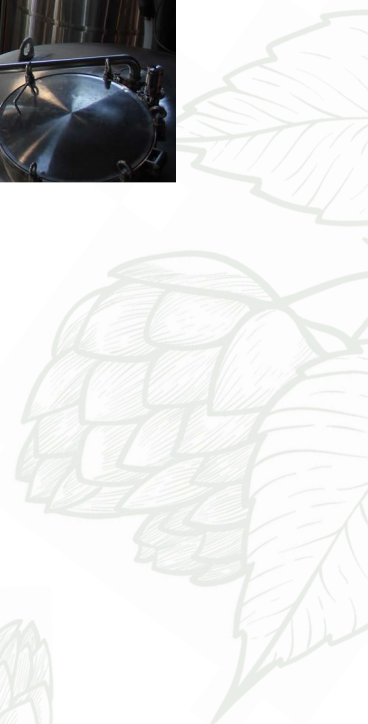
The growing season in Ontario begins in April and progresses through to harvest from mid-August to mid-September.





Fresh hops for harvest ales are available but pre-orders are usually required. Most hops grown in Ontario are dried, pelletized and packaged according to industry standards and are available for bulk sales year-round or in smaller packages for test batches and home brewing.

Ontario's craft brewing industry is currently the largest buyer of Ontario-grown hops. There are more than 300 craft breweries province-wide who produce over 800,000 hL of craft beer each year. Ontario brewers require high quality inputs to produce distinctive beers for their customers. Ontario-grown hops, some with unique terroir, are the perfect local ingredient for Ontario craft beer.





# Ontario Hop Terroir

## *Is there an Ontario hop terroir?*

Preliminary work supported by the Ontario Craft Brewers and the Ontario Hop Growers' Association and conducted by Durham College and industry partners suggests there is!

Terroir is the unique taste or flavour characteristics exhibited by a crop due to the environment and cultural practices under which it is grown. With hops, that means unique tastes and flavours could be imparted by a variety to the beer depending where and how it is grown. In this initial study the characteristics of two hop varieties, *Cascade* and *Centennial*, grown in Ontario and the USA were evaluated. Panels comprised of industry and sensory experts assessed small batches of hops and beer brewed with those hops.

Overall, the panellists noted that hop varieties grown in different locations were similar in their general attributes with notes of floral, grassy, and spicy characteristics being present. What this means is that brewers will obtain the same general characteristics from a variety grown in

Ontario versus a variety grown elsewhere. In some cases, attributes were noted in the hop samples but were not present in the beer and vice versa.

While the general attributes were similar, each hop variety exhibited some subtle differences ascribed to the individual growing regions. Examples of the unique attributes found in beer brewed with Ontario-grown *Cascade* hops include notes of peach while Ontario-grown *Centennial* hops imparted notes of strawberry.








Figure 1 provides an overview of all aromas and flavours assessed in the hop and beer samples throughout the study. Characteristics highlighted in green indicate where Ontario-grown hops imparted unique attributes in the brewing samples that were not found in beer brewed using USA-grown hops. The results of the study suggest more comprehensive research on Ontario hop terroir is needed to expand our understanding of the distinct tastes and flavours derived from Ontario's hop growing regions.





**Figure 1.** Preliminary Hop Terroir Results Summarizing Aroma Profiles in Ontario and USA-Grown *Cascade* and *Centennial* Hops and Beer Brewed with those Hops.

Columns depict hop aroma categories and characteristics, the number of panellists noting the hop aromas in Ontario-grown vs USA-grown *Cascade* and *Centennial* hop samples, and subsequent attributes noted in beer samples brewed with Ontario-grown hops. Rows marked in green highlight unique flavour attributes found only in beer made with Ontario-grown hops. A 'dash' represents no attribute was present in the beer sample.

| Hop Aroma Profile   |                   | Number of Panellists Noting Aroma Characteristic Present in Hop Sample |             |                    |                | Attributes Noted in Beer Sample |            |
|---|-------------------|--|-------------|--------------------|----------------|---------------------------------|------------|
| Category  | Characteristic    | Ontario Cascade  | USA Cascade | Ontario Centennial | USA Centennial | Cascade                         | Centennial |
| <b>Berry</b><br>         | Blackcurrant      | 3  | 0           | 0                  | 3              | –                               | –          |
|   | <b>Strawberry</b> | <b>0</b>   | <b>2</b>    | <b>3</b>           | <b>0</b>       | <b>–</b>                        | <b>✓</b>   |
| <b>Floral</b><br>        | Geranium          | 4  | 4           | 2                  | 5              | –                               | –          |
|   | Jasmine           | 2  | 0           | 3                  | 1              | –                               | –          |
|   | Lavender          | 1  | 1           | 0                  | 4              | –                               | –          |
|   | Potpourri         | 1  | 4           | 0                  | 2              | –                               | –          |
| <b>Grassy</b><br>      | Fresh Cut Grass   | 11   | 8           | 8                  | 6              | –                               | –          |
|   | Hay               | 0  | 6           | 2                  | 2              | ✓                               | ✓          |
|   | Lemongrass        | 2  | 5           | 1                  | 8              | ✓                               | –          |
| <b>Herbaceous</b><br>  | Cannabis          | 6  | 3           | 1                  | 0              | –                               | –          |
| <b>Spicy</b><br>       | Black Pepper      | 5  | 10          | 5                  | 4              | ✓                               | ✓          |
| <b>Stone Fruit</b><br> | Apricot           | 1  | 1           | 0                  | 4              | –                               | –          |
|   | <b>Peach</b>      | <b>2</b>   | <b>3</b>    | <b>5</b>           | <b>3</b>       | <b>✓</b>                        | <b>–</b>   |
| <b>Woody</b><br>       | Cedar             | 5  | 4           | 4                  | 7              | ✓                               | ✓          |
|   | Pine              | 2  | 4           | 4                  | 8              | –                               | –          |
|   | Resinous          | 4  | 5           | 3                  | 7              | –                               | –          |

Source: Adapted from “Is there an Ontario Hops Terrior” presentation by Durham College and the Ontario Craft Brewers, 2019.

# Storage Requirements for Ontario-Grown Hops

Hop resins can deteriorate over time depending on:

- Storage temperature
- Storage duration
- Exposure to oxygen and light
- Hop variety

Hops should always be stored in chilled and anaerobically packaged conditions to preserve oil content and characteristics.

Packaged hops that have been opened for use should be re-flushed, sealed, and returned to cold storage or used within a few days of opening.


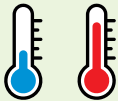


Refer to Figure 2 for guidelines on suggested best practices to help maintain the quality of your Ontario-grown hops.







**Figure 2.** Hop Storage Temperature, Conditions and Duration Guidelines

| Hop Form<br> | Temperature<br> | Packaging/Storage Conditions<br> | Storage Duration<br> |
|---|--|--|---|
| Fresh Hops  | 1°C to 20°C  | Loosely packed in thin layers; provide continuous air flow through perforated/mesh containers; exclude light.      | Up to 48 Hours  |
| Dried Whole Leaf Hops   | -21°C to 2°C   | Anaerobic packaging; exclude light   | Up to 12 Months   |
| Pelletized Hops   | -21°C to 2°C   | Anaerobic packaging; exclude light.  | 12+ Months  |

*Note:* Dried, pelletized hops stored at room temperature (20°C) in anaerobic packaging can lose 20-25% of alpha acids within 12 months. Dried, pelletized hops stored at room temperature exposed to air in opened packages can lose 64-88% of alpha acids in the same time period. The rate of alpha acid deterioration increases after 6 months of storage.

*Sources:* Adapted from A. Mikyska and Krofta, K. 2012 and the Postharvest Center, University of California.

# Hop Varieties AT A GLANCE

The following is an alphabetical list of hop varieties known to be grown in Ontario at the time of publication. For more detailed descriptions and expected ranges for brewing values of Ontario-grown hops, refer to the individual variety profiles in the following pages.

In this guide, hop varieties have been categorized into two groups. The first group includes unique wild hops selected by Ontario growers along with registered, trademarked, and public hop varieties without a classification by the International Hop Growers Convention (IHGC). The second group contains public and trademarked hop varieties with a classification by the IHGC (i.e. aroma or bitter).

Data has been sourced from the University of Guelph hop cultivar trials (McDonald, M.R. et al 2016), reports prepared for the OHGA from the Canadian Food & Wine Institute Innovation Centre at Niagara College and data submitted by Ontario hop growers. In circumstances with insufficient Ontario-based variety data, information has been supplemented using data collected from the USDA ARS Hop Breeding & Genetics Program, the USA Hops Variety Snapshot 2017, propagator websites or directly from farm websites.

Ontario brewing value ranges are provided as a guideline only and are based primarily on pelletized hops corrected to 10% moisture or pelletized hops/dry leaf hops without moisture correction across different hop ages, production methods, and growing seasons. Brewers should request test results for each variety/year directly from the farm if it is not already provided on the product label.

## Unclassified Hops Grown in Ontario:

Ontario Wild, Public, Registered, and Trademarked Varieties



|                        |    |                     |    |
|------------------------|----|---------------------|----|
| Bertwell .....         | 12 | Sasquatch® .....    | 13 |
| Canadian RedVine ..... | 12 | Vista .....         | 13 |
| Heritage .....         | 12 | Vojvodina .....     | 14 |
| Mackinac™ .....        | 12 | Wild Loyalist ..... | 14 |
| Michigan Copper™ ..... | 13 | Wild Turkey .....   | 14 |
| Old Hill .....         | 13 |                     |    |



# Hops Classified by the International Hop Grower Convention (IHGC) Grown in Ontario:

## Public and Trademarked Varieties

|                                      |    |                                       |    |
|--------------------------------------|----|---------------------------------------|----|
| Alpharoma (Rakau™) .....             | 15 | Newport .....                         | 20 |
| Bitter Gold .....                    | 15 | Northern Brewer.....                  | 20 |
| Brewers Gold .....                   | 15 | Nugget.....                           | 21 |
| Cascade.....                         | 15 | Perle .....                           | 21 |
| Cashmere .....                       | 16 | Saazer (Saaz) .....                   | 21 |
| Centennial .....                     | 16 | Santiam .....                         | 21 |
| Chinook .....                        | 16 | Sorachi Ace .....                     | 22 |
| Cluster .....                        | 16 | Sterling.....                         | 22 |
| Columbia.....                        | 17 | Super Alpha (Dr. Rudi).....           | 22 |
| Columbus (CTZ)<br>see also Zeus..... | 17 | Tahoma .....                          | 22 |
| Comet .....                          | 17 | Tettnanger (Swiss Tettnanger) ..      | 23 |
| Crystal .....                        | 17 | Triple Pearl .....                    | 23 |
| Fuggle .....                         | 18 | Triumph .....                         | 23 |
| Galena .....                         | 18 | Ultra.....                            | 23 |
| Glacier .....                        | 18 | Vanguard.....                         | 24 |
| Golding.....                         | 18 | Williamette.....                      | 24 |
| Golding East Kent .....              | 19 | Yakima Gold.....                      | 24 |
| Hallertauer MF/Hallertauer .....     | 19 | Zeus (CTZ)<br>see also Columbus ..... | 24 |
| Horizon.....                         | 19 |                                       |    |
| Magnum Hallertauer.....              | 19 |                                       |    |
| Mt. Hood .....                       | 20 |                                       |    |
| Mt. Ranier .....                     | 20 |                                       |    |



**Bertwell**


IHGC ASSIGNMENT  
**Ontario Wild Hop**  
**No IHGC Assignment**

ALPHA  
**2.2–5.5%**

BETA  
**2.9–5.6%**

COHUMULONE  
**N/A**



**Canadian RedVine**


IHGC ASSIGNMENT  
**No IHGC Assignment**

ALPHA  
**4.8%**

BETA  
**3.5%**

COHUMULONE  
**N/A**



**Heritage**


IHGC ASSIGNMENT  
**Ontario Wild Hop**  
**No IHGC Assignment**

ALPHA  
**3.6–5.5%**

BETA  
**3.5–5.8%**

COHUMULONE  
**N/A**

**Mackinac™**


IHGC ASSIGNMENT  
**No IHGC Assignment**

ALPHA  
**9.0–11.0%**

BETA  
**2.4–4.0%**

COHUMULONE  
**35%**

*Data Source:*



Replicated Ontario Field Trials and/or Ontario Field Production.



USDA ARS Hop Breeding & Genetics Program, USA Hops Variety Snapshot, and/or Propagator Data.



Ontario Wild Hops.

**N/A** Not Available.



**Michigan  
Copper™**

IHGC ASSIGNMENT  
**No IHGC Assignment**

ALPHA  
**10.7%**

BETA  
**3.4%**

COHUMULONE  
**N/A**

**Old Hill**

IHGC ASSIGNMENT  
**Ontario Wild Hop  
No IHGC Assignment**

ALPHA  
**6.9%**

BETA  
**5.1%**

COHUMULONE  
**N/A**

**Sasquatch®**

IHGC ASSIGNMENT  
**No IHGC Assignment**

ALPHA  
**5.0–7.3%**

BETA  
**8.2%**

COHUMULONE  
**34–35%**

**Vista**

IHGC ASSIGNMENT  
**No IHGC Classification**

ALPHA  
**12.4%**

BETA  
**2.7%**

COHUMULONE  
**32.4%**

*Data Source:*



Replicated Ontario Field Trials and/or Ontario Field Production.




USDA ARS Hop Breeding & Genetics Program, USA Hops Variety Snapshot, and/or Propagator Data.



Ontario Wild Hops.

**N/A** Not Available.



**Vojvodina** 

IHGC ASSIGNMENT  
**No IHGC Assignment**

ALPHA  
**6.1–10.5%**

BETA  
**2.3–4.7%**

COHUMULONE  
**30%**



 **Wild Loyalist** 

IHGC ASSIGNMENT  
**Ontario Wild Hop;  
No IHGC Assignment**

ALPHA  
**N/A**

BETA  
**N/A**

COHUMULONE  
**N/A**

 **Wild Turkey** 

IHGC ASSIGNMENT  
**ON Wild Hop;  
No IHGC Assignment**

ALPHA  
**13.0–16.0%**

BETA  
**N/A**

COHUMULONE  
**N/A**

*Data Source:*



Replicated Ontario Field Trials and/or Ontario Field Production.




USDA ARS Hop Breeding & Genetics Program, USA Hops Variety Snapshot, and/or Propagator Data.



Ontario Wild Hops.

**N/A** Not Available.




**Alpharoma  
(Rakau™)** 

IHGC ASSIGNMENT  
**Bitter**

ALPHA  
**4.8–12.1%**

BETA  
**2.3–4.0%**

COHUMULONE  
**N/A**


**Bitter Gold** 

IHGC ASSIGNMENT  
**Aroma**

ALPHA  
**12.1%**

BETA  
**4.9%**

COHUMULONE  
**N/A**


**Brewers Gold** 

IHGC ASSIGNMENT  
**Aroma**

ALPHA  
**5.5–7.3%**

BETA  
**2.3–3.1%**

COHUMULONE  
**N/A**

**Cascade** 

IHGC ASSIGNMENT  
**Aroma**

ALPHA  
**4.3–10.1%**

BETA  
**4.2–7.9%**

COHUMULONE  
**N/A**

*Data Source:*



Replicated Ontario Field Trials and/or Ontario Field Production.




USDA ARS Hop Breeding & Genetics Program, USA Hops Variety Snapshot, and/or Propagator Data.



Ontario Wild Hops.

**N/A** Not Available.

Cashmere


IHGC ASSIGNMENT

**Aroma**

ALPHA


**5.4–8.5%**

BETA

**5.7–6.2%**

COHUMULONE

**N/A**

Centennial


IHGC ASSIGNMENT

**Aroma**

ALPHA


**6.6–12.8%**

BETA

**2.9–6.2%**

COHUMULONE

**N/A**

Chinook


IHGC ASSIGNMENT

**Aroma**

ALPHA


**6.4–12.7%**

BETA

**2.8–7.0%**

COHUMULONE

**N/A**

Cluster


IHGC ASSIGNMENT

**Aroma**

ALPHA

**4.6–5.4%**

BETA

**3.2–3.3%**

COHUMULONE

**N/A**

*Data Source:*




Replicated Ontario Field Trials and/or Ontario Field Production.



USDA ARS Hop Breeding & Genetics Program, USA Hops Variety Snapshot, and/or Propagator Data.

**N/A** Not Available.




**Columbia** 

IHGC ASSIGNMENT  
**Aroma**

ALPHA  
**5.7–6.6%**

BETA  
**2.3–2.4%**

COHUMULONE  
**40%**


**Columbus (CTZ)**   
 see also Zeus

IHGC ASSIGNMENT  
**Bitter**

ALPHA  
**8.7–10.1%**

BETA  
**2.5–3.3%**

COHUMULONE  
**N/A**


**Comet** 

IHGC ASSIGNMENT  
**Aroma**

ALPHA  
**10.5%**

BETA  
**4.4%**

COHUMULONE  
**N/A**

**Crystal** 

IHGC ASSIGNMENT  
**Aroma**

ALPHA  
**3.3%**

BETA  
**5.8%**

COHUMULONE  
**N/A**

*Data Source:*




Replicated Ontario Field Trials and/or Ontario Field Production.




USDA ARS Hop Breeding & Genetics Program, USA Hops Variety Snapshot, and/or Propagator Data.


**N/A** Not Available.

**Fuggie**



IHGC ASSIGNMENT  
**Aroma**  
  
 ALPHA  
**2.9–5.4%**  
  
 BETA  
**2.3–4.1%**  
  
 COHUMULONE  
**N/A**

**Galena**


IHGC ASSIGNMENT  
**Bitter**  
  
 ALPHA  
**7.5–11.6%**  
  
 BETA  
**5.2–6.3%**  
  
 COHUMULONE  
**N/A**

**Glacier**


IHGC ASSIGNMENT  
**Aroma**  
  
 ALPHA  
**4.1–5.2%**  
  
 BETA  
**4.7–6.0%**  
  
 COHUMULONE  
**N/A**

**Golding**


IHGC ASSIGNMENT  
**Aroma**  
  
 ALPHA  
**4.4%**  
  
 BETA  
**5.4%**  
  
 COHUMULONE  
**N/A**

*Data Source:*




Replicated Ontario Field Trials and/or Ontario Field Production.



USDA ARS Hop Breeding & Genetics Program, USA Hops Variety Snapshot, and/or Propagator Data.

**N/A** Not Available.




**Golding East Kent** 

IHGC ASSIGNMENT  
**Aroma**

ALPHA  
**5.0–6.0%**

BETA  
**2.0–3.0%**

COHUMULONE  
**29%**


**Hallertauer MF/ Hallertauer** 

IHGC ASSIGNMENT  
**Aroma**

ALPHA  
**3.3–8.1%**

BETA  
**6.0–6.2%**

COHUMULONE  
**N/A**


**Horizon** 

IHGC ASSIGNMENT  
**Aroma**

ALPHA  
**5.4%**

BETA  
**4.2%**

COHUMULONE  
**N/A**

**Magnum Hallertauer** 

IHGC ASSIGNMENT  
**Bitter**

ALPHA  
**6.4–14.7%**

BETA  
**2.6–6.4%**

COHUMULONE  
**N/A**

*Data Source:*




Replicated Ontario Field Trials and/or Ontario Field Production.



USDA ARS Hop Breeding & Genetics Program, USA Hops Variety Snapshot, and/or Propagator Data.

**N/A** Not Available.

**Mt. Hood**



IHGC ASSIGNMENT

**Aroma**

ALPHA  
**2.4–7.3%**

BETA  
**3.9–6.6%**

COHUMULONE  
**N/A**

**Mt. Ranier**



IHGC ASSIGNMENT

**Aroma**

ALPHA  
**5.2–8.3%**

BETA  
**3.6–6.8%**

COHUMULONE  
**N/A**

**Newport**



IHGC ASSIGNMENT

**Bitter**

ALPHA  
**7.1–9.7%**

BETA  
**3.3–8.0%**

COHUMULONE  
**N/A**

**Northern Brewer**


IHGC ASSIGNMENT

**Aroma**

ALPHA  
**4.6–6.0%**

BETA  
**4.4–4.6%**

COHUMULONE  
**N/A**

*Data Source:*




Replicated Ontario Field Trials and/or Ontario Field Production.




USDA ARS Hop Breeding & Genetics Program, USA Hops Variety Snapshot, and/or Propagator Data.

**N/A** Not Available.




**Nugget**



IHGC ASSIGNMENT  
**Bitter**  
  
 ALPHA  
**10.9–13.4%**  
  
 BETA  
**4.1–5.7%**  
  
 COHUMULONE  
**N/A**

**Perle**


IHGC ASSIGNMENT  
**Aroma**  
  
 ALPHA  
**7.9–12.9%**  
  
 BETA  
**2.9–5.0%**  
  
 COHUMULONE  
**28%**

**Saazer (Saaz)**


IHGC ASSIGNMENT  
**Aroma**  
  
 ALPHA  
**4.7–6.6%**  
  
 BETA  
**3.2–4.7%**  
  
 COHUMULONE  
**N/A**

**Santiam**


IHGC ASSIGNMENT  
**Aroma**  
  
 ALPHA  
**5.0–7.0%**  
  
 BETA  
**6.0–8.0%**  
  
 COHUMULONE  
**22–24%**

*Data Source:*




Replicated Ontario Field Trials and/or Ontario Field Production.




USDA ARS Hop Breeding & Genetics Program, USA Hops Variety Snapshot, and/or Propagator Data.


**N/A** Not Available.

**Sorachi Ace**



IHGC ASSIGNMENT  
**Aroma**  
  
 ALPHA  
**10.3–11.0%**  
  
 BETA  
**4.8–6.1%**  
  
 COHUMULONE  
**N/A**

**Sterling**


IHGC ASSIGNMENT  
**Aroma**  
  
 ALPHA  
**2.7–3.4%**  
  
 BETA  
**3.0–4.4%**  
  
 COHUMULONE  
**N/A**

**Super Alpha  
(Dr. Rudi)**


IHGC ASSIGNMENT  
**Bitter**  
  
 ALPHA  
**7.3–8.4%**  
  
 BETA  
**5.1–6.0%**  
  
 COHUMULONE  
**N/A**

**Tahoma**


IHGC ASSIGNMENT  
**Aroma**  
  
 ALPHA  
**7.2–8.2%**  
  
 BETA  
**8.5–9.5%**  
  
 COHUMULONE  
**15–17%**

*Data Source:*




Replicated Ontario Field Trials and/or Ontario Field Production.



USDA ARS Hop Breeding & Genetics Program, USA Hops Variety Snapshot, and/or Propagator Data.

**N/A** Not Available.



**Tettnanger**  
(Swiss Tettnanger) 


IHGC ASSIGNMENT

**Aroma**

ALPHA  
**4.1–6.3%**

BETA  
**3.6–5.7%**

COHUMULONE  
**22%**

**Triple Pearl** 


IHGC ASSIGNMENT

**Aroma**

ALPHA  
**7.3–10.1%**

BETA  
**3.1–3.7%**

COHUMULONE  
**N/A**

**Triumph** 


IHGC ASSIGNMENT

**Aroma**

ALPHA  
**11.8%**

BETA  
**3.9%**

COHUMULONE  
**N/A**

**Ultra** 

IHGC ASSIGNMENT

**Aroma**

ALPHA  
**8.0–9.7%**

BETA  
**3.5–4.4%**

COHUMULONE  
**N/A**

*Data Source:*



Replicated Ontario Field Trials and/or Ontario Field Production.



USDA ARS Hop Breeding & Genetics Program, USA Hops Variety Snapshot, and/or Propagator Data.

**N/A** Not Available.

## Vanguard



IHGC ASSIGNMENT

**Aroma**

ALPHA

**3.6–7.4%**

BETA

**4.8–6.2%**

COHUMULONE

**N/A**

## Williamette



IHGC ASSIGNMENT

**Aroma**

ALPHA

**3.5–5.7%**

BETA

**2.3–6.0%**

COHUMULONE

**N/A**

## Yakima Gold



IHGC ASSIGNMENT

**Aroma**

ALPHA

**8.8–10.5%**

BETA

**4.3–5.0%**

COHUMULONE

**21–23%**

## Zeus (CTZ) see also Columbus



IHGC ASSIGNMENT

**Bitter**

ALPHA

**11.0–17.3%**

BETA

**4.9–5.8%**

COHUMULONE

**N/A**

*Data Source:*



Replicated Ontario Field Trials and/or Ontario Field Production.



USDA ARS Hop Breeding & Genetics Program, USA Hops Variety Snapshot, and/or Propagator Data.

**N/A** Not Available.



# The ONHops BrewOff

The ONHops BrewOff began in 2013 and brings together Ontario hop producers and craft brewers to showcase unique flavours and characteristics of beer made right here in Ontario with local ingredients. The goals of the competition are to:

- Create a credible venue for hop growers and brewers to work together and encourage commerce.
- Introduce the next generation of Ontario brewers to the hop growing community.
- Promote the use of Ontario-grown hops.

Eight certified judges examine flavour profiles of a pre-determined beer style submitted by 18 teams each year. Teams are comprised of one craft brewer and up to two hop growers. The event is held during the Ontario Fruit and Vegetable Convention each February at the Scotiabank Convention Centre in Niagara Falls, Ontario. All participants receive written scores, comments, and feedback

from the judging panel. The winning team is awarded the coveted "Bottomless Cup".



Photos by Denis Cahill, courtesy The Grower



## For More Information

To learn more about the competition, rules, regulations, and past winners, please visit the competition webpage [www.ofvc.ca/ONHOPS\\_about.html](http://www.ofvc.ca/ONHOPS_about.html) or contact [onhopsbrewoff@ofvc.ca](mailto:onhopsbrewoff@ofvc.ca).





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## Resources

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|-------|--|
| FC    | Brewers showing hops, Adobe Stock, 115242140   |
| p.iii | Fresh green hops on a wooden table, Shutterstock, 594538163  |
| p.iv  | Green fresh hop cones for making beer, Adobe Stock, 143030631  |
| p.1   | Hops in pellet for brewing, Shutterstock, 1393196780   |
| p.2   | Hops orchard, Hayhoe Hops  |
| p.3   | Craft Beer bubbles, Shutterstock, 487064743  |
| p.4   | Hop field landscape in sunny day, Shutterstock, 1503125315<br>Father and son in hops field, Hayhoe Hops                  |
| p.5   | Craft beer processing, Ministry of Agriculture, Food and Rural Affairs,<br>Evan Elford                                   |
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| p.8   | Jar full of hops pellets used for brewing beer, Shutterstock, 1732292242   |
| p.9   | Hops cones on bine, Ministry of Agriculture, Food and Rural Affairs,<br>Evan Elford                                      |
| p.10  | Fresh green hop cones on black wooden background.<br>Shutterstock, 725366851   |
| p.25  | ON Hops BrewOff: Hop Rub, The Grower, Dennis Cahill<br>ON Hops BrewOff: Bottomless Cup Trophy, The Grower, Dennis Cahill |
| BC    | Beer: Focus On Hops Being Added to Wort, Adobe Stock, 176898639  |





