



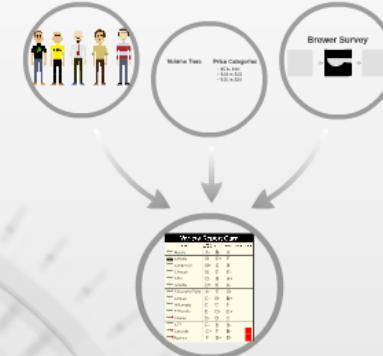
## State of the Market

Shane Kunkle, Founder

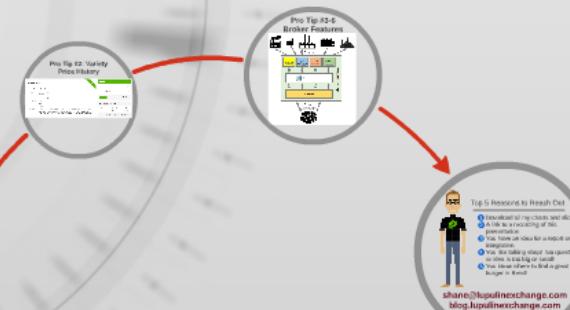
the Lupulin Exchange



## [01] Intro



## [02] Market Report Card



## [03] Pro Tips



# State of the Market

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Shane Kunkle, Founder

the Lupulin Exchange



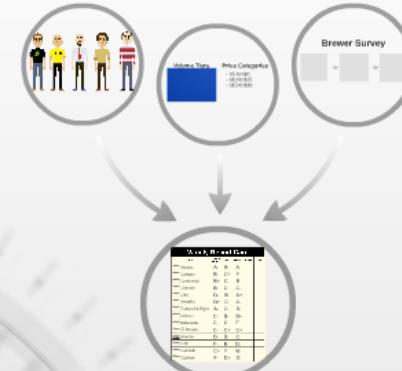
## State of the Market

Shane Kunkle, Founder

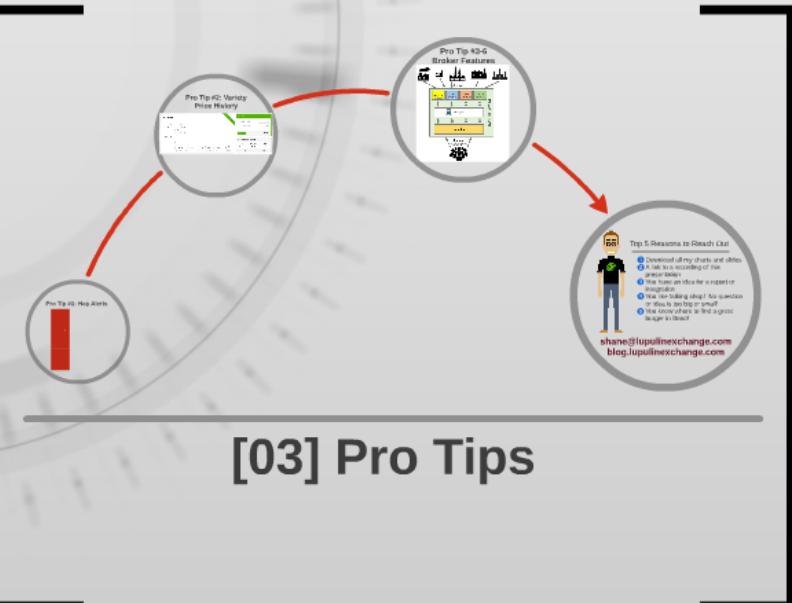
the Lupulin Exchange



## [01] Intro



## [02] Market Report Card



## [03] Pro Tips



The Lupulin Exchange

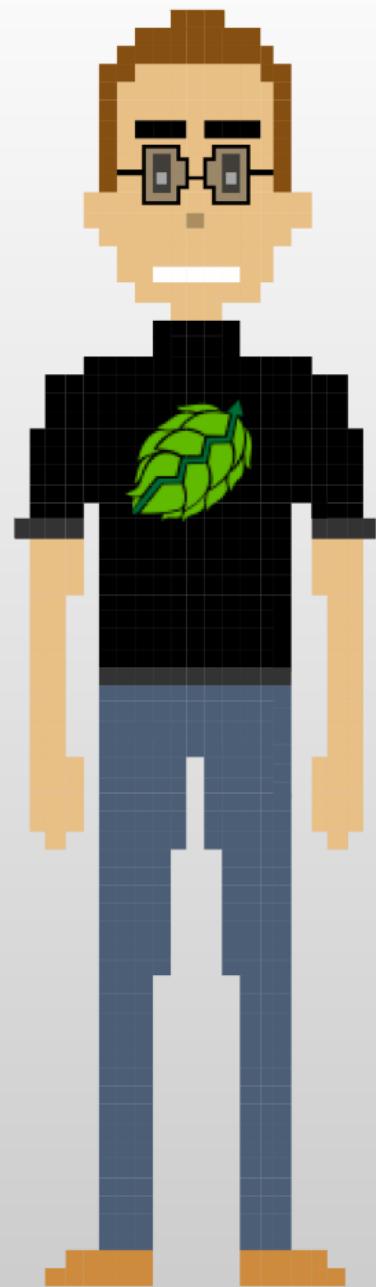
Published by John Bryce [?]

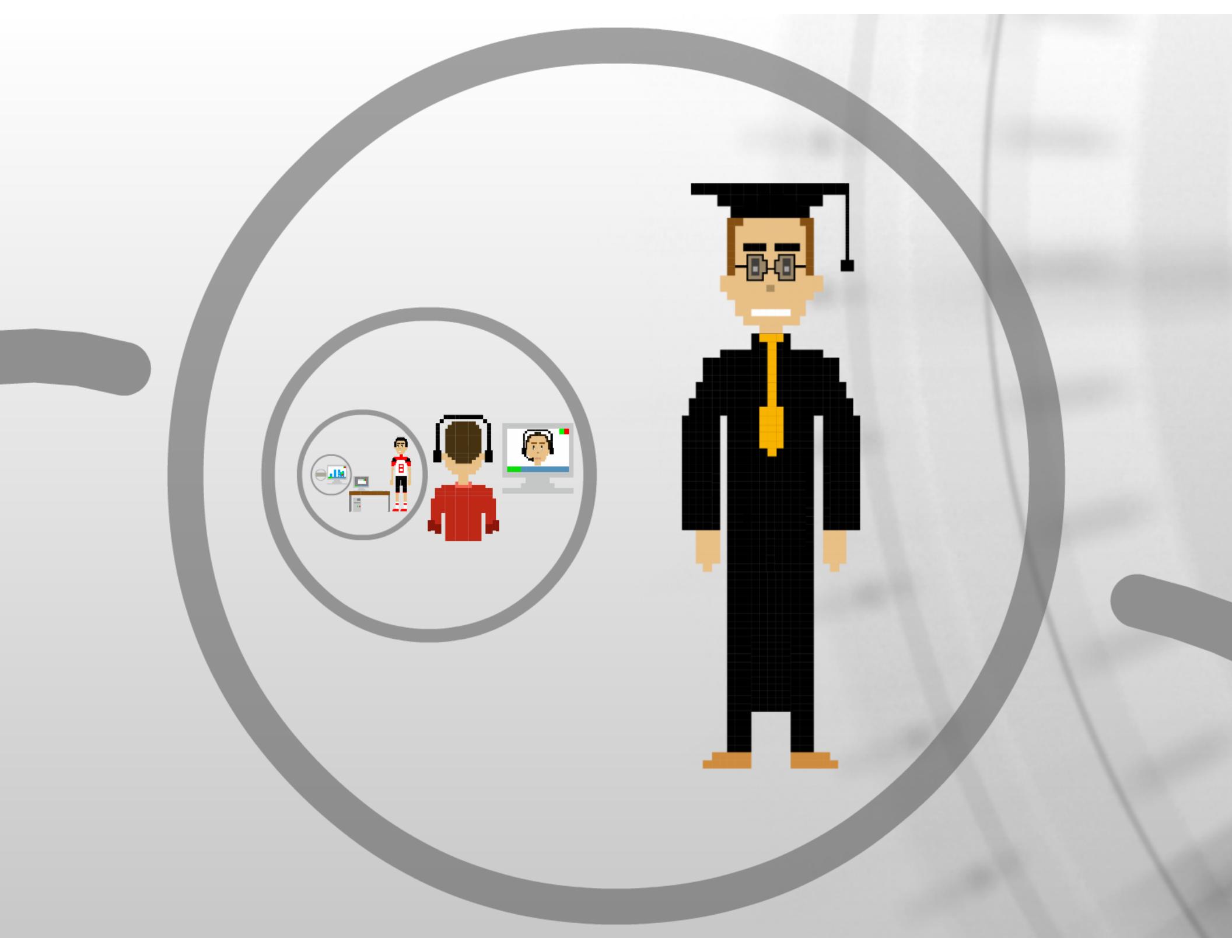
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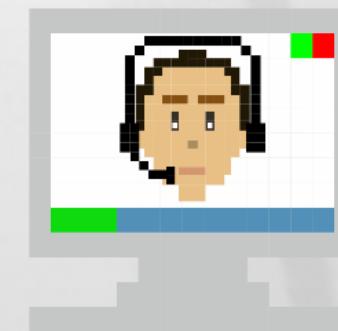
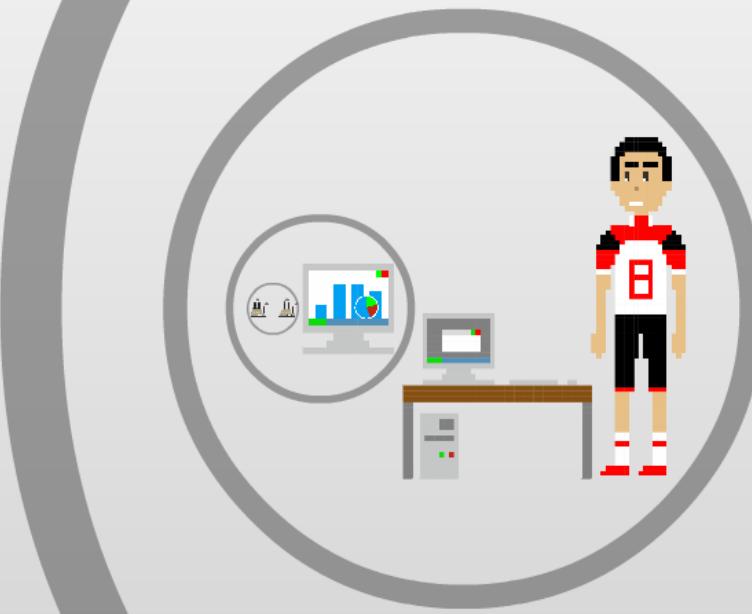
2/5 of The Lupulin Exchange will be at the 61st Annual American Hop Growers Convention. Stop by our booth to say hi and/or win something pretty cool! Also, don't believe a word of Shane's presentation - he's pretty much always making things up. We're really only sending him because John's wife is about to give birth. — in [Bend, Oregon](#).

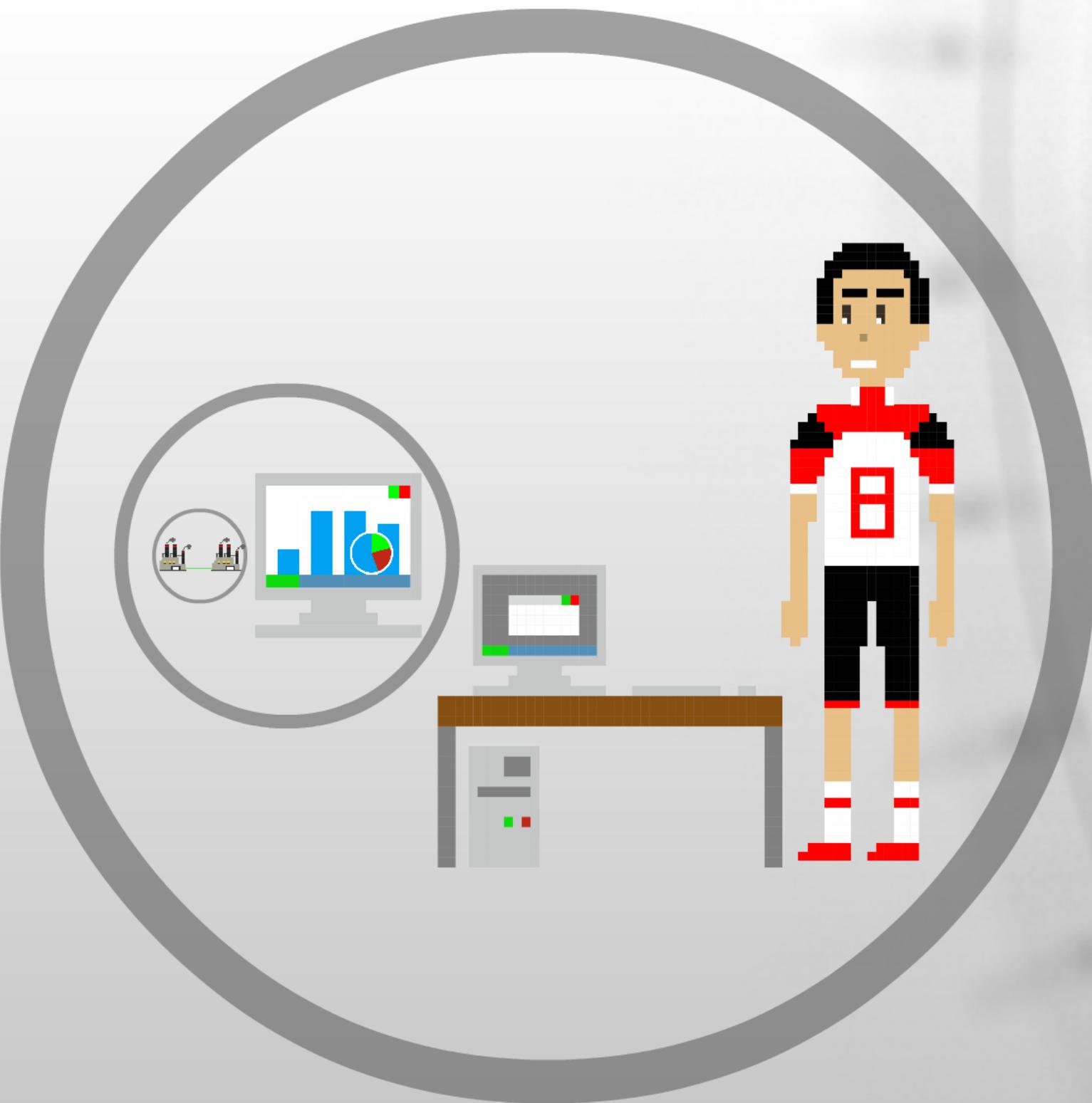
[Tag Photo](#) [Edit](#)

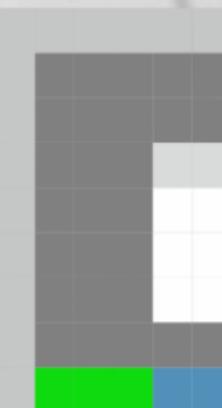
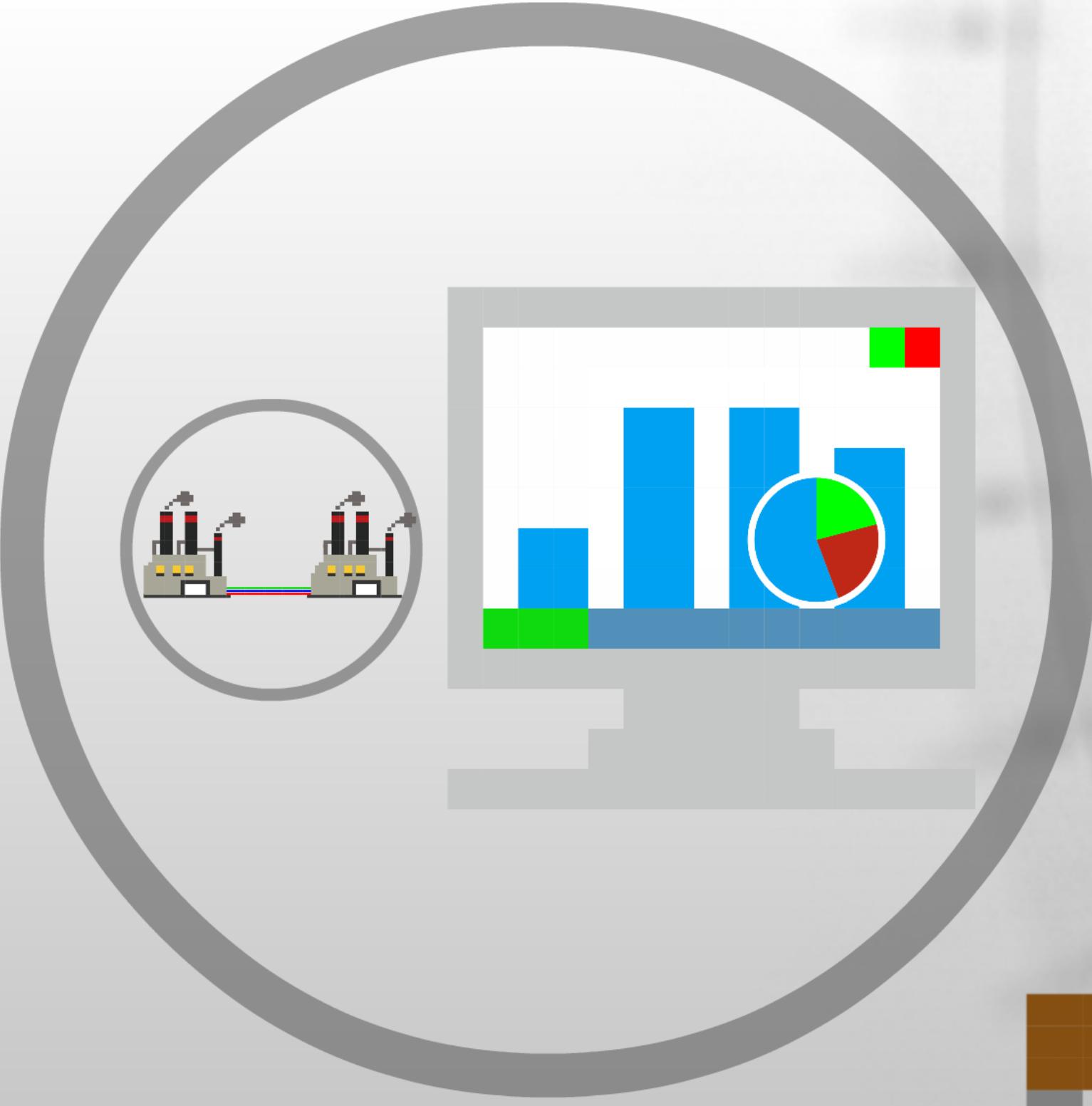
[Like](#) [Comment](#) [Share](#)

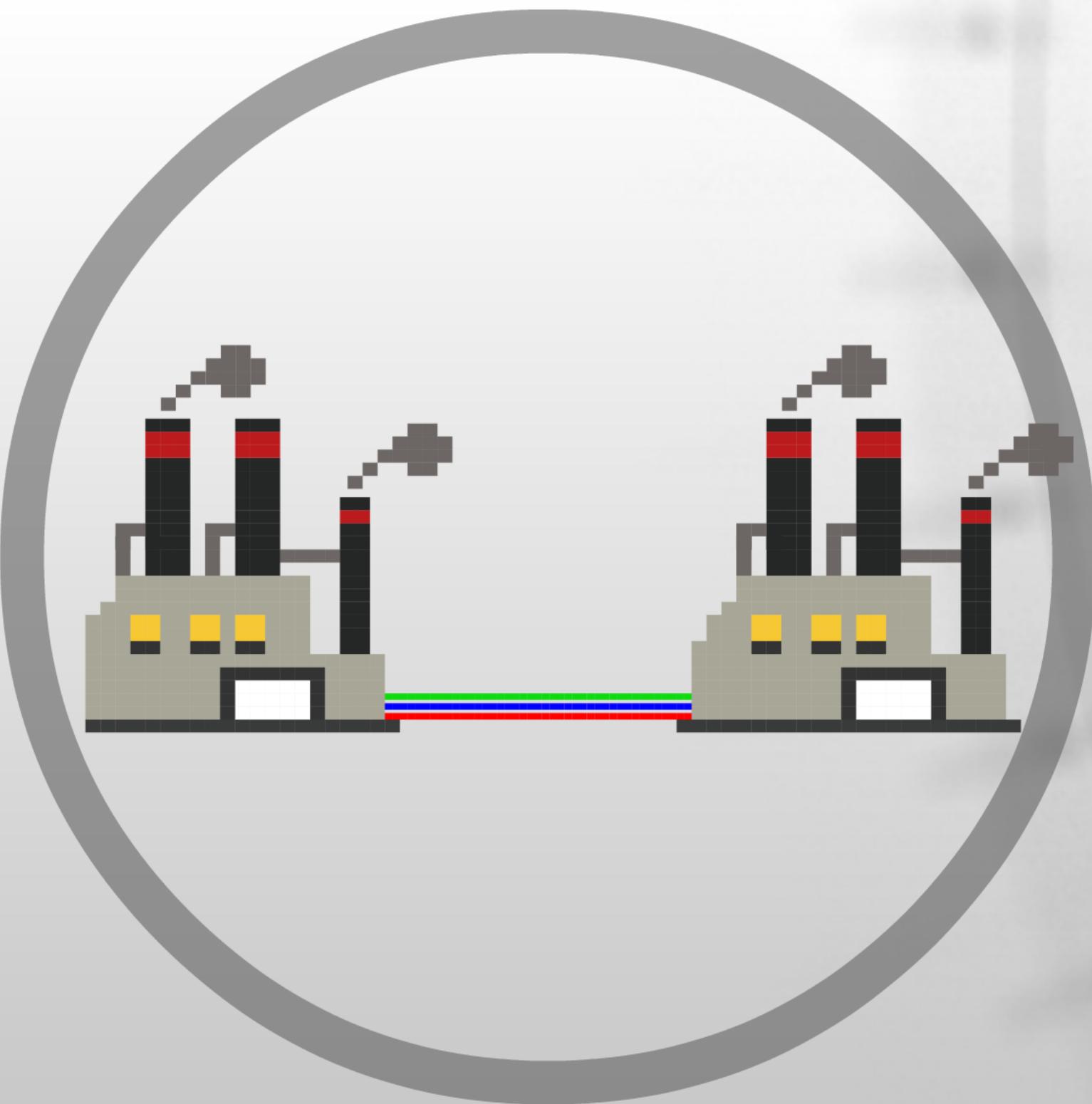


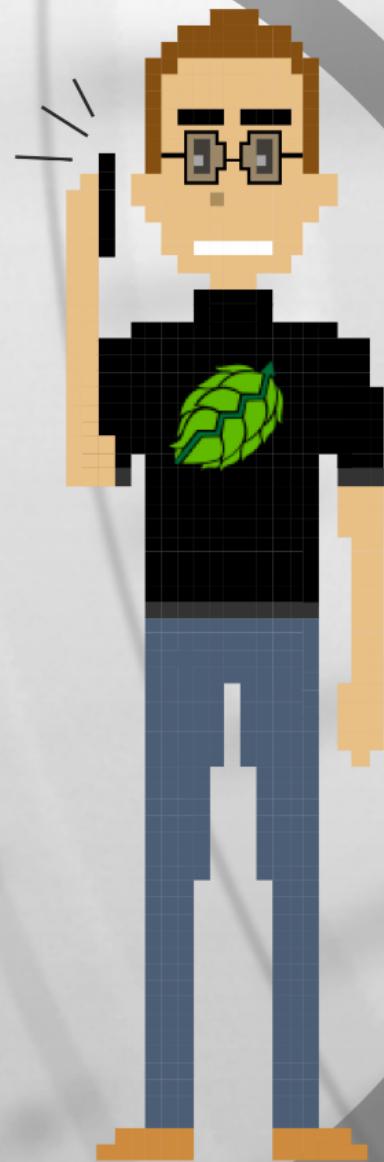


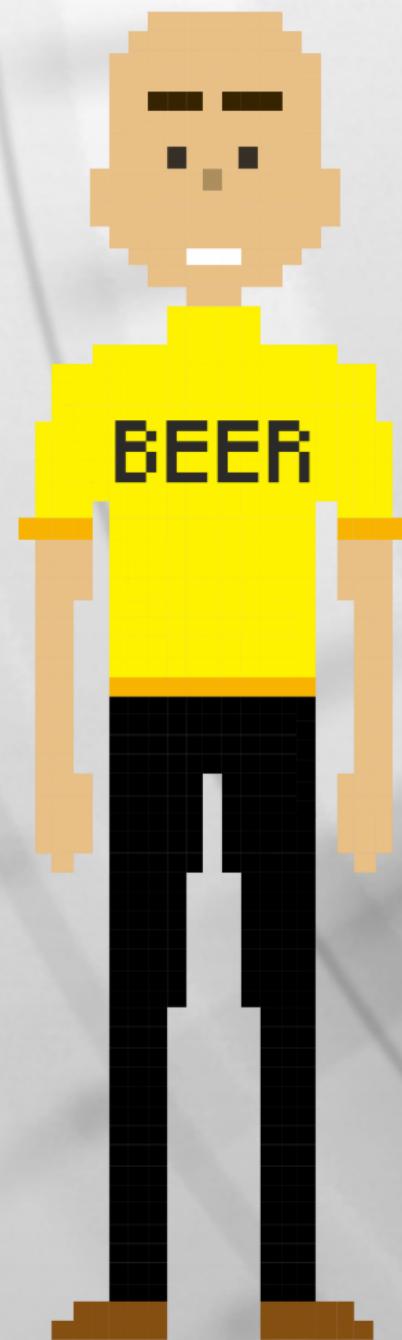


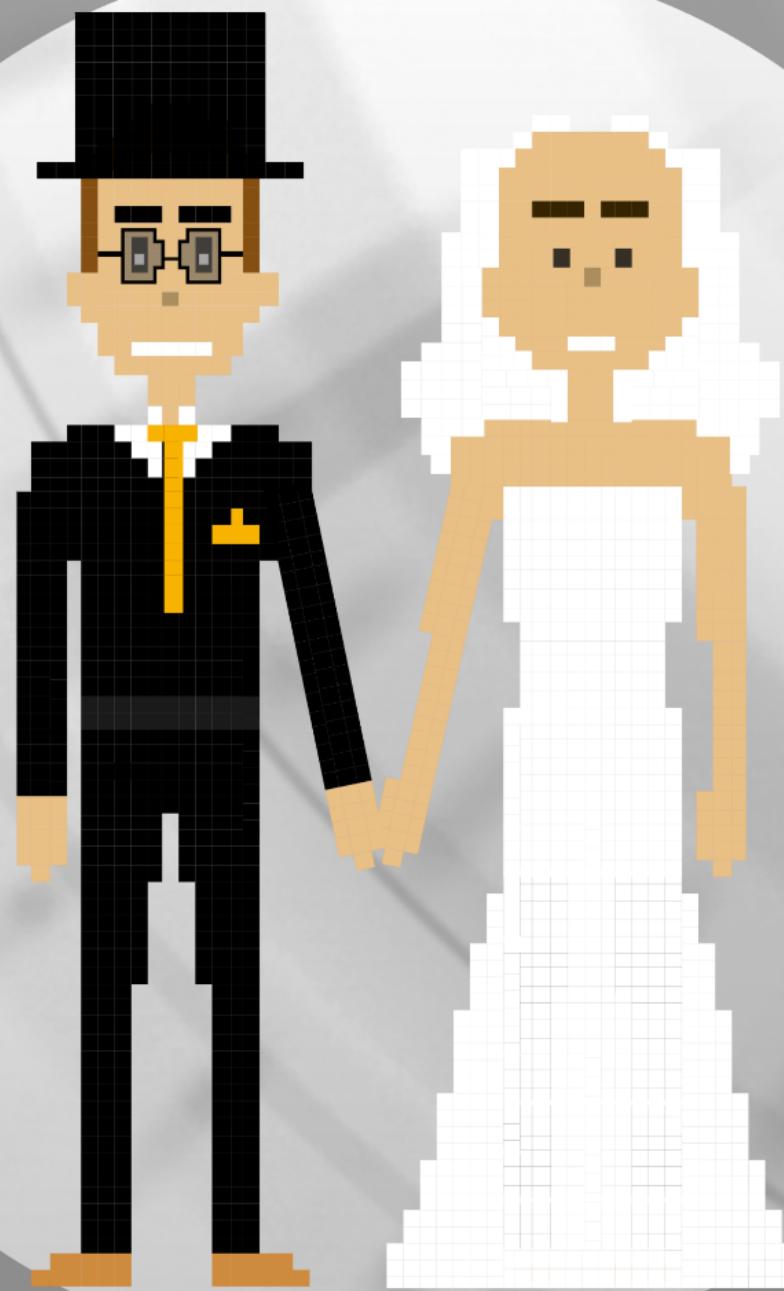


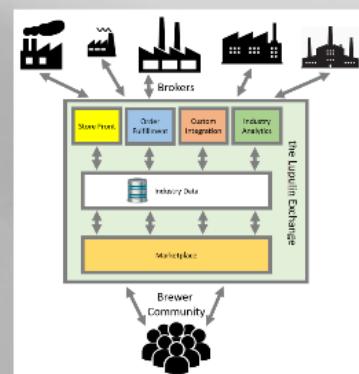


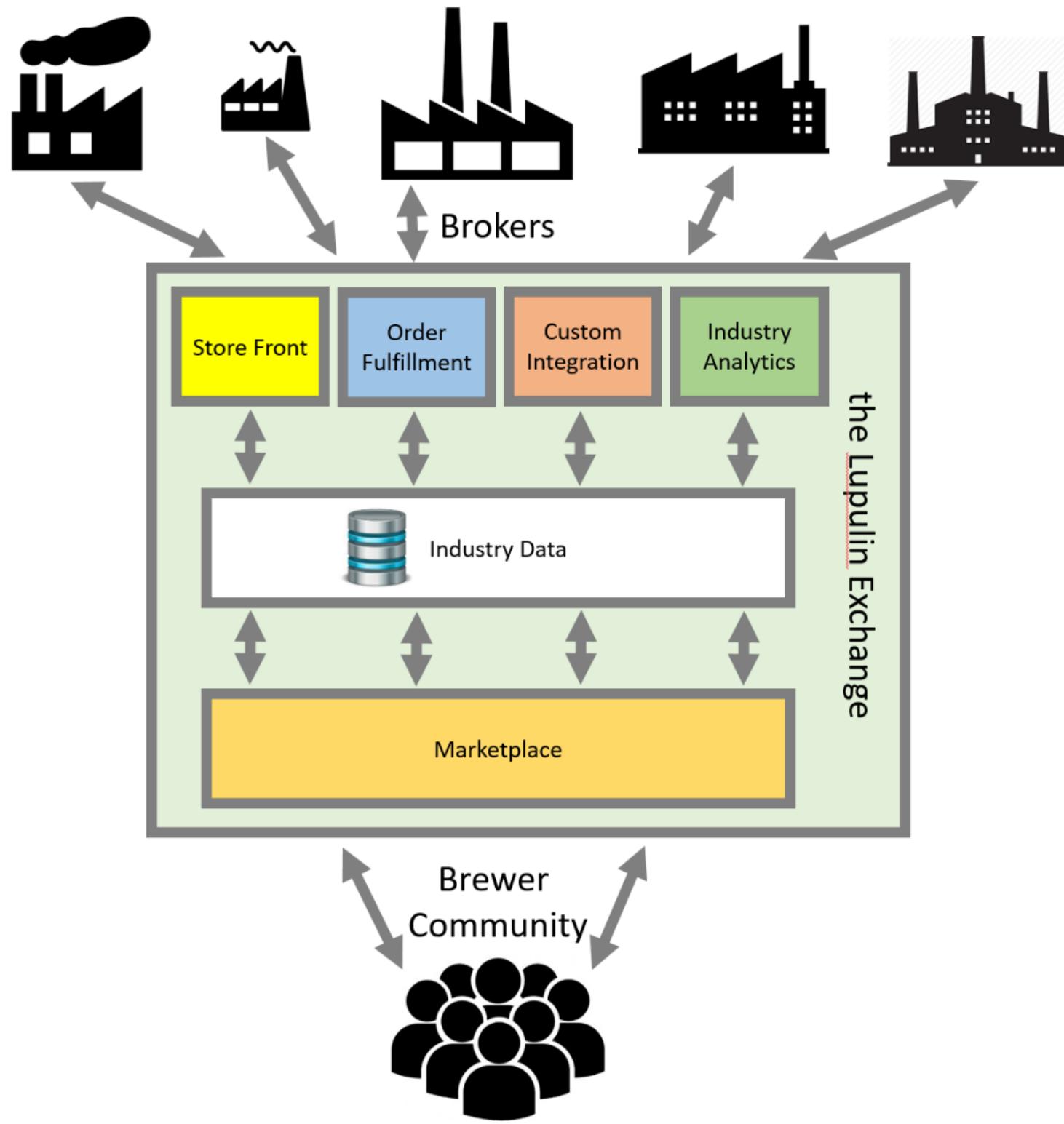


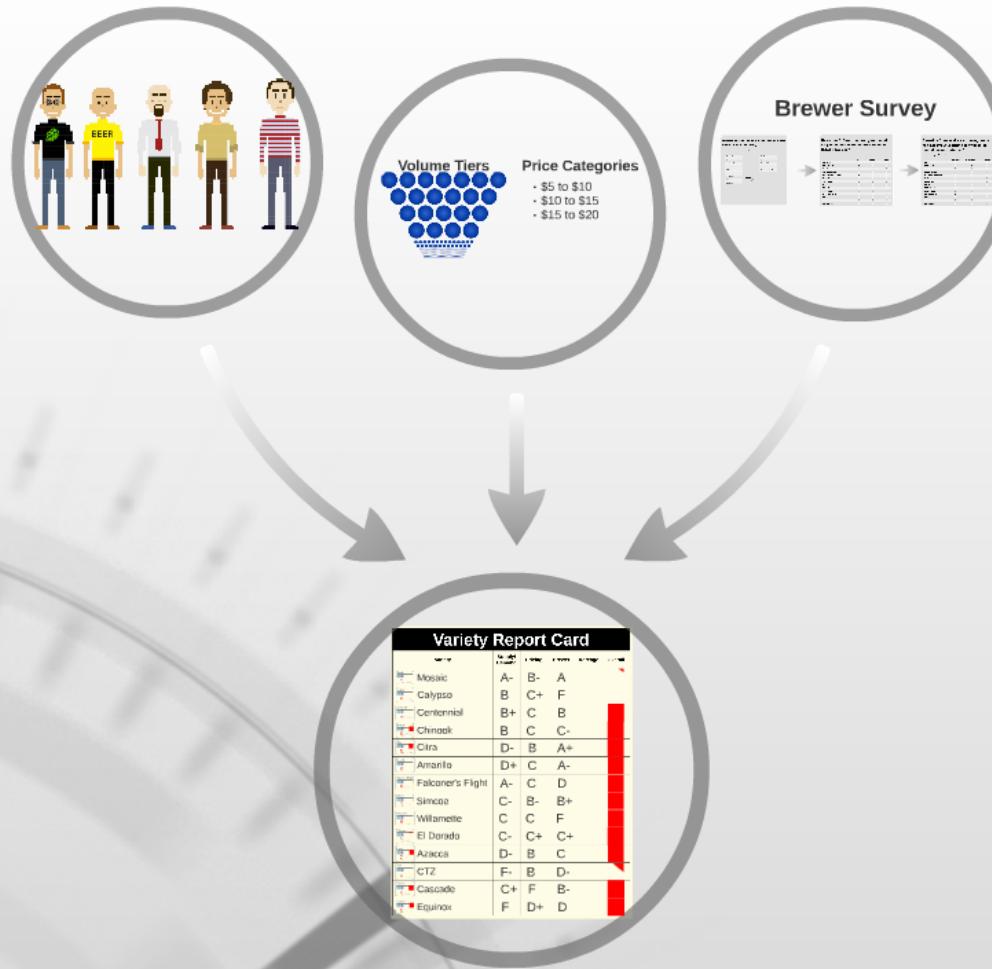






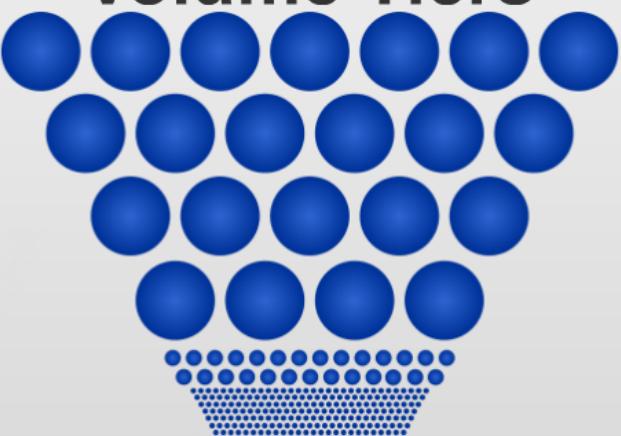






## [02] Market Report Card

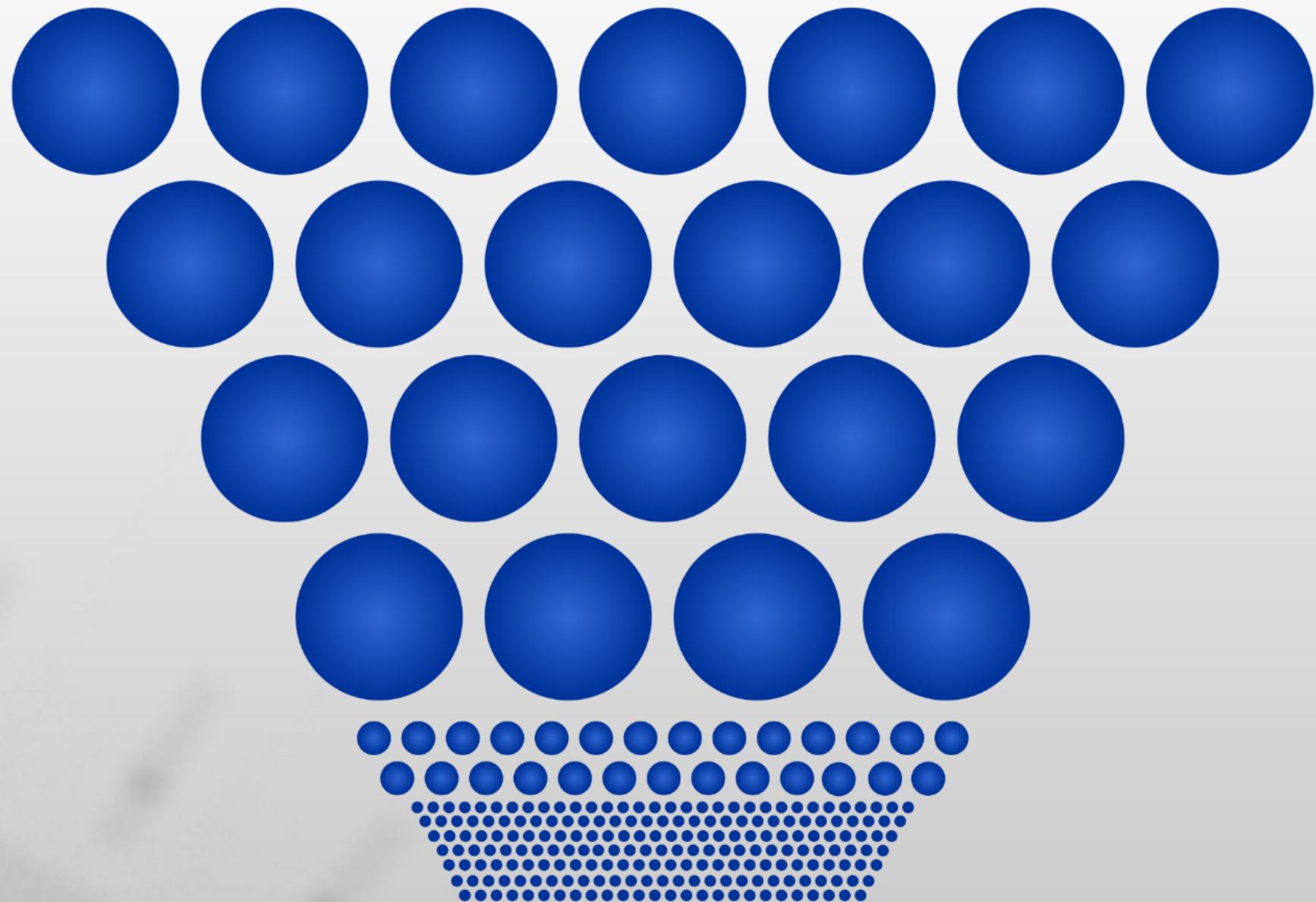
## Volume Tiers



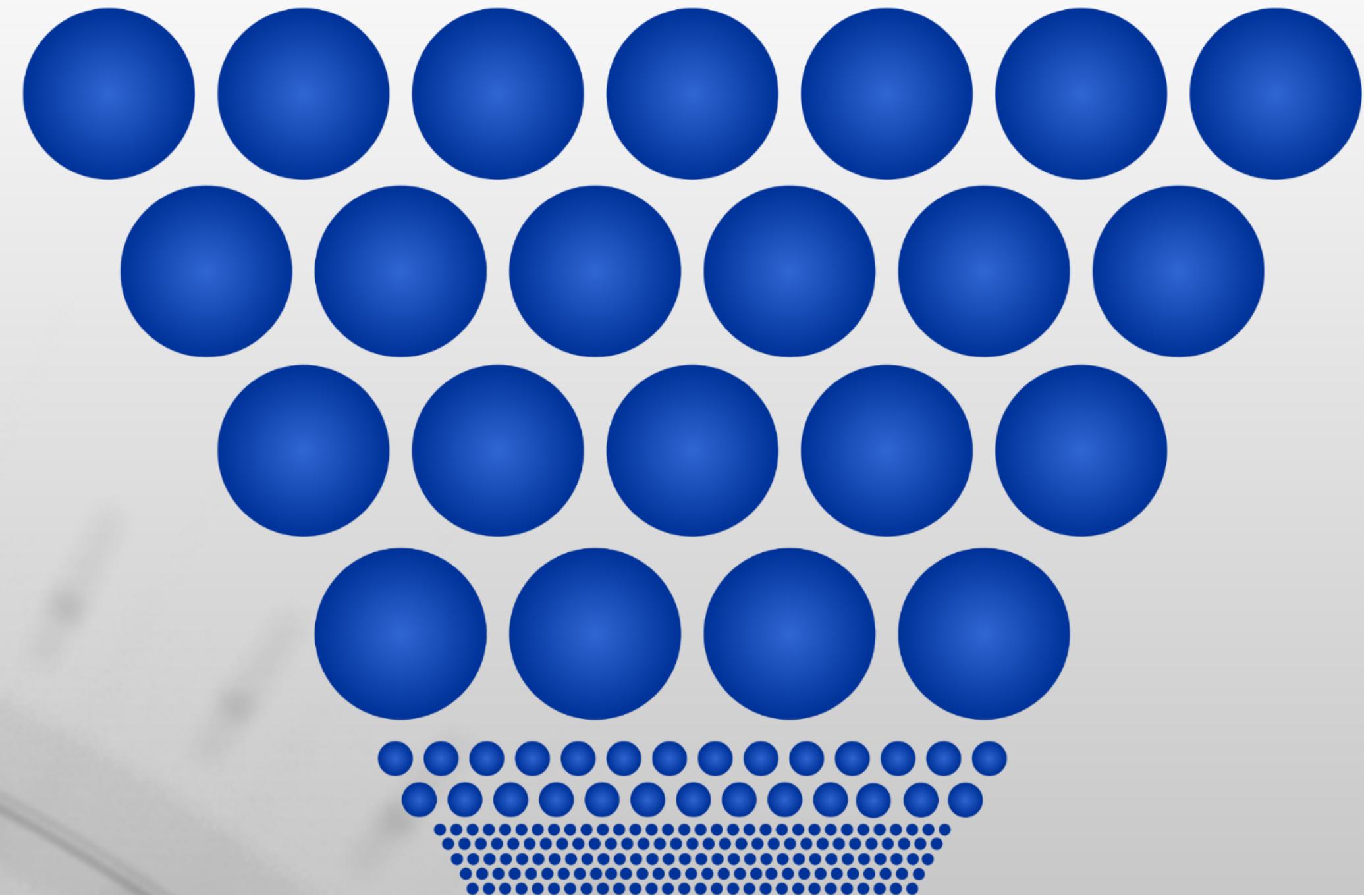
## Price Categories

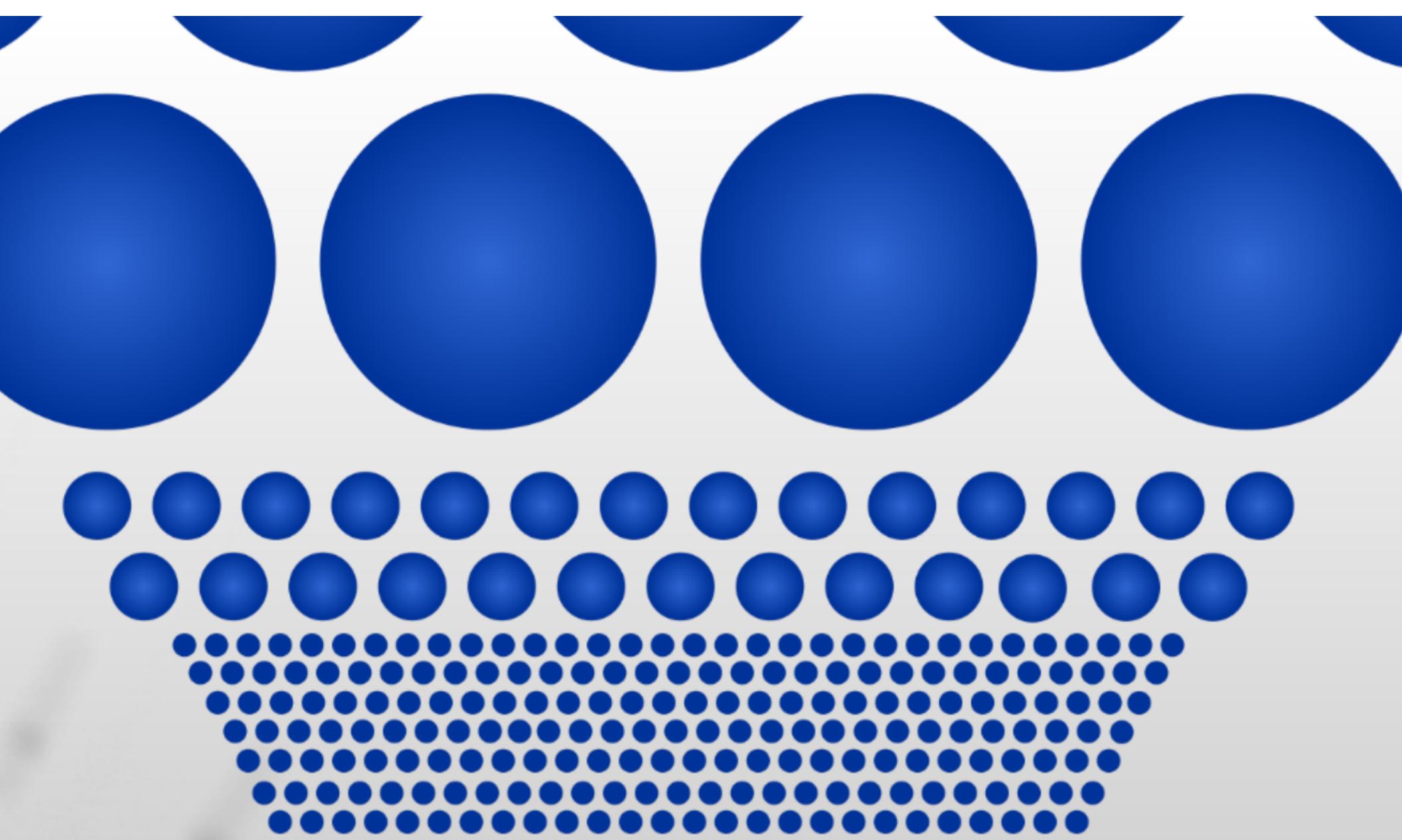
- \$5 to \$10
- \$10 to \$15
- \$15 to \$20

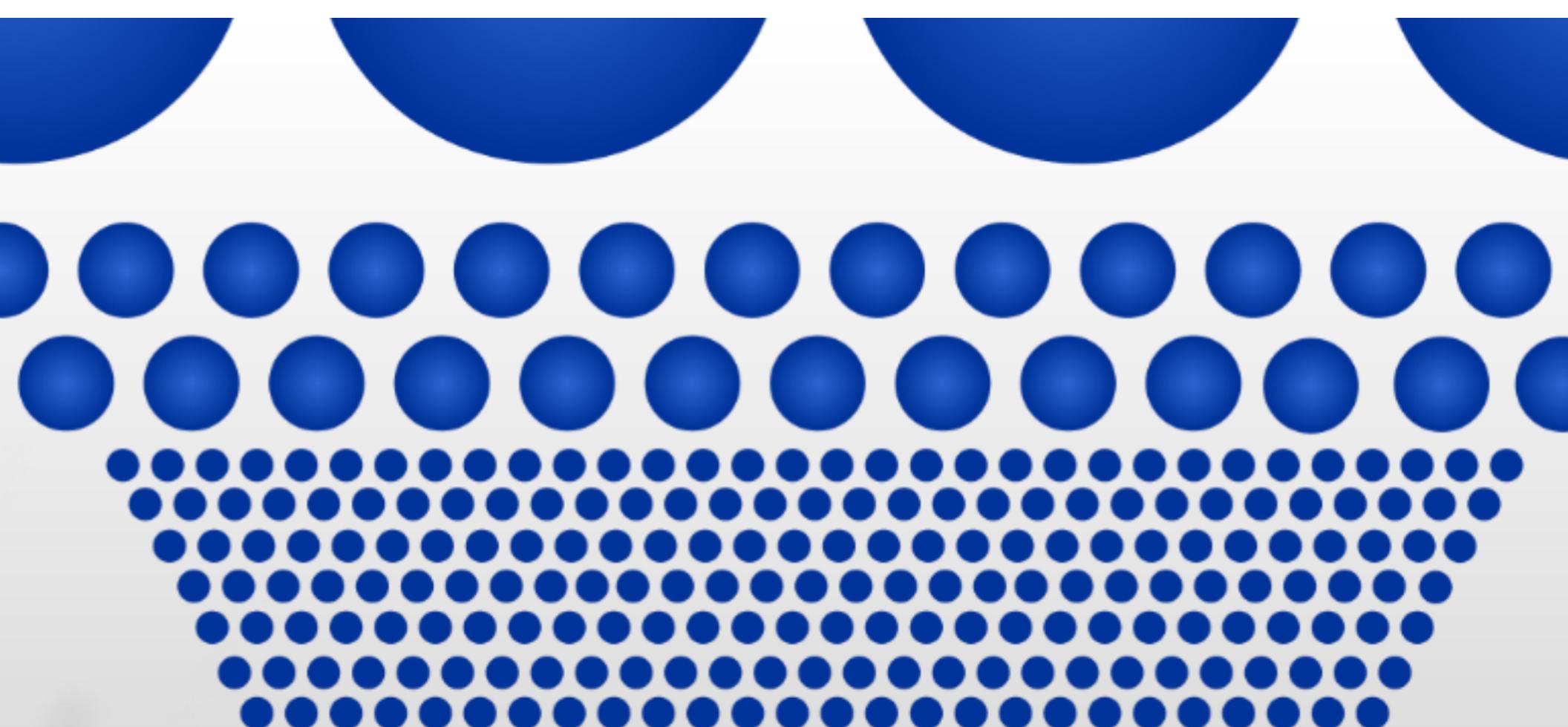
# Volume Tiers



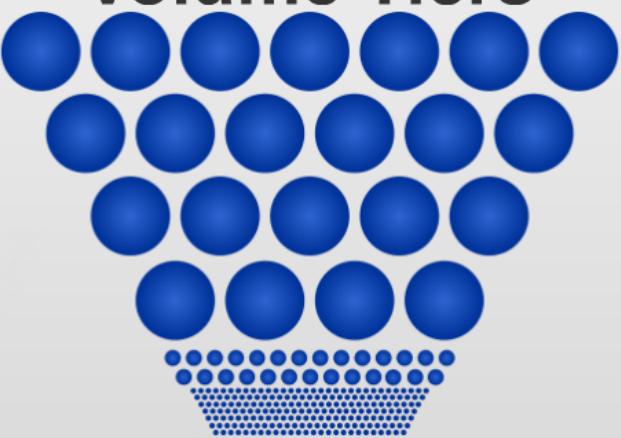
# Volume Tiers







## Volume Tiers



## Price Categories

- \$5 to \$10
- \$10 to \$15
- \$15 to \$20

# Brewer Survey

**Question 1: Rank the varieties you use most in your brewery**

Only rank varieties you use.

US Avari	1. US Chinook
US Yeast	2. US CTZ
US A Barley	3. US Cascade
US 2 Row	4. US Simcoe
US 3 Row	5. US Citra
US E. India	
US Dry Hopped	
US Pilsner	
US Azacca	
US Citrus	

**Question 2: Over the next year, what do you expect your position to be on these varieties?**

Leave varieties you don't use blank.

	Short	Balanced	Long
US Citra	○	×	○
US Amarillo	×	○	○
US Mosaic	○	○	○
US Willamette	○	×	○
US Falconer's Flight	○	○	○
US Chinook	○	○	○
US Simcoe	○	×	○
US CTZ	○	○	○
US El Dorado	○	○	○
US Cascade	○	○	×
US Centennial	○	○	×
US Equinox	○	○	○
US Arauco	○	○	○
US Citro	○	○	+

**Question 3: Over the next year, how do you expect your usage to change on the following varieties?**

Leave varieties you don't use blank.

	Decreasing	Stay the Same	Increasing
US Citra	○	○	×
US Amarillo	○	○	○
US Mosaic	○	○	○
US Willamette	*	○	○
US Falconer's Flight	○	○	○
US Chinook	○	○	○
US Simcoe	○	○	○
US CTZ	○	○	○
US El Dorado	○	○	○
US Cascade	○	×	○
US Centennial	*	○	○
US Equinox	○	○	○
US Arauco	○	○	○
US Citro	○	○	○

# Question 1: Rank the varieties you use most in your brewery

*Only move varieties you use to the right*

- US Amarillo
- US Mosaic
- US Willamette
- US Chinook
- US El Dorado
- US Centennial
- US Equinox
- US Azacca
- US Calypso



1. US Citra
2. US CTZ
3. US Cascade
4. US Simcoe
5. US Falconer's Flight

## **Question 2: Over the next year, what do you expect your position to be on these varieties?**

*Leave varieties you don't use blank*

	Short	Balanced	Long
<b>US Citra</b>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
<b>US Amarillo</b>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>US Mosaic</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>US Willamette</b>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
<b>US Falconer's Flight</b>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>US Chinook</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>US Simcoe</b>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
<b>US CTZ</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>US El Dorado</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>US Cascade</b>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
<b>US Centennial</b>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
<b>US Equinox</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>US Azacca</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>US Calypso</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

# **Question 3: Over the next year, how do you expect your usage to change on the following varieties?**

*Leave varieties you don't use blank*

	Decreasing	Stay the Same	Increase
<b>US Citra</b>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
<b>US Amarillo</b>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
<b>US Mosaic</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>US Willamette</b>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>US Falconer's Flight</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>US Chinook</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>US Simcoe</b>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
<b>US CTZ</b>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
<b>US El Dorado</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>US Cascade</b>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
<b>US Centennial</b>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>US Equinox</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>US Azacca</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>US Calypso</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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US E. India	6. US Amarillo
US Dry Hopped	7. US Mosaic
US Pilsner	8. US Willamette
US Azacca	9. US Falconer's Flight
US Citra	10. US Chinook

**Question 2: Over the next year, what do you expect your position to be on these varieties?**

Leave varieties you don't use blank.

	Short	Balanced	Long
US Citra	○	×	○
US Amarillo	×	○	○
US Mosaic	○	○	○
US Willamette	○	×	○
US Falconer's Flight	○	○	○
US Chinook	○	○	○
US Simcoe	○	×	○
US CTZ	○	○	○
US El Dorado	○	○	○
US Cascade	○	○	×
US Centennial	○	○	×
US Equinox	○	○	○
US Arauco	○	○	○
US Calypso	○	○	+

**Question 3: Over the next year, how do you expect your usage to change on the following varieties?**

Leave varieties you don't use blank.

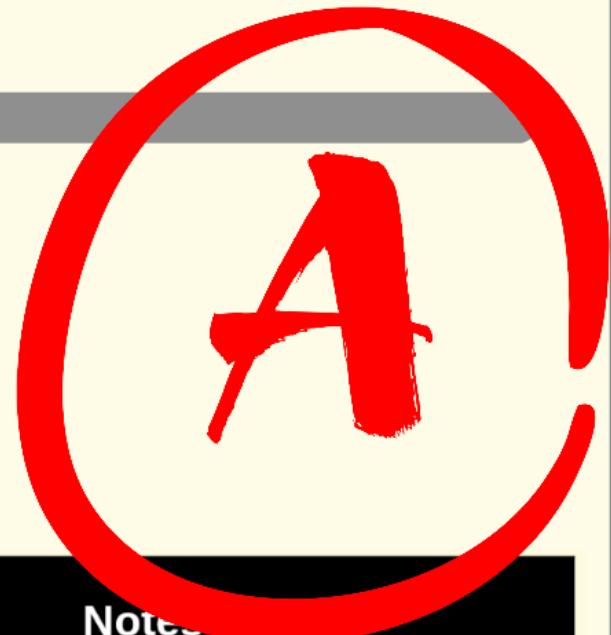
	Decreasing	Stay the Same	Increasing
US Citra	○	○	×
US Amarillo	○	○	○
US Mosaic	○	○	○
US Willamette	*	○	○
US Falconer's Flight	○	○	○
US Chinook	○	○	○
US Simcoe	○	○	○
US CTZ	○	○	○
US El Dorado	○	○	○
US Cascade	○	×	○
US Centennial	*	○	○
US Equinox	○	○	○
US Arauco	○	○	○
US Calypso	○	○	○

# Variety Report Card

Variety	Supply/ Demand	Pricing	Brewer	Acreage	Overall
Mosaic 	A-	B-	A		<span style="border: 1px solid red; border-radius: 50%; padding: 2px;">A</span>
Calypso 	B	C+	F		<span style="border: 1px solid red; border-radius: 50%; padding: 2px;">A</span>
Centennial 	B+	C	B		<span style="border: 1px solid red; border-radius: 50%; padding: 2px;">B+</span>
Chinook 	B	C	C-		<span style="border: 1px solid red; border-radius: 50%; padding: 2px;">B</span>
Citra 	D-	B	A+		<span style="border: 1px solid red; border-radius: 50%; padding: 2px;">B</span>
Amarillo 	D+	C	A-		<span style="border: 1px solid red; border-radius: 50%; padding: 2px;">B-</span>
Falconer's Flight 	A-	C	D		<span style="border: 1px solid red; border-radius: 50%; padding: 2px;">B-</span>
Simcoe 	C-	B-	B+		<span style="border: 1px solid red; border-radius: 50%; padding: 2px;">B-</span>
Willamette 	C	C	F		<span style="border: 1px solid red; border-radius: 50%; padding: 2px;">B-</span>
El Dorado 	C-	C+	C+		<span style="border: 1px solid red; border-radius: 50%; padding: 2px;">C+</span>
Azacca 	D-	B	C		<span style="border: 1px solid red; border-radius: 50%; padding: 2px;">C</span>
CTZ 	F-	B	D-		<span style="border: 1px solid red; border-radius: 50%; padding: 2px;">C-</span>
Cascade 	C+	F	B-		<span style="border: 1px solid red; border-radius: 50%; padding: 2px;">D</span>
Equinox 	F	D+	D		<span style="border: 1px solid red; border-radius: 50%; padding: 2px;">D</span>

# Mosaic

Volume Tier	1 (#4)
Price Category	\$15-20
Hop Alert Rank	#3



	Grade	%tile	Data	Notes
Supply & Demand	(A-)	81	A small screenshot of a dashboard showing various charts and graphs related to supply and demand analysis.	
Pricing	(B-)	67	A small screenshot of a dashboard showing various charts and graphs related to pricing analysis.	
Brewer Data	(A)	92	A small screenshot of a dashboard showing various charts and graphs related to brewer data analysis.	2x Short to Long, 106x inc to dec
Acreage		82	A small screenshot of a dashboard showing various charts and graphs related to acreage analysis.	Demand can support faster growth

Volume Tier

1 (#4)

Price Category

\$15-20

Hop Alert Rank

#3

## Supply & Demand

A-

81



## Pricing

B-

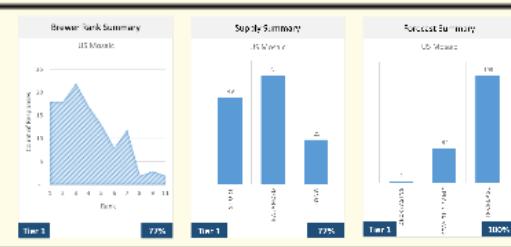
67



## Brewer Data

A

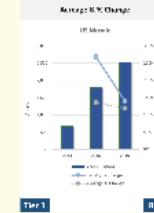
92



## Acreage

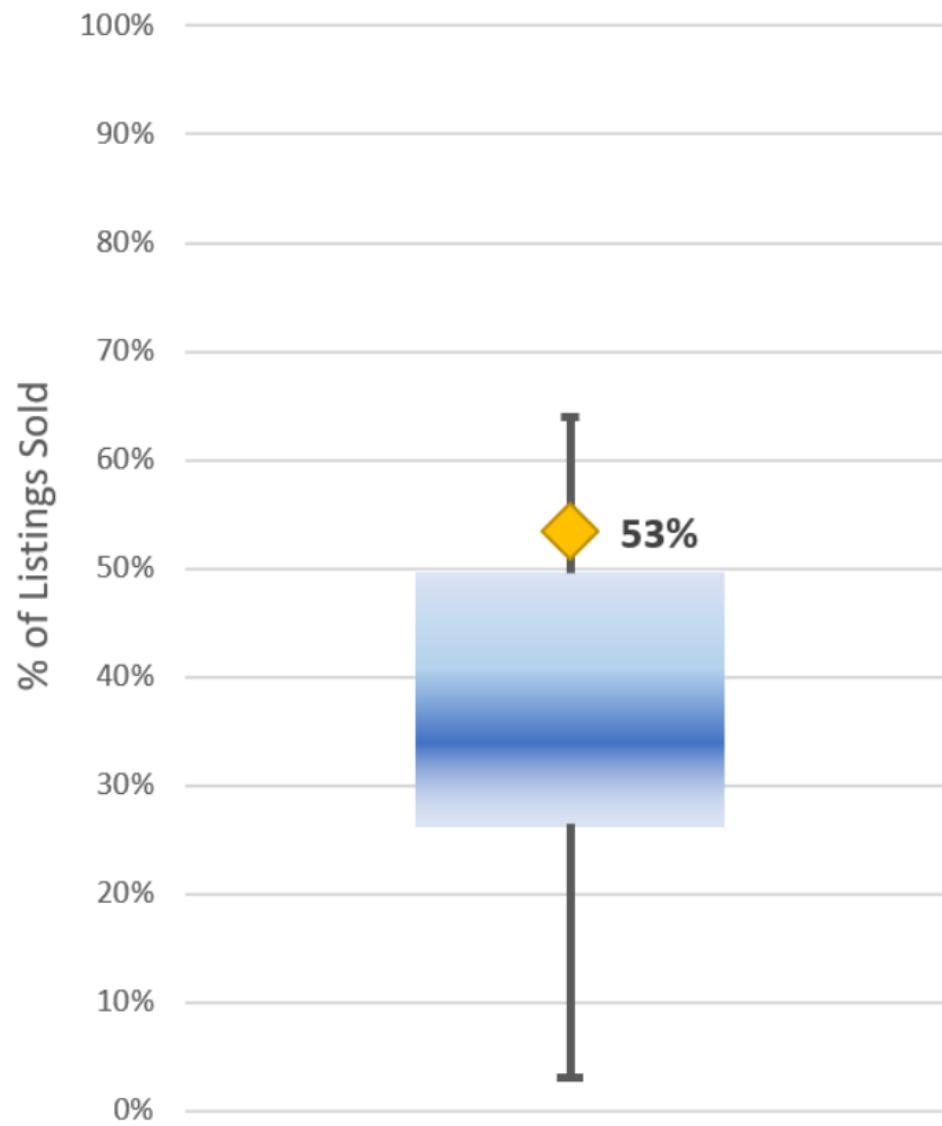


82



## % of Listings Sold vs. Average

### US Mosaic

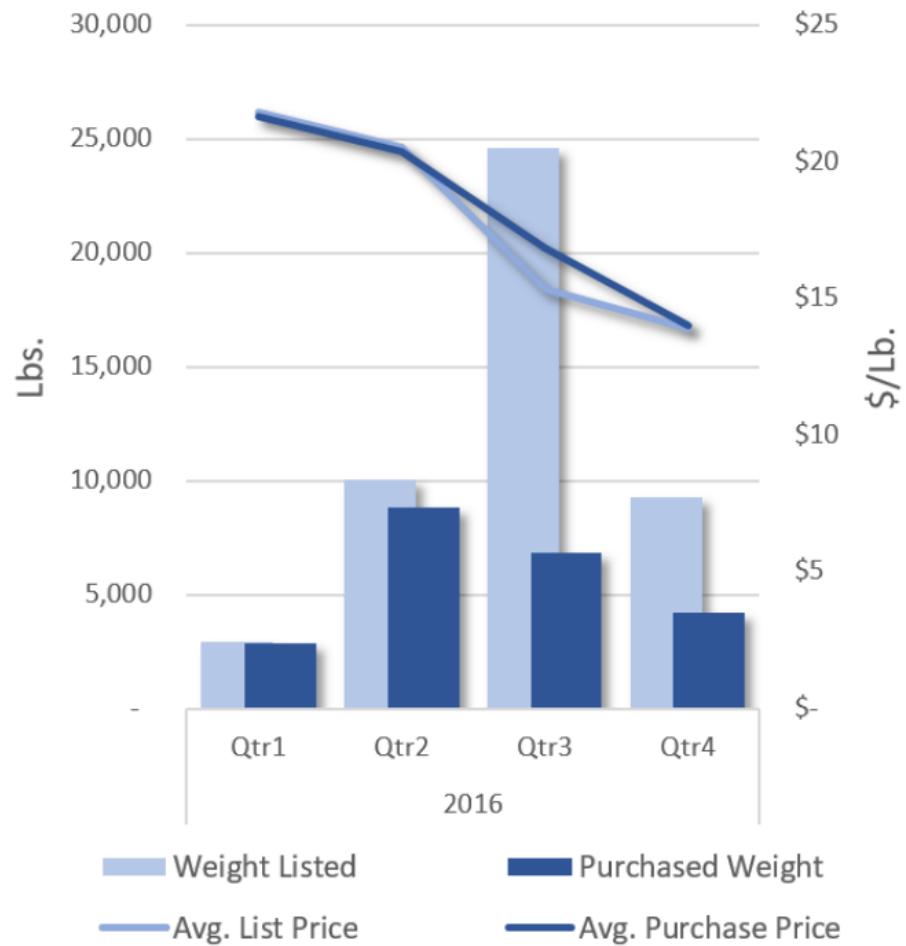


Tier 1

81%

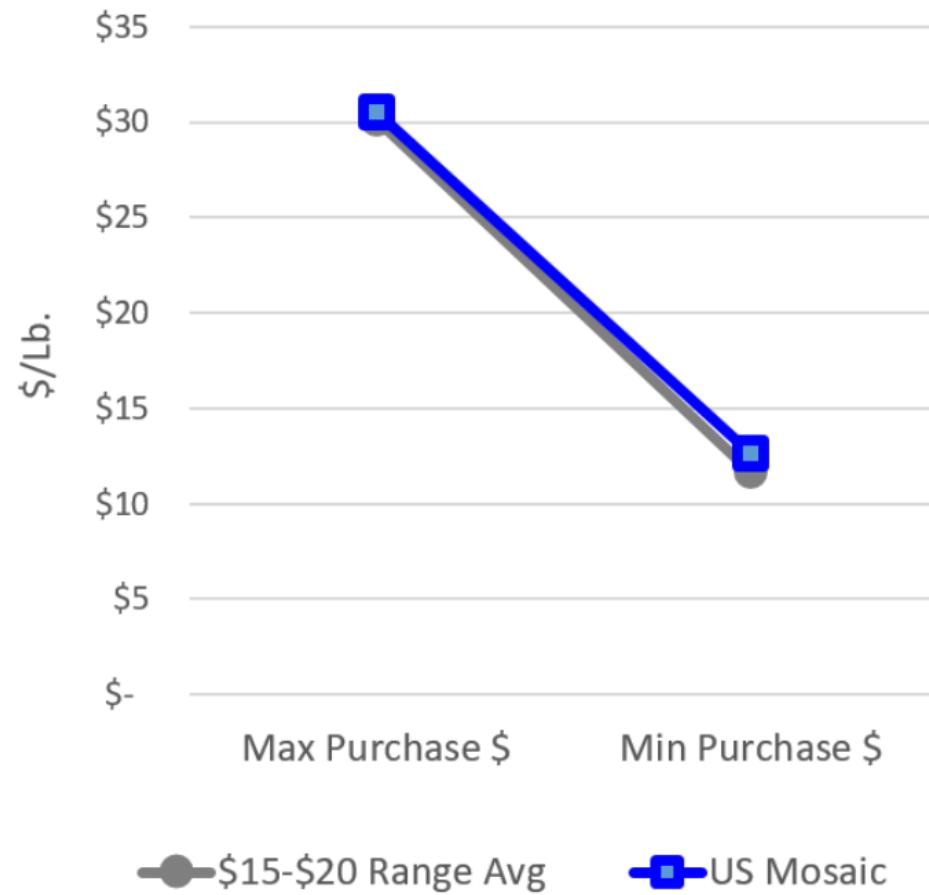
## Listed vs. Purchased Weight & Price

**US Mosaic**



## Purchase Price Value Retention

**US Mosaic**

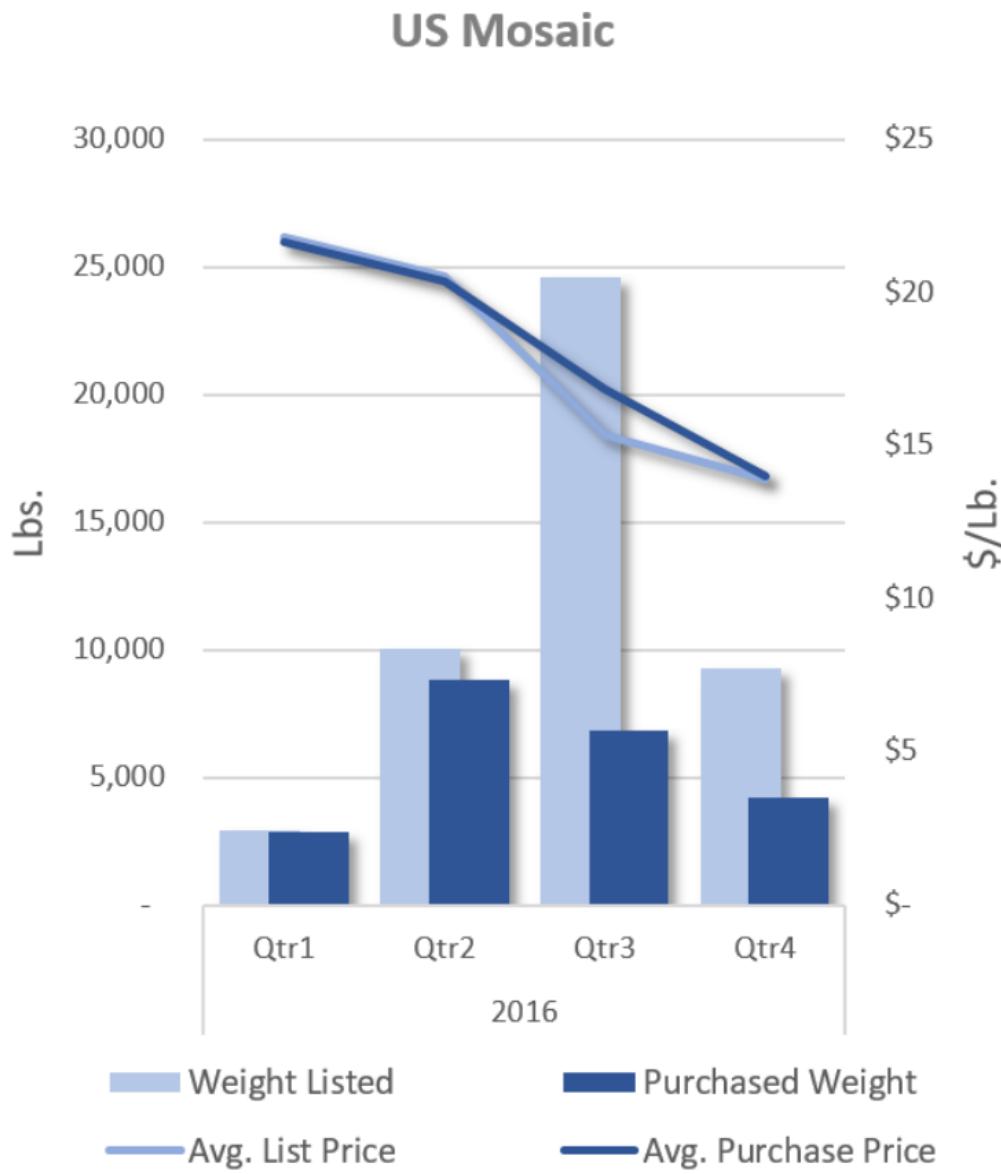


Tier 1

100%

33%

## Listed vs. Purchased Weight & Price

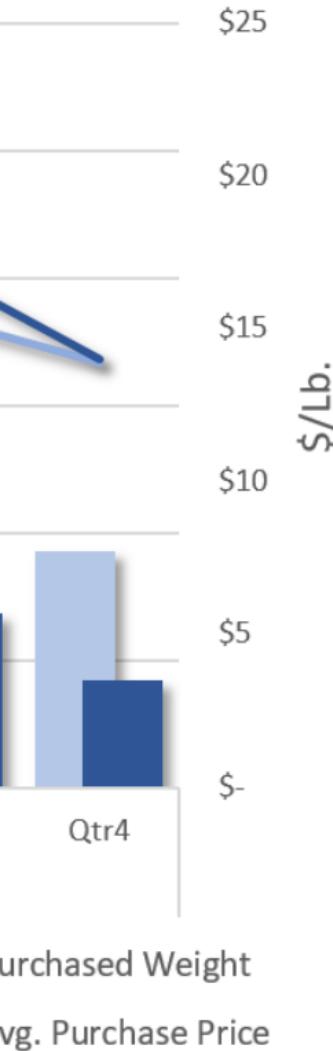


Tier 1

100%

Tier 1

## Weight & Price



## Purchase Price Value Retention



100%

Tier 1

33%

2016

Weight Listed  
Avg. List Price

Purchased Weight  
Avg. Purchase Price

\$15-\$20 Range Avg

US Mosaic

Tier 1

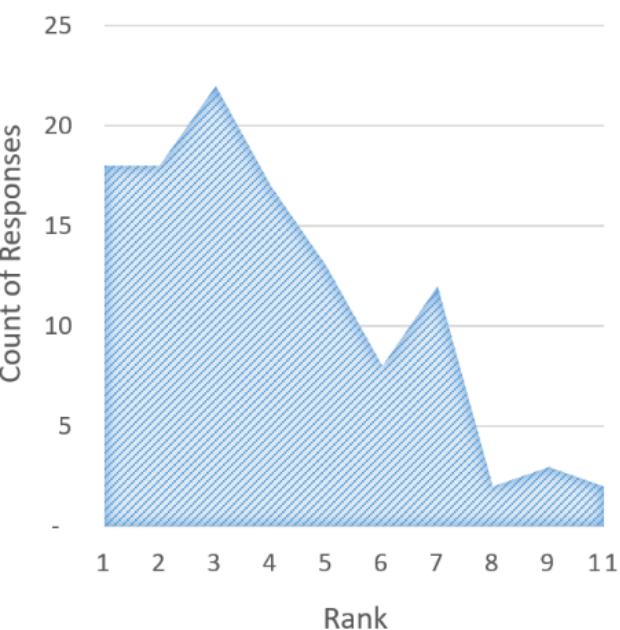
100%

Tier 1

33%

## Brewer Rank Summary

US Mosaic



Tier 1

77%

Tier 1

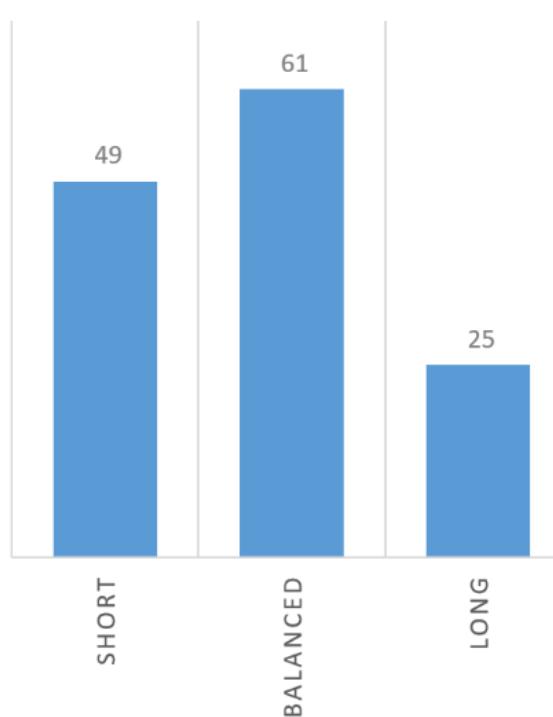
77%

Tier 1

100%

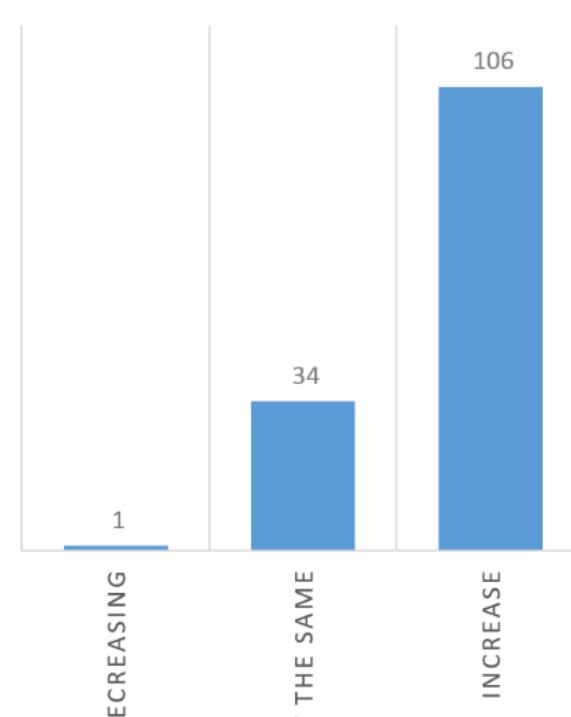
## Supply Summary

US Mosaic



## Forecast Summary

US Mosaic

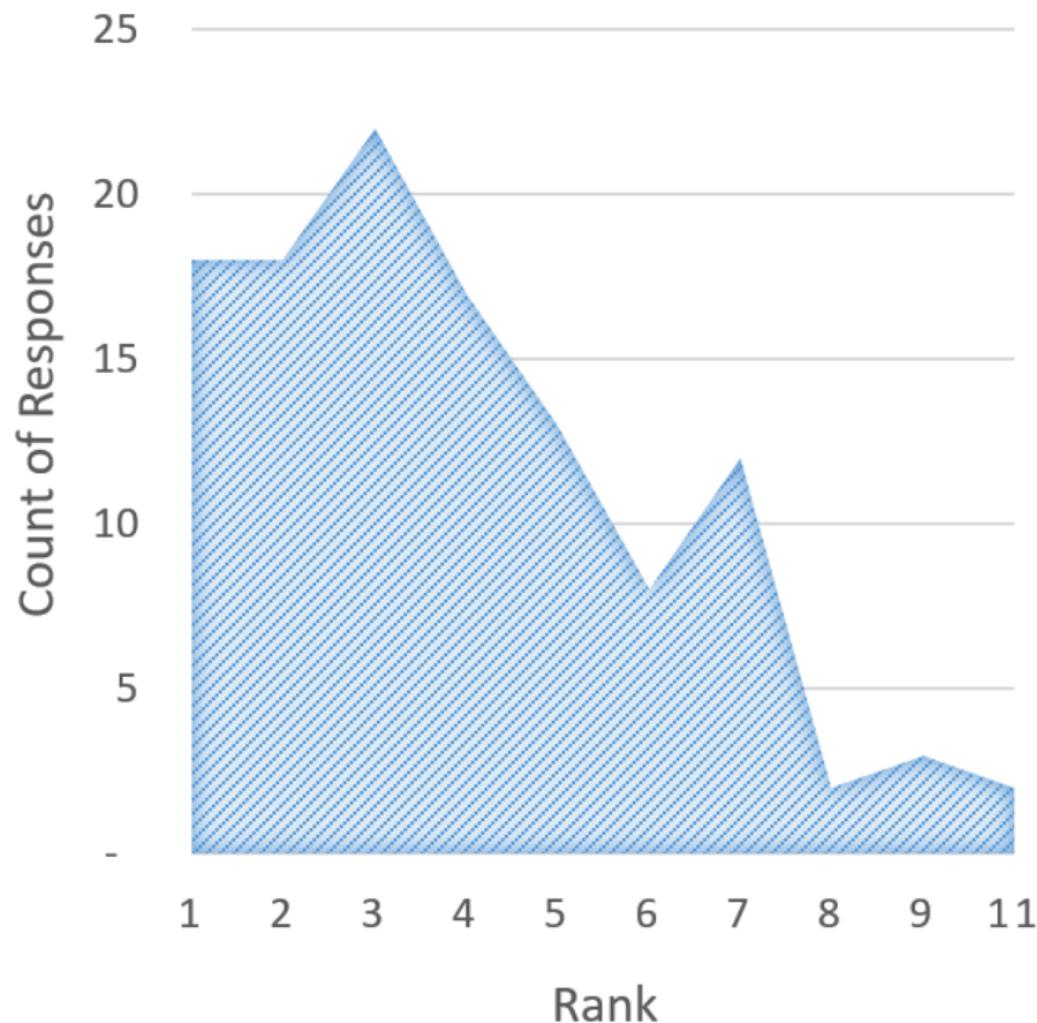


## Acreage &amp; % Change

US Mosaic

## Brewer Rank Summary

US Mosaic



Tier 1

77%

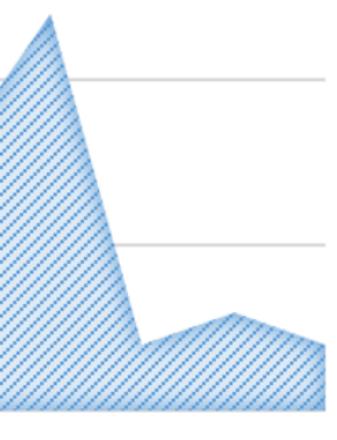
Tier 1

SHORT

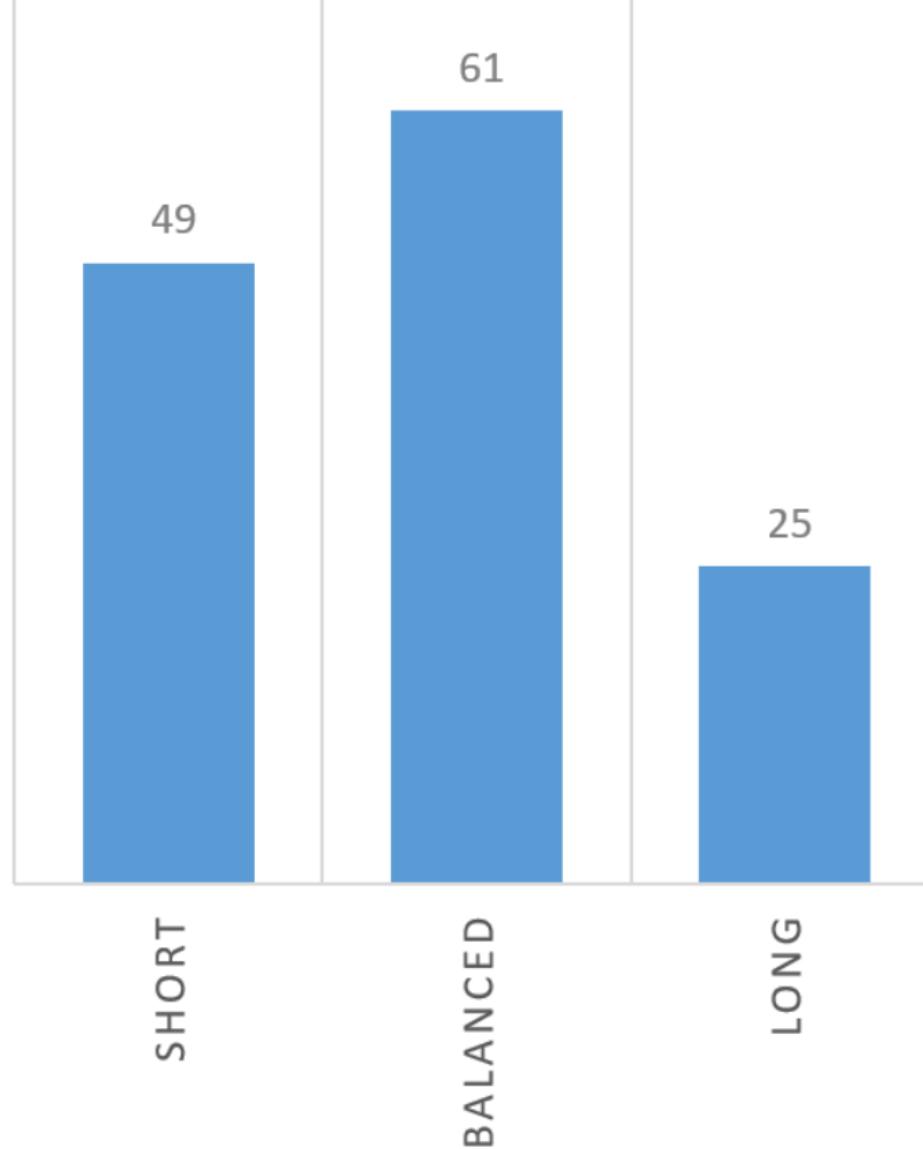
49

mary

## Supply Summary



### US Mosaic



77%

Tier 1

77%

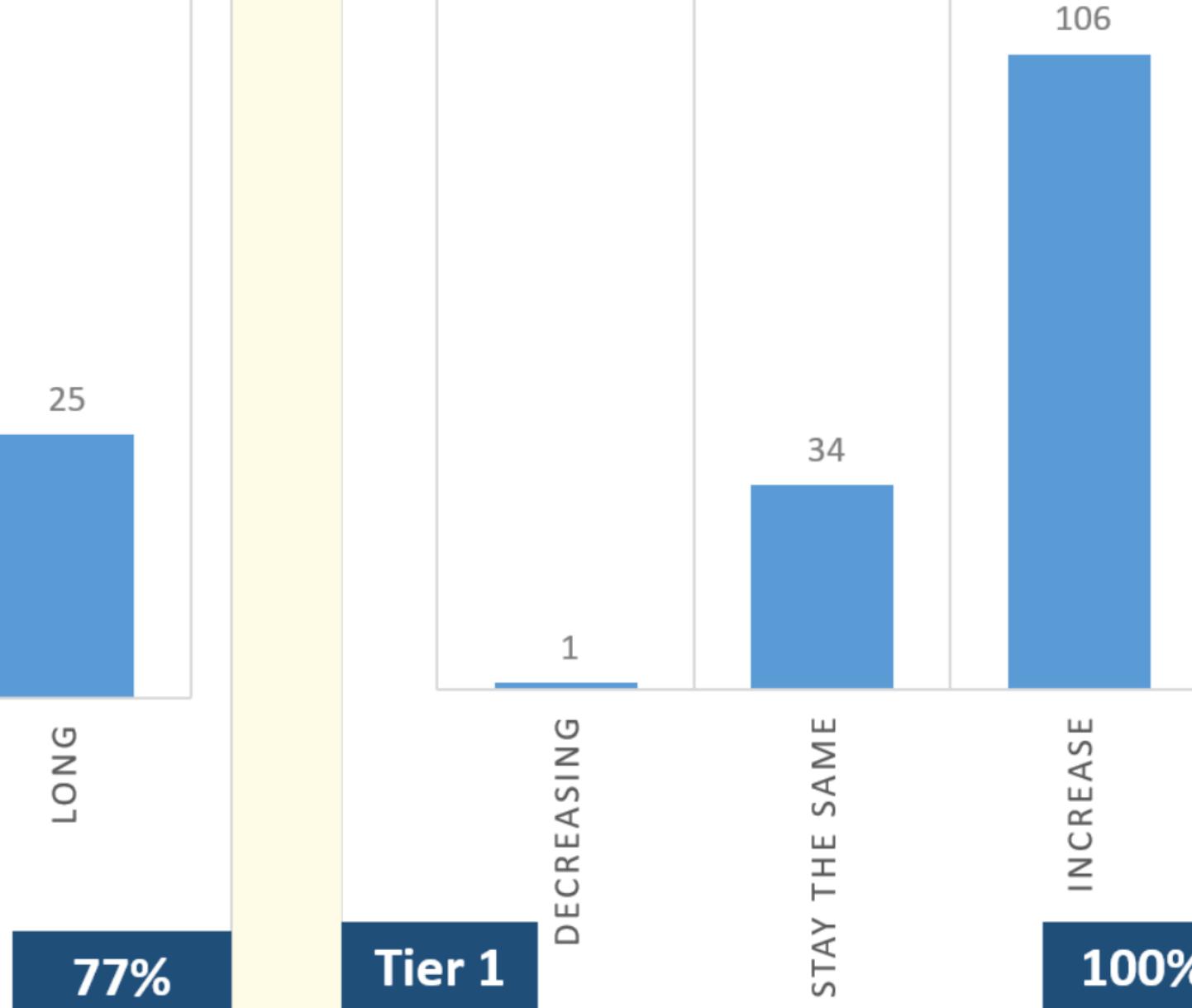
Tier 1

DECREASING

For

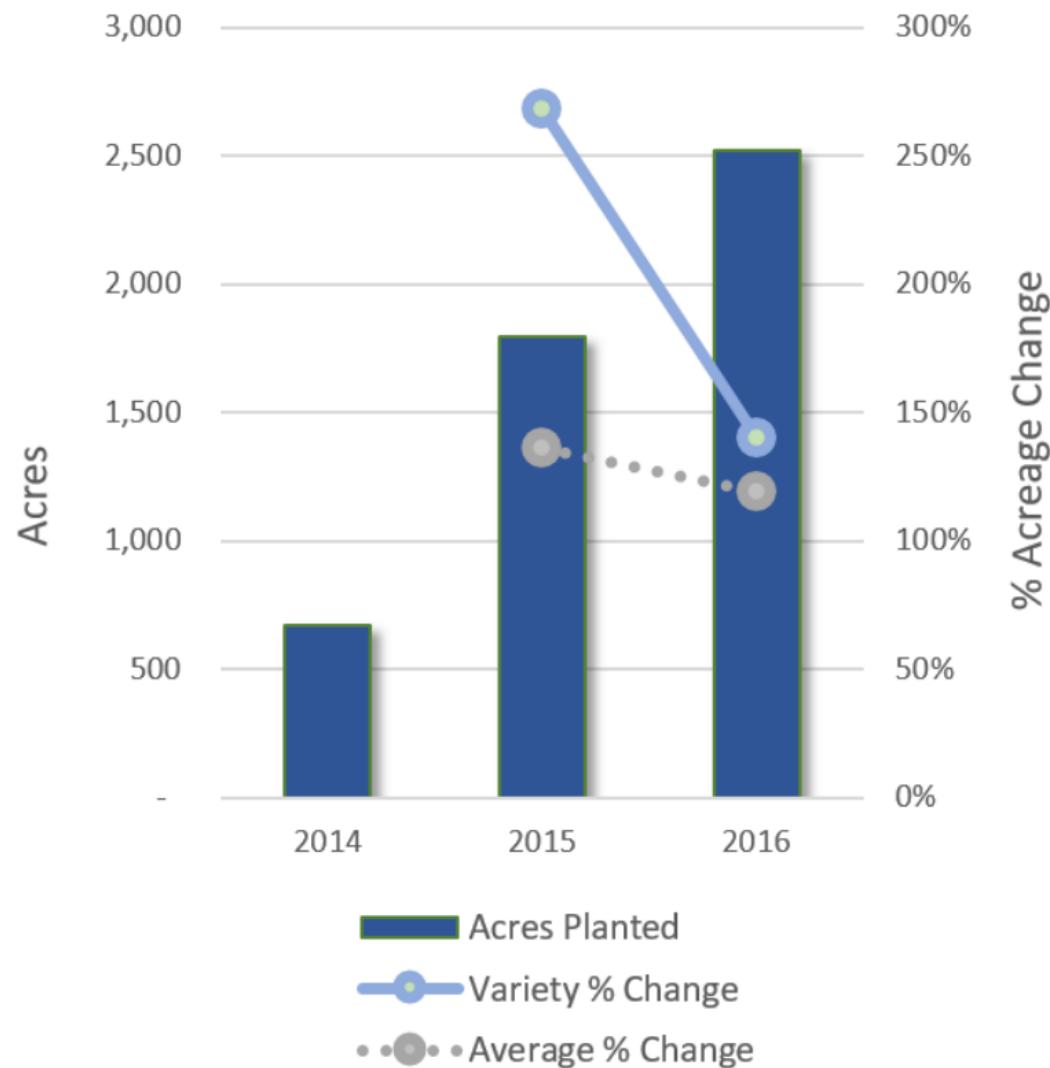
# Forecast Summary

## US Mosaic



## Acreage & % Change

### US Mosaic

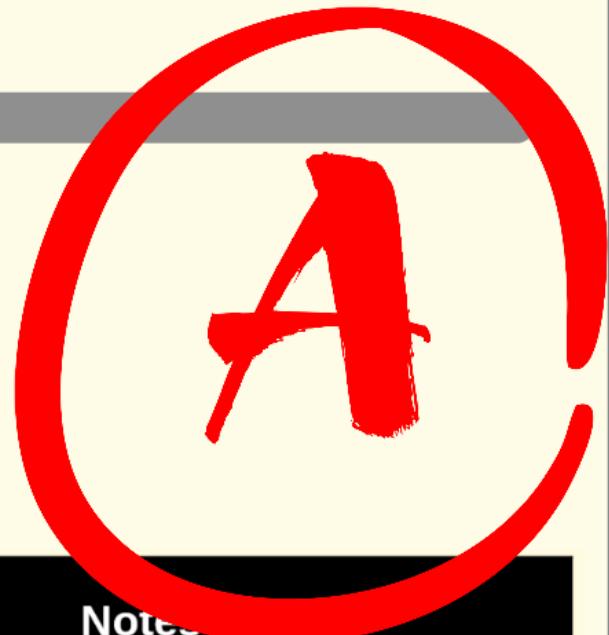


Tier 1

82%

# Mosaic

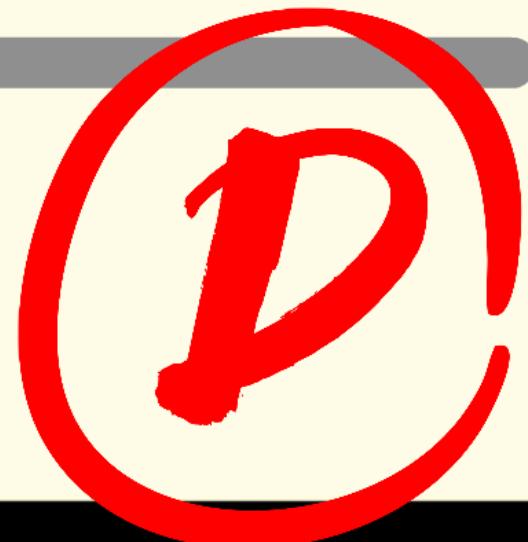
Volume Tier	1 (#4)
Price Category	\$15-20
Hop Alert Rank	#3



	Grade	%tile	Data	Notes
Supply & Demand	(A-)	81	A small screenshot of a data visualization showing various charts and graphs related to supply and demand analysis.	
Pricing	(B-)	67	A small screenshot of a data visualization showing various charts and graphs related to pricing analysis.	
Brewer Data	(A)	92	A small screenshot of a data visualization showing various charts and graphs related to brewer data analysis.	2x Short to Long, 106x inc to dec
Acreage		82	A small screenshot of a data visualization showing various charts and graphs related to acreage analysis.	Demand can support faster growth

# Cascade

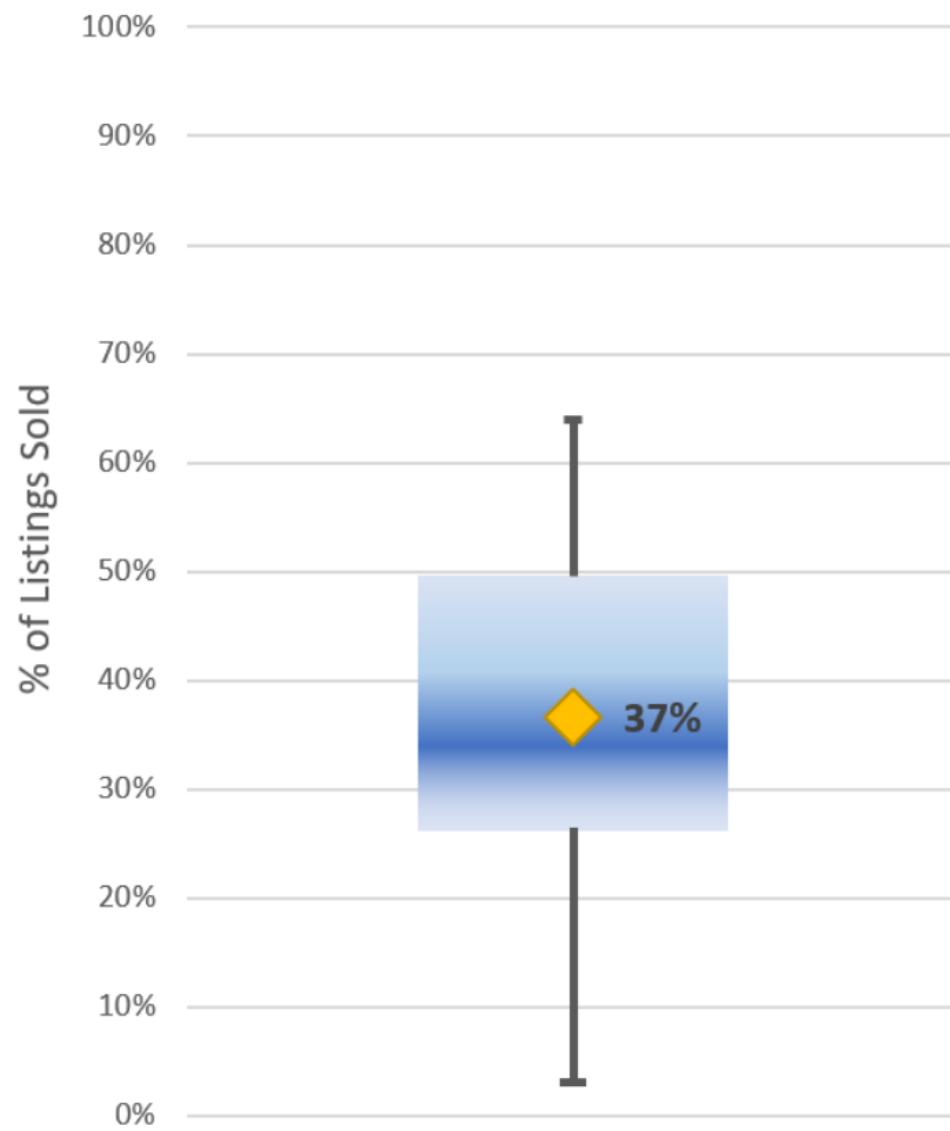
Volume Tier	1 (#2)
Price Category	\$5-10
Hop Alert Rank	#10



	Grade	%tile	Data	Notes
Supply & Demand	C+	56		
Pricing	F	9		
Brewer Data	B-	62		3x Long to Short
Acreage		36		Surprising uptick in 2016

## % of Listings Sold vs. Average

### US Cascade

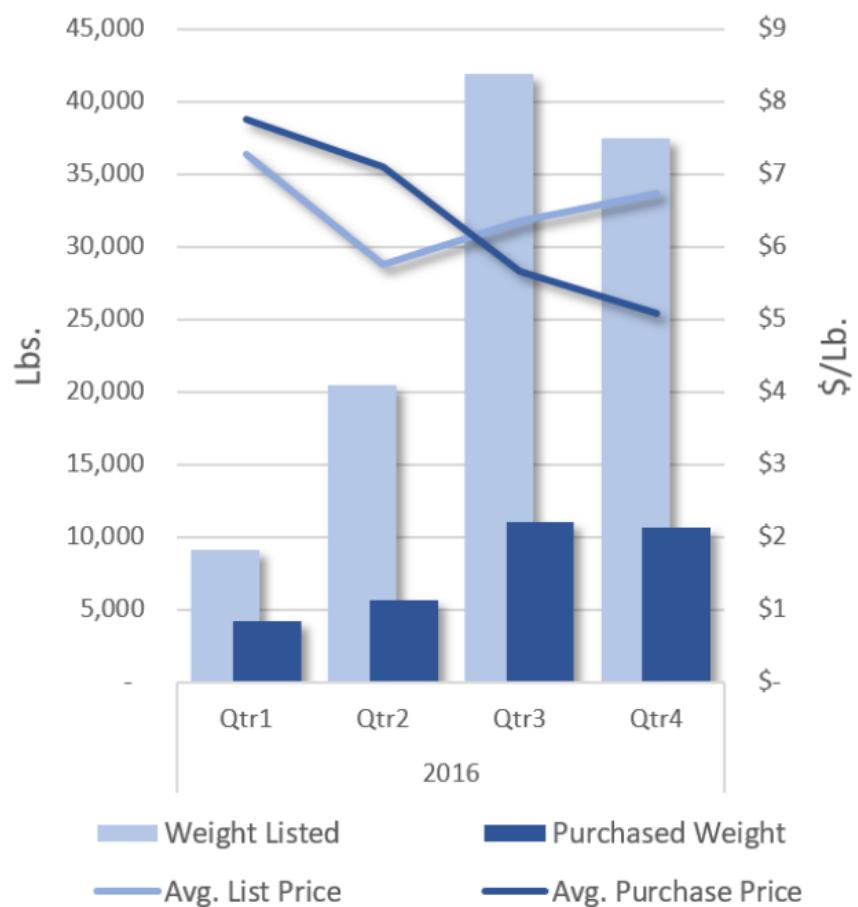


Tier 1

56%

## Listed vs. Purchased Weight & Price

**US Cascade**

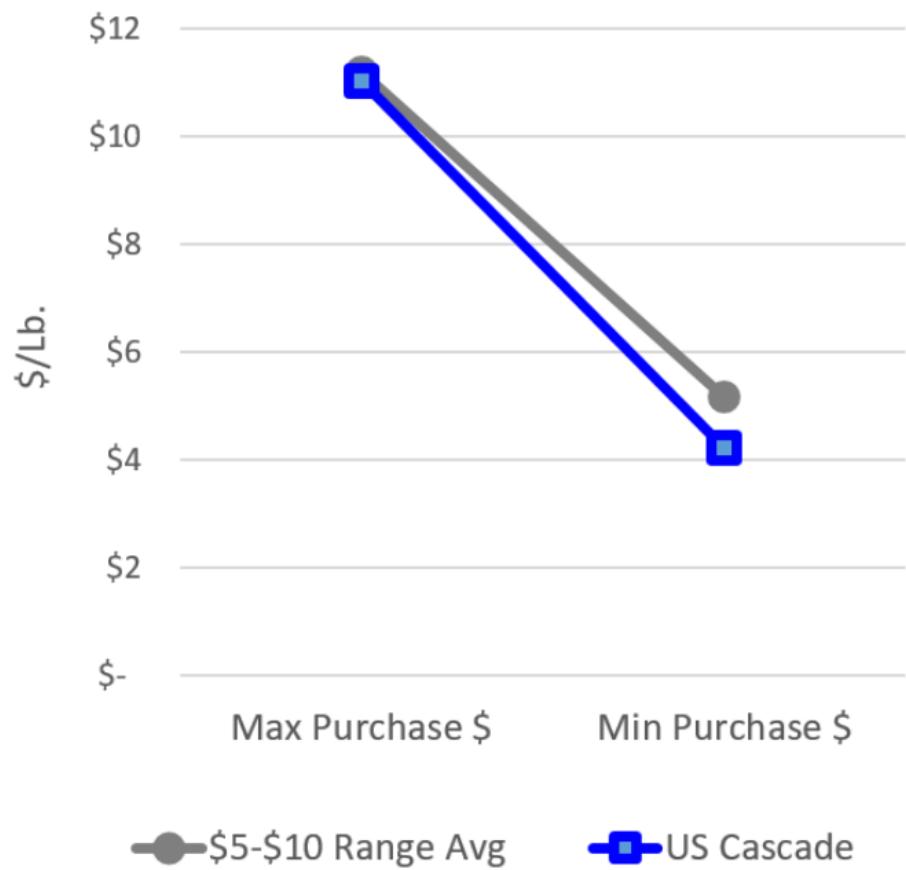


Tier 1

6%

## Purchase Price Value Retention

**US Cascade**



Tier 1

13%

2016

Weight Listed

Purchased Weight

Avg. List Price

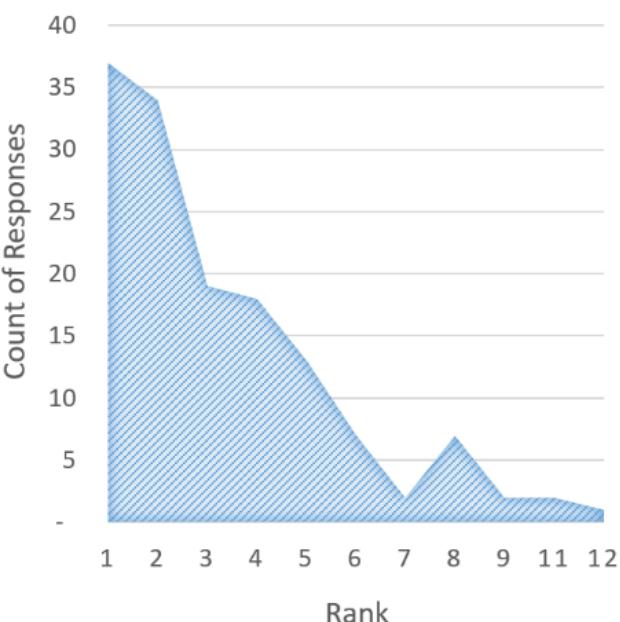
Avg. Purchase Price

\$5-\$10 Range Avg

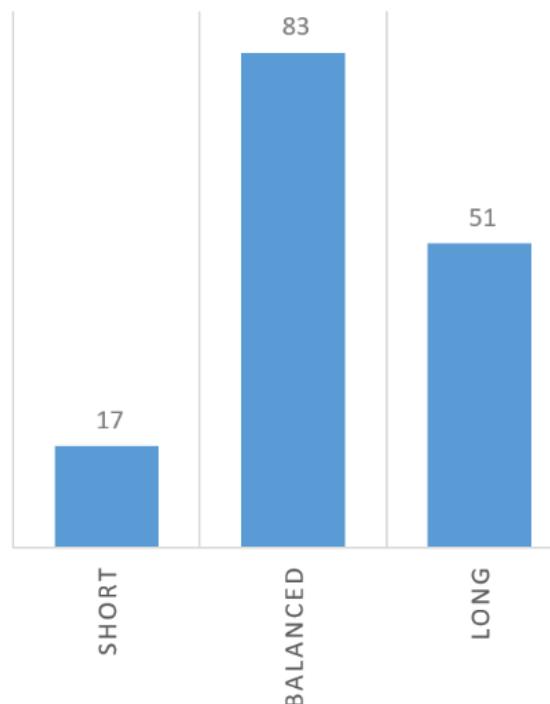
US Cascade

**Tier 1****6%****Tier 1****13%****Brewer Rank Summary**

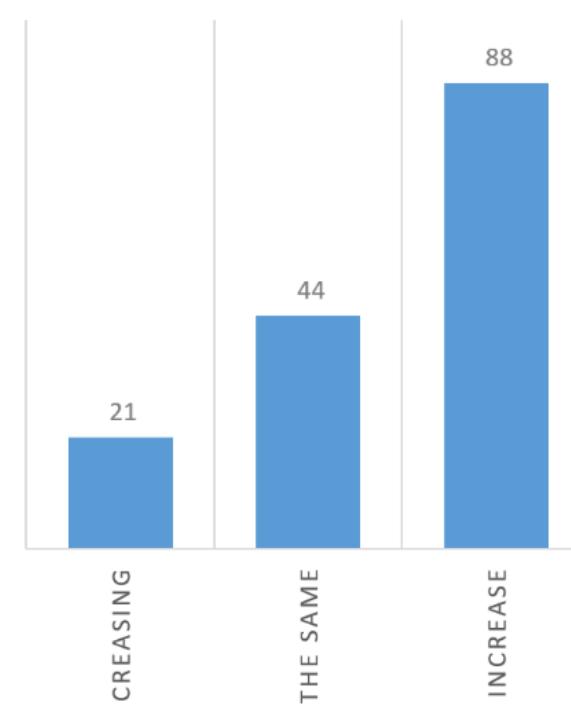
US Cascade

**Tier 1****100%****Supply Summary**

US Cascade

**Tier 1****Tier 1****15%****Forecast Summary**

US Cascade

**Tier 1****46%****Acreage & % Change**

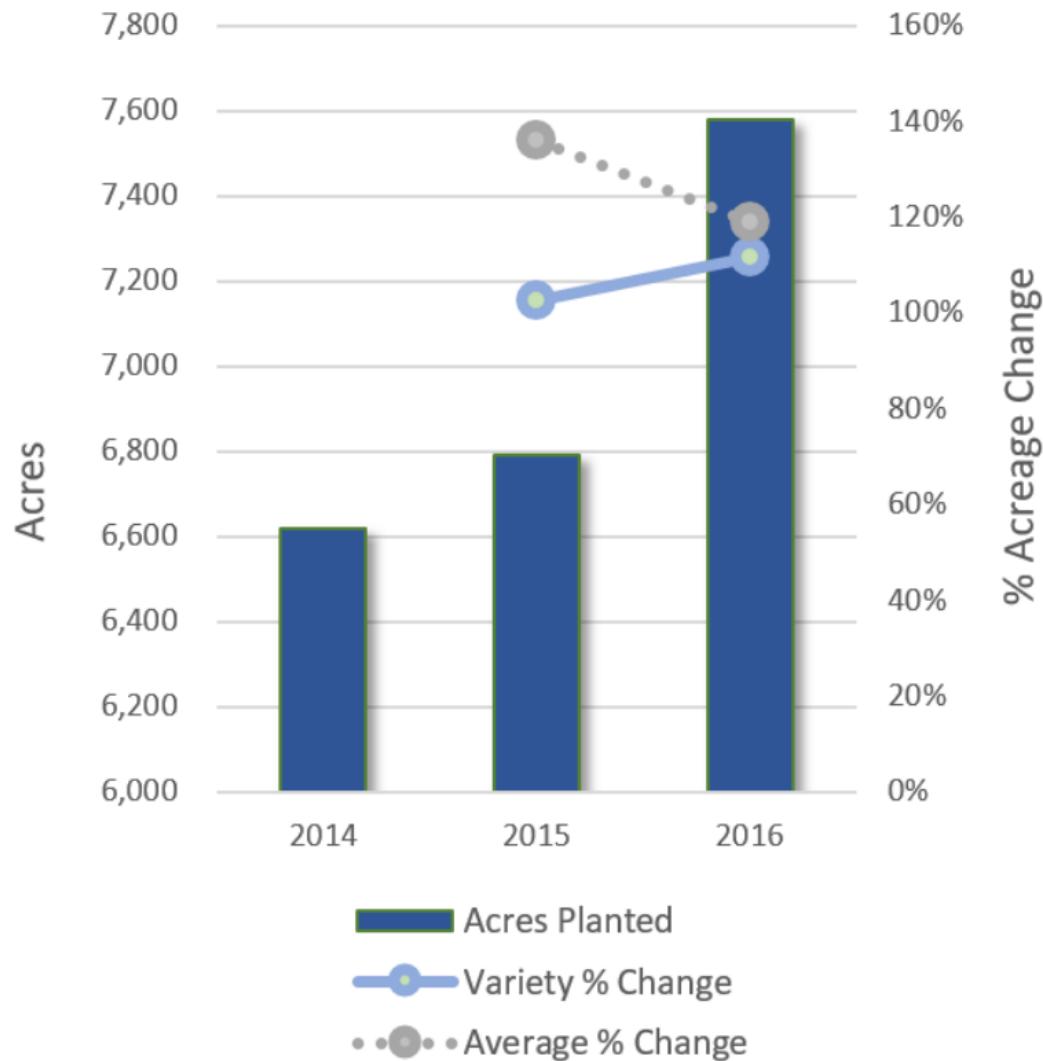
US Cascade

7,800

160%

## Acreage & % Change

### US Cascade

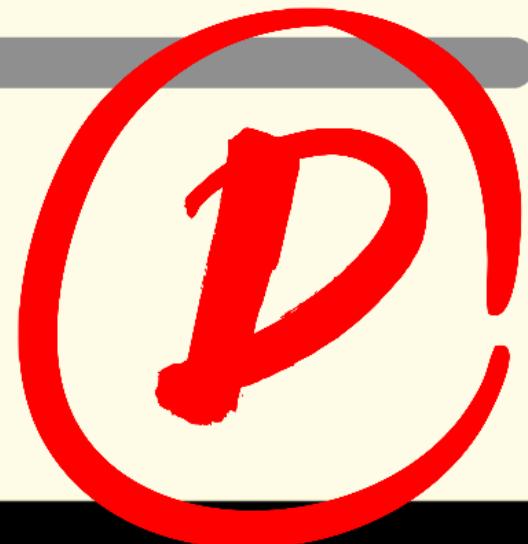


Tier 1

36%

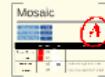
# Cascade

Volume Tier	1 (#2)
Price Category	\$5-10
Hop Alert Rank	#10



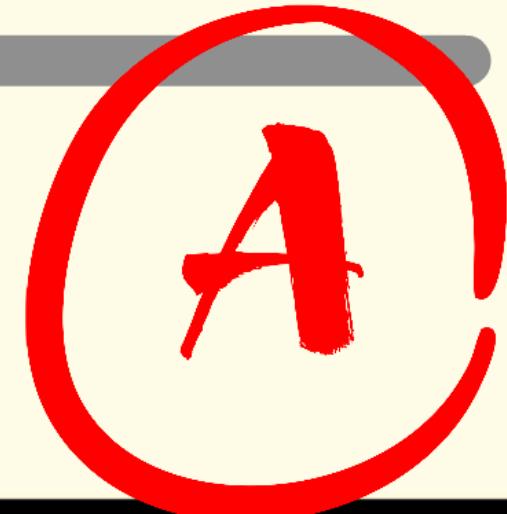
	Grade	%tile	Data	Notes
Supply & Demand	C+	56		
Pricing	F	9		
Brewer Data	B-	62		3x Long to Short
Acreage		36		Surprising uptick in 2016

# Variety Report Card

Variety	Supply/ Demand	Pricing	Brewer	Acreage	Overall
Mosaic 	A-	B-	A	↗	A
Calypso 	B	C+	F	↘	A
Centennial 	B+	C	B	→	B+
Chinook 	B	C	C-	↘	B
Citra 	D-	B	A+	↗	B
Amarillo 	D+	C	A-		B-
Falconer's Flight 	A-	C	D		B-
Simcoe 	C-	B-	B+	↗	B-
Willamette 	C	C	F	→	B-
El Dorado 	C-	C+	C+	↗	C+
Azacca 	D-	B	C	↗	C
CTZ 	F-	B	D-	↘	C-
Cascade 	C+	F	B-	↘	D
Equinox 	F	D+	D		D

# Calypso

Volume Tier	2 (#18)
Price Category	\$5-10
Hop Alert Rank	#23



	Grade	%tile	Data	Notes
Supply & Demand	(B)	69		
Pricing	(C+)	55		
Brewer Data	(F)	8		Low usage, mostly "balanced"
Acreage		67		Very small production, no growth

2016

Weight Listed  
Avg. List Price

Purchased Weight  
Avg. Purchase Price

\$5-\$10 Range Avg

US Calypso

Tier 2

85%

Tier 2

25%

## Brewer Rank Summary

US Calyposo



Tier 2

8%

Tier 2

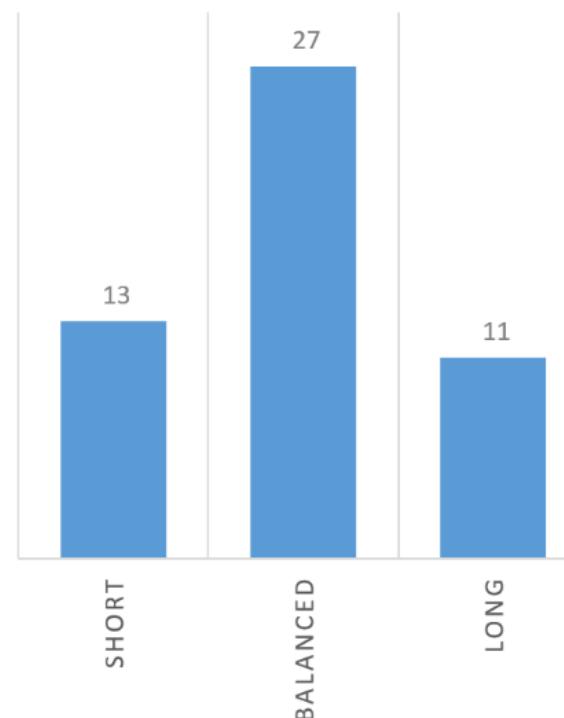
46%

Tier 2

0%

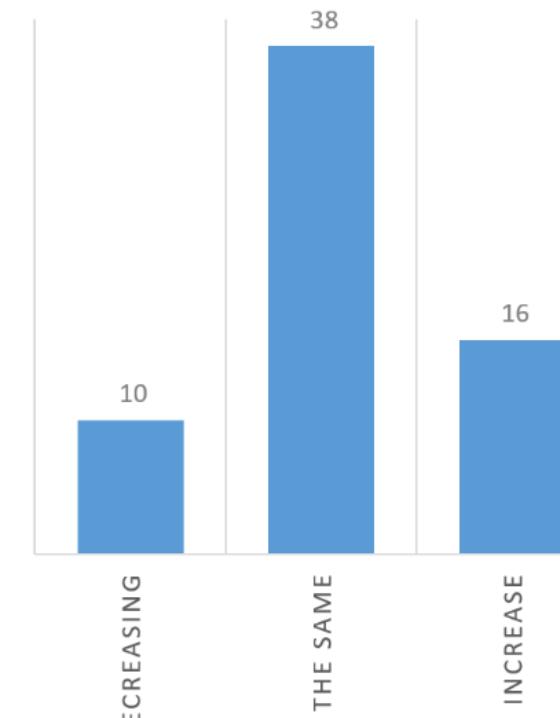
## Supply Summary

US Calyposo



## Forecast Summary

US Calyposo

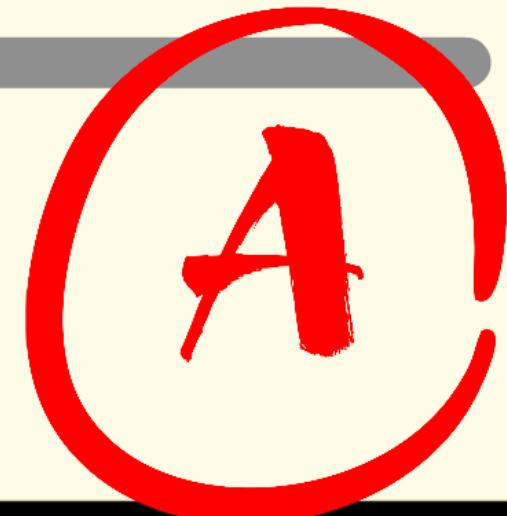


## Acreage &amp; % Change

US Calyposo

# Calypso

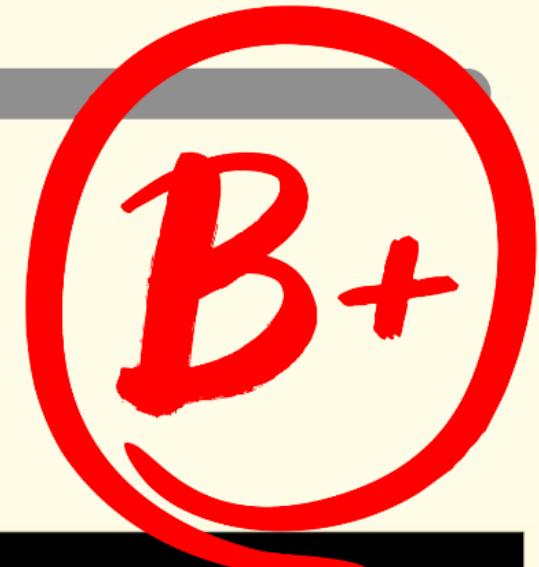
Volume Tier	2 (#18)
Price Category	\$5-10
Hop Alert Rank	#23



	Grade	%tile	Data	Notes
Supply & Demand	(B)	69		
Pricing	(C+)	55		
Brewer Data	(F)	8		Low usage, mostly "balanced"
Acreage		67		Very small production, no growth

# Centennial

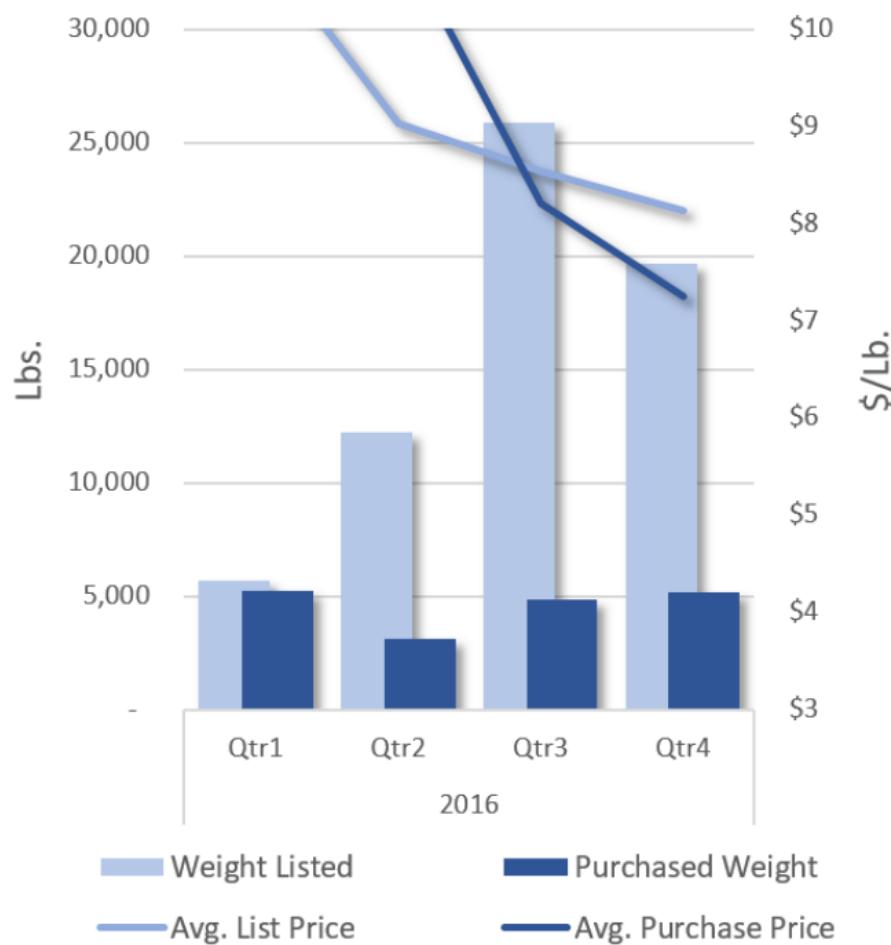
Volume Tier	1 (#6)
Price Category	\$5-10
Hop Alert Rank	#7



	Grade	%tile	Data	Notes
Supply & Demand	(B+)	75		
Pricing	(C)	44		
Brewer Data	(B)	69		High usage, 7x more plan to increase
Acreage		55		Balanced and steady growth

## Listed vs. Purchased Weight & Price

### US Centennial

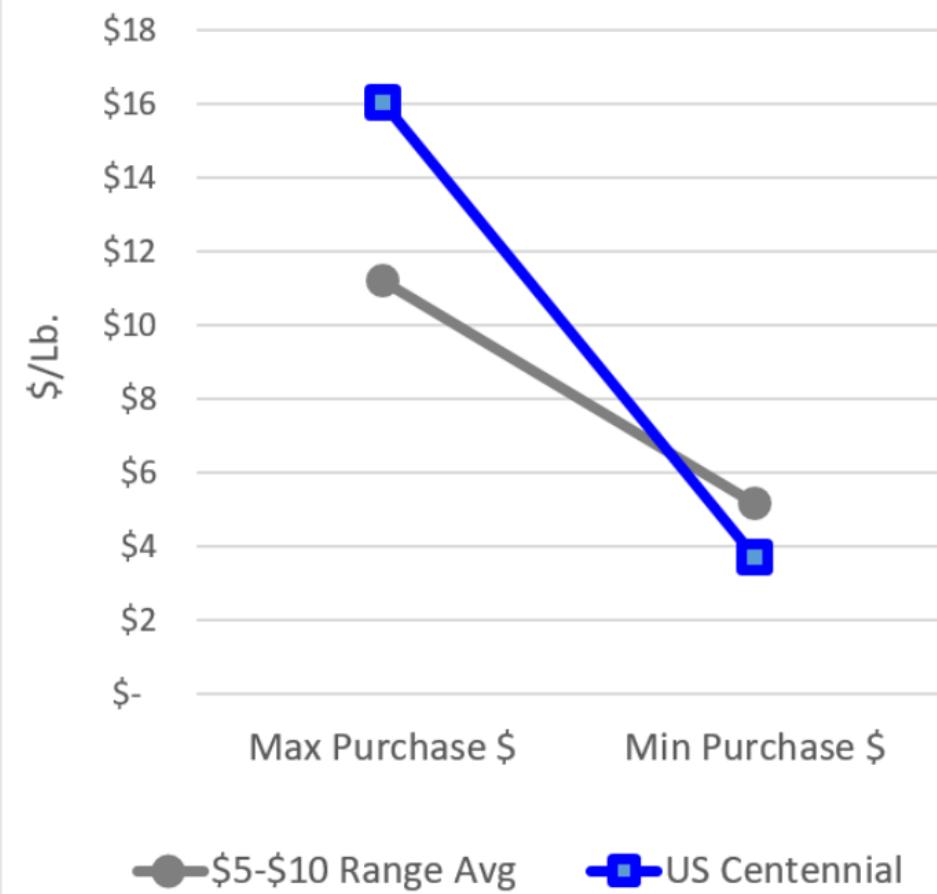


Tier 1

88%

## Purchase Price Value Retention

### US Centennial

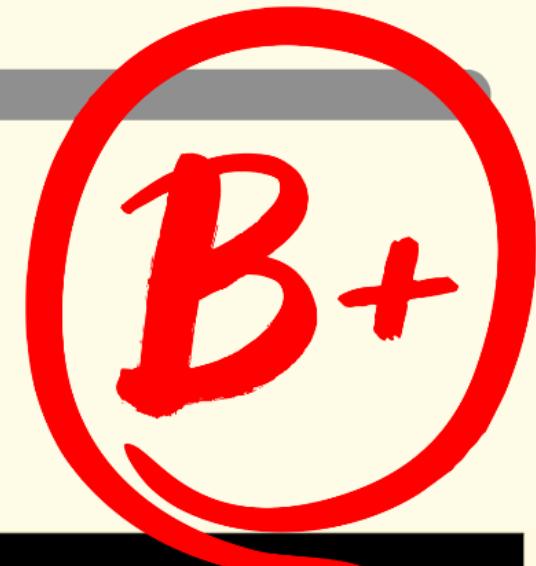


Tier 1

0%

# Centennial

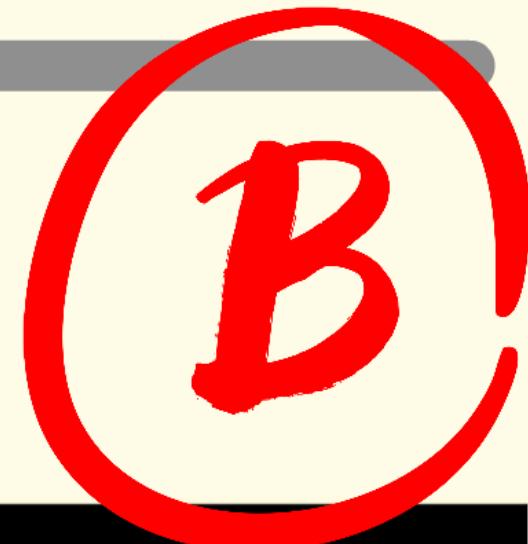
Volume Tier	1 (#6)
Price Category	\$5-10
Hop Alert Rank	#7



	Grade	%tile	Data	Notes
Supply & Demand	(B+)	75		
Pricing	(C)	44		
Brewer Data	(B)	69		High usage, 7x more plan to increase
Acreage		55		Balanced and steady growth

# Chinook

Volume Tier	1 (#7)
Price Category	\$5-10
Hop Alert Rank	#18



	Grade	%tile	Data	Notes
Supply & Demand	(B)	69		
Pricing	(C)	53		Weakness in Q3/Q4
Brewer Data	(C-)	38		Popular but 3x more long
Acreage		18		

## Listed vs. Purchased Weight & Price

### US Chinook

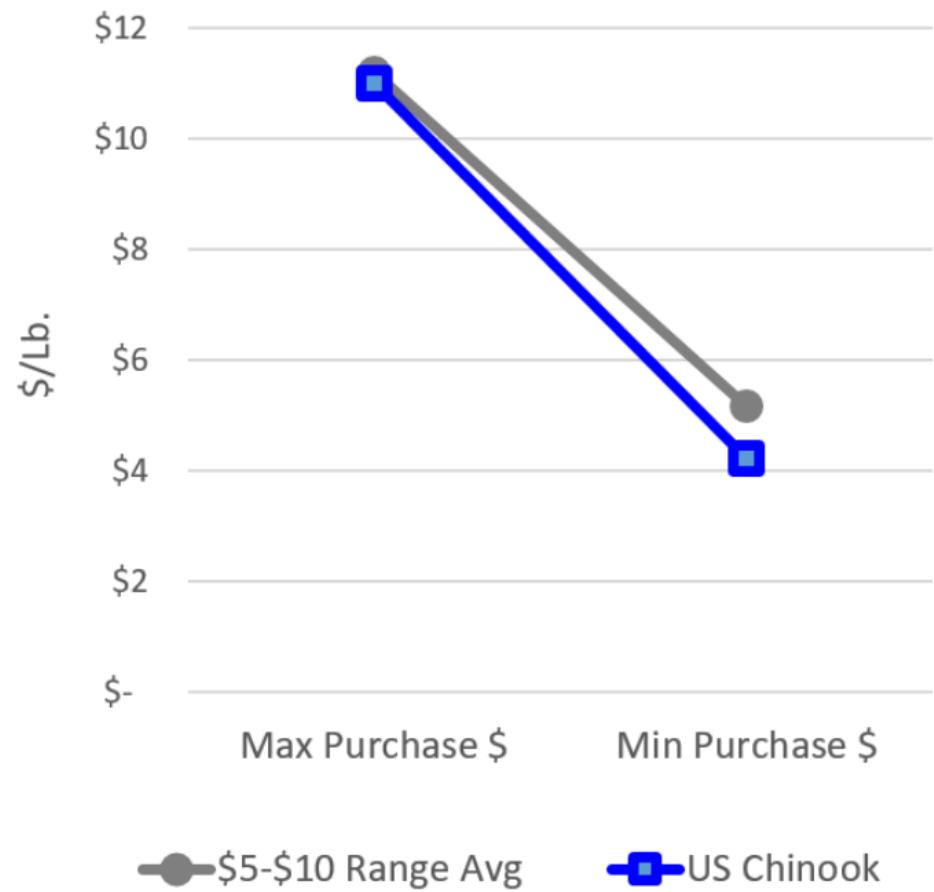


Tier 1

25%

## Purchase Price Value Retention

### US Chinook



Tier 1

80%

Avg. List Price

Avg. Purchase Price

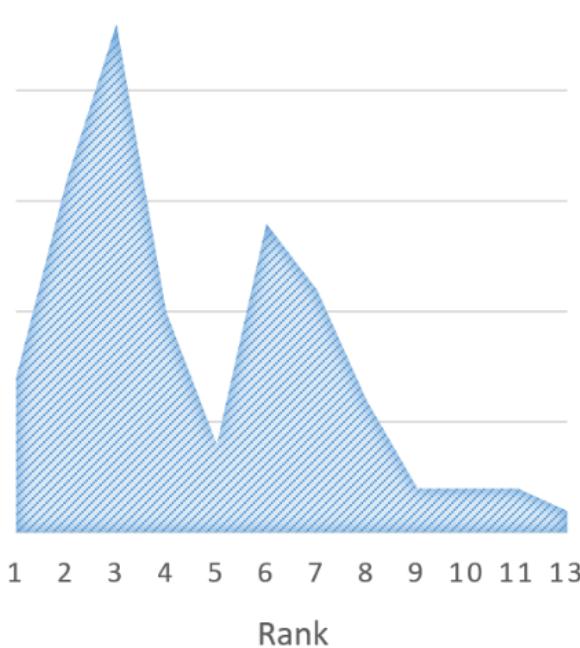
25%

Tier 1

80%

## Brewer Rank Summary

US Chinook

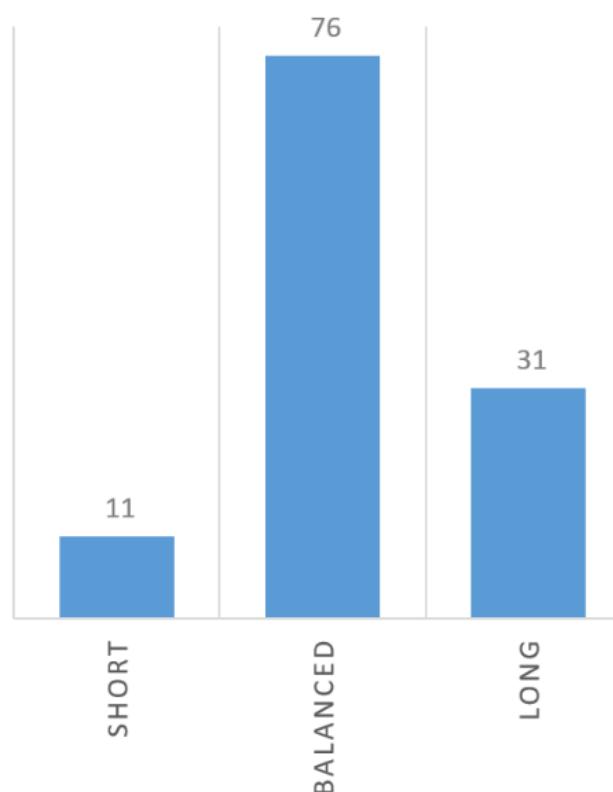


62%

Tier 1

## Supply Summary

US Chinook

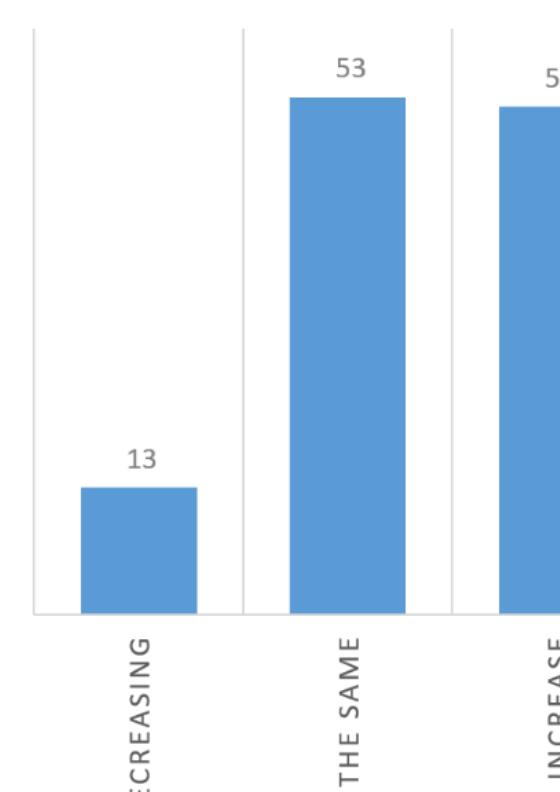


23%

Tier 1

## Forecast Summary

US Chinook



13

53

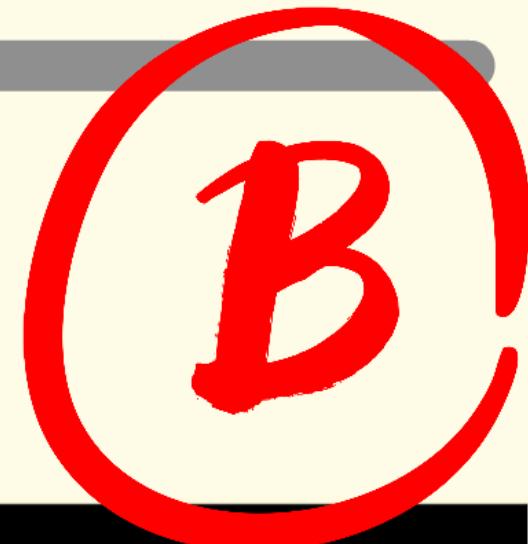
5

## Acreage & % Change

US Chinook

# Chinook

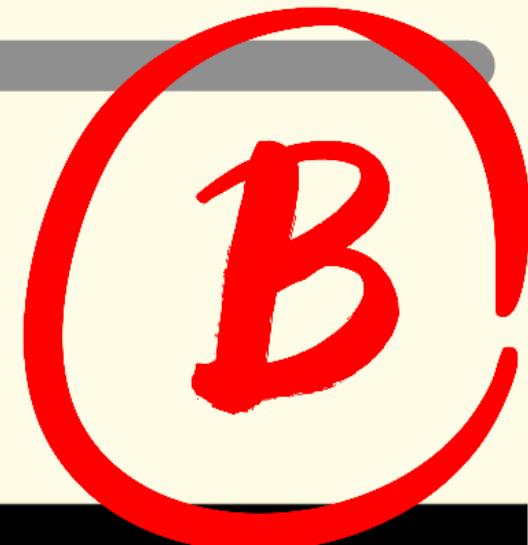
Volume Tier	1 (#7)
Price Category	\$5-10
Hop Alert Rank	#18



	Grade	%tile	Data	Notes
Supply & Demand	(B)	69		
Pricing	(C)	53		Weakness in Q3/Q4
Brewer Data	(C-)	38		Popular but 3x more long
Acreage		18		

# Citra

Volume Tier	1 (#1)
Price Category	\$15-20
Hop Alert Rank	#1



	Grade	%tile	Data	Notes
Supply & Demand	D-	19		
Pricing	B	71		
Brewer Data	A+	100		
Acreage		100		> 50% annual growth for multi years

2016

Weight Listed  
Avg. List Price

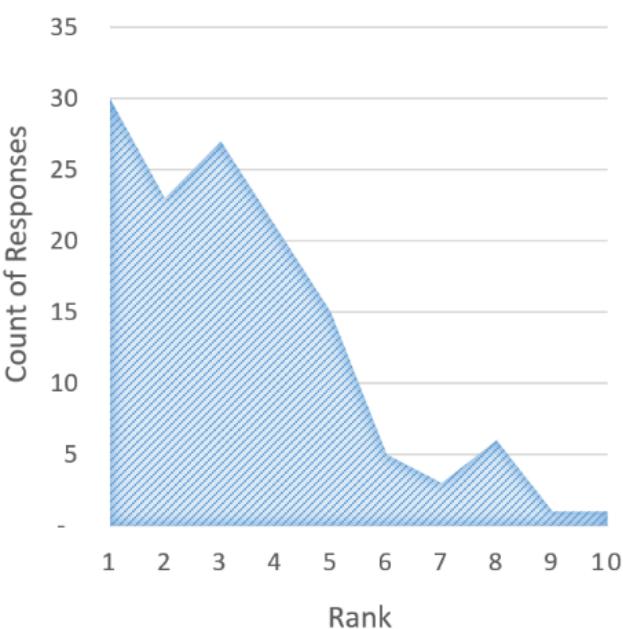
Purchased Weight  
Avg. Purchase Price

\$15-\$20 Range Avg

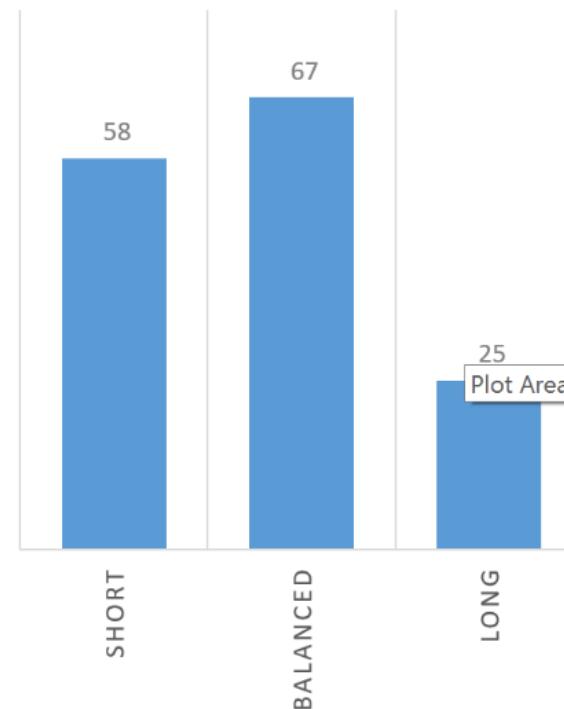
US Citra

**Tier 1****81%****Tier 1****60%****Brewer Rank Summary**

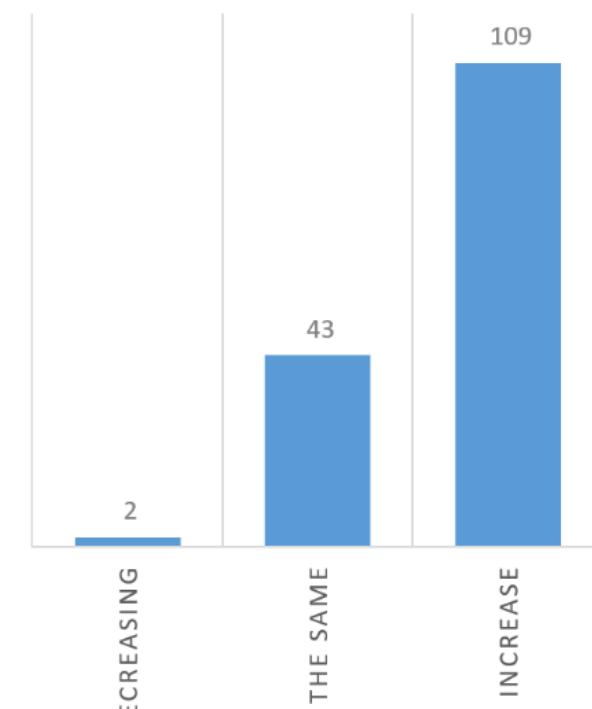
US Citra

**Tier 1****92%****Supply Summary**

US Citra

**Tier 1****85%****Forecast Summary**

US Citra

**Tier 1****92%****Acreage & % Change**

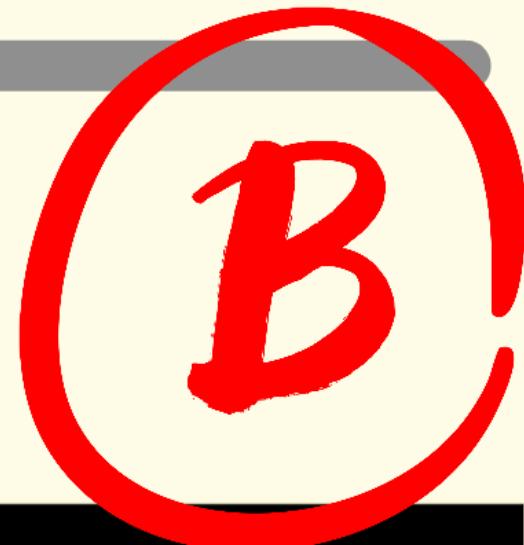
US Citra

5,000

180%

# Citra

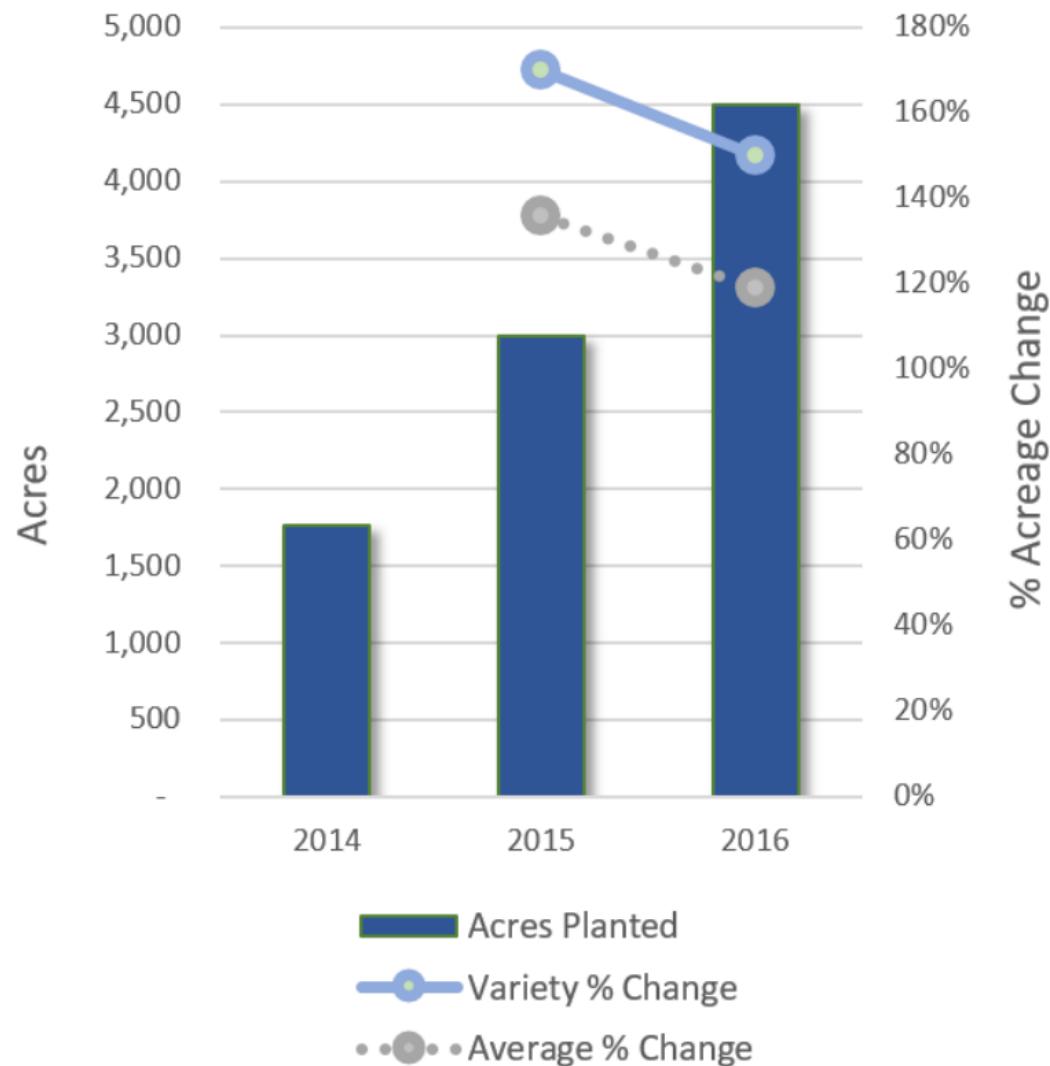
Volume Tier	1 (#1)
Price Category	\$15-20
Hop Alert Rank	#1



	Grade	%tile	Data	Notes
Supply & Demand	D-	19		
Pricing	B	71		
Brewer Data	A+	100		
Acreage		100		> 50% annual growth for multi years

## Acreage & % Change

US Citra

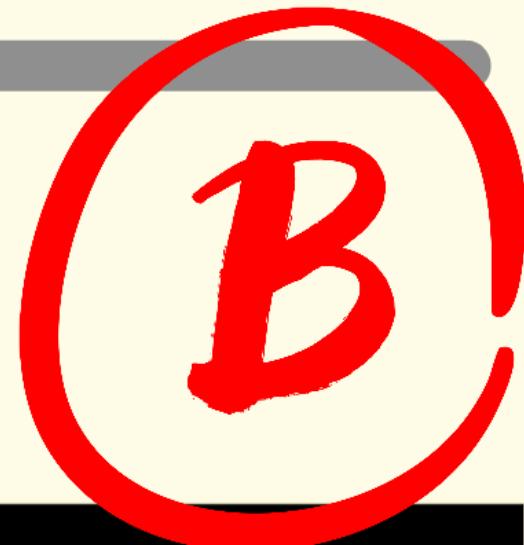


Tier 1

100%

# Citra

Volume Tier	1 (#1)
Price Category	\$15-20
Hop Alert Rank	#1



	Grade	%tile	Data	Notes
Supply & Demand	D-	19		
Pricing	B	71		
Brewer Data	A+	100		
Acreage		100		> 50% annual growth for multi years

# Amarillo

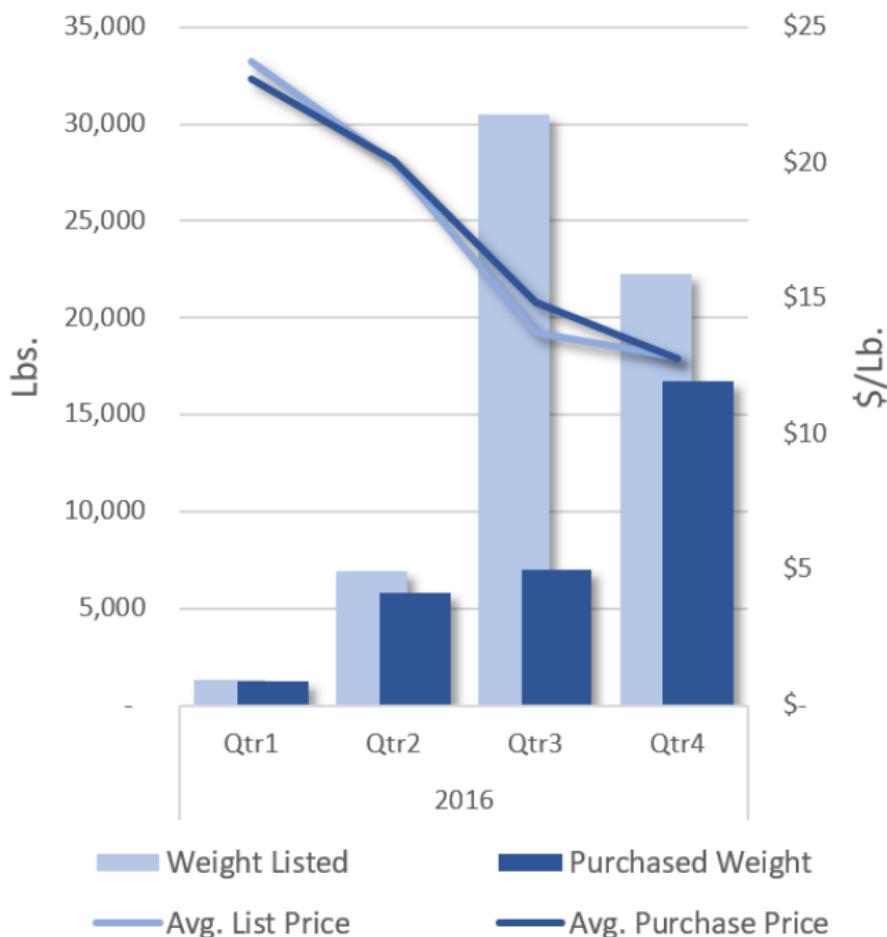
Volume Tier	1 (#3)
Price Category	\$10-15
Hop Alert Rank	#5

B-

	Grade	%tile	Data	Notes
Supply & Demand	D+	38		
Pricing	C	52		
Brewer Data	A-	85		
Acreage		n/a		

## Listed vs. Purchased Weight & Price

US Amarillo

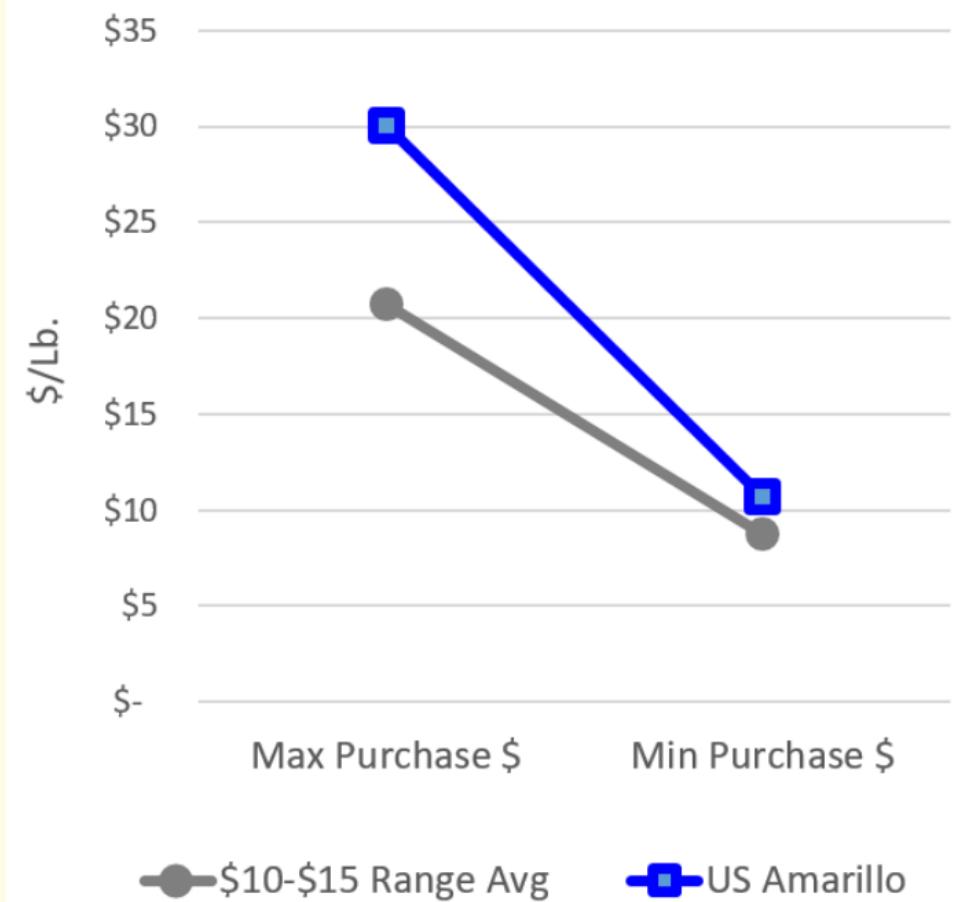


Tier 1

56%

## Purchase Price Value Retention

US Amarillo



Tier 1

47%



# Amarillo

Volume Tier	1 (#3)
Price Category	\$10-15
Hop Alert Rank	#5

**B-**

	Grade	%tile	Data	Notes
Supply & Demand	D+	38		
Pricing	C	52		
Brewer Data	A-	85		
Acreage		n/a		

# Falconer's Flight

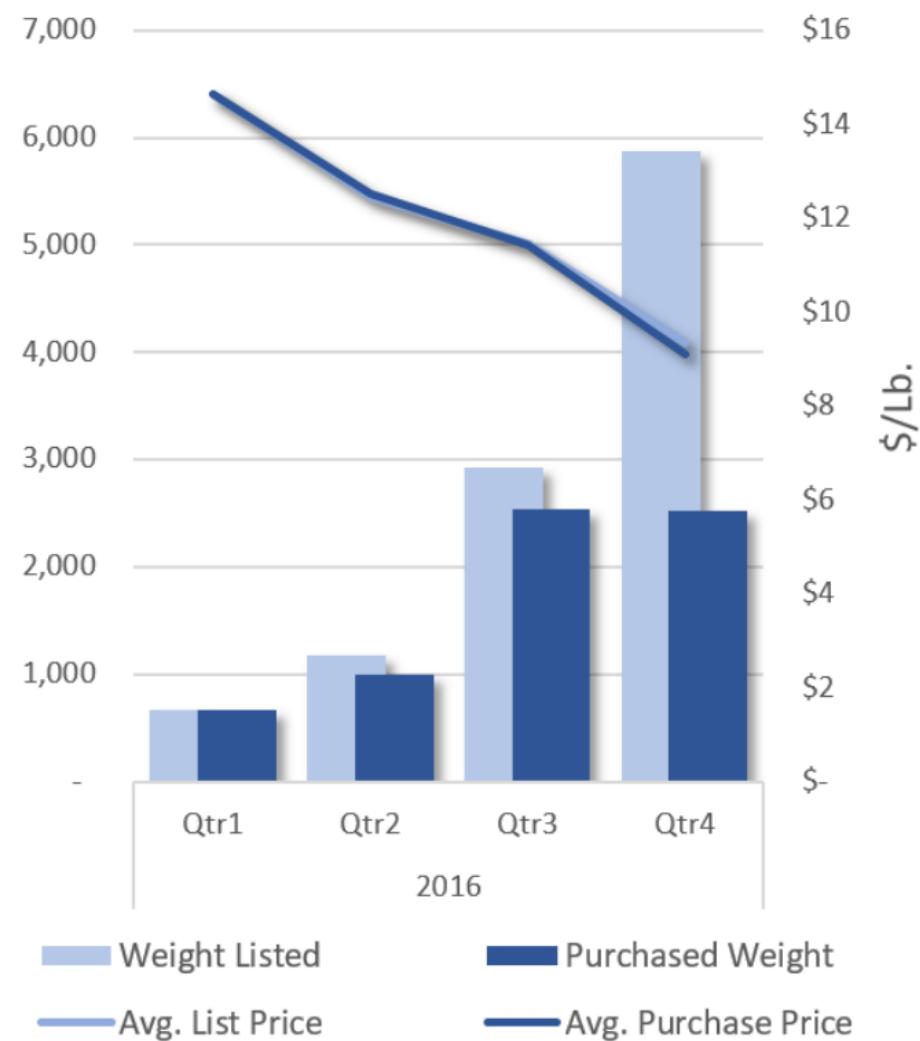
Volume Tier	1 (#9)
Price Category	\$10-15
Hop Alert Rank	#16

**B-**

	Grade	%tile	Data	Notes
Supply & Demand	A-	88		
Pricing	C	54		
Brewer Data	D	23		Lackluster Demand
Acreage		n/a		

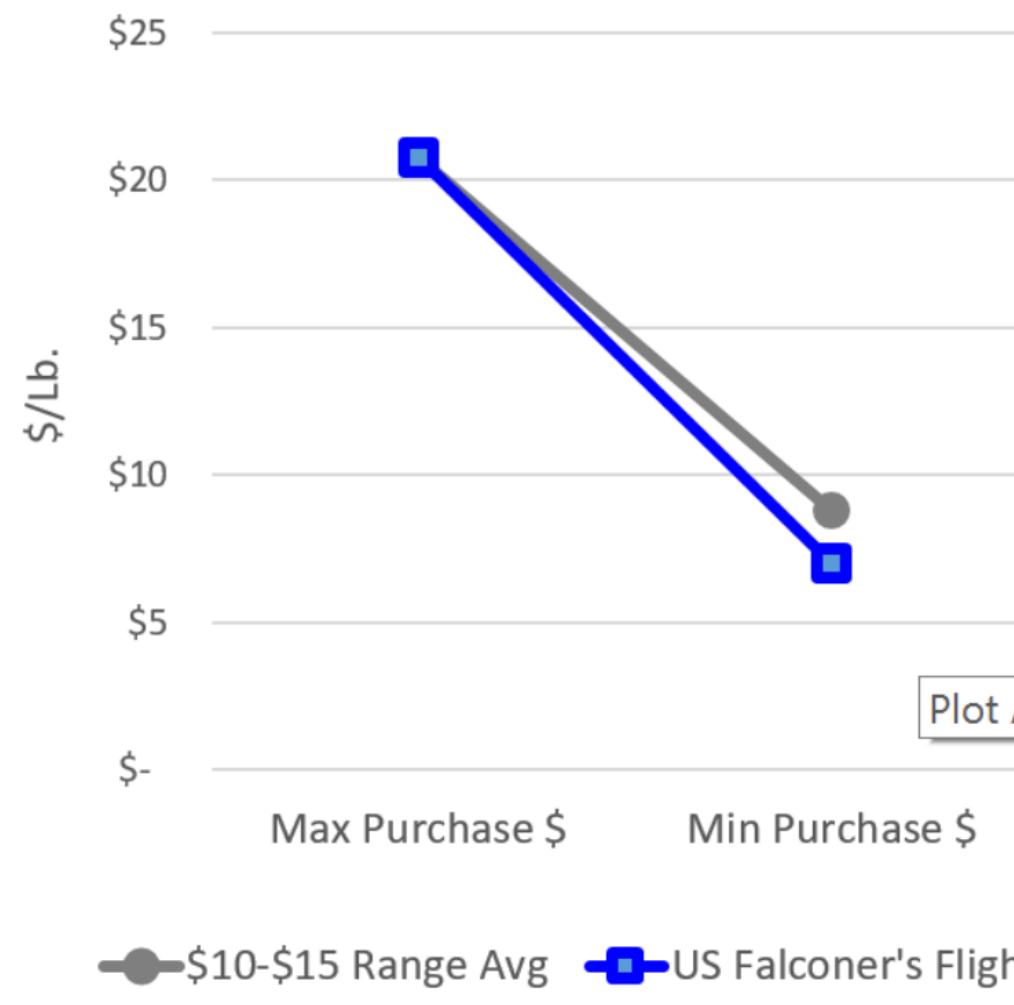
## Listed vs. Purchased Weight & Price

### US Falconer's Flight



## Purchase Price Value Retention

### US Falconer's Flight



69%

Tier 1

40

2016

Weight Listed  
Avg. List Price

Purchased Weight  
Avg. Purchase Price

\$10-\$15 Range Avg

US Falconer's Flight

Tier 1

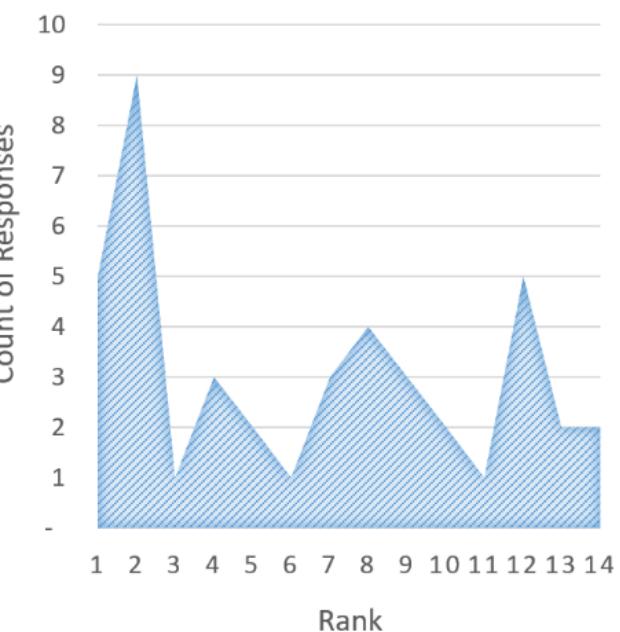
69%

Tier 1

40%

### Brewer Rank Summary

US Falconer's Flight



Tier 1

31%

Tier 1

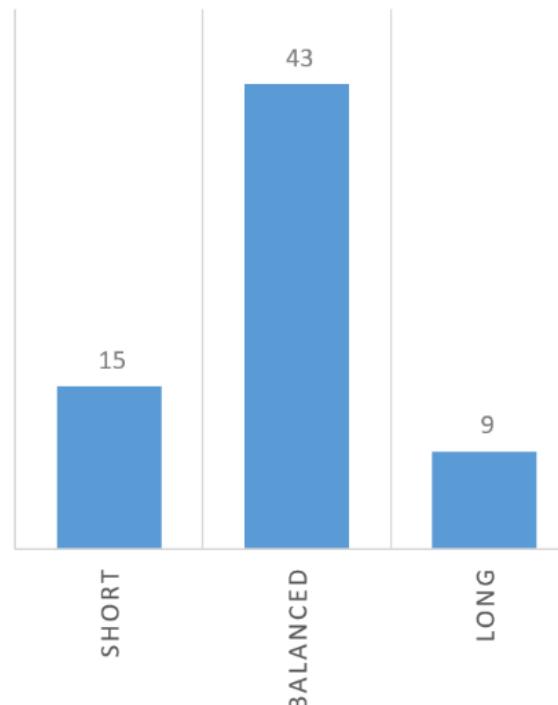
62%

Tier 1

15%

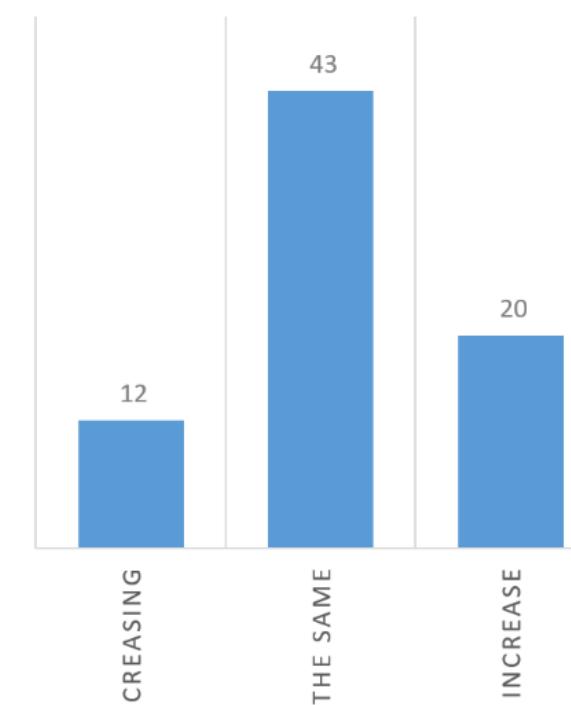
### Supply Summary

US Falconer's Flight



### Forecast Summary

US Falconer's Flight



# Falconer's Flight

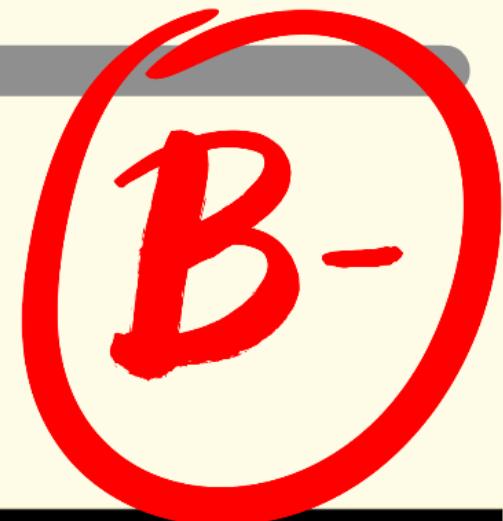
Volume Tier	1 (#9)
Price Category	\$10-15
Hop Alert Rank	#16

**B-**

	Grade	%tile	Data	Notes
Supply & Demand	A-	88		
Pricing	C	54		
Brewer Data	D	23		Lackluster Demand
Acreage		n/a		

# Simcoe

Volume Tier	1 (#5)
Price Category	\$15-20
Hop Alert Rank	#4



	Grade	%tile	Data	Notes
Supply & Demand	C-	31		
Pricing	B-	61		
Brewer Data	B+	77		Balanced contract positions
Acreage		64		

2016

Weight Listed  
Avg. List Price

Purchased Weight  
Avg. Purchase Price

\$15-\$20 Range Avg

US Simcoe

Tier 1

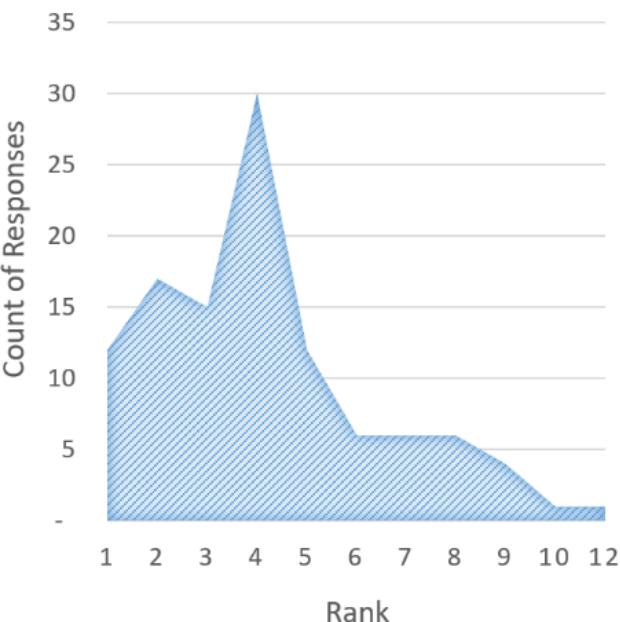
94%

Tier 1

27%

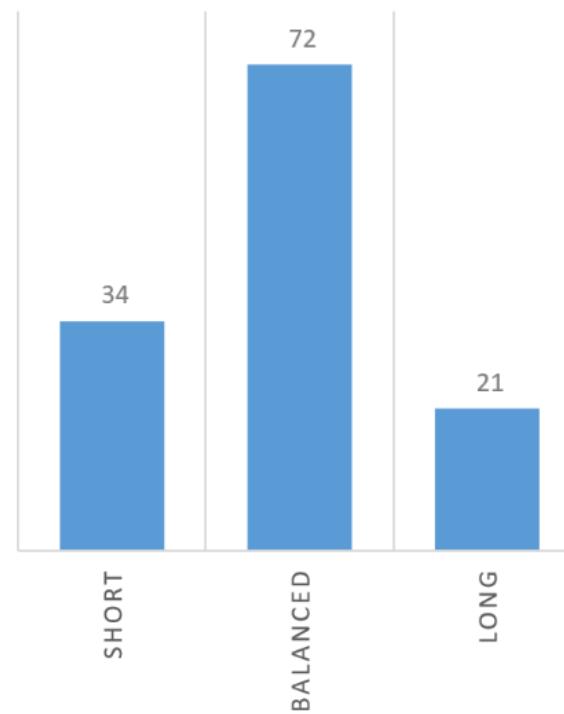
## Brewer Rank Summary

US Simcoe



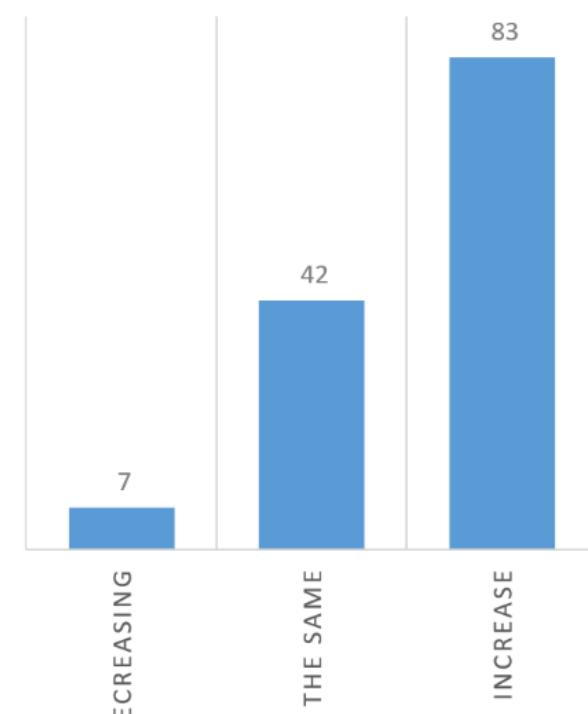
## Supply Summary

US Simcoe



## Forecast Summary

US Simcoe



## Acreage &amp; % Change

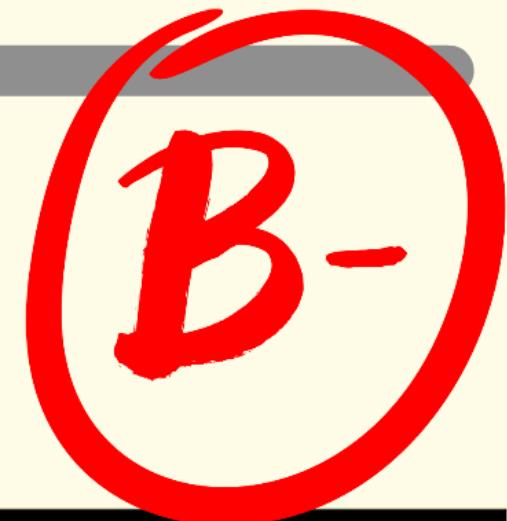
US Simcoe

5,000

200%

# Simcoe

Volume Tier	1 (#5)
Price Category	\$15-20
Hop Alert Rank	#4



	Grade	%tile	Data	Notes
Supply & Demand	C-	31		
Pricing	B-	61		
Brewer Data	B+	77		Balanced contract positions
Acreage		64		

# Willamette

Volume Tier	1 (#14)
Price Category	\$5-10
Hop Alert Rank	#31

**B-**

	Grade	%tile	Data	Notes
Supply & Demand	C	50		
Pricing	C	50		
Brewer Data	F	0		
Acreage		45		Appropriate given demand

2016

Weight Listed  
Avg. List Price

Purchased Weight  
Avg. Purchase Price

\$5-\$10 Range Avg

US Willamette

Tier 1

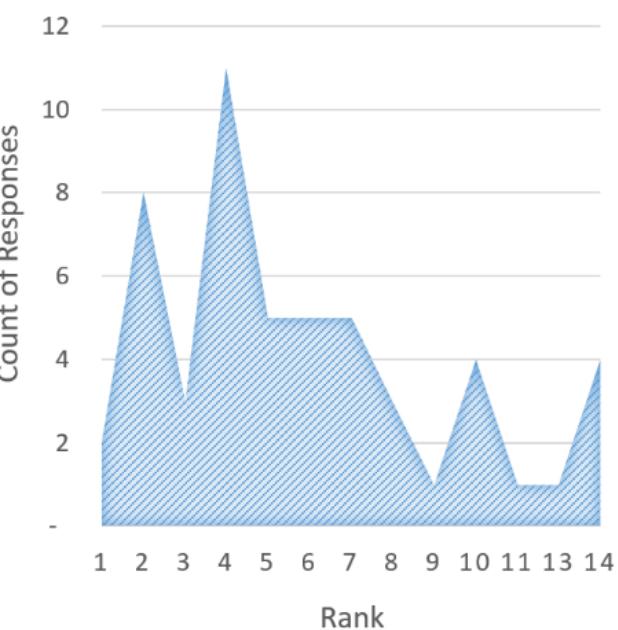
0%

Tier 1

100%

## Brewer Rank Summary

US Willamette



Tier 1

39%

Tier 1

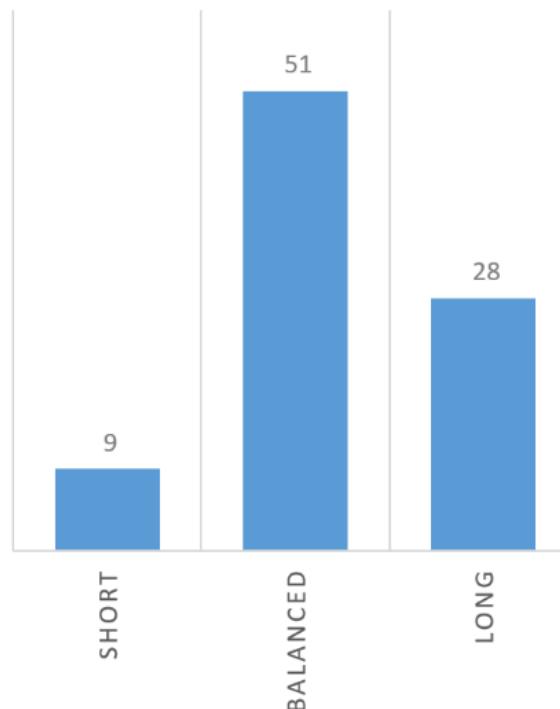
8%

Tier 1

8%

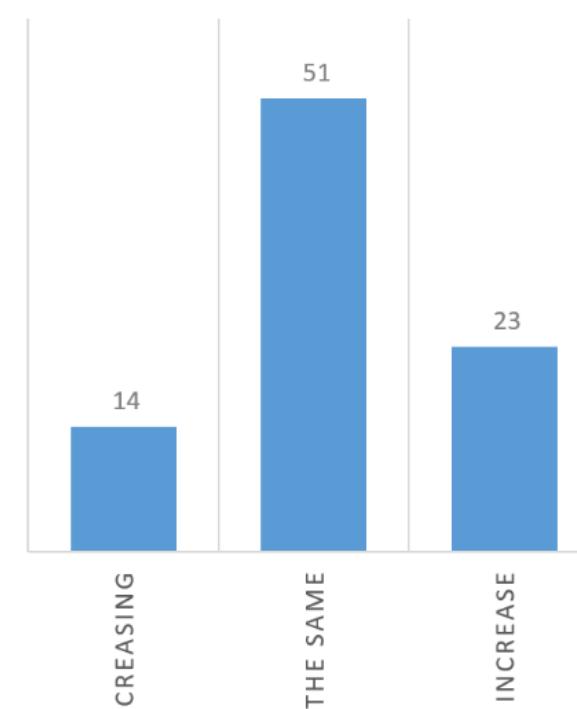
## Supply Summary

US Willamette



## Forecast Summary

US Willamette



## Acreage &amp; % Change

US Willamette

# Willamette

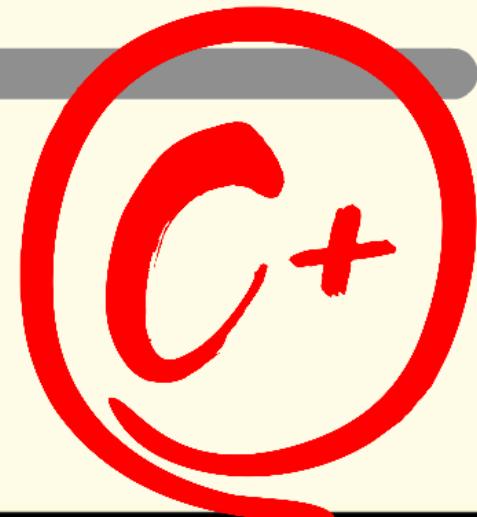
Volume Tier	1 (#14)
Price Category	\$5-10
Hop Alert Rank	#31

**B-**

	Grade	%tile	Data	Notes
Supply & Demand	C	50		
Pricing	C	50		
Brewer Data	F	0		
Acreage		45		Appropriate given demand

# EI Dorado

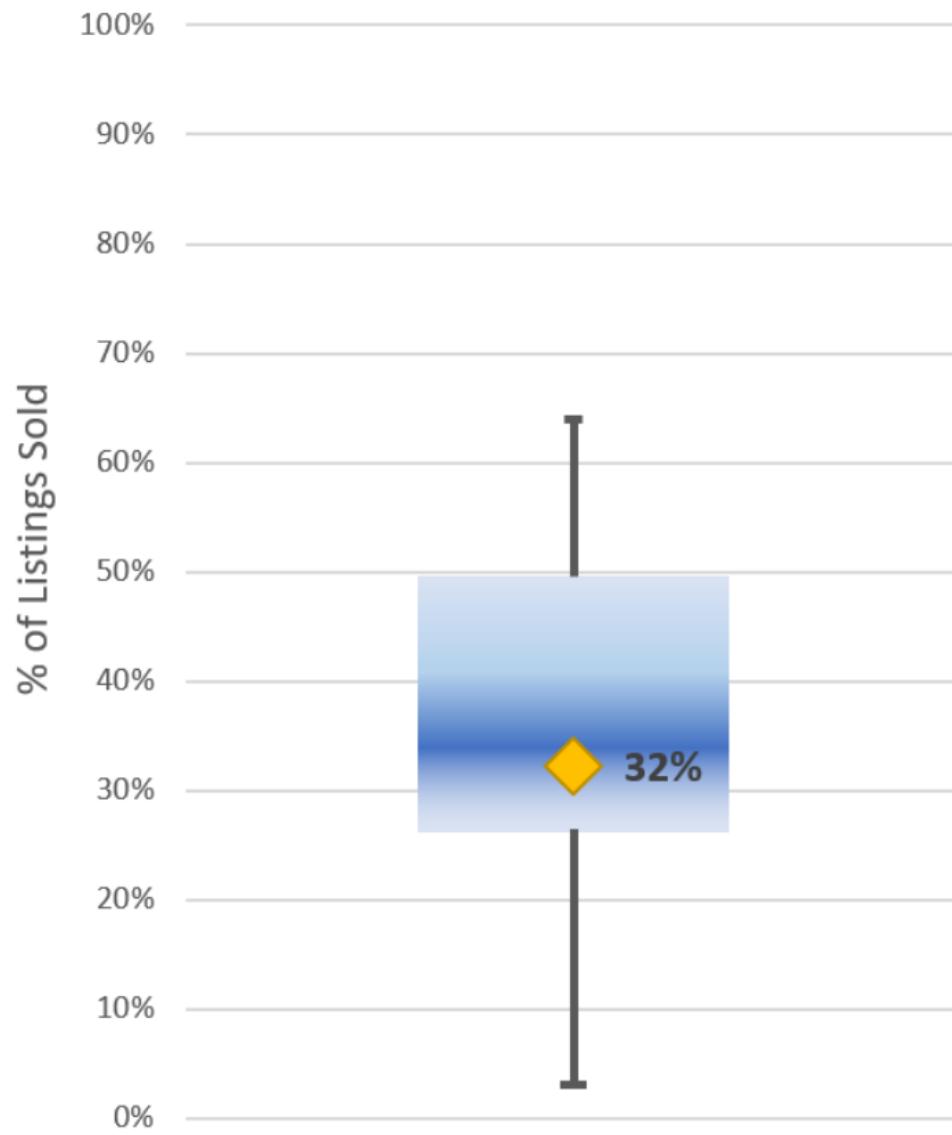
Volume Tier	1 (#8)
Price Category	\$10-15
Hop Alert Rank	#8



	Grade	%tile	Data	Notes
Supply & Demand	C-	44		
Pricing	C+	59		
Brewer Data	C+	54		23rd percentile usage
Acreage		73		Highest acreage growth in 2015

## % of Listings Sold vs. Average

### US El Dorado



Tier 1

44%

2016

Weight Listed  
Avg. List Price

Purchased Weight  
Avg. Purchase Price

\$10-\$15 Range Avg US El Dorado

Tier 1

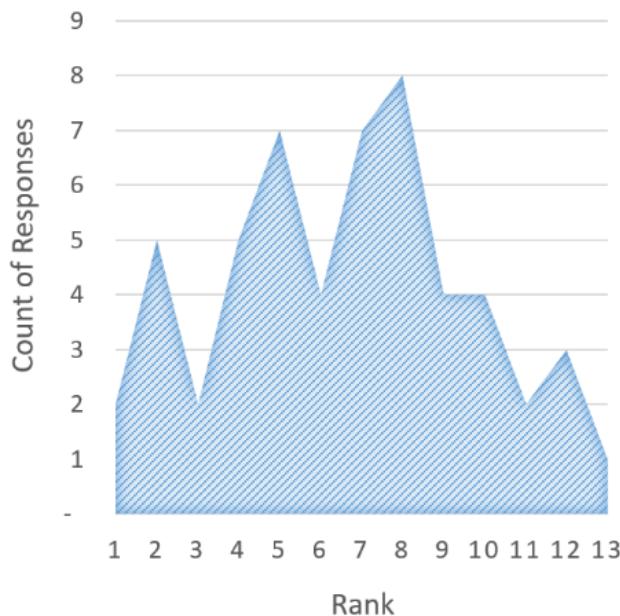
50%

Tier 1

67%

## Brewer Rank Summary

US El Dorado



Tier 1

23%

Tier 1

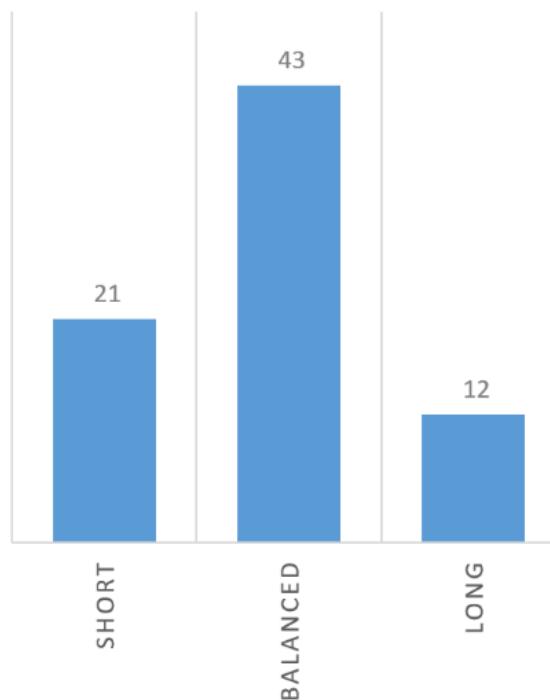
69%

Tier 1

62%

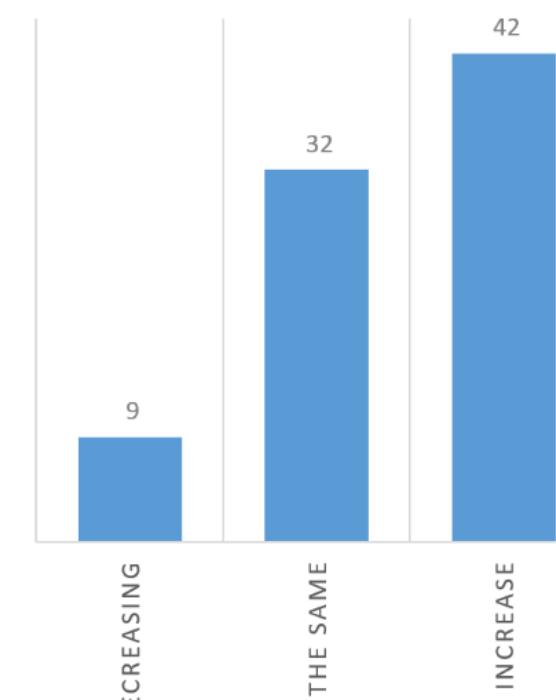
## Supply Summary

US El Dorado



## Forecast Summary

US El Dorado

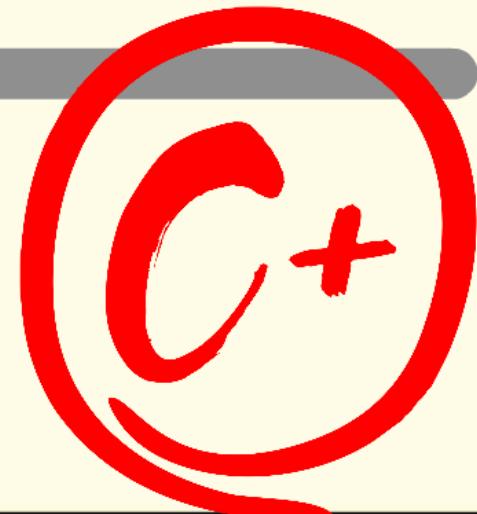


## Acreage &amp; % Change

US El Dorado

# EI Dorado

Volume Tier	1 (#8)
Price Category	\$10-15
Hop Alert Rank	#8



	Grade	%tile	Data	Notes
Supply & Demand	C-	44		
Pricing	C+	59		
Brewer Data	C+	54		23rd percentile usage
Acreage		73		Highest acreage growth in 2015

# Azacca

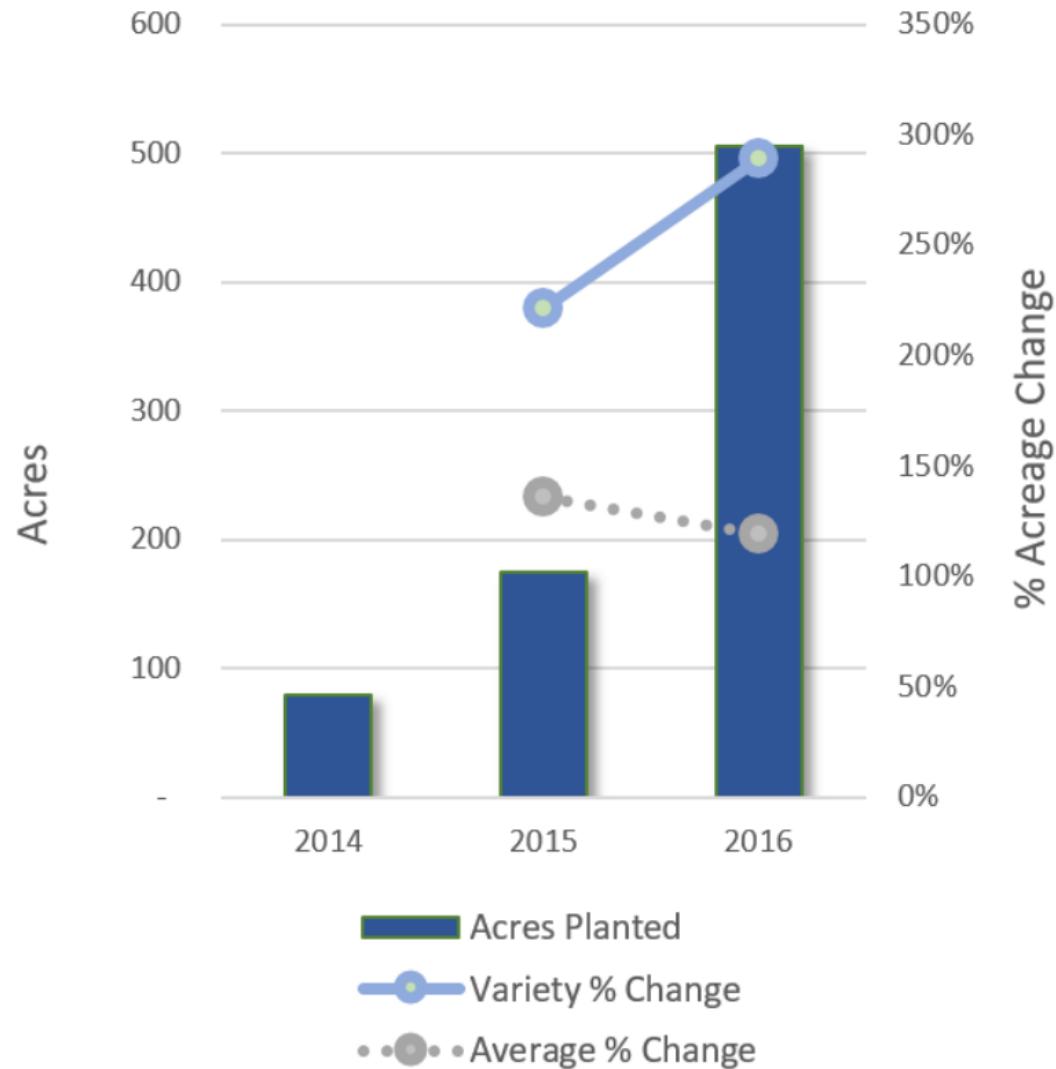
Volume Tier	2 (#11)
Price Category	\$10-15
Hop Alert Rank	#11

C

	Grade	%tile	Data	Notes
Supply & Demand	D-	21		
Pricing	B	70		
Brewer Data	C	46		
Acreage		100		

## Acreage & % Change

### US Azacca



Tier 2

100%

Weight Listed  
Avg. List Price

Purchased Weight  
Avg. Purchase Price

\$10-\$15 Range Avg

US Azacca

Tier 2

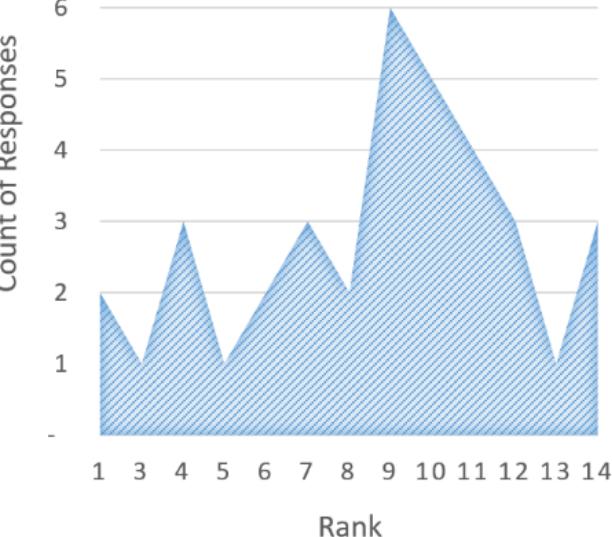
70%

Tier 2

70%

### Brewer Rank Summary

US Azacca



Tier 2

0%

Tier 2

92%

Tier 2

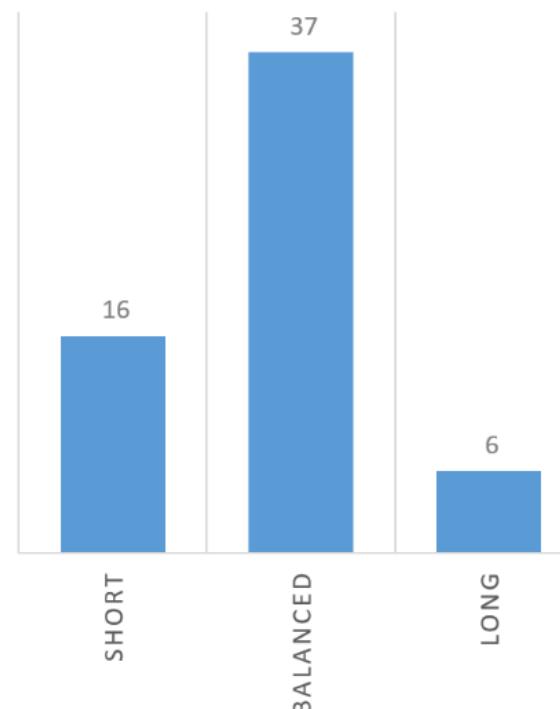
STAY THE SAME

INCREASE

32  
27

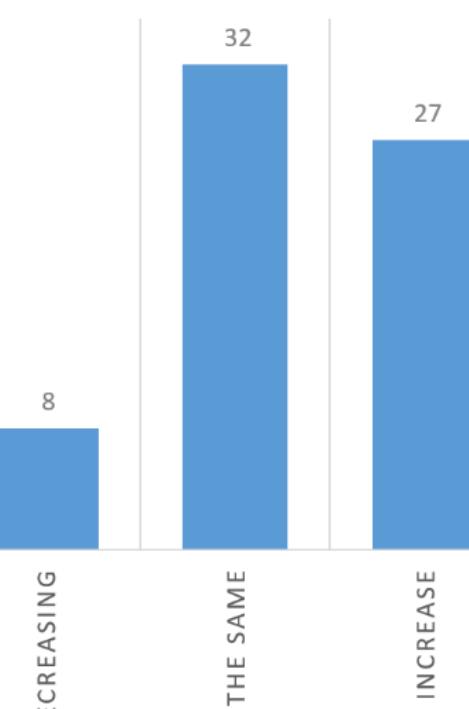
### Supply Summary

US Azacca



### Forecast Summary

US Azacca



### Acreage & % Change

US Azacca

# Azacca

Volume Tier	2 (#11)
Price Category	\$10-15
Hop Alert Rank	#11

C

	Grade	%tile	Data	Notes
Supply & Demand	D-	21		
Pricing	B	70		
Brewer Data	C	46		
Acreage		100		

# CTZ

Volume Tier	1 (#11)
Price Category	\$5-10
Hop Alert Rank	#39

C-

	Grade	%tile	Data	Notes
Supply & Demand	F-	0		Only 3% selling
Pricing	B	74		
Brewer Data	D-	15		
Acreage		0		Acreage decreasing, appropriate

2016

Weight Listed  
Avg. List Price

Purchased Weight  
Avg. Purchase Price

\$5-\$10 Range Avg

US CTZ

Tier 1

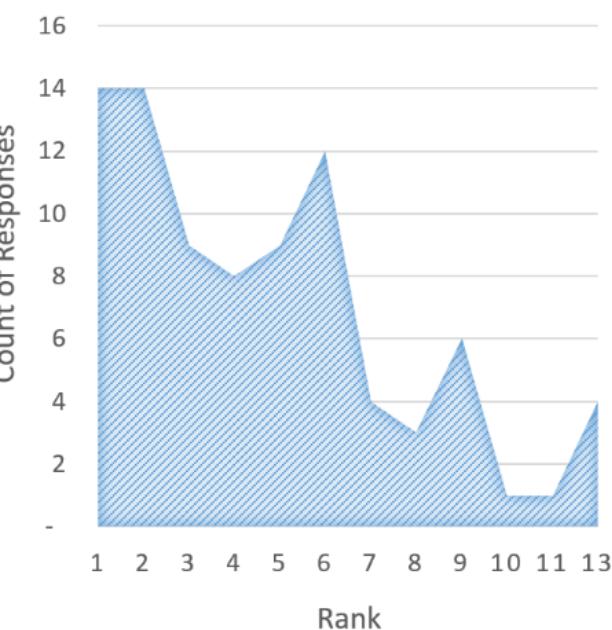
75%

Tier 1

73%

## Brewer Rank Summary

US CTZ

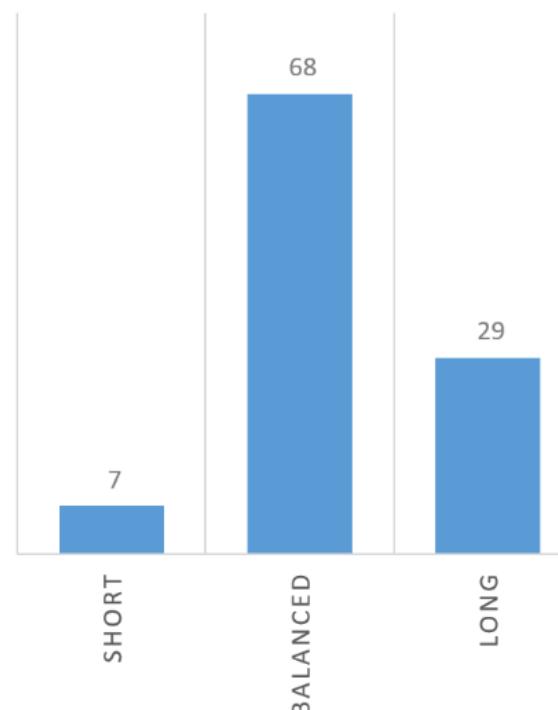


Tier 1

54%

## Supply Summary

US CTZ

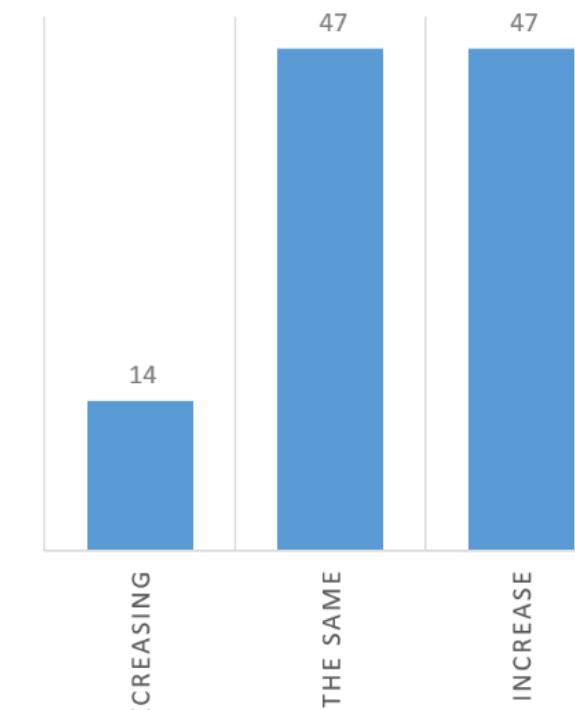


Tier 1

0%

## Forecast Summary

US CTZ



Tier 1

23%

## Acreage &amp; % Change

US CTZ

7,000

160%

# CTZ

Volume Tier	1 (#11)
Price Category	\$5-10
Hop Alert Rank	#39

C-

	Grade	%tile	Data	Notes
Supply & Demand	F-	0		Only 3% selling
Pricing	B	74		
Brewer Data	D-	15		
Acreage		0		Acreage decreasing, appropriate

# Equinox

Volume Tier	1 (#10)
Price Category	\$10-15
Hop Alert Rank	#19



	Grade	%tile	Data	Notes
Supply & Demand	(F)	6		
Pricing	(D+)	36		
Brewer Data	(D)	23		
Acreage		n/a		

2016

Weight Listed

Purchased Weight

Avg. List Price

Avg. Purchase Price

\$10-\$15 Range Avg

US Equinox

Tier 1

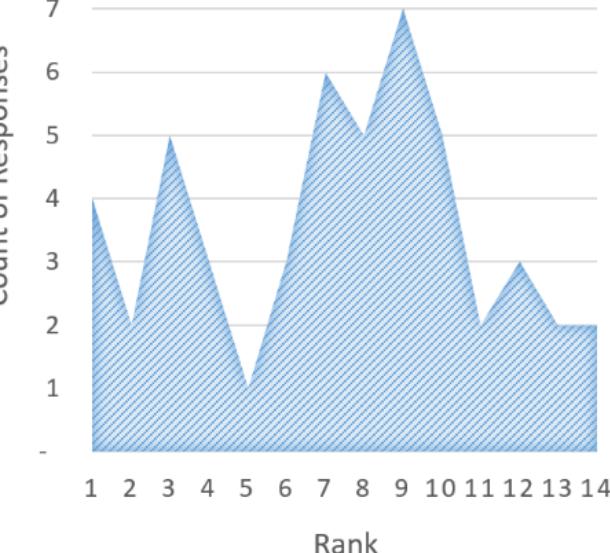
19%

Tier 1

53%

## Brewer Rank Summary

US Equinox



Tier 1

15%

Tier 1

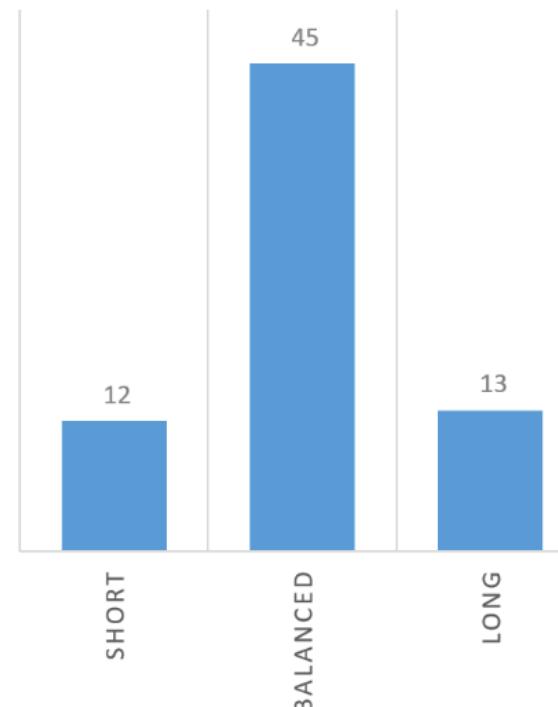
39%

Tier 1

54%

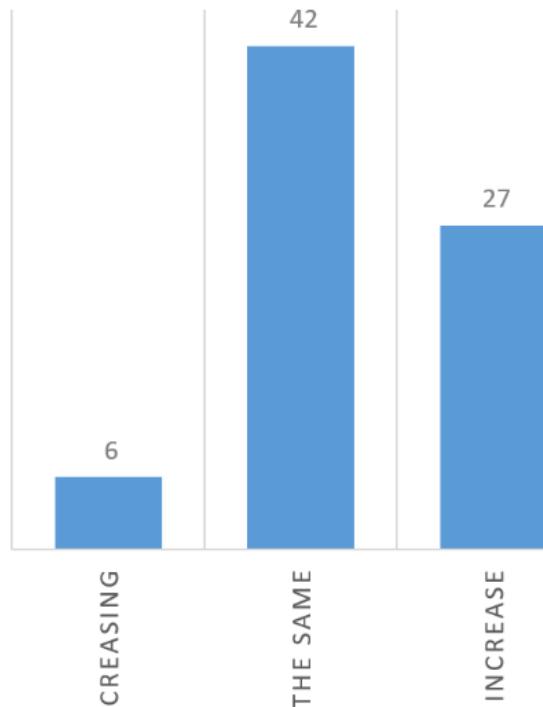
## Supply Summary

US Equinox



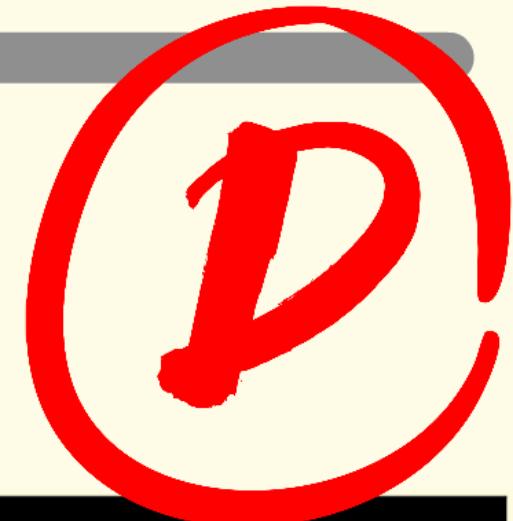
## Forecast Summary

US Equinox



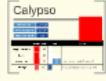
# Equinox

Volume Tier	1 (#10)
Price Category	\$10-15
Hop Alert Rank	#19



	Grade	%tile	Data	Notes
Supply & Demand	(F)	6		
Pricing	(D+)	36		
Brewer Data	(D)	23		
Acreage		n/a		

# Variety Report Card

Variety	Supply/ Demand	Pricing	Brewer	Acreage	Overall
Mosaic 	A-	B-	A		<span style="border: 1px solid red; border-radius: 50%; padding: 2px;">A</span>
Calypso 	B	C+	F		<span style="border: 1px solid red; border-radius: 50%; padding: 2px;">A</span>
Centennial 	B+	C	B		<span style="border: 1px solid red; border-radius: 50%; padding: 2px;">B+</span>
Chinook 	B	C	C-		<span style="border: 1px solid red; border-radius: 50%; padding: 2px;">B</span>
Citra 	D-	B	A+		<span style="border: 1px solid red; border-radius: 50%; padding: 2px;">B</span>
Amarillo 	D+	C	A-		<span style="border: 1px solid red; border-radius: 50%; padding: 2px;">B-</span>
Falconer's Flight 	A-	C	D		<span style="border: 1px solid red; border-radius: 50%; padding: 2px;">B-</span>
Simcoe 	C-	B-	B+		<span style="border: 1px solid red; border-radius: 50%; padding: 2px;">B-</span>
Willamette 	C	C	F		<span style="border: 1px solid red; border-radius: 50%; padding: 2px;">B-</span>
El Dorado 	C-	C+	C+		<span style="border: 1px solid red; border-radius: 50%; padding: 2px;">C+</span>
Azacca 	D-	B	C		<span style="border: 1px solid red; border-radius: 50%; padding: 2px;">C</span>
CTZ 	F-	B	D-		<span style="border: 1px solid red; border-radius: 50%; padding: 2px;">C-</span>
Cascade 	C+	F	B-		<span style="border: 1px solid red; border-radius: 50%; padding: 2px;">D</span>
Equinox 	F	D+	D		<span style="border: 1px solid red; border-radius: 50%; padding: 2px;">D</span>

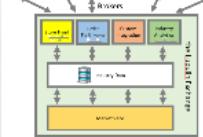
# [03] Pro Tips



Pro Tip #2: Variety Price History



Pro Tip #3-6  
Broker Features



## Top 5 Reasons to Reach Out

- 1 Download all my charts and slides
- 2 A link to a recording of this presentation
- 3 You have an idea for a report or integration
- 4 You like talking shop! No question or idea is too big or small!
- 5 You know where to find a great burger in Bend!

[shane@lupulinexchange.com](mailto:shane@lupulinexchange.com)  
[blog.lupulinexchange.com](http://blog.lupulinexchange.com)

# Pro Tip #1: Hop Alerts



## Sign up for Hop Alerts (Optional)

Want to be notified when users list certain hops for sale? Just click the varieties below and we'll send you an email the second they get listed. You can change your hop alerts anytime in your account settings

search varieties

Select All

- AT Styrian Gold
- AU Ella
- AU Galaxy
- AU Helga
- AU Pride of Ringwood
- AU Stella
- AU Summer
- AU Super Pride
- AU Sylva
- AU Topaz
- CN Marco Polo
- CN Tsingdao Flower
- CZ Agnus
- CZ Bohemie
- CZ Kazbek
- CZ Premiant
- CZ Rubin
- CZ Saaz

## US Ahtanum - Organic Filters

To reduce the amount of emails you receive, you can choose filters that will apply to US Ahtanum - Organic hop alerts that are sent to you. These settings will override the global filters you have.

Maximum Price (OPTIONAL)

Enter the maximum price (per pound) you would like to get alerted about.

Maximum Age (OPTIONAL)

Enter the maximum age since the hops were harvested that you'd like to be alerted about.

[Cancel Changes](#)

[Save Filters](#)

**AT Styrian Gold**

[+ Subscribe](#)

**AU Ella**

**AU Enigma**

[+ Subscribe](#)

**AU Galaxy**

**AU Helga**

[+ Subscribe](#)

**AU Pride of Ringwood**

# Pro Tip #1: Hop Alerts



# Pro Tip #2: Variety Price History

## US Simcoe T90 Pellet

Price	\$14.48 per lb
Quantity	5 boxes, 44 lbs 220 lbs total
Brand	Yakima Valley Hops
Crop Year	2015
Posted	3 days ago 19 views
Condition	The seller has verified that these hops are in good condition. They have already been processed, are available for immediate shipment, are completely sealed (unopened boxes, no punctures) in original packaging, and have been stored cold

\$14.48 per lb

## Purchase

Quantity (boxes)

1



Total Weight

44 lbs

Checkout

\$637.12

## Variety Pricing History

Low	Average	High
\$9.33	\$11.17	\$16.25

Based on recent trading volume of 15,785 pounds.

## Variety Pricing History

Low

Average

High

\$9.33

\$11.17

\$16.25

Based on recent trading volume of 15,785 pounds.

# Pro Tip #2: Variety Price History

**US Simcoe T90 Pellet**

Price \$14.48 per lb

Quantity 5 boxes, 44 lbs  
220 lbs total

Brand Yakima Valley Hops

Crop Year 2015

Posted 3 days ago  
19 views

Condition The seller has verified that these hops are in good condition. They have already been processed, are available for immediate shipment, are completely sealed (unopened boxes, no punctures) in original packaging, and have been stored cold

\$14.48 per lb

**Purchase**

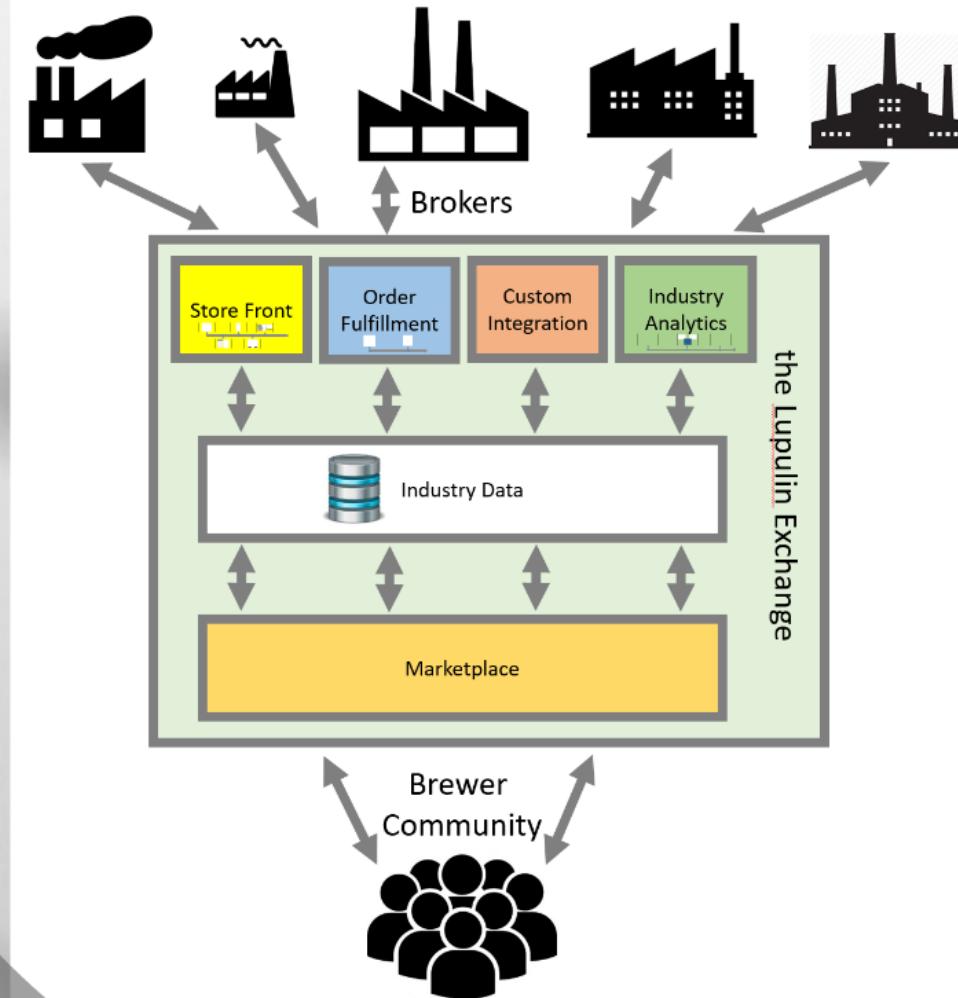
Quantity (boxes)	<input type="text" value="1"/> <input type="button" value="▼"/>
Total Weight	44 lbs
<b>Checkout</b>	<b>\$637.12</b>

**Variety Pricing History**

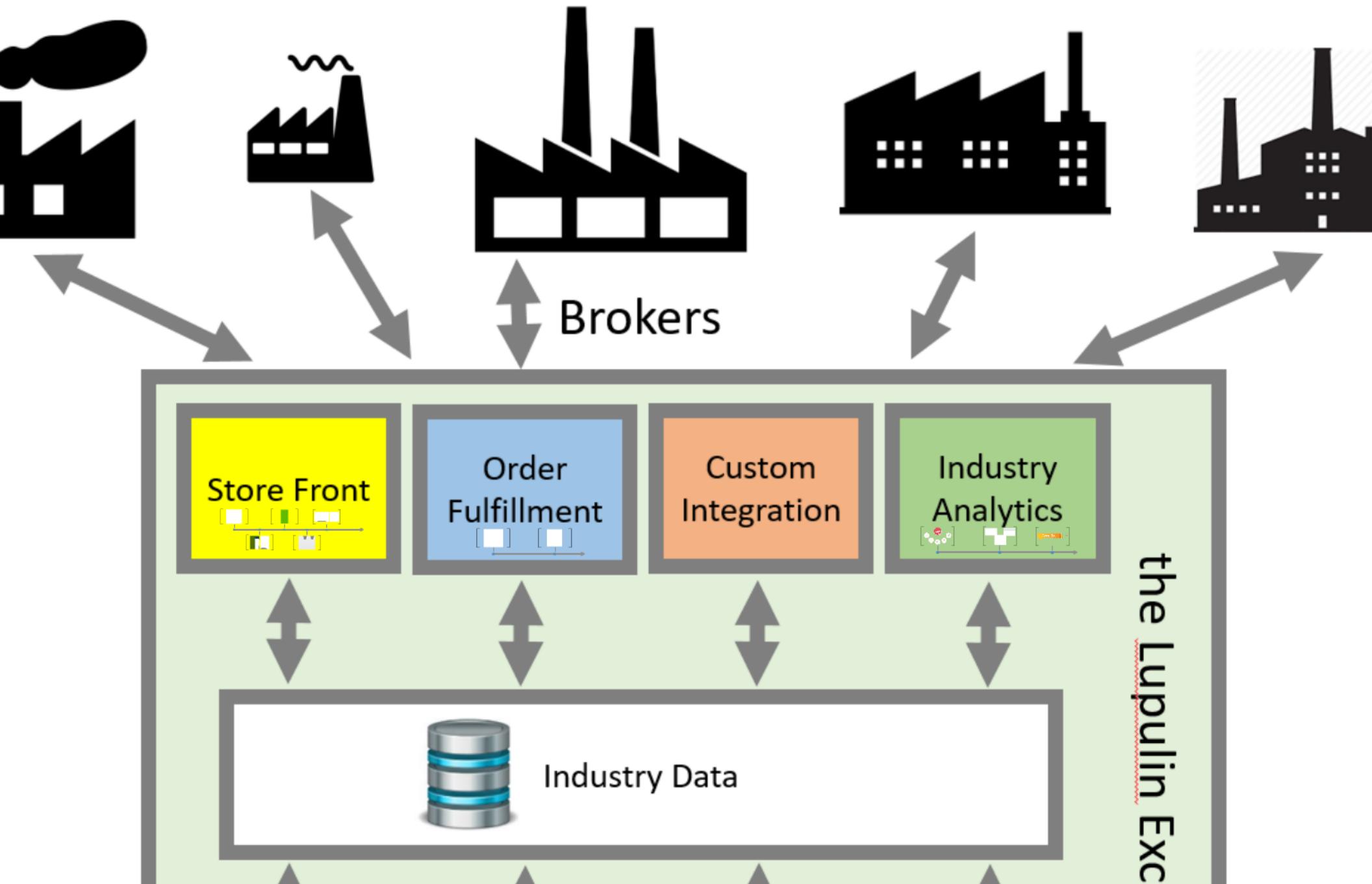
Low	Average	High
\$9.33	\$11.17	\$16.25

Based on recent trading volume of 15,785 pounds.

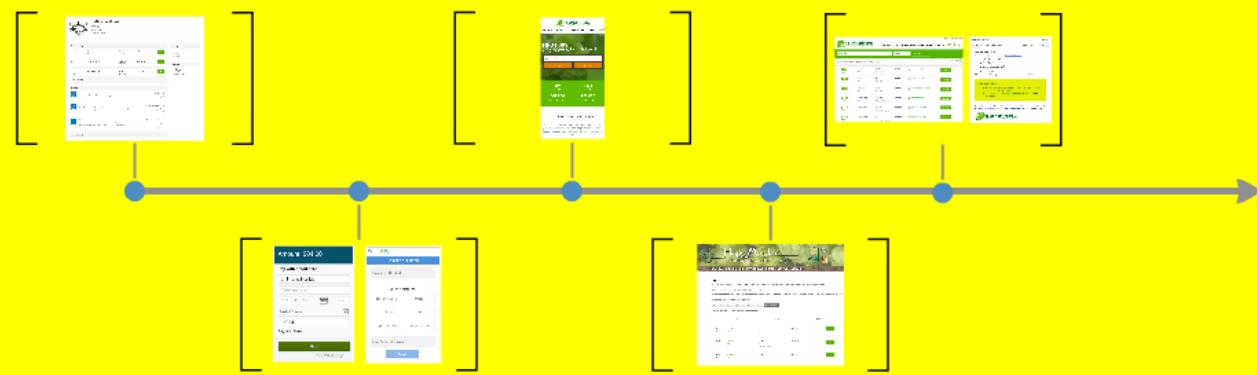
# Pro Tip #3-6 Broker Features



# Broker Features



# Store Front





## Michigan Hop Alliance

Brian Tennis

[View Website](#)

100 % positive

Joined one year ago

### Current Listings

\$7.49 per lb	US Crystal 2015	220 lbs 5 x 44 lbs	T90 Pellet	<a href="#">Details</a>
\$9.99 per lb	US Centennial 2016	396 lbs 36 x 11 lbs	T90 Pellet	<a href="#">Details</a>
\$13.99 per lb	US Lemondrop 2015	88 lbs 2 x 44 lbs	T90 Pellet	<a href="#">Details</a>

[View All Listings](#)

### Rating History

Positive	307
Neutral	0
Negative	0

### Statistics

Purchases	11
Completed Sales	6/1
Cancelled Sales	15

### Ratings

	<b>Positive</b> Always great hops. Very fast shipping	10K Brewing 8 hours ago <a href="#">View Profile</a>
	<b>Positive</b> Fast shipping, great support. Boxes are well labeled as well, which I always appreciate. Highly recommend.	Grand Rounds Brewing Company 8 hours ago <a href="#">View Profile</a>
	<b>Positive</b> Product Showed up much faster than expected. Alpha acid was a little different than was shown in listing. Will do business again.	Saint Charles brewing company yesterday <a href="#">View Profile</a>

[View All Ratings](#)

Amount: \$84.00

**Pay with credit card**

J. Shane Kunkle

Card number

MM

/

YY



CVV

United States



18934

**Pay With Bank**

**Next**

Click to verify

wepay

wepay

**Select Your Bank**

Bank Name (Required)

Or select from below

Bank of America

Chase

Wells Fargo

Citi

Capital One 360

Charles Schwab

Email Address (Required)

**Search**

**THE LUPULIN EXCHANGE**  
FREE MARKET HOPS

Buy Hops ▾ Sell Hops ▾ Brokers & Growers ▾ Help ▾ 41

## FIND HOPS

Search for Varieties You Need, Listed by Other Commercial Brewers, Hop Brokers, and Growers

Cascadia, East Kent Golding, Hallertau, etc

**SEARCH** **VIEW ALL**

**156** varieties **1,428** listings

**867,860** pounds for sale **966,869** pounds sold

### Keeping Brewers in Balance

Sometimes you're long on a variety, sometimes you're short. We get it – We're brewers too. Our goal is to streamline and secure this process for buyer and seller, so you can both get back to the brewhouse before your next hop addition. Learn more about us and The Lupulin Exchange at our blog.



[HOME](#) [SALES](#) [ORDER FORM](#) **HOPS** [HOYPARD SUPPLIES](#) [OUR FARM](#) [NEWS & EVENTS](#) [CONTACT US](#)

## HOPS

Hops-Meister Farm brought back the native Californian Ivanhoe® and Gargoyle® hops to help local craft brewmasters flavour their distinct award winning craft beers.

Our California grown hops are **certified ORGANIC** and **SUSTAINABLE**.

The Hops-Meister fresh hops are available at California harvest time from August to September, **ONE MONTH earlier** than in Oregon and Washington. The Hops-Meister dry hops are available all year.

The Hallertau hops from Germany are available all year.

[California Grown Wet Hops](#) [Hops-Meister Hops](#) [German Hallertau Hops](#) **Hops On Sale**

The hops listed below are on sale at the Lupulin Exchange website.

10 listings		9 varieties	2,200 total lbs	
\$7.35 per lb	SI Aurora 2015	253 lbs 23 x 11 lbs 1 package minimum	T90 Pellet	<a href="#">Details</a>
\$4.20 per lb	SI Aurora 2014	330 lbs 30 x 11 lbs 1 package minimum	T90 Pellet	<a href="#">Details</a>
\$5.51 per lb	US Glacier 2014	264 lbs 24 x 11 lbs 1 package minimum	T90 Pellet	<a href="#">Details</a>

 **THE LUPULIN EXCHANGE**  
FREE MARKET HOPS

BUY HOPS ▾ SELL HOPS ▾ BROKERS & GROWERS ▾ HELP ▾   

search text  VARIETY ADVANCED ▾

10 Results (5,643 Lbs) of 1421 Total Results (868,917 Lbs) Sort By: LISTED ▾

\$13.65 per lb	US Citra 2015	1,100 lbs 25 x 44 lbs 5 package minimum	T90 Pellet	 Ithaca Beer Co. Inc	<a href="#">Details</a>
\$8.99 per lb	US Equinox 2014	858 lbs 78 x 11 lbs 1 package minimum	T90 Pellet	 Michigan Hop Alliance	<a href="#">Details</a>
\$13.25 per lb	US Simcoe 2015	275 lbs 25 x 11 lbs 1 package minimum	T90 Pellet	 Cannonball Creek Brewing Company	<a href="#">Details</a>
\$8.92 per lb	US Centennial 2015	2,277 lbs 207 x 11 lbs 2 package minimum	T90 Pellet	 Highland Brewing Co.	<a href="#">Details</a>
\$7.30 per lb	US Columbus 2014	220 lbs 5 x 44 lbs 1 package minimum	T90 Pellet	 Armadillo Ale Works	<a href="#">Details</a>
\$7.46 per lb	US Columbus 2014	33 lbs 1 x 33 lbs 1 package minimum	T90 Pellet	 Armadillo Ale Works	<a href="#">Details</a>

Hop Alert - US Warrior - \$9.40 

 donotreply@lupulinexchange.com to me  Jan 3 (8 days ago)   

**Hop Alert: US Warrior**

The following listing was just posted on [The Lupulin Exchange](#):

- Hop Variety: US Warrior
- Crop Year: 2015
- Type: T90 Pellet
- Quantity: 1 x 44 lbs (44 total pounds)
- Seller: Armadillo Ale Works
- Price: \$9.40 per lb
- Minimum Order: 1

Click here to view this listing: <https://lupulinexchange.com/listing/detail/20513>

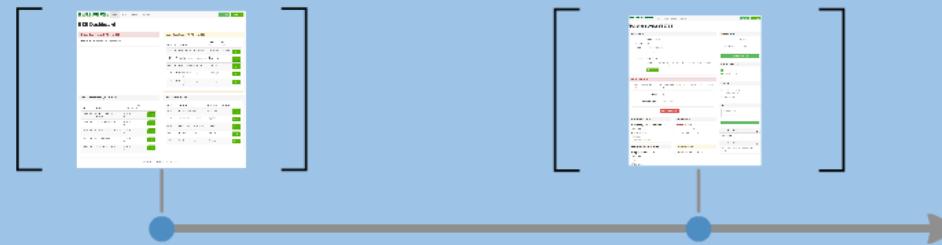
**Manage your Hop Alerts**

- Set a Max Price or Crop Year using our new Hop Alert Filters and receive notifications for only the listings you want
- To change or unsubscribe, please visit the Alerts tab on the [Manage My Account page](#).

The Lupulin Exchange will be speaking at the 2017 American Hop Convention and we need your help! [Please click here to take our quick 4 question survey](#) and earn some free swag!



# Order Fulfillment



## BSG Dashboard

### Critical Open Orders ( > 10 days old )

Awesome! There are no critical pending orders

### Aging Open Orders ( 4 - 10 days old )

PO #	A	Account	Order Date	Ship Date	
44671	✓	River Dog Brewing Company	6 days ago	1/17/2017	<button>View</button>
44692	✓	Southbound brewing company	5 days ago		<button>View</button>
44705	✓	River Dog Brewing Company	5 days ago		<button>View</button>
44711	✓	Narragansett Brewing Company	5 days ago		<button>View</button>
44725	✓	Narragansett Brewing Company	4 days ago		<button>View</button>

### Recent Open Orders ( < 4 days old )

PO #	A	Account	Order Date	Ship Date	
44885	✓	Five Threads Brewing Company	15 hours ago		<button>View</button>
44876	✓	Black Tooth Brewing Co	16 hours ago		<button>View</button>
44874	✓	Southbound brewing company	17 hours ago		<button>View</button>
44871	✓	Eddyline Brewery	17 hours ago		<button>View</button>
44865	✓	Great South Bay Brewery	18 hours ago		<button>View</button>

### Unapproved Orders

PO #	A	Account	Order Date	Ship Date	
44129		Ruffton Brewhouse	20 days ago		<button>View</button>
44541		Tractor Brewing Company	9 days ago		<button>View</button>
44562		AleSmith Brewing Company	7 days ago		<button>View</button>
44722		Bootlegger's Brewery	4 days ago		<button>View</button>
44727		Ska Brewing Company	4 days ago		<button>View</button>

Need more users? Need help? [Contact us](#)

**THE LUPULIN EXCHANGE** FREE MARKET HOPS

Home Orders Listings Settings [Sell Hops](#) [Public Site](#)

## Purchase Order #39796

**Order Contents**

Hop	US Citra - 90 Pellet
Crop Year	2014
Quantity	3 x 10 lbs (30 pounds total)
Order Date	5 months ago
Status	Open
Approval	Not yet approved

The seller has not yet notified us that they have approved this purchase order. If you have received the purchase order from the seller, you can mark it as received.

[Mark Received](#)

**Order Properties**

Internal ID	AHQ1288
Est. Ship Date	01/14/2017

[Save Order Properties](#)

**Pre-Order Processing**

- Check account in good standing
- Check hops in inventory
- Order created in SAS

**Shipping**

- Shipment created in LLS
- Printed Shipping Labels
- Sent to warehouse

**Notes**

enter note text here

[Save Note](#)

**Joseph Shane Kunkle** 9 minutes ago  
Shipping \$309.20

**Joseph Shane Kunkle** 9 minutes ago  
Email sent to [yakim](#) for shipping costs - waiting to hear back

**Account to bill (Hops only)**

**River Dog Brewing Company**

John Federal  
391 Browns Cove Rd  
Ridgeland, SC 29938  
United States  
P: 8033868918  
[C.john.federal@riverdogbrewing.com](mailto:C.john.federal@riverdogbrewing.com)

**Shipping Request**

**BILL RECEIVER**

Carrier: UPS  
Account #: 23144X

**Ship Order to (and Bill Shipping to)**

**Hog Island Beer Co.**

John Konaga  
29 West Rd  
Orchard, MA 02653  
United States  
P: 9786562147

**Shipping Restrictions**

The buyer did not specify any restrictions

## Order Properties

Internal # 

ARQ12885

Est. Ship Date 

01/14/2017

[Save Order Properties](#)

## Pre-Order Processing

- Check account in good standing
- Check hops in inventory
- Order created in SAS

## Shipping

- Shipment created in LLS
- Printed Shipping Labels
- Sent to warehouse

## Notes

enter note text here

Save Note

**Joseph Shane Kunkle**

**9 minutes ago**

Shipping \$389.28

**Joseph Shane Kunkle**

**9 minutes ago**

Email sent to yakima for shipping costs - waiting to  
hear back

## Order Fulfillment

Once you have created this shipment, please enter the tracking information below. Once entered, the buyer will receive an email with the tracking information.

Carrier

UPS

Tracking/Pro Number

tracking number

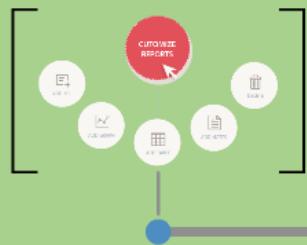
Mark Order as Complete

Account to bill (Hops only)

Shipping Request

# Custom Integration

# Industry Analytics



## CUSTOMIZE REPORTS



ADD KPI



ADD GRAPH



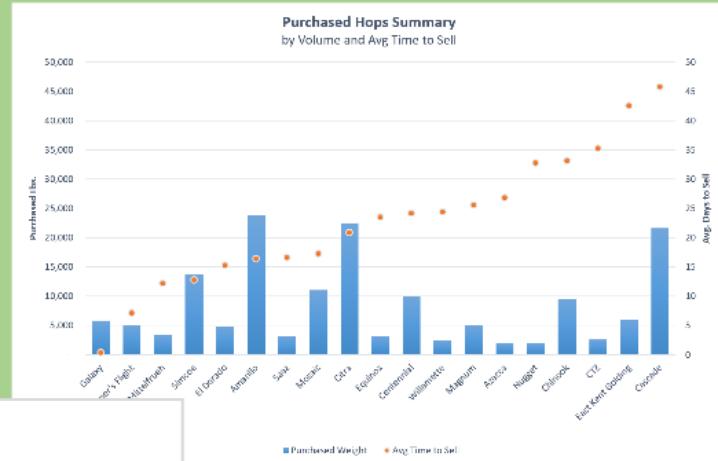
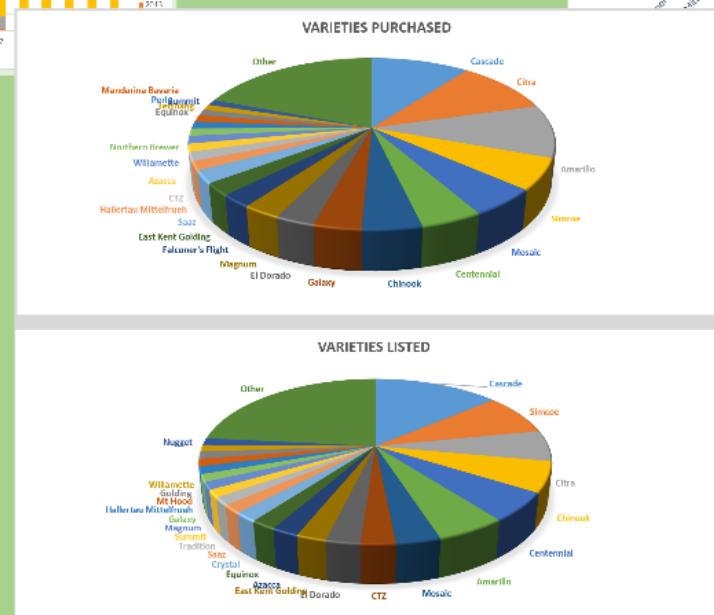
ADD TABLE



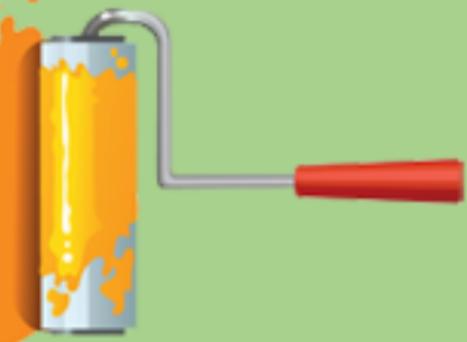
DELETE



ADD NOTES



# Coming Soon





## Top 5 Reasons to Reach Out

- 1 Download all my charts and slides
- 2 A link to a recording of this presentation
- 3 You have an idea for a report or integration
- 4 You like talking shop! No question or idea is too big or small!
- 5 You know where to find a great burger in Bend!

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**[blog.lupulinexchange.com](http://blog.lupulinexchange.com)**