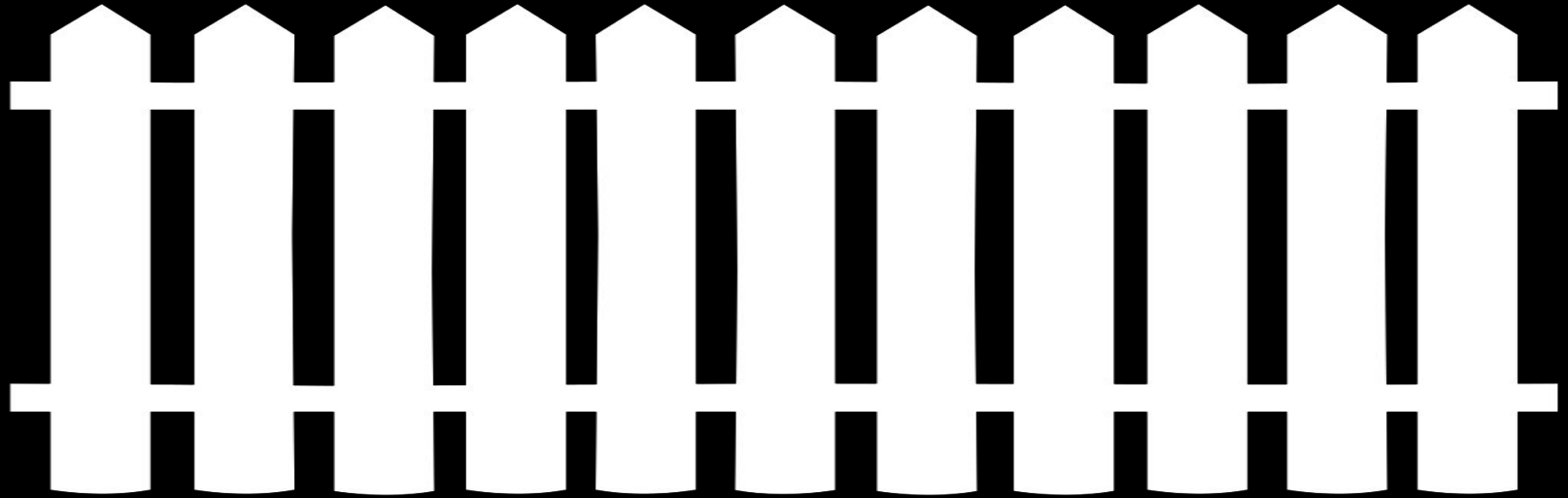


SEEING PAST THE PIQUETTE FENCE



DR. ANDREJ SVYANTEK
DR. ZHUOYU WANG

SEEING PAST THE PIQUETTE FENCE

- WHAT IS PIQUETTE?

SEEING PAST THE PIQUETTE FENCE

- **WHAT IS PIQUETTE?**
- **THE GHOST OF WINE**



SEEING PAST THE PIQUETTE FENCE

- **A BRIEF ECONOMIC SURVEY**



SEEING PAST THE PIQUETTE FENCE

- **A BRIEF ECONOMIC SURVEY**
- **PRICES OF 2020 CROP IN 2021**



SEEING PAST THE PIQUETTE FENCE

- HISTORICAL RECIPES



SEEING PAST THE PIQUETTE FENCE

- **HISTORICAL RECIPES**
- **...AND RECENT TINKERINGS...**



SEEING PAST THE PIQUETTE FENCE

- AN OPEN CHALLENGE



SEEING PAST THE PIQUETTE FENCE

- **AN OPEN CHALLENGE**
- **NOW YOU TEACH**



SEEING PAST THE PIQUETTE FENCE

- **WHAT IS PIQUETTE?**
- **THE GHOST OF WINE**
- **A BRIEF ECONOMIC SURVEY**
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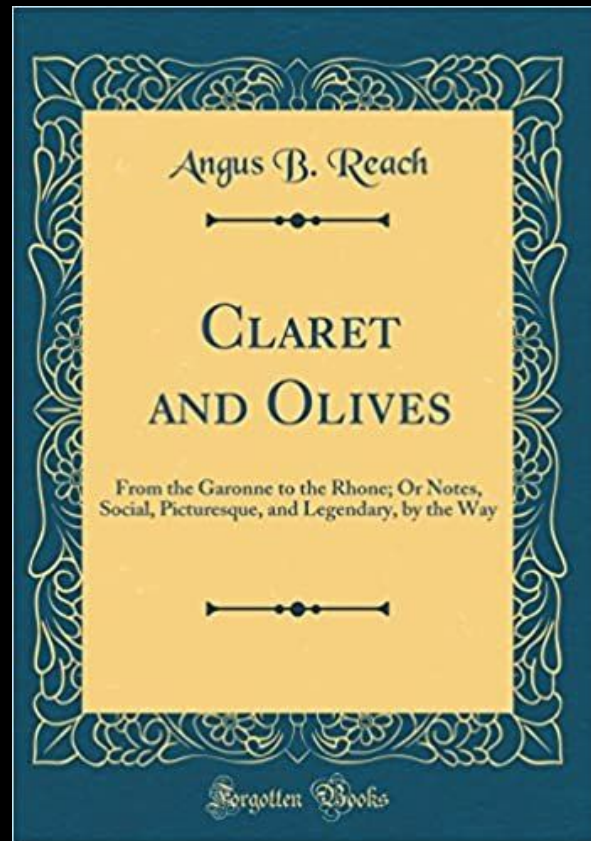
SEEING PAST THE PIQUETTE FENCE

- **WHAT IS PIQUETTE?**
- **THE GHOST OF WINE**



SEEING PAST THE PIQUETTE FENCE

- WHAT IS PIQUETTE?
- THE GHOST OF WINE



1852

GHOST OF WINE

Piquette, in fact, may be defined as the ghost of wine!

GHOST OF WINE

-wine minus its bones, its flesh, and its soul!-

GHOST OF WINE

liquid shadow!—a fluid nothing!-

GHOST OF WINE

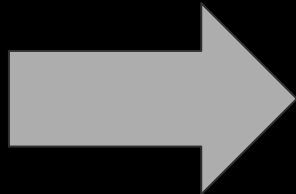
—an utter negation

of all comfortable things and associations !

GHOST OF WINE

Piquette, in fact, may be defined as the ghost of wine! —wine minus its bones, its flesh, and its soul!—a liquid shadow!—a fluid nothing!—an utter negation of all comfortable things and associations!

YOU?



**WHERE
IS THIS
HEADING?**

GHOST OF WINE

Piquette, in fact, may be defined as the ghost of wine!—wine minus its bones, its flesh, and its soul!—a liquid shadow!—a fluid nothing!—an utter negation of all comfortable things and associations! Nevertheless, however, the peasants swill it down in astounding quantities, and apparently with sufficient satisfaction.

Why Did You Get Into Fruits and Wines?

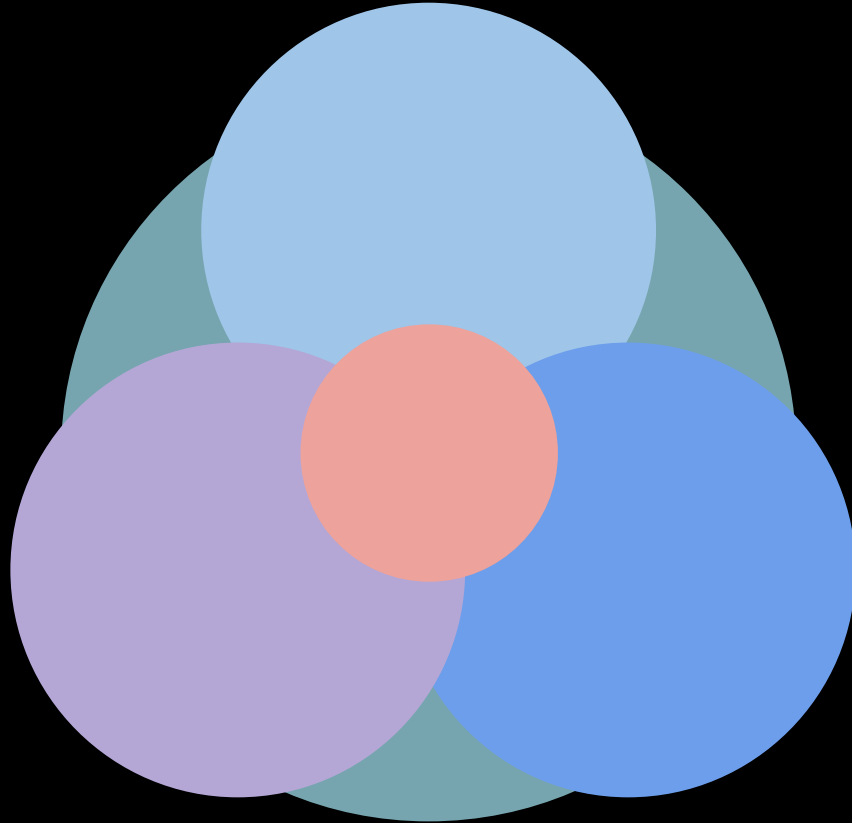


I Love:

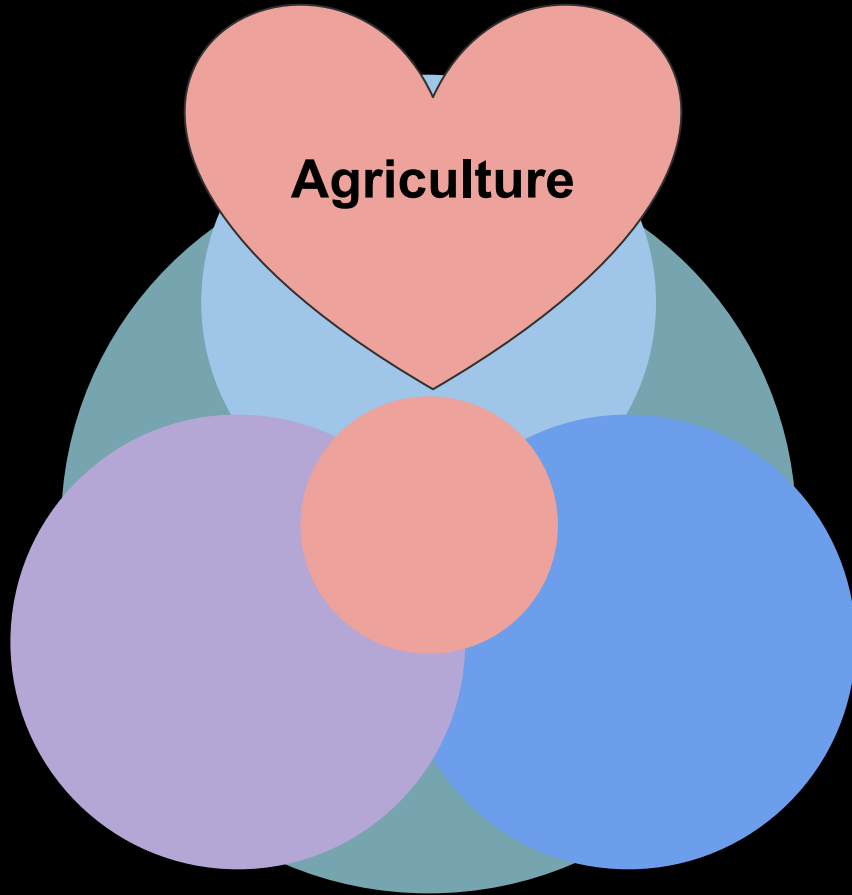
- Cultivation and Breeding
- Fermentation (Yeast)
- Eating (Pays Bills)



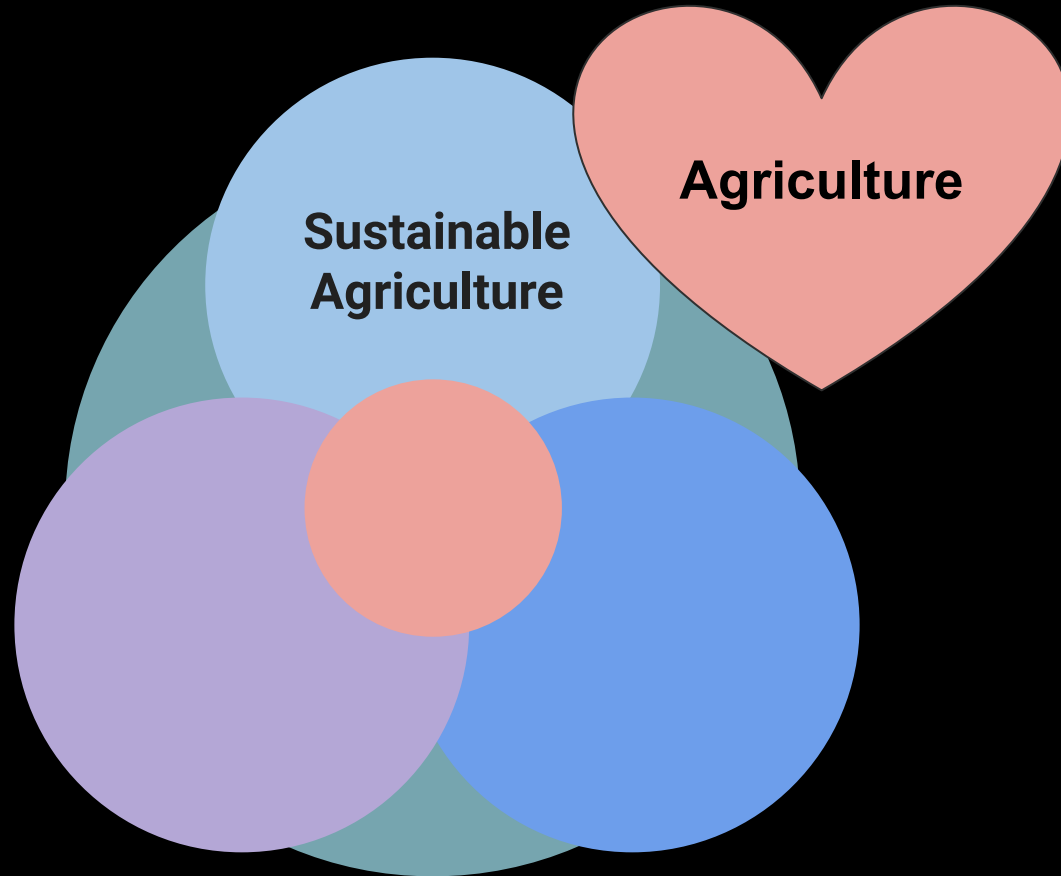
Vineyard and Winery Considerations



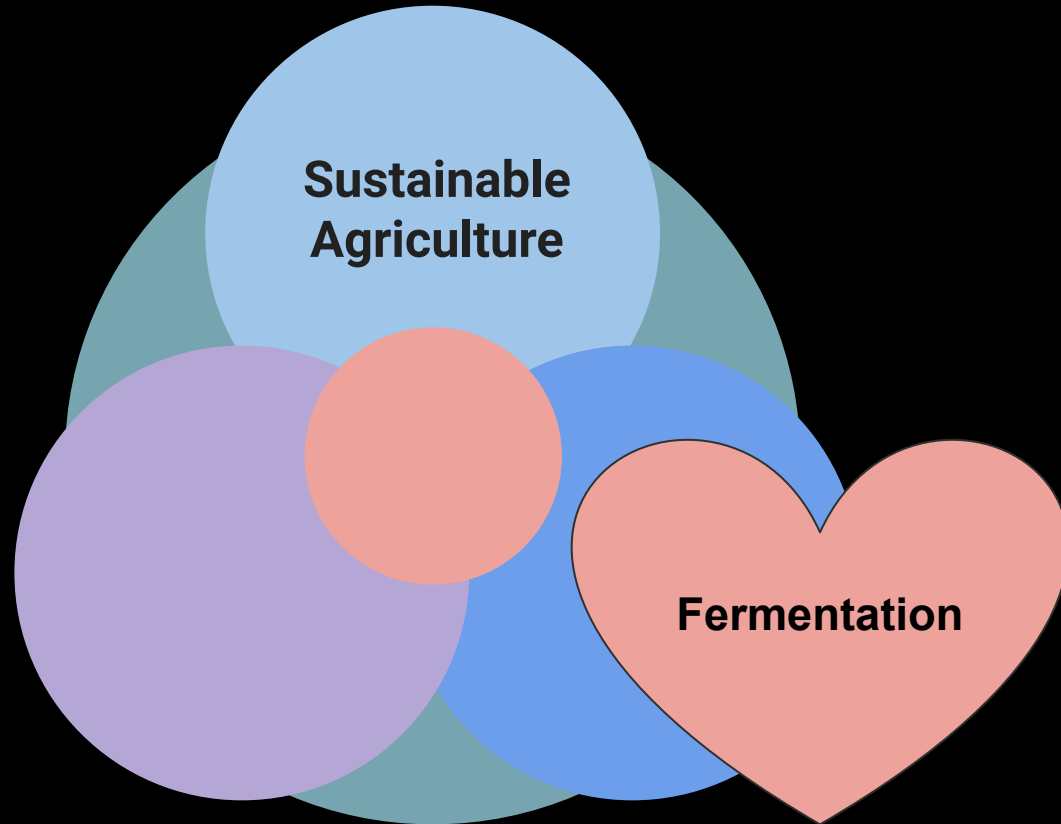
Vineyard and Winery Considerations



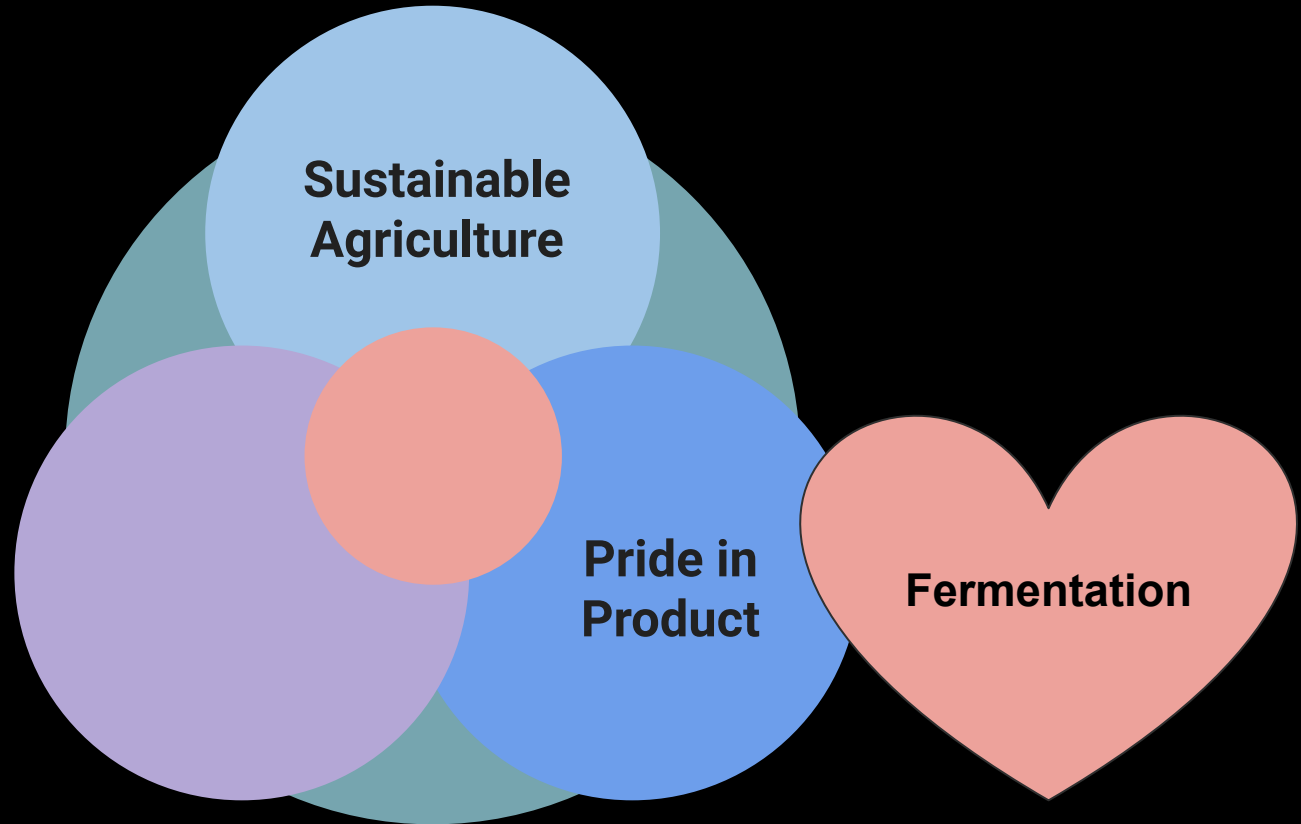
Vineyard and Winery Considerations



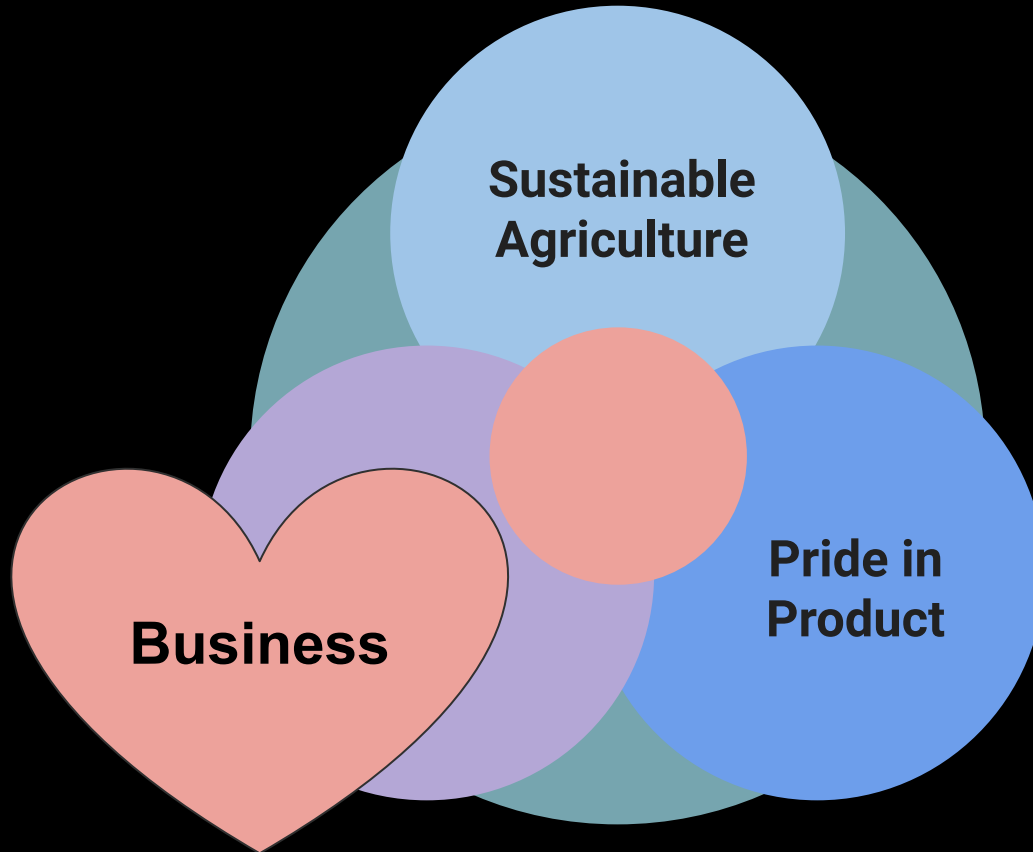
Vineyard and Winery Considerations



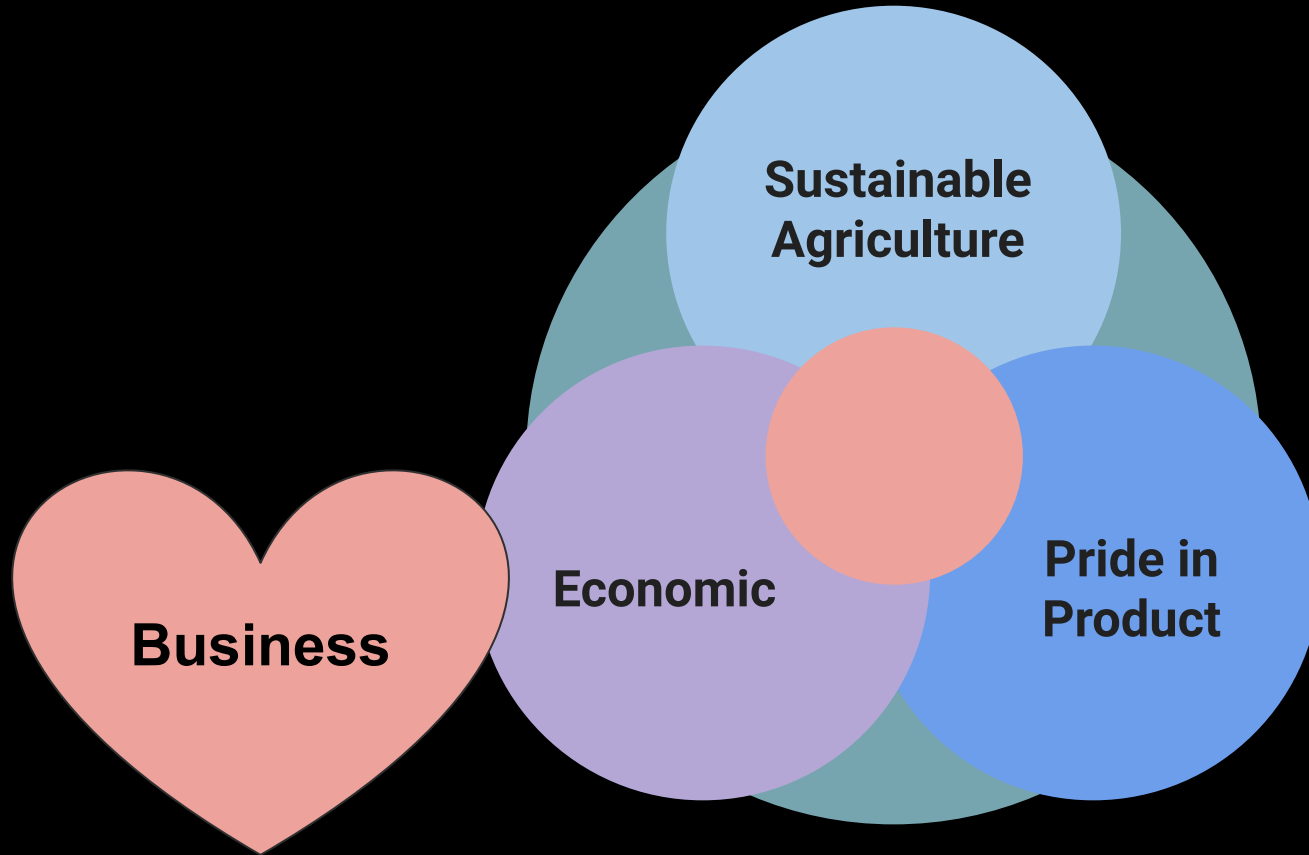
Vineyard and Winery Considerations



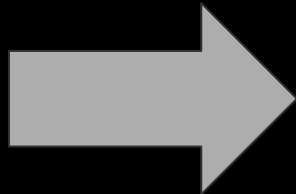
Vineyard and Winery Considerations



Vineyard and Winery Considerations



YOU?



**WHERE
IS THIS
HEADING?**

WINE

PIQUETTE



PIQUETTE DEFINITION

- **A LOW ALCOHOL WINE-LIKE PRODUCT MADE FROM WINERY WASTES.**
- **PRODUCED FROM LEFT-OVER POMACE FOLLOWING PRESSING.**
 - HISTORICAL RECIPES VARY IN INGREDIENTS:
 - NEEDS: WATER, POMACE
 - OPTIONAL: HONEY, SUGAR, HOPS, OTHER FRUIT, AND MORE
- **SISTER PRODUCT KNOWN AS CIDERKIN, “CHILD CIDER”, A LOW ALCOHOL CIDER MADE FROM CIDER POMACE AND WATER.**



Piquette Production Can Align with Practical Considerations

Sustainable:

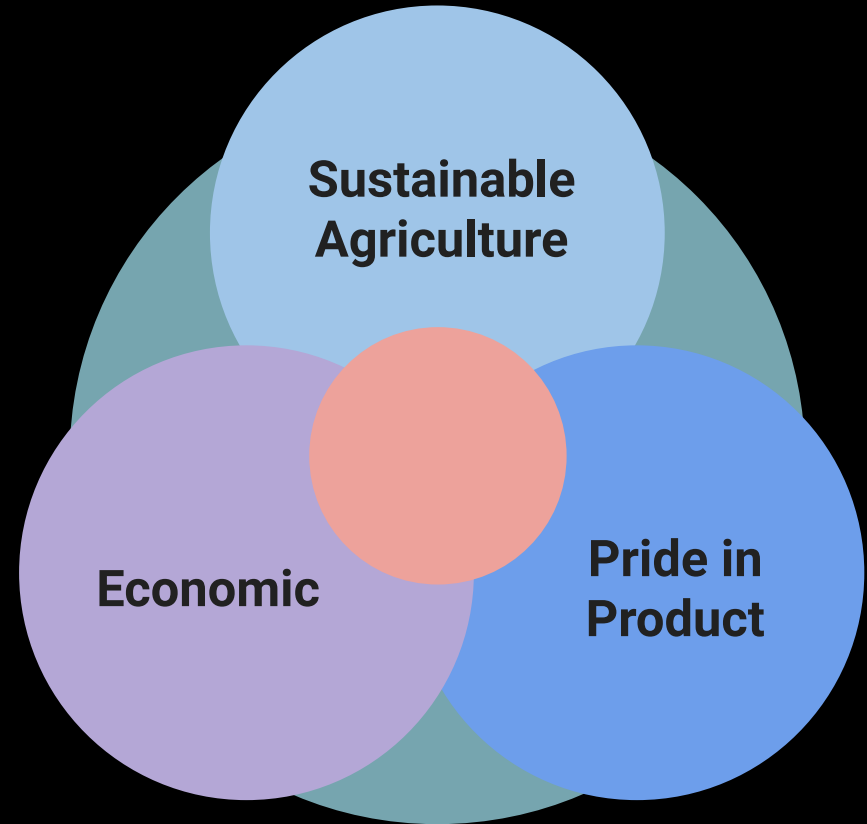
- Turning Trash into Treasure

Quality Product:

- A Desirable, Niche Product

Economics:

- “Just Add Water”



Piquette May Naturally Fit with Our High Acid Wine Grapes



Piquette May Naturally Fit with Our High Acid Wine Grapes

- **Aromatic Whites with Flavor to Spare**



Piquette May Naturally Fit with Our High Acid Wine Grapes

- **Aromatic Whites with Flavor to Spare**
- **Red Grapes with Color for Days**



Piquette May Naturally Fit with Our High Acid Wine Grapes

- **Aromatic Whites with Flavor to Spare**
 - **Red Grapes with Color for Days**
 - **Low Tannin Not Necessarily Negative in Piquettes**
-



Piquette May Naturally Fit with Our High Acid Wine Grapes

- **Aromatic Whites with Flavor to Spare**
- **Red Grapes with Color for Days**
- **Low Tannin Not Necessarily Negative in Piquettes**
- **High Acidity May Help Retain Crispness and Quality (pH)**



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Brief Economic Survey

We surveyed **commercially available** Piquette products ($n=89$) from four countries (USA, CAN, FR, SI):

- price per vessel
- vessel type
- closure type



Image from: Piquette? You Bet! | Wine Press NW

UNIT PRICE

PRICE/750 ML



https://wjwine.org/shop?products-query=%7B%22additional_properties%5Bbrand%5D%5B%5D%22%3A%5B%22The%20Marigny%22%5D%7D&title=The%20Marigny



<https://foxtrotco.com/product/old-westminster-skin-contact-piquette-natural-wine-spritzer/56337>



UNIT PRICE

\$21.99

\$7.00

PRICE/750 ML

\$21.99

\$14.78

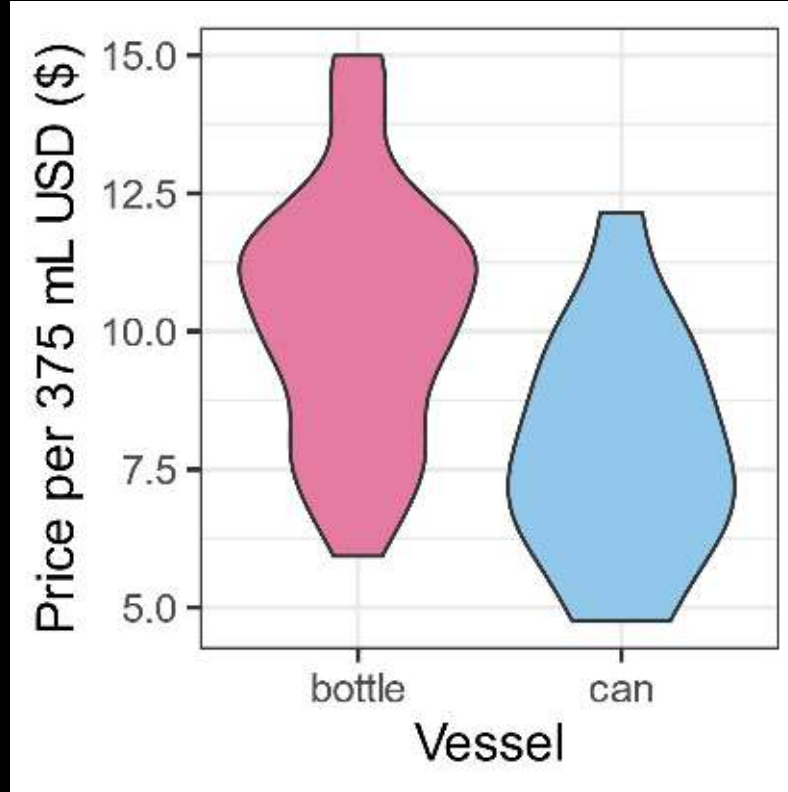


<https://foxtrotco.com/product/old-westminster-skin-contact-piquette-natural-wine-spritzer/56337>

Price of commercial Piquettes per 375 mL for bottled and canned products from four countries for sale on the internet in 2021 ($n=89$).



https://wvwine.org/shop?products-query=%7B%22additional_properties%5Bbrand%5D%5B%5D%22%3A%5B%22The%20Marigny%22%5D%7D&title=The%20Marigny



<https://foxtrotco.com/product/old-westminster-skin-contact-piquette-natural-wine-spritzer/56337>

Price of commercial Piquettes per 375 mL for bottled and canned products from four countries for sale on the internet in 2021 ($n=89$).

MEAN PRICE/750 ML

\$20.37

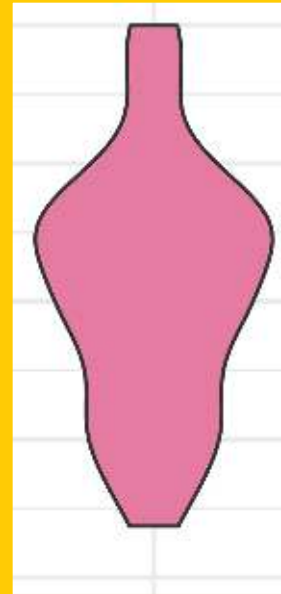
LOW

\$11.86

HIGH

\$29.99

Price per 375 mL USD (\$)



Price of commercial Piquettes per 375 mL for bottled and canned products from four countries for sale on the internet in 2021 ($n=89$).

MEAN PRICE/750 ML

\$15.69

LOW

\$9.51

HIGH

\$24.29





\$6.00

**Fangs- Piquette
Soto Vino
TX**



\$25.00

**Piquette
Troon Vineyard
OR**



\$18.99

**Tributary
Iapetus
VT**

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WINE RECIPE

Step One:

- Make Wine

Step Two:

- Compost Pomace

Step Three:

- Sell Wine

WINE RECIPE

Step One:

- Make Wine

Step Two:

- ~~Compost Pomace~~

Step Three:

- Sell Wine

PIQUETTE RECIPE

Step One:

- Make Wine

Step Two:

- Make Piquette (Add Water to Pomace)

Step Three:

- Compost Pomace

Step Four:

- Sell Piquette

Step Five:

- Sell Wine



Historical Recipes

- **Surveyed Popular Press Newspaper Articles with keyword “Piquette”**
 - Water
 - Apple
 - Sugar
 - Raisin
- **Most Basic Recipe:**
 - After Pressing Wine, Add Water Until Pomace is Submerged
 - Wait
 - Press Again
 - Voila, Piquette

RECENT TINKERINGS

- **CIDERKIN 2020.**

- Sugar Additions

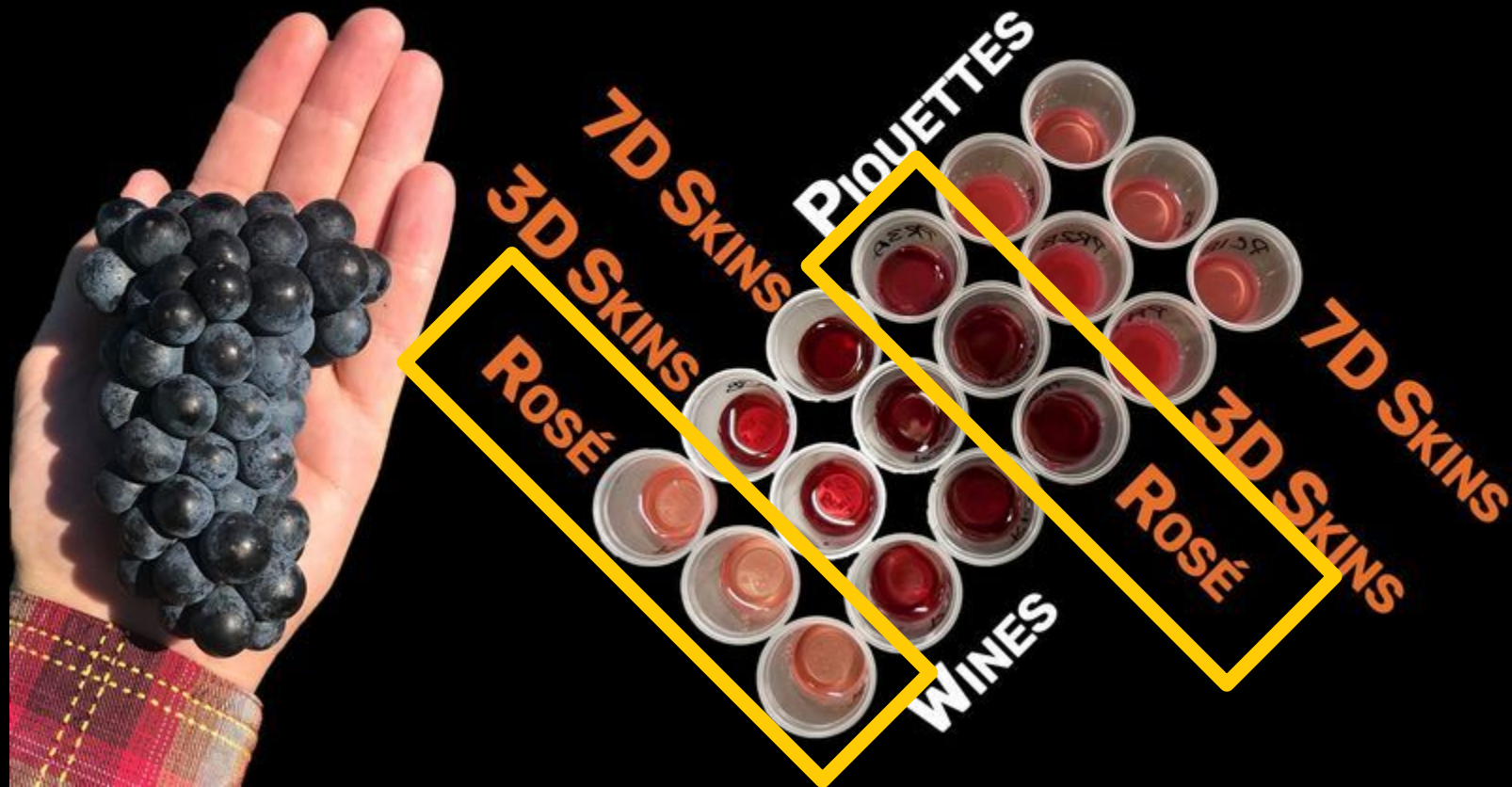
- **PIQUETTE 2021.**

- Cultivar Comparison- (Conjoined with Skin-Contact Evaluation)
- Pomace Content
- Pomace Contact Duration
- Water Addition/ Juice Addition

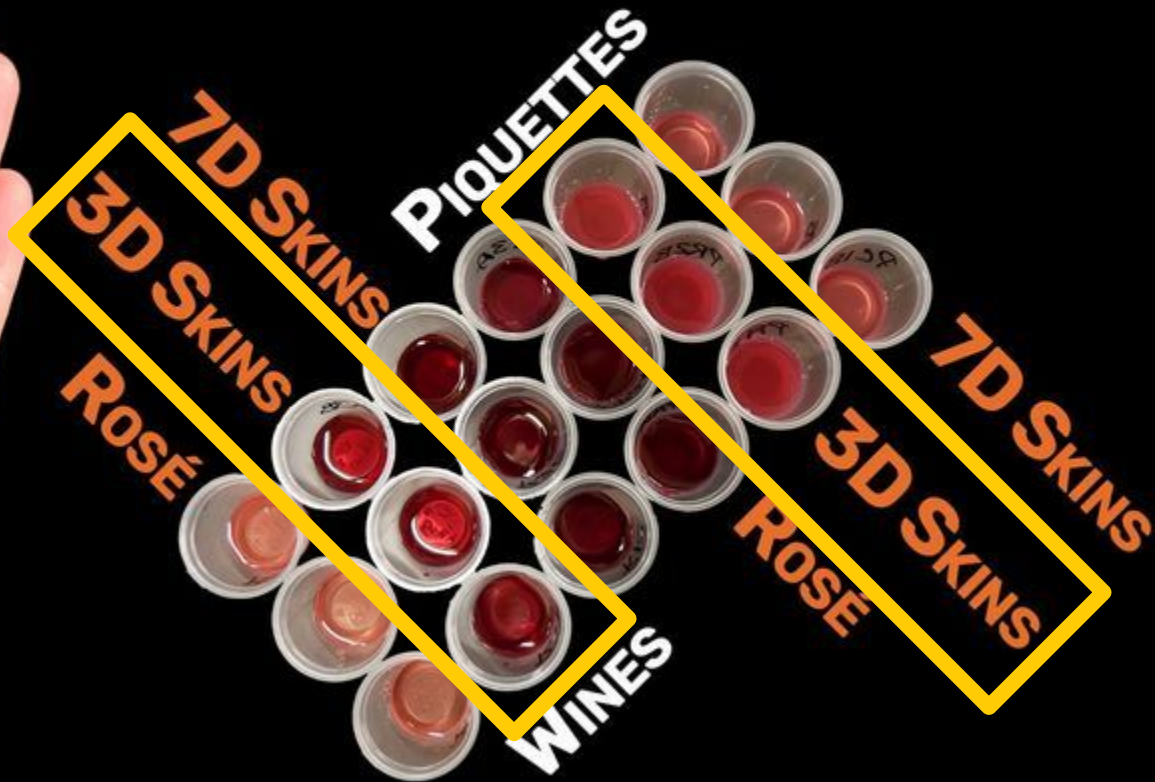
RUBAIYAT WINES AND THEIR PIQUETTE SHADOWS (MADE FROM POMACE WASTE)



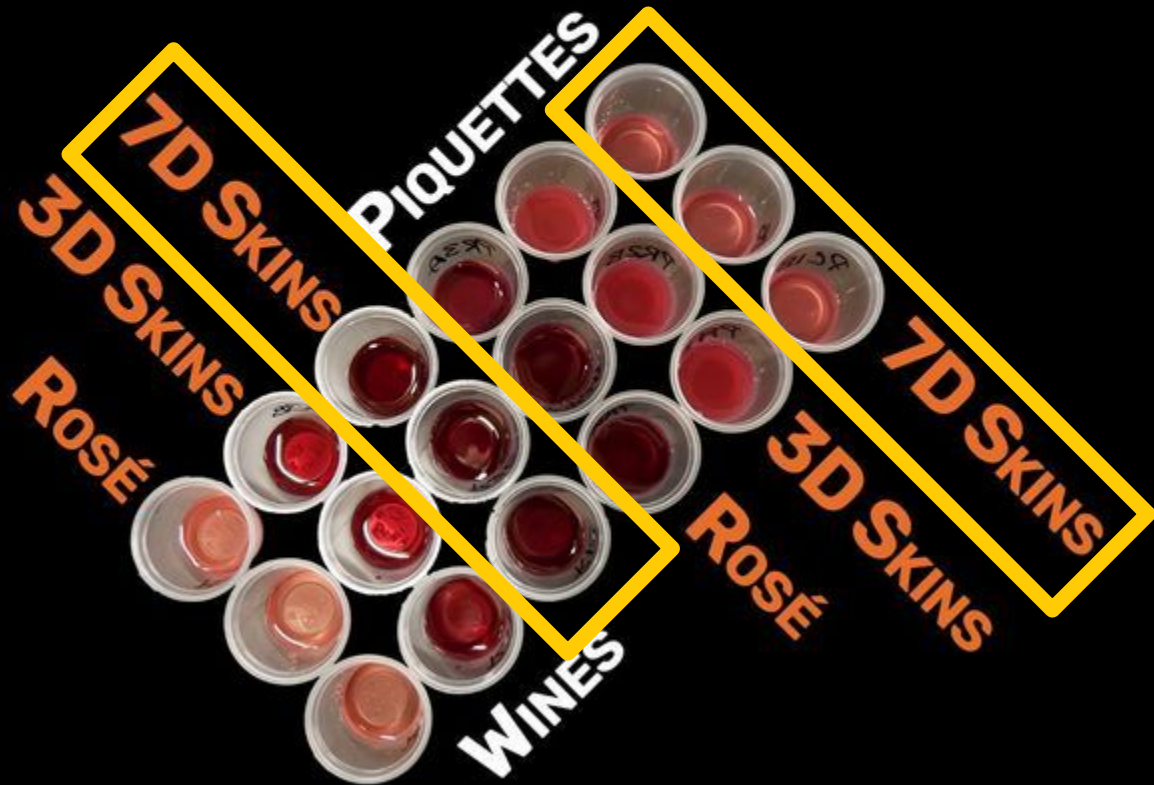
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RUBAIYAT WINES AND THEIR PIQUETTE SHADOWS (MADE FROM POMACE WASTE)



RUBAIYAT WINES AND THEIR PIQUETTE SHADOWS (MADE FROM POMACE WASTE)


















Base Wine

Cultivar (CV)	Alcohol		pH		Total acidity	
					(g/L)	
Chambourcin	10.72	b	3.61	c	5.61	ns
Norton	12.13	a	3.84	b	5.66	
Rubaiyat	10.77	b	4.04	a	5.65	
















Piquette

Cultivar (CV)	Alcohol		pH		Total acidity	
					(g/L)	
Chambourcin	4.75	b	3.84	c	4.24	ns
Norton	5.12	a	3.76	b	4.42	
Rubaiyat	4.70	b	4.10	a	5.40	

Color of Base Wines

	Lightness L*				Red a*				Yellow b*				Chroma C*				Perceived hue H*				Mean color (10 mm)
Cultivar (CV)																					
Chambourcin	67.48	±	6.69	a	33.98	±	6.54	c	16.89	±	2.88	c	38.00	±	7.11	c	28.61	±	1.65	c	
Norton	54.81	±	6.83	b	35.85	±	7.58	b	35.90	±	4.99	b	51.69	±	8.38	b	51.61	±	5.44	a	
Rubaiyat	42.73	±	6.78	c	45.93	±	4.10	a	42.30	±	1.43	a	62.67	±	3.90	a	43.59	±	1.90	b	
Maceration (M)																					
0D	81.63	±	3.85	a	14.39	±	3.82	c	19.99	±	4.55	c	25.18	±	5.65	c	52.70	±	5.61	a	
3D	41.58	±	3.19	b	51.72	±	0.79	a	40.07	±	4.51	a	66.17	±	2.93	a	36.64	±	3.19	b	
7D	41.82	±	4.22	b	49.65	±	1.45	b	35.04	±	3.24	b	61.01	±	2.99	b	34.48	±	1.88	c	
CV×M																					
Chambourcin-0D	94.10	±	0.49	ns	8.06	±	0.78	f	5.44	±	0.37	f	9.74	±	0.77	f	34.26	±	2.40	e	
Chambourcin-3D	52.52	±	0.90		49.73	±	0.56	c	22.51	±	0.56	d	54.59	±	0.48	c	24.35	±	0.65	f	
Chambourcin-7D	56.13	±	1.10		44.16	±	0.65	d	22.73	±	0.66	d	49.68	±	0.74	d	27.23	±	0.63	f	
Norton-0D	81.03	±	5.31		5.57	±	0.38	f	17.83	±	0.72	e	18.68	±	0.79	e	72.69	±	0.56	a	
Norton-3D	41.78	±	2.30		50.83	±	0.73	c	52.05	±	1.29	a	72.76	±	1.36	a	45.67	±	0.46	c	
Norton-7D	41.63	±	3.23		51.16	±	0.78	bc	37.82	±	0.80	c	63.63	±	1.05	b	36.47	±	0.35	de	
Rubaiyat-0D	69.74	±	0.71		29.55	±	0.61	e	36.70	±	0.61	c	47.13	±	0.75	d	51.16	±	0.52	b	
Rubaiyat-3D	30.74	±	0.65		54.60	±	0.26	a	45.64	±	0.36	b	71.16	±	0.07	a	39.89	±	0.35	d	
Rubaiyat-7D	27.70	±	0.66		53.63	±	0.29	ab	44.56	±	0.30	b	69.73	±	0.32	a	39.73	±	0.23	d	
P-Value																					
CV	<.0001				<.0001				<.0001				<.0001				<.0001				
M	<.0001				<.0001				<.0001				<.0001				<.0001				
CV×M	0.6508				<.0001				<.0001				<.0001				<.0001				

Color of Piquettes Produced from Base Wine Pomace

	Lightness L*				Red a*				Yellow b*				Chroma C*				Perceived hue H*				Mean color (10 mm)
Cultivar (CV)																					
Chambourcin	72.27	±	1.94	a	26.14	±	2.48	b	11.95	±	0.90	b	29.03	±	2.21	b	25.64	±	2.91	ns	
Norton	52.66	±	2.12	b	39.54	±	4.04	a	23.35	±	3.08	a	47.46	±	2.80	a	32.00	±	5.03		
Rubaiyat	45.55	±	1.70	c	41.74	±	2.58	a	23.59	±	0.45	a	48.14	±	2.14	a	30.07	±	1.79		
Maceration (M)																					
0D	50.88	±	3.88	b	47.03	±	2.95	a	16.72	±	1.85	b	50.08	±	3.18	a	19.46	±	1.56	c	
3D	58.76	±	4.85	a	32.93	±	2.81	b	18.61	±	2.38	ab	37.98	±	3.48	b	28.55	±	1.97	b	
7D	60.84	±	3.68	a	27.47	±	2.22	c	23.56	±	3.05	a	36.58	±	3.27	b	39.70	±	2.77	a	
CV×M																					
Chambourcin-0D	65.32	±	1.75	ns	35.74	±	1.47	bc	11.83	±	0.58	ns	37.64	±	1.56	ns	18.32	±	0.38	cd	
Chambourcin-3D	77.55	±	0.79		22.56	±	0.87	d	9.32	±	0.90		24.46	±	0.59		22.52	±	2.59	bcd	
Chambourcin-7D	73.94	±	1.34		20.13	±	0.66	d	14.70	±	1.11		24.99	±	0.22		36.10	±	2.93	ab	
Norton-0D	47.67	±	1.40		53.91	±	1.73	a	15.49	±	3.01		56.30	±	0.75		16.13	±	3.47	d	
Norton-3D	52.18	±	2.74		37.29	±	3.10	b	23.63	±	1.42		44.26	±	2.50		32.61	±	2.96	abc	
Norton-7D	58.13	±	4.10		27.44	±	2.07	cd	30.94	±	6.54		41.83	±	5.21		47.27	±	6.35	a	
Rubaiyat-0D	39.66	±	1.73		51.44	±	1.53	a	22.82	±	0.72		56.29	±	1.45		23.95	±	0.87	bcd	
Rubaiyat-3D	46.54	±	1.30		38.94	±	1.73	b	22.89	±	0.44		45.21	±	1.26		30.54	±	1.63	bcd	
Rubaiyat-7D	50.45	±	0.41		34.84	±	0.34	bc	25.05	±	0.33		42.91	±	0.29		35.72	±	0.51	ab	
P-Value																					
CV	<.0001				<.0001				<.0001				<.0001				0.0536				
M	<.0001				<.0001				0.0077				<.0001				<.0001				
CV×M	0.1781				0.0342				0.0634				0.9296				0.0456				

Color of Piquettes Produced from Base Wine Pomace

Mean color (10 mm)		
Cultivar (CV)	Base Wine	Piquette
Chambourcin		
Norton		
Rubaiyat		
Maceration (M)		
0D		
3D		
7D		
CV×M		
Chambourcin-0D		
Chambourcin-3D		
Chambourcin-7D		
Norton-0D		
Norton-3D		
Norton-7D		
Rubaiyat-0D		
Rubaiyat-3D		
Rubaiyat-7D		

Color of Piquettes Produced from Base Wine Pomace

Mean color (10 mm)		
Cultivar (CV)	Base Wine	Piquette
Chambourcin		
Norton		
Rubaiyat		
Maceration (M)		
0D		
3D		
7D		
CV x M		
Chambourcin-0D		
Chambourcin-3D		
Chambourcin-7D		
Norton-0D		
Norton-3D		
Norton-7D		
Rubaiyat-0D		
Rubaiyat-3D		
Rubaiyat-7D		

Color of Piquettes Produced from Base Wine Pomace

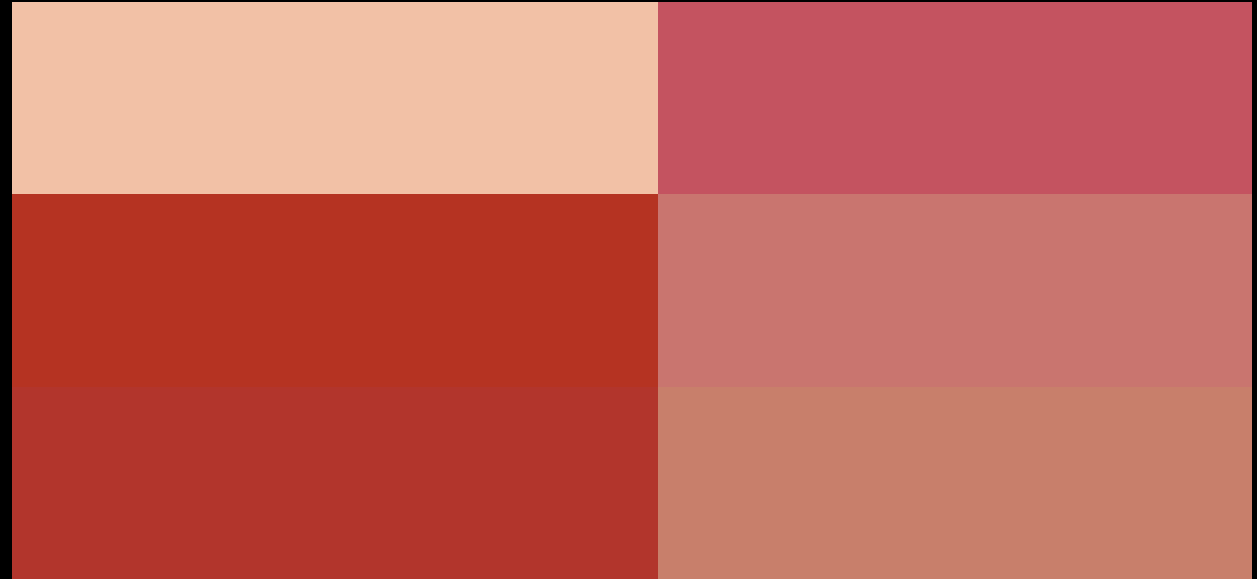
Mean color (10 mm)

Maceration

0D

3D

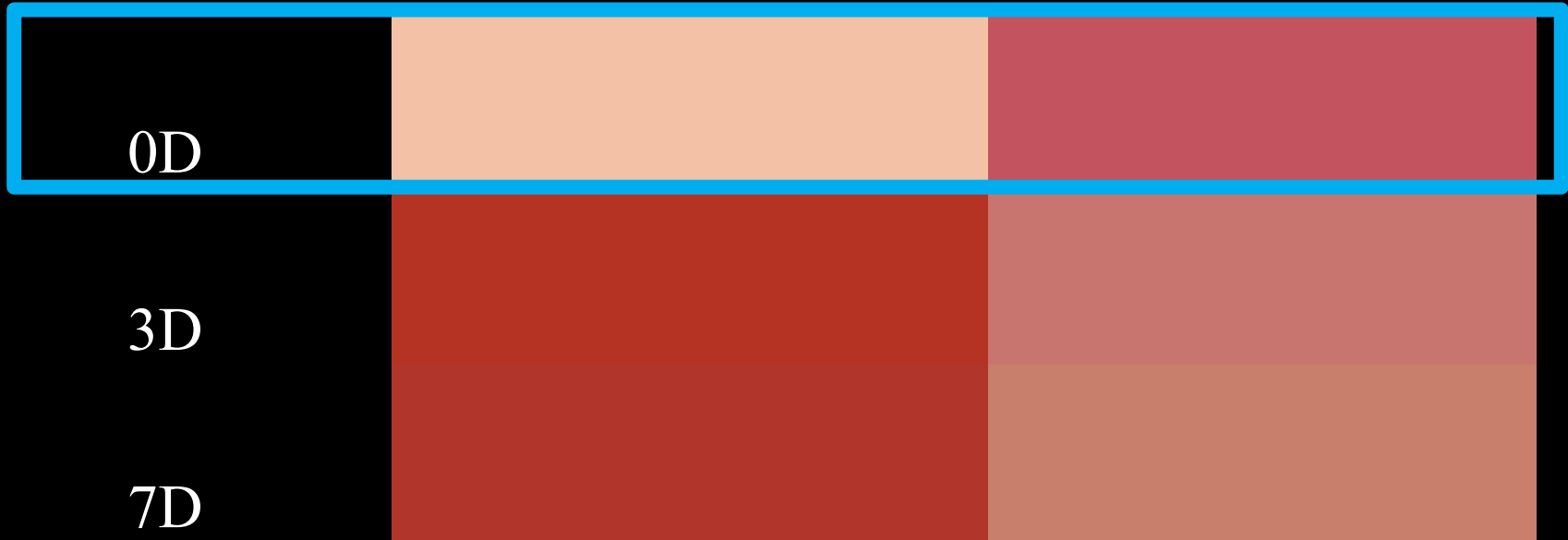
7D



Color of Piquettes Produced from Base Wine Pomace

Mean color (10 mm)

Maceration



Color of Piquettes Produced from Base Wine Pomace

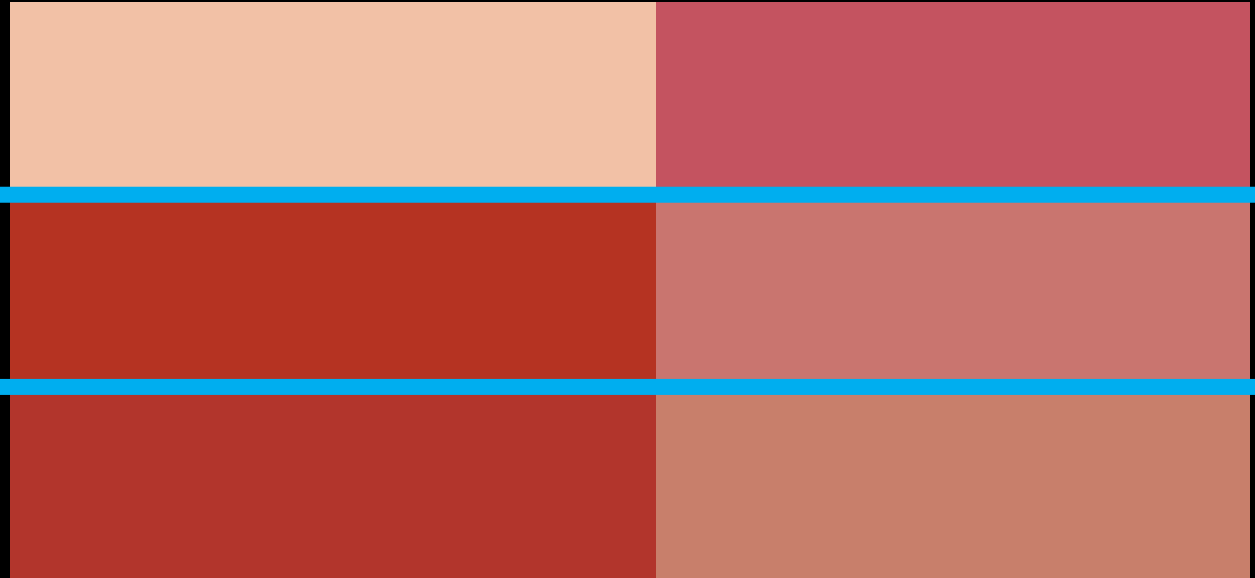
Mean color (10 mm)

Maceration

0D

3D

7D



Color of Piquettes Produced from Base Wine Pomace

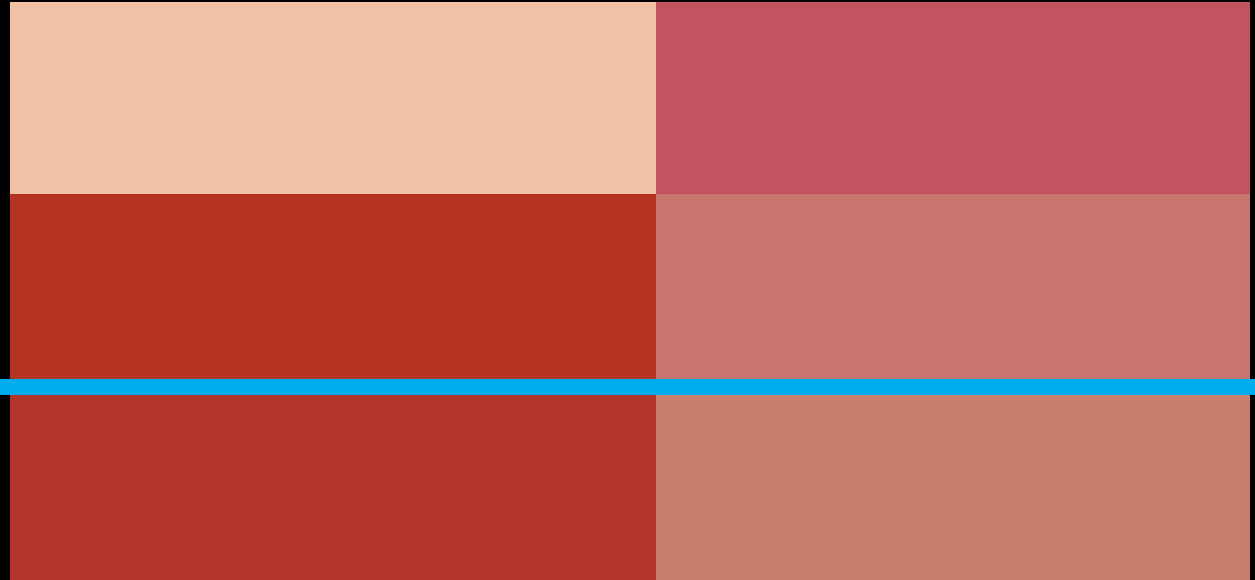
Mean color (10 mm)

Maceration

0D

3D

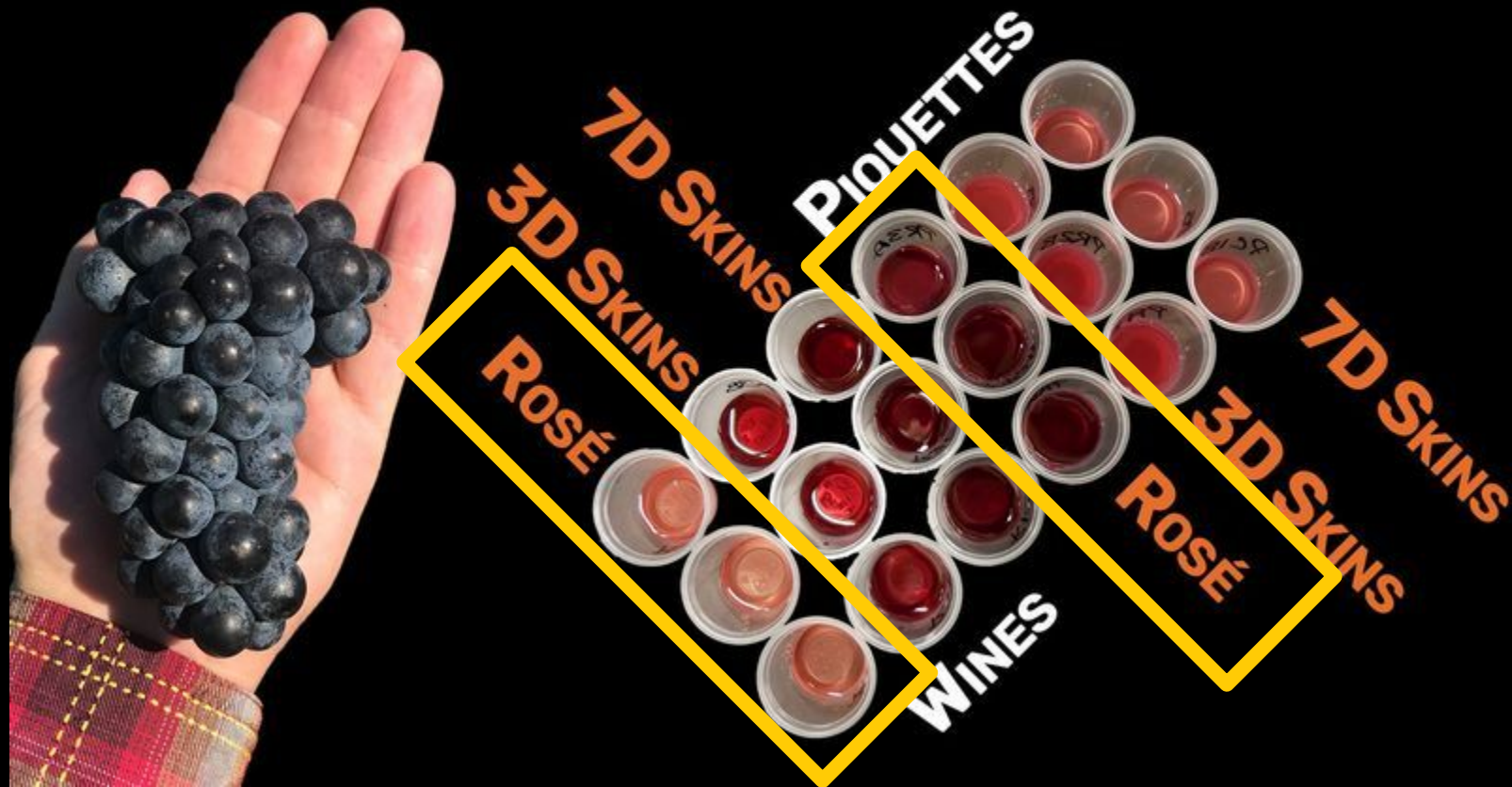
7D



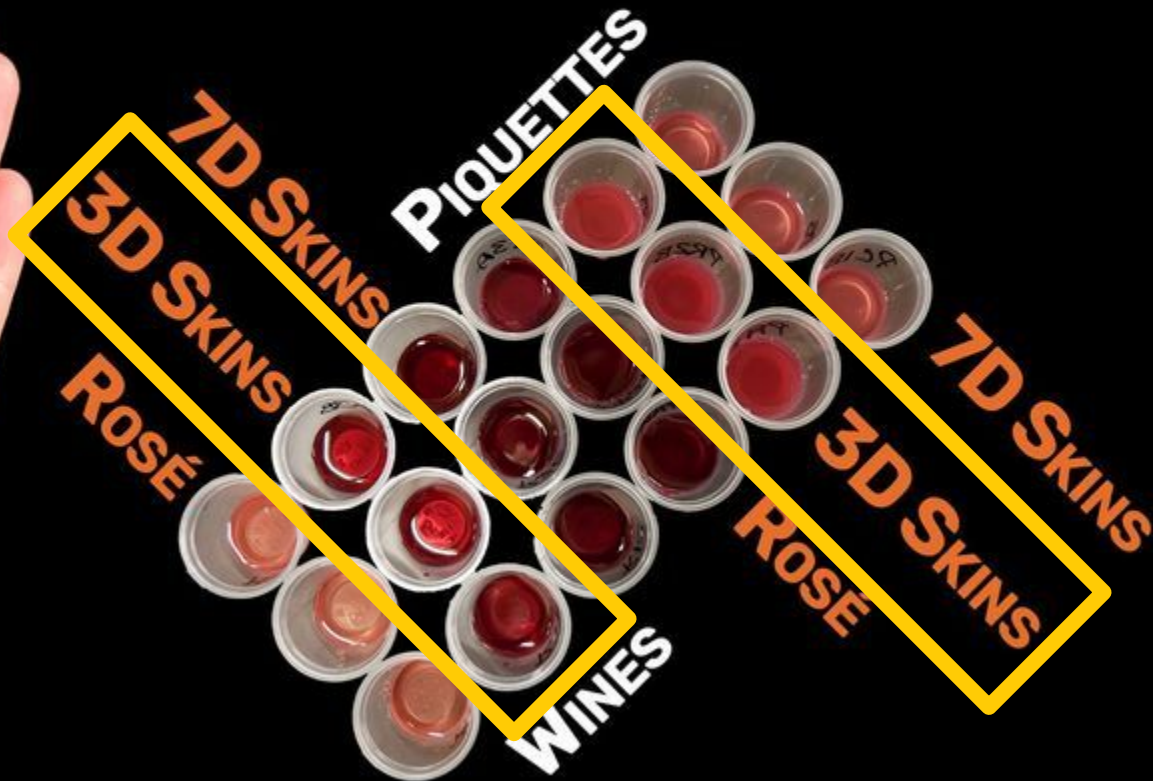
RUBAIYAT WINES AND THEIR PIQUETTE SHADOWS (MADE FROM POMACE WASTE)



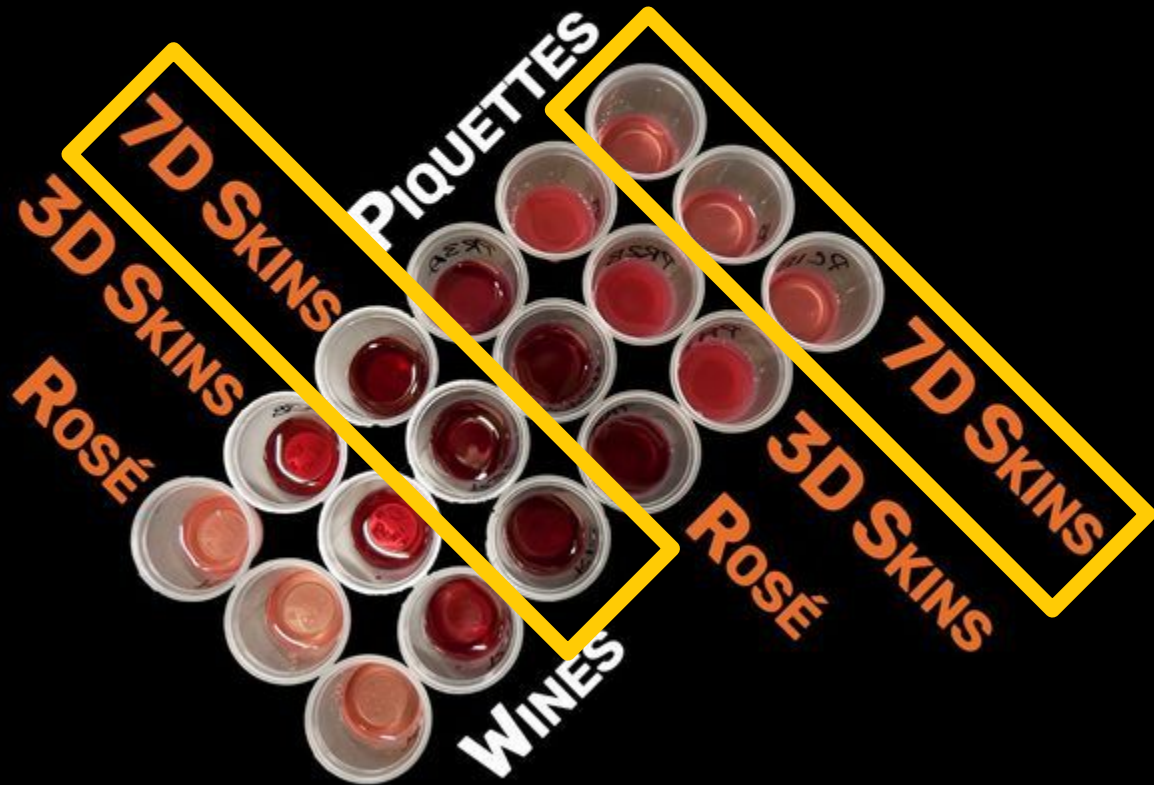
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RUBAIYAT WINES AND THEIR PIQUETTE SHADOWS (MADE FROM POMACE WASTE)



Logical Conclusions from 2021 Piquette Efforts



Logical Conclusions from 2021 Piquette Efforts

Pomace Contact Duration

- Longer Pomace Contact Increases Phenolics
- Mild Effect on Other Attributes
- *May not benefit the aroma profile.*



Logical Conclusions from 2021 Piquette Efforts

Cultivar Comparison- (Conjoined with Skin-Contact Evaluation)

- Longer Maceration in Base Wine===
 - Less Color to Give to Piquette
 - Extended Maceration Wines Yielded Gleyed, light Piquettes.



Logical Conclusions from 2021 Piquette Efforts

Cultivar Comparison- (Conjoined with Skin-Contact Evaluation)

- Longer Maceration in Base Wine===
 - Less Color to Give to Piquette
 - Unfiltered (*natural*) piquettes may compensate for lightness in color (opacity from yeast, etc.)



Logical Conclusions from 2021 Piquette Efforts

Pomace Content

- More Pomace=
 - More Color
 - More Phenolics
 - More Acids
 - More Ethanol



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- **THE GHOST OF WINE**
- **A BRIEF ECONOMIC SURVEY**
- **PRICES OF 2020 CROP IN 2021**
- **HISTORICAL RECIPES**
- **...AND RECENT TINKERINGS...**
- **AN OPEN CHALLENGE**
- **NOW YOU TEACH**



CHALLENGE

- 1. MAKE A BASE RECIPE PIQUETTE**
 - 2. INVENT SOMETHING NEW**
 - 3. LET'S MEET BACK IN A YEAR AND SEE (TASTE)**
- WHAT WE LEARNED**

CHALLENGE

1. MAKE A BASE RECIPE PIQUETTE

1 KG Pomace: 1 L H₂O

1:1 Ratio; Mass to Volume.

2. INVENT SOMETHING NEW

3. LET'S MEET BACK IN A YEAR AND SEE (TASTE)

WHAT WE LEARNED

CHALLENGE

1. MAKE A BASE RECIPE PIQUETTE

2. INVENT SOMETHING NEW

Follow Your Nose, Heart, Wine, and Wallet.

3. LET'S MEET BACK IN A YEAR AND SEE (TASTE)

WHAT WE LEARNED

SEEING PAST THE PIQUETTE FENCE

- **WHAT IS PIQUETTE?**
- **THE GHOST OF WINE**
- **A BRIEF ECONOMIC SURVEY**
- **PRICES OF 2020 CROP IN 2021**
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das Kind mit dem
Bade ausschütten



Ist das Baby das
Badewasser?

