



# Winter 2023 Hop Industry Update

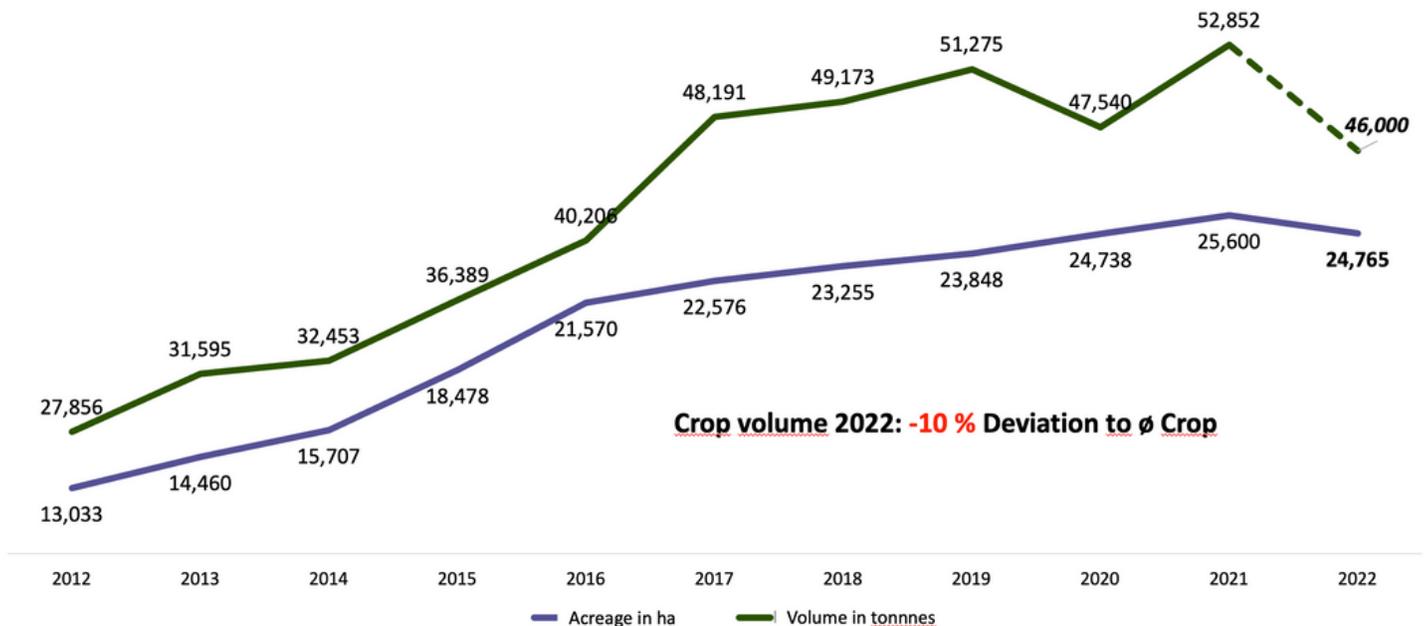


## USA 2022 Crop Results

With the 2022 crop results now in and with these hops now in great craft beers all across Canada, it's important to take a step back and look at some of the final results. The 2022 winter was a La Niña which brought cooler temperatures and above-normal precipitation to the Pacific Northwest. It was a cooler, wetter spring which put the crop about 1-2 weeks behind and left the baby plants weaker resulting in a lower yield. Here are some headliner numbers from the 2022 crop:

- The 2022 crop was 101 million lbs vs 115 million lbs for the 2021 crop
- Aroma varieties were down 11% from average
- Alpha varieties we're down 5% from average
- Total crop was down 10% from average
- Total crop was down 13% from 2021 crop due to acreage reduction and low yield
- Overall quality and aroma were above average

*Below is a graph of the acreage vs volume of yield from crop 2012 to 2022...*





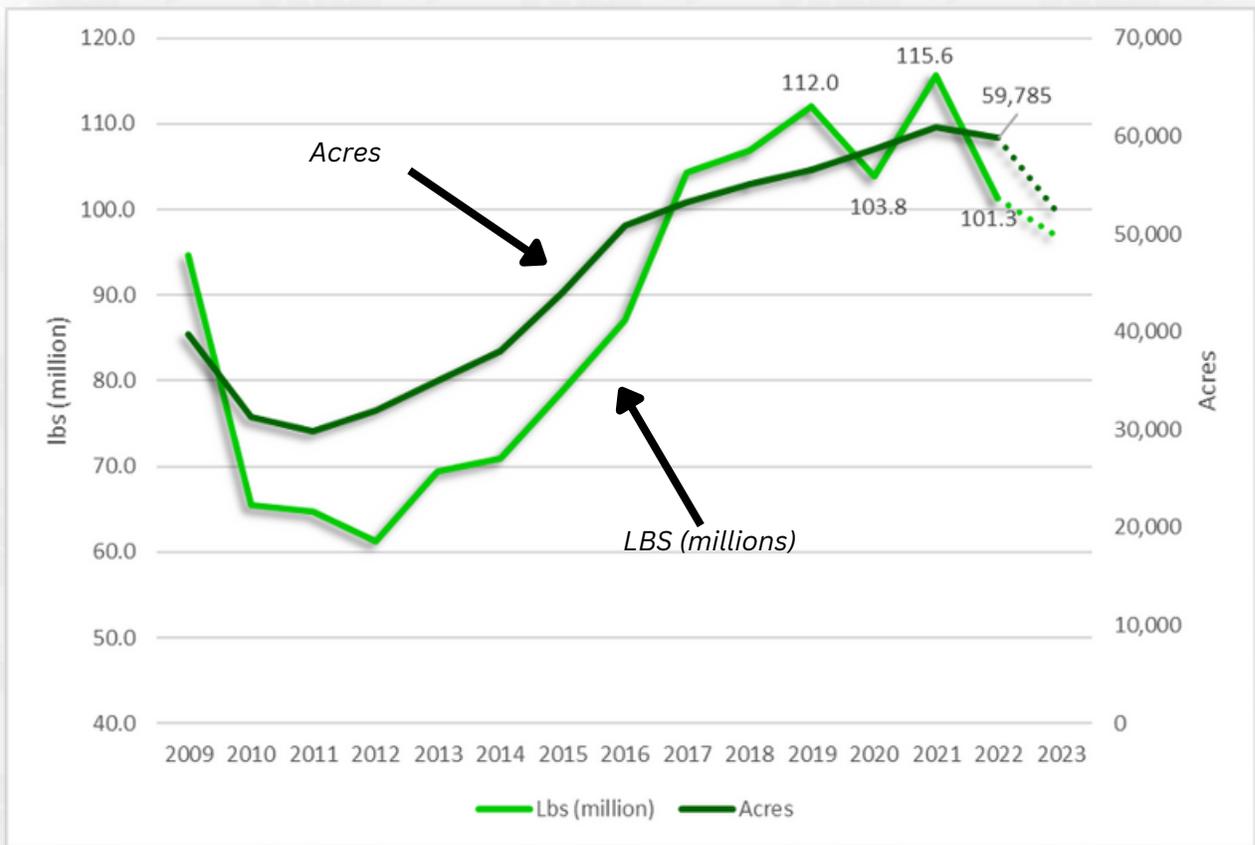
## 2023 USA Crop: Where are we going?

It's interesting, if you look at the graph on page 1, you will see a steady increase in the USA overall acreage from 2012 to 2022. We went from 20,000 acres in 2012 to 60,000 acres for the 2021 crop. This is obviously due to the rise of craft beer across North America and the demand for aroma hops in a changing beer market. With the addition of Covid for a couple of years, the market fell into some oversupply around 2020 and the industry has been dealing with that for a couple of years. The result has been the prices of hops remaining very flat or even coming down a little bit over the past couple of years and the industry having to be incredibly nimble when it comes to what varieties to plant.

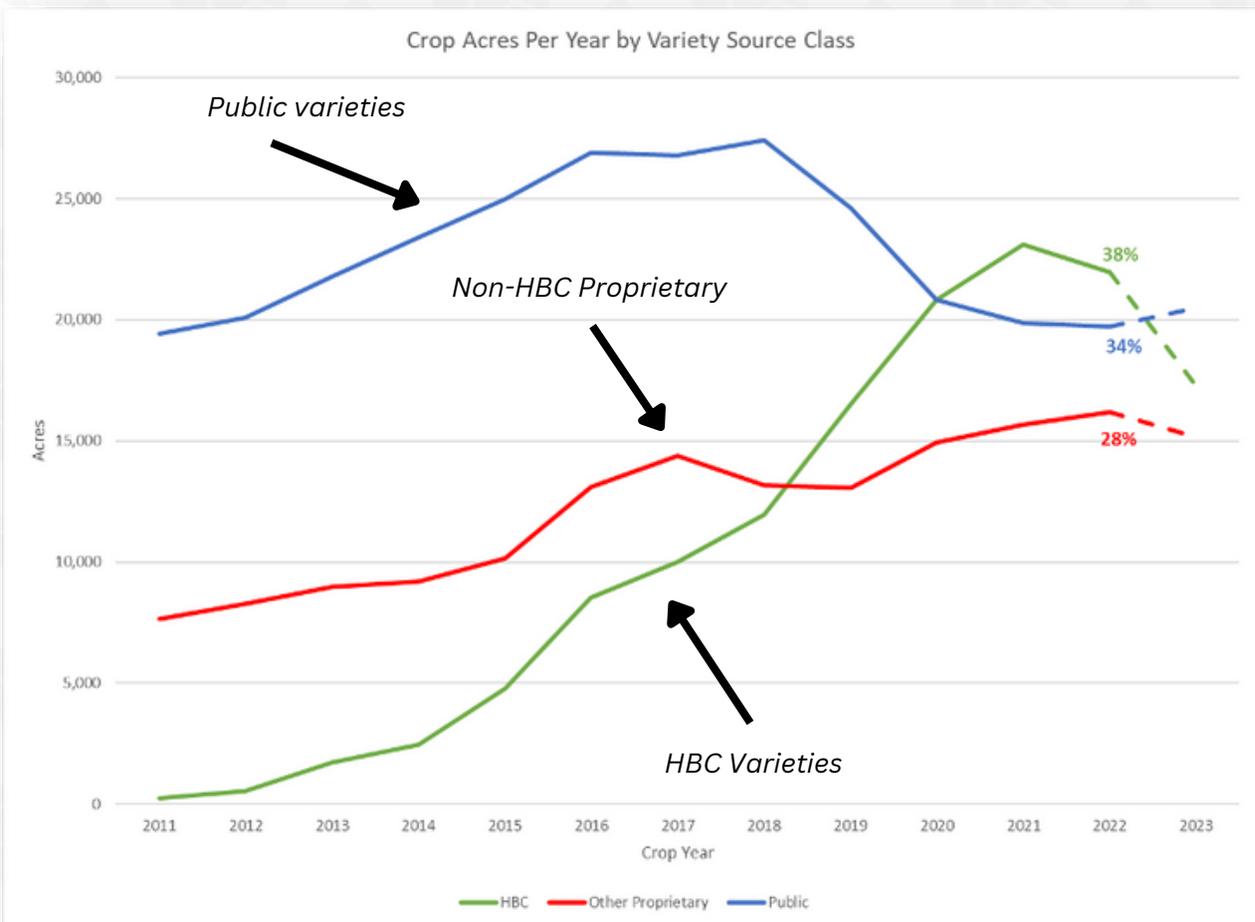
Combine this with the appetite for growth and risk on the decline due to economic question marks and we have a situation where significant acreage changes are in order for the upcoming 2023 crop. Here are some of the headlines:

- **2022 crop vs 2021 crop was a 2% reduction in acreage and a 10% reduction in overall yield**
- **An overall reduction of 15 - 20% between 2022 crop and 2023 crop is expected**
- **The reductions will mainly be in aroma varieties that expanded greatly over past 10 years**
- **Larger public varieties remain relatively in balance**
- **High alphas are in decent balance currently**
- **Overall acres will likely drop to 51 - 52K from 60K acres with an average yielding crop of 90M lbs range**
- **Acreage and overall yield to remain at these new levels for the near term**
- **Spot prices for the current 2022 crop to remain flat with the price of future contracts beginning to climb up as demand will be more in line with supply.**
- **Contracts will become more important as acreage is reduced leaving fewer hops on the spot market. When spot hops are available, the price will therefore be higher.**

In the below graph, you can see where we expect acreage and total yield to be for 2023 crop



In the below graph, you can see the growth and future plans of HBC and other proprietary varieties vs public hops

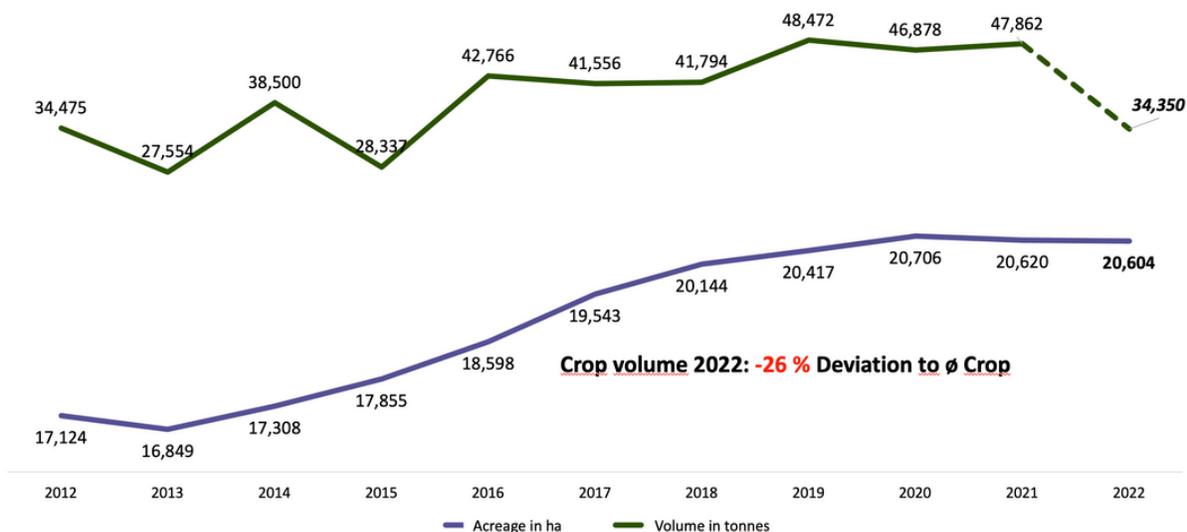


## Europe 2022 Crop Results

Growing conditions in Europe have been defined by well above-average temperatures through most of the growing season and below-average precipitation. The early months of the 2022 growing season (May & June), produced relatively normal weather patterns which looked promising for the European varieties. Unfortunately, as the summer progressed, the weather continued to be very hot and dry. Typically, hops need 100L of water/square meter each month, it is estimated that the hops in the Hallertau only received 30L of water/square meter each month this growing season. The result was a very short crop. Here are some of the headlines:

- **2022 crop was a 26% decrease vs 2021 crop**
- **2022 crop produced 32% less overall alpha acid than 2021 crop**
- **The shortage of yield and alpha acid creates a compounded problem as more hops need to be used to achieve the same level of bitterness**
- **2021 crop was an extremely high-yielding crop so there are likely enough 2021 & 2022 crop EU hops in the market to satisfy most demand for the 2023 brew year**
- **The most affected varieties are Czech Saaz, Hallertau Mittelfruh, EKG & Fuggle which all had yield reductions of over 40%**

Below is a graph of the acreage vs volume of yield from crop 2012 to 2022. It's important to look at the decrease of yield between 2021 CY and 2022 CY





## 2023 Europe Crop: Where are we going?

Who doesn't love a classic German Pilsner? After many years of murmurs around the industry that craft lagers were going to be the "next big thing", we think that the industry might have just arrived at that point! We've seen growing demand and popularity in the North American craft community for German noble hops. As you just read, the 2022 crop was a very low-yielding crop with low alpha acid levels. We are very lucky that the 2021 crop was a bumper crop in both yield and alpha as this has helped slightly soften the blow.

As we stand back and think about EU hop supply levels around the world, an interesting point continues to be brought up. Many of the world's largest breweries have sat on the sidelines for purchasing spot hops due to availability and price for the 2022 crop and instead have relied on their reserve stocks to get them through the year. This gives increased pressure on the upcoming growing season in Europe as many of the reserve stocks have been depleted to cover needs for the 2023 brew year. To add to this, Europe has experienced one of the driest winters on record with very little snowfall. If a dry winter persists, much of the irrigation reserves will be starting at a low point and only 30% of German hop fields are irrigated to begin with. The current plan for European acreage is to remain flat compared to the 2022 crop.

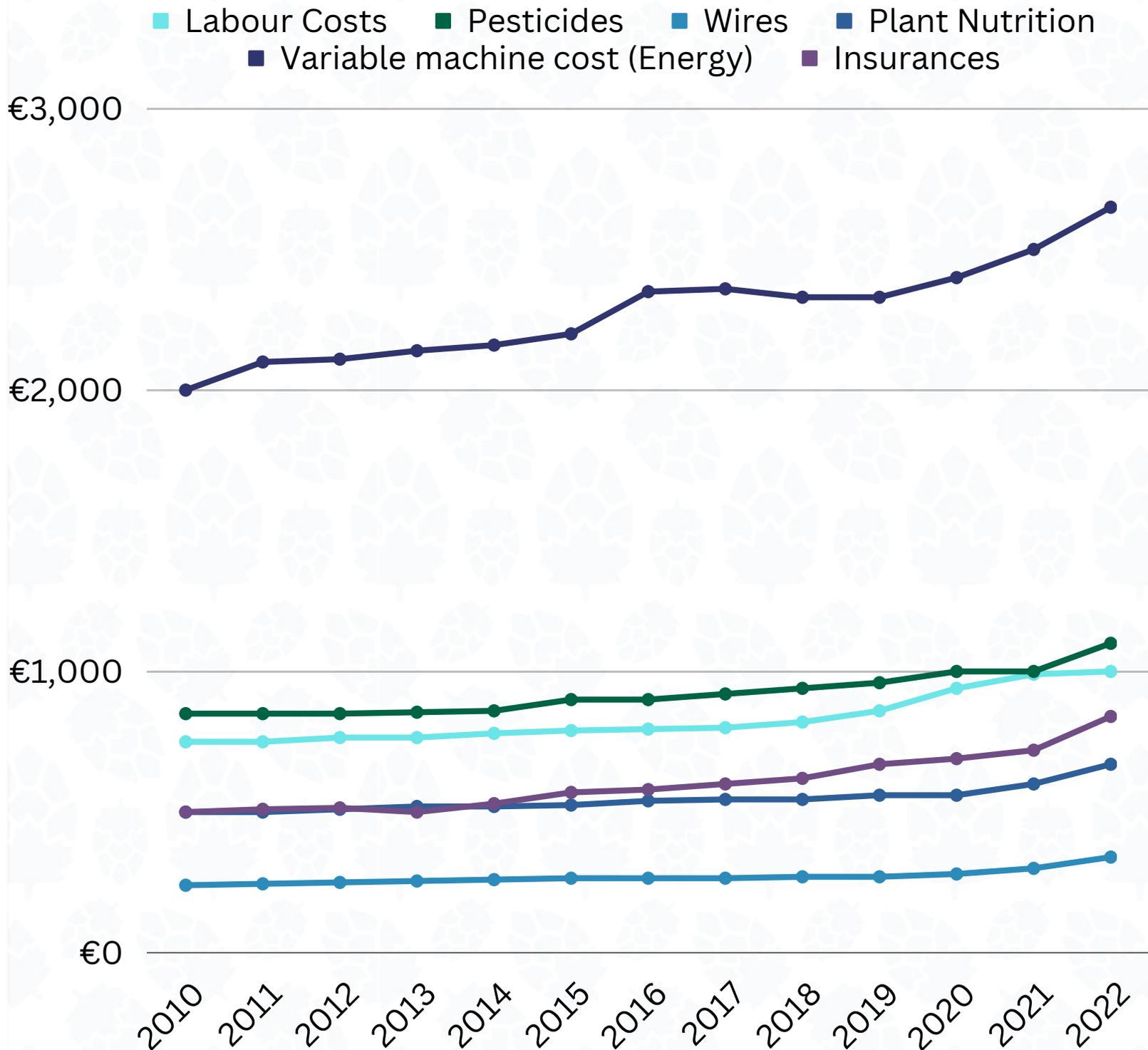
*Here is a chart showing some of the alpha results from the 2022 crop. A below-average crop for 2023 would create a very expensive and tight supply market for EU hops in 2024 brew year.*

Variety	10 yr. average	2022	Deviation to 10 yr.	2021	Deviation to 2022
Hallertau Mittelfruh	3.8%	3.1%	-18.4%	5.2%	-40.4%
Hallertau Tradition	5.6%	5.2%	-7.1%	6.1%	-14.8%
Hallertau Magnum	13.1%	12.2%	-6.9%	16.0%	-23.8%
Herkules	16.3%	15.4%	-5.5%	18.5%	-16.8%
Czech Saaz	3.1%	2.8%	-9.7%	4.0%	-30.0%

Below is a chart showing some of the steep increases in hop growing costs in Germany.

The main issues we are seeing are:

- Disruptions of supply chains
- Supply shortages in energy
- Influence of Russia - Ukraine war
- Hop production highly depends on energy
- Increase of the variable production cost by approximately 30% in 2021 and 2022.





## January/February Australian Report

After a successful harvest and processing season for crop 2022, our growing team in Australia has been focusing on the final hectares of a \$50 million investment in expansion delivered over the past 8 years. The new plantings are coming into commercial productivity this year, which means we can continue to supply a growing number of local and international brewers with high-quality Aussie hops so they can continue making high-quality beers.

At the halfway point of the growing season, we experienced another typical La Niña weather pattern characterized by cooler daytime temperatures and increased rainfall. With our soil saturated and our dams full, 4% of our acreage became subject to flooding. This was a common story across eastern parts of Australia at the tail-end of 2022. Despite some challenging conditions, we were able to modify our calendar of inputs, complete stringing, and training on schedule, and help most of the flood-affected acreage recover. In general, our hops have now reached the wire, are filling out with laterals, and are on the cusp of inflorescence which will give us more insight into the climatic impacts on yield this season.

Even though the hop and brewing world seems to be going through a significant realignment of supply and demand, the outlook for Aussie hops remains strong. Since crop 2023 is expected to be on average, we encourage brewers to proactively review their Aussie hop requirements and reach out regarding forward contracts.

We're particularly excited about the new processing and packaging facility that is scheduled to be commissioned in time for crop 2024. This will have a significant impact on hop and packaging quality as our crop will be harvested and packaged into a 5 KG foil in almost half of the time ensuring we don't sacrifice any quality in the processing. Let's just say there's plenty of room for activities and exciting developments!

Harvest will begin at the beginning of March and we will begin shipping containers to Canada in early June! We look forward to keeping you updated through another great harvest.

Eclipse



Galaxy



Vic Secret



Ella



Enigma



# HOPS<sup>®</sup>

## CONNECT

CANADA

## January/February Australian Report



*Dr. Simon Whittock is pictured on the right. Simon assumed control of the HPA breeding program in 2007 and has overseen the commercial launch of famous hops like Vic Secret and Eclipse!*

*Our Australian grower partner has just invested in a 70,000 square foot state of the art pellet and packaging site. This additional capacity will allow baled hops to be pelletized much quicker where they are in a more stable state. A more consistent and higher quality hop will be the outcome of this result.*





## January/February New Zealand Growing Report

It has been a very busy growing season in New Zealand. Our grower partners, Clayton Hops, have planted another 200 acres of hops, built another high-capacity cutting edge hops processing facility and we're in the process of completing NZ's premier hops pelletising (T90s), packaging, and cold storage facility.

The hops pelletising facility is a truly world-class asset and will process this year's crop. A cryogenic enriched pellet system was installed into the facility in September this year so if you're looking for super concentrated hop pellets that deliver a real punch of aroma all while saving beer yields, you're in the right spot! This ties in very nicely with one of Hops Connect Canada's and Clayton Hops key goals to lower their environmental footprint.

Here are some fun stats from the farm:

- **Main Location:** Nelson, New Zealand (South Island)
- **Acreage/variety trends:** We're now at 1,000 acres of hops, making us easily the largest grower in NZ.
- **Biggest Varieties in Acreage:** The big four varieties by area are Nelson Sauvín, Motueka, Riwaka, and Rakau. We also carry Pacifica and NZ Cascade.
- **New varieties on the horizon?** Next year we are bringing Pacific Sunrise Southern Cross and Green Bullet to our portfolio. Our farmers in New Zealand are always looking to grow in-demand hop varieties and love making Canadian craft brewers happy!
- **Weather patterns so far:** It has been a terrific summer in the Tasman region of New Zealand, which is where the four hop farms are located. It's the hop-growing heartland of New Zealand. There has been plenty of sunshine and constant warm temperatures. It's looking to be a nice yielding and quality crop.
- **Rough yield projections:** Total production across the four farms is looking to be around 600 metric tons.

## January/February New Zealand Report



*Pictured to the left is Taiheke (which is New Zealand grown Cascade) in the field. If you're looking for Cascade with a twist this year be sure to get in touch with us!*

*Pictured below is Blue Rock Hop Farm named after the "blue" rock cliff formation that overlooks the farm (also famously rumoured to have been a film set location for The Lord of the Rings Trilogy!)*

