Yeast & Grape Pairing A MoreManual!<sup>™</sup> by Shea A.J. Comfort www.MoreWine.com 1-800-823-0010



## An Introduction to Yeast & Grape Pairing

This paper was created to help winemakers make the best, educated decision about choosing which strain(s) will best compliment their winemaking. The first section introduces and explores a few of the reasons for using different yeast during fermentation, and shows how this approach can be applied to either single yeast batches or lots involving multiple strains. The second part of the paper is the actual listing of the pairings. Each varietal has a list of associated yeast that have been chosen because they compliment specific characters in that grape. It is important to remember, however, that these characteristics are general and that the same yeast strain used with the same varietal coming from two different vineyards will end up expressing slightly different qualities. In addition, that same strain when used with two different types of grapes can often wind-up producing different sets of flavours and aromas, as well. For example, a strain may produce berry flavours with Cabernet Sauvignon and more plum ones in Tempranillo. This is not always the case, but where it does happen, the descriptions on the list take this into account. In the end, only experimentation can guarantee success, but this pairing guide should be able to effectively narrow down the possibilities for you and get you further down the road to making the wine you want to make. So, with that in mind, lets take a look at what impact yeast choice can have in our winemaking.

# Yeast Strain selection — A Powerful Tool to Help Shape Your Wines!

Most winemakers know that great fruit makes great wine, but what they often overlook is the fact that very different styles of wine could have been made from that same fruit. An exceptional vineyard can produce wines that are light with an intense clarity of fresh fruit, or wines that are darkly complex, spicy and voluptuous. Both are great, just different. What is important to realize here is that each of these final wine styles is in a large part related to the choice of yeast used. Yeast has a tremendous impact on the final wine and understanding the unique qualities that each strain has will allow you to make the best choices needed, in order to make your ideal wine.

Yet, a lot of winemakers aren't really clear about which strain(s) will help them create the wine they have in their mind's palette, so they usually just end up choosing a generally recommended strain and go with that year after year. Now this may be perfectly fine if you have always been happy with your wine

up to that point. But what if, for example, each year you find yourself wanting some spice and a bit more tannic intensity from your Syrah, and all you keep getting are general, soft fruit characters. If you were only exposed to the one yeast you had been using up till now, you would never know that there were indeed other strains out there that could help to bring those missing qualities to your wine.

Research in the past fifteen years has shown that wines made from the same must that was broken down and fermented in separate lots using different yeast strains still show persistent differences even after five years in the bottle. What this means is that the yeast choices you make now will directly shape that wine and will make it unique throughout its lifetime. This is actually quite helpful to know because it shows that we actually have quite a bit of influence over how the wine will turn out starting right from the very beginning of the fermentation itself. The only thing required on our part as winemakers is taking the time to understand the various options that the yeast can give us.

This is where learning from experience really comes into play. Obviously, the best scenario would be to be able to try all of the recommended yeast strains on a type of fruit we were already familiar with and judge for ourselves which yeast was best suited to producing the wine we had in mind. However, this may not always be practical. So, the next best thing would be to use the feedback of others who have had experience using these strains and use that as an educated starting point in developing our own yeast preferences. This is where MoreWine!'s yeast/grape pairing guide comes into play. The information found here was compiled from extensive industry research, client feedback and our own in-house experience. Each recommendation represents a thorough overview of what is possible for each strain in the selected varietal and is a great place to start from.

When using the chart it is important to notice that out of all of the possible categories such as fruit quality, mouthfeel contribution, tannin/structural impact, floral and possible spice enhancement, some yeast do a few of these elements, some do just one, but no single yeast does them all. So, what does that mean? Well, depending on whether you are going to use a single strain or a blend of yeast during the winemaking, this will affect which strain(s) may be the best choice to achieve the desired results.

#### Choosing a Single Strain

If you are going to use a single strain, then it makes sense to choose a yeast that will by itself deliver the most qualities possible for the style of wine you wish to make. However, when we start looking at the yeast selection charts, we can see that within a given category there is actually more than one strain that is known to give that particular characteristic. So, which of these is the best choice? Well, remember that that even though they may share this one characteristic, the strains will differ in the other ways that they impact a finished. So, care should be taken to choose which strain not only has the primary attribute you are looking for, but the desirable secondary ones, as well.

For example, when making Syrah, the strain ICV-D254 emphasizes the fruit, gives some spice but more than anything adds a lot to the mouthfeel of the finished wine. Yet, if you wanted the classic violet, floral tones that Syrah can often have, the ICV-D254 will not provide them. On the other hand using the SYR yeast will give these floral notes and as a bonus it will also emphasize the fruit qualities of the grape like the ICV-D254 does: But, even though the SYR has given you those violet, floral elements that you were seeking, it does not give the same elevated mouthfeel contribution that the ICV-D254 does. In the end both are actually great choices for making high quality Syrah, but in this particular scenario it just comes down to choosing whether you want big mouthfeel or violets.

### The Best of all World: Blending Multiple Strains!

Of course, the way to have your cake and eat it too is to use combinations of yeast and then blend them post fermentation. By approaching winemaking this way, you are allowing yourself full access to all of the potential combinations that could be used for creating the wine you have in mind. You are no longer having to choose which of the desired characteristics you can get by without, now you can actually have them all. A good analogy for this is that when you start thinking in terms of each strain being a blending component, it is like moving from the box of 12 crayons to the box of 64. You have now equipped yourself to create a much more versatile flavour and structure palette than was previously possible when you limited yourself to only using a single strain.

But, in order to best take advantage of all of this new potential you will need to shift your thinking from "which yeast gives me the most of what I am looking for?" to "which combinations of yeast will give me all of the individual elements I will need to build my final wine?" Some yeasts are great standalone choices if using a single strain and they do a good job at creating a wine that is generally pretty solid. The wines produced by these yeasts may not have everything we were hoping for by themselves, but they still manage to cover a lot of bases and they definitely make a good foundation that we as winemakers can build upon.

Now here is where the art of the blend really comes into play. After the yeast for your 'foundation' has been decided upon, you need to determine which additional elements might be missing from your ideal wine. Is it body, spice notes, brighter fruit, or perhaps more complexity? Whatever it may be, now the focus needs to shift from choosing a generally balanced yeast to choosing individual yeast strains that will be able to bring the specific, desired qualities required to complete your blend.

Interestingly, with this new criteria in mind you may find yourself choosing various yeast that may not necessarily be great single-strain selections. Some may be too simplistically fruity or predominantly heavy-handed and structural in their impact by themselves. But, much as in the same way a little bit of salt and pepper can help to round out and lift the flavour and aroma of a freshly scrambled egg, those specific yeast can end up making the difference between a wine that is good and one that is great. It all comes down to learning how to create a balanced complexity in our wines, and learning how to use the unique qualities that each strain may have to offer is a large part of that process.

## In Summary

Whether you are going to be using a single strain or already a convert to blending multiple lots, hopefully the information presented here will inspire you to spend a little more time thinking about your yeast selection. The yeast are a very powerful tool in creating whatever style of wine we are after and the more we can learn about what each of them can bring to the fermentation, then the closer we get to creating our ideal wines. Yes, there are quite a few strains to choose from. While this may seem intimidating at first, it is actually quite empowering because it means that chances are a good match can be crafted for each of our individual tastes. We just have to take the time to find it. In the end, winemaking is a lifelong pursuit of knowledge and experience gained through finetuning a series of trials and errors. We get one shot each year at trying to better understand a very complex process and this is why it takes so much time to become very good at it. So, any time we can benefit from other winemaker's knowledge and experience it gets us a little further down the path. This yeast/ grape pairing chart is one such example and it should give most winemakers a good starting point. Enjoy!

# Yeast and Grape Pairing Recommendations

#### 2007 Harvest Revision

Please note that full expression of the desired characteristics for any of the following strains is based on proper care and feeding of the yeasts, along with using sound, quality fruit and good winemaking practices. In addition, *MoreWine!* strongly recommends using Go-Ferm (AD342) and Fermaid-K (AD345), as well as temperature management throughout the entire fermentation.

For further information on fermentation, please consult MoreWine's Red (BK598) or White (BK597) winemaking Manuals.

Finally, in addition to sensory impact, each yeast will have known temperature tolerances, nutrient needs and fermentation rates, and these should also be taken into account before making a selection. Complete information for each of the individual strains can be found on our website: <u>www.morewinemaking.com</u>.

## Yeast & Grape Pairing Suggestions

These next four sections will list a few of the recommended yeast strains for each of the common grape types (classic Vinifera varietals will be listed first, followed by French/ American Hybrids and Labrusca). When looking over these yeast & grape pairings, keep in mind that these suggestions are not set in stone! They are only provided as an aid in helping you choose which strain(s) will help bring out the specific qualities you are shooting for in your wines. However, if you feel like being adventurous and want to try another strain (or combination of strains) not listed here, by all means do so. Don't be afraid to experiment- you may discover something great!

## **REDS (Vinifera)**

#### Cabernet Franc

- **MT:** Ability to enhance varietal fruit and floral aromas. In Cab Franc MT emphasizes berry, along with strawberry jam, caramel, and some spice notes. Good colour stability along with enhanced tannic structure and rich mouthfeel. Great by itself or as part of a blend.
- **BDX:** Good all-around choice for berry, plum, and jam in the Classic Bordeaux profile. Moderate rate fermenter with good colour retention. Useful for developing structure in the wine by re-enforcing existing tannins- both good and bad, so don't use with un-ripe fruit.
- **BM45:** Big mouthfeel, strong plum along with notes of cherry liquor, rose petal, jam, and some berry. Classically Italian in style. Good colour stability and helps to minimize vegetative characters.
- ICV-D21: Fresh berry fruit along with big mouthfeel and positive tannic structure. Maintains good acidity and inhibits herbaceous characters from developing. Useful

for hot climate fruit (high pH) and in blends for maintaining a lively freshness.

- **ICV-D254:** Big mouthfeel and rounding of tannins. Intense fruit: more dried than
- fresh with a focus on plum. Helps with colour stability and is useful for adding body to blends.
- **ICV-D80:** Big volume and fine grain tannin, with plum and spice in Cabernet Franc. Great for bringing more positive tannin intensity to a blend.
- **ICV-GRE:** Brings fresh, berry fruit foreword along with good mouthfeel. Useful for adding fresh fruit to a blend. Effective for reducing herbaceous and vegetal notes in under-ripe fruit.
- **RC212:** Contributes to structure, with ripe berry, bright fruit and spice. Good colour stability and great for add-ing complex fruit to a blend.
- **RP15 (VQ15):** Useful for adding spice and colour stability to a blend.

#### **Cabernet Sauvignon**

- **MT:** Ability to enhance varietal fruit and floral aromas, along with strawberry jam, caramel, and spice notes. Good colour stability along with enhanced tannic structure and rich mouthfeel. Great by itself or as part of a blend.
- **BM45:** Big mouthfeel, notes of cherry liquor, rose petal, jam, plum, berry, along with earthy and spicy elements. Classically Italian in style. Good colour stability and helps to minimize vegetative characters.
- **BDX:** Good all-around choice for berry, plum, and jam in the Classic Bordeaux profile. Moderate rate fermenter with good colour retention. Useful for developing structure in the wine by re-enforcing existing tannins- both good and bad, so don't use with un-ripe fruit.
- ICV-D21: Fresh berry fruit along with big mouthfeel and positive tannic structure. Maintains good acidity and inhibits herbaceous characters from developing. Useful for hot climate fruit (high pH) and in blends for maintaining a lively freshness.
- **RP15 (VQ15):** Emphasizes the berry aspects of the fruit, along with delivering colour stability, increased mouth-feel and agreeable tannins.
- **ICV-D254:** Big mouthfeel and rounding of tannins. Intense fruit: more dried than fresh with a focus on berry and jam characters. Helps with colour stability and is useful for adding body to blends.
- **ICV-D80:** Big volume and fine grain tannin. Great for bringing more positive tannin intensity to a blend.
- **ICV-GRE:** Brings fresh, berry fruit foreword along with good mouthfeel. Useful for adding fresh fruit to a blend. Effective for reducing herbaceous and vegetal notes in under-ripe fruit.

### Grenache

- **ICV-GRE:** Strong berry and fresh fruit characters, along with some spice if present in the fruit. Enhances fore-mouth impact.
- **SYR:** Berry and spice, along with an enhanced mouth-feel is nicely brought out by SYR in Grenache.
- **MT:** Soft berry notes along with colour stability and enhanced mouthfeel.
- **RP15 (VQ15):** Rich berry characters, along with mineral notes. Enhances mouthfeel to make a lush wine.
- ICV-D254: Concentrated fruit with a focus on soft plum in Grenache. Great mouthfeel enhancement. Good for adding body to a blend.
- ICV-D80: Plum, spice and structure. Great as a blending component.
- **BDX:** Plum characters developed, in addition to colour stability and tannic structure re-enforcement. Useful as a blending component.
- **BM45:** Jammy plum, with some earthy spice. Big mouthfeel contribution along with good colour stability.

#### Merlot

- **MT:** Ability to enhance varietal fruit and floral aromas. In Merlot, MT emphasizes berry, along with strawberry jam, caramel, and some spice notes. Good colour stability along with enhanced tannic structure and rich mouthfeel. Great by itself or as part of a blend.
- **BM45:** Big mouthfeel, strong plum along with notes of cherry liquor, rose petal, jam, and some berry. Classically Italian in style. Good colour stability and helps to minimize vegetative characters.
- **BDX:** Good all-around choice for berry, plum, and jam in the Classic Bordeaux profile. Can often bring out spice notes if in the fruit. Moderate rate fermenter with good colour retention. Useful for developing structure in the wine by re-enforcing existing tannins- both good and bad, so don't use with un-ripe fruit.
- **RP15 (VQ15):** Emphasizes the berry aspects of the fruit, often along with some spice in Merlot. In addition, colour stability, increased mouthfeel and agreeable tannins are also contributed.
- ICV-D21: Fresh berry fruit along with big mouthfeel and positive tannic structure. Maintains good acidity and inhibits herbaceous characters from developing. Useful for hot climate fruit (high pH) and in blends for maintaining a lively freshness.
- **ICV-D254:** Big mouthfeel and rounding of tannins. Intense fruit: more dried than fresh with a focus on plum characters in Merlot. Helps with colour stability and is useful for adding body to blends.
- **ICV-D80:** Big volume and fine grain tannin, with plum

and spice in Merlot. Great for bringing more positive tannin intensity to a blend.

• **ICV-GRE:** Brings fresh, berry fruit foreword along with good mouthfeel. Useful for adding fresh fruit to a blend. Effective for reducing herbaceous and vegetal notes in under-ripe fruit.

### Nebbiolo

- **SYR:** Côtes du Rhône isolate usually for classic Syrah aromas: however when used in a Nebbiolo it nicely emphasizes berry, and licorice.
- **ICV-D80:** Big volume and fine grain tannin, with spice and licorice in a Nebbiolo. Great for colour stability and for bringing more positive tannin intensity to a blend.
- **RP15 (VQ15):** Emphasizes the berry aspects of the fruit, along with licorice notes. In addition, colour stability, increased mouthfeel and agreeable tannins are also contributed.
- **ICV-D21:** Plum jam emphasized, along with big mouthfeel and positive tannic structure. Maintains good acidity and inhibits herbaceous characters from developing.
- **BM45:** Big mouthfeel, plum jam, along with earthy and spicy elements. Good colour stability and helps to minimize vegetative characters.
- **AMH:** Enhances clove and nutmeg spicy elements, along with cherry notes in a Nebbiolo. Complex with good red fruit flavours and aromas.

#### Pinot Noir

- **AMH:** Enhances clove and nutmeg spicy elements, complex with good red fruit flavours and aromas. Colour friendly, some mouthfeel and structure, as well.
- **RC212:** Ripe berry, bright fruit and spice. More structure than mouthfeel, with good colour retention.
- **BM45:** Big mouthfeel and jam along with some earthy and spicy elements. Good colour stability and helps to minimize vegetative characters.
- **RP15 (VQ15):** Emphasizes red fruit, along with spice. In addition, colour stability, increased mouthfeel and agreeable tannins are also contributed.
- **ICV-GRE:** Brings fresh red fruit foreword along with good mouthfeel. Also effective for reducing herbaceous and vegetal notes in under-ripe fruit. Useful as a blending component.
- **W15:** Normally for German whites, when used in a Pinot W15 will give bright fruit focusing on berry notes as well as contribute mouthfeel.

#### Sangiovese

• **BM45:** One of the best all-around choices for Sangiovese. With big mouthfeel, plum, fruit jam, rose, and cherry liquor, along with earthy and spicy notes. Good colour stability and helps to minimize vegetative characters.

- **MT:** Colour intensity, tannic structure, and mid-palate enhancement stressed, along with berry, red fruits and floral notes being emphasized in a Sangiovese.
- **SYR:** Côtes du Rhône isolate usually for classic Syrah aromas: however when used in a Sangiovese it nicely emphasizes the berry, plum, and floral aspects.
- **ICV-D254:** Big mouthfeel and rounding of tannins. Intense fruit: more dried than fresh, emphasizing plum in Sangiovese. Helps with colour stability and is useful for adding body to blends.
- ICV-D21: Fresh berry fruit along with big mouthfeel and positive tannic structure. Maintains good acidity and inhibits herbaceous characters from developing. Useful for hot climate fruit (high pH) and in blends for maintaining a lively freshness.
- **ICV-D80:** Big volume and fine grain tannin, floral notes in a Sangiovese. Great for bringing more positive tannin intensity to a blend.
- **AMH:** Enhances clove and nutmeg spicy elements, along with berry in a Sangiovese. Complex with good berry flavours and aromas.
- **ICV-GRE:** Brings fresh, red berry fruit foreword along with good mouthfeel. Also effective for reducing herbaceous and vegetal notes in under-ripe fruit.

#### Syrah / Petit Syrah

- **SYR:** Côtes du Rhône isolate for classic Syrah aromas: violets, raspberries, cassis, strawberries, black pepper, and grilled meat.
- **BM45:** Big mouthfeel, emphasizes the fruit and structure along with some earthy and spicy elements. Good colour stability and helps to minimize vegetative characters.
- **ICV-D254:** Big mouthfeel and rounding of tannins. Intense fruit: more dried than fresh along with a nice spice quality if present in the fruit. Helps with colour stability and is useful for adding body to blends.
- **RP15 (VQ15):** Emphasizes the fruit, along with spice and black pepper notes. In addition, colour stability, increased mouthfeel and agreeable tannins are also contributed.
- **ICV-D80:** Big volume and fine grain tannin, smoke and licorice, along with spice and pepper notes. Great for bringing more positive tannin intensity to a blend.
- **AMH:** Enhances clove and nutmeg spicy elements, complex with good fruit flavours and aromas. Some mouthfeel and structure, as well.
- **ICV-GRE:** Brings fresh fruit foreword along with spice and violet aromas. Good mouthfeel enhancement, as well. Effective for reducing herbaceous and vegetal notes in under-ripe fruit.

- **BDX:** Good all-around choice for berry and jam. Will also bring out some of the leather and spice elements if they are in the fruit. Moderate rate fermenter with good colour retention. Useful for developing structure in the wine by re-enforcing existing tannins- both good and bad, so don't use with un-ripe fruit.
- **ICV-D21:** Fresh berry fruit along with big mouthfeel and positive tannic structure. Maintains good acidity and inhibits herbaceous characters from developing. Useful for hot climate fruit (high pH) and in blends for maintaining a lively freshness.

#### Tempranillo

- **MT:** Good choice for berry, red fruits and floral notes, along with mid-palate enhancement. Nice by itself, or as a blending foundation.
- **SYR:** Côtes du Rhône isolate usually for classic Syrah aromas: however when used in a Tempranillo it nicely emphasizes the berry, plum, and floral aspects. Nice by itself, or as fruit and top-notes in a blend.
- **RP15 (VQ15):** Emphasizes the berry aspects of the fruit, along with mid-palette enhancement in Tempranillo. Colour stability, increased mouthfeel and agreeable tannins are also contributed.
- **BDX:** Good all-around choice for berry and jam. Moderate rate fermenter with good colour retention. Useful for developing structure in Tempranillo by reenforcing existing tannins- both good and bad, so don't use with un-ripe fruit.
- **ICV-D254:** Big mouthfeel and rounding of tannins. Intense fruit: more dried than fresh, emphasizing plum in Tempranillo. Helps with colour stability and is useful for adding body to blends.
- **BM45:** Big mouthfeel and plum are brought out in Tempranillo by BM45. Good colour stability and helps to minimize vegetative characters.
- **ICV-GRE:** (brings fresh, red berry fruit foreword along with floral notes. Good mouthfeel. Also effective for reducing herbaceous and vegetal notes in under-ripe fruit)
- **ICV-D21:** Fresh berry fruit along with big mouthfeel and positive tannic structure. Maintains good acidity and inhibits herbaceous characters from developing. Useful for hot climate fruit (high pH) and in blends for maintaining a lively freshness.
- **ICV-D80:** Big volume and fine grain tannin, along with floral tones in a Tempranillo. Good tool for bringing more positive tannin intensity to a blend.

#### Zinfandel / Primitivo

• **BM45:** Good all-around choice with big mouthfeel, jam, plum, and berry along with earthy and spicy elements. Good colour stability and helps to minimize vegetative characters.

- **RP15 (VQ15):** Emphasizes the berry aspects along with mineral and spice elements in Zin. Colour stability, increased mouthfeel and agreeable tannins are also contributed. Higher alcohol tolerance may also be helpful in making certain styles.
- **ICV-D80:** Big volume and fine grain tannin, mineral, black pepper, and spice in a Zin. Great for bringing more positive tannin intensity to a blend.
- **AMH:** Enhances "clove" and "nutmeg" spicy elements, along with minerality in a Zin. Complex with good berry flavours and aromas.
- **BDX:** Good all-around choice for berry, and jam notes. If there is some spice in the fruit, BDX will help bring it out. Moderate rate fermenter with good colour retention. Useful for developing structure in the wine by re-enforcing existing tannins- both good and bad, so don't use with un-ripe fruit.
- **ICV-D254:** Big mouthfeel and rounding of tannins. Intense fruit: more dried than fresh, emphasizing plum and berry. Helps with colour stability and is useful for adding body to blends.
- **SYR:** Côtes du Rhône isolate usually for classic Syrah aromas: however when used in a Zin emphasizes the berry and plum aspects.
- **ICV-D21:** Fresh berry fruit along with big mouthfeel and positive tannic structure. Maintains good acidity and inhibits herbaceous characters from developing. Useful for hot climate fruit (high pH) and in blends for maintaining a lively freshness.

## WHITES (Vinifera):

#### Chardonnay

- **ICV-D47:** Complex white with citrus, dried apricot, pineapple and floral notes. Lees contact gives ripe spicy aromas with tropical and citrus tones developing, along with nuts. Adds volume/mouthfeel. Barrel fermentation and lees aging recommended. Good single-strain or as a blending component.
- **T306:** Exotic fruit and pineapple, with elegant white fruit notes in Chardonnay. Contributes to mouthfeel and lees aging is recommended. Good as a single-strain or as a blending component.
- **CY3079:** Classic white burgundy: rich, full mouthfeel with aromas of fresh butter, almonds, honey, white fruit, flowers and pineapple. Barrel fermentation and lees aging recommended.
- **QA23:** Usually used in terpenic whites, it enhances the floral, aromatic aspects of a grape. In Chardonnay, floral, white peaches are emphasized with an equal clarity in both aroma and taste. Great as a "top-note" in a blend.
- BA11: Fresh fruit aromas of orange blossom, pineapple,

- **Rhône 4600:** Apricot and tropical fruit with enhanced mouthfeel contribution. Delivers fat roundness and balance along with light esters. Good as a blending component.
- **ICV-D254:** Usually used as a blending component, D254 gives stone fruit flavours, aromas of nuts, smoke, and sourdough, along with a creamy mouthfeel. Good for adding complexity and mouthfeel to a blend.
- **ICV-GRE:** Brings fresh melon foreword along with good mouthfeel. Also effective for reducing herbaceous and vegetal notes in under-ripe fruit.

#### Gewürztraminer

- QA23: Often used in terpenic whites, it enhances the aromatic aspects of a grape. In Gewürtztraminer, QA23 focuses on citrus and spice notes and makes an elegant, fruit-focused, floral, and aromatic wine.
- **W15:** Swiss isolate used to create white wines with a focus on intense, bright fruit and a heavy mouthfeel that gracefully stands up to long term aging. In Gewürtztraminer, spice, rose and citrus notes are nicely emphasized. Good as a single-strain or as a blending component.
- **ICV-D47:** Elements of flint stone/mineral, along with rose are brought out by D47 in a Gewürtztraminer. Lees contact gives rise to ripe spicy aromas with tropical and citrus tones developing. Adds volume/mouthfeel.
- **BA11:** In Gewürtztraminer, rose and flint stone/mineral elements are developed, along with clean aromatics, lingering flavours, and an intensified mouthfeel)
- **R2:** Sauternes isolate used for expression of spice and flint stone/mineral notes in an intense, direct fruit-style Gewürztraminer.
- **ICV-GRE:** Brings fresh citrus tones foreword along with flint stone/mineral. Good mouthfeel. Useful for reducing herbaceous and vegetal notes in under-ripe fruit.

#### Muscat

- **R2:** Sauternes isolate well suited for the creation of floral, intense, direct fruit-style wines, such as Muscat.
- QA23: Often used in terpenic whites, it enhances the aromatic aspects of a grape. In Muscat, QA23 really brings out the floral notes and makes an elegant, fruit focused, aromatic wine.
- W15: Swiss isolate used to create white wines with a focus on intense, bright fruit and a heavy mouthfeel that gracefully stands up to long term aging.
- ICV-GRE: In Muscat, GRE will create a wine with intense fruit and a big mouthfeel. Useful for reducing herbaceous and vegetal notes in under-ripe fruit, as well.

- **BA11:** Floral with soft apricot notes, along with good mouthfeel contribution. Good for blends.
- ICV-D47: Elements of flint stone/mineral, along with rose are brought out by D47 a Muscat. Lees contact gives rise to ripe spicy aromas with tropical and citrus tones developing. Good as a blending component. Adds volume/mouthfeel.

### Pinot Gris/Grigio

- **BA11:** In Pinot Gris, floral, peach, apricot, and tropical fruit elements are developed, along with clean aromatics, lingering flavours, and an intensified mouthfeel. Good single-strain choice.
- QA23: Usually used in terpenic whites, it enhances the aromatic aspects of a grape. In Pinot Gris, QA23 focuses on floral, along with peach/apricot notes. It makes an elegant, fruit-focused, floral, and aromatic wine.
- **Rhône 4600:** Peach, apricot and tropical fruit with enhanced mouthfeel contribution. Delivers fat roundness and balance along with light esters. Good either as a single strain or as a blending component.
- ICV-D47: Tropical fruit, along with a rich mouthfeel is brought out by D47 in a Pinot Gris. Lees contact gives rise to ripe spicy aromas with tropical and citrus tones developing. Adds volume/mouthfeel. Lees aging recommended. Good single-strain or as a blending component.
- **ICV-GRE:** Brings fresh pear and melon tones foreword along with good mouthfeel. Useful for reducing herbaceous and vegetal notes in under-ripe fruit.
- **R2:** Sauternes isolate used in a Pinot Gris for expression of, tropical fruit notes in an intense, direct fruit-style wine.
- **ICV-D254:** As a blending component, D254 gives stone fruit flavours, aromas of nuts, smoke, and sourdough, along with a creamy mouthfeel. Good for adding complexity and mouthfeel.
- **CY3079:** Classic white burgundy: rich, full mouthfeel with aromas of fresh butter, almonds, honey, white fruit, flowers and pineapple. Barrel fermentation and lees aging recommended. Good for adding complexity and mouthfeel to a blend.

#### Riesling

- **BA11:** In Riesling, floral and tropical fruit elements are developed, along with clean aromatics, lingering flavours, and an intensified mouthfeel.
- **W15:** Swiss isolate used to create white wines with a focus on intense, bright fruit and a heavy mouthfeel that gracefully stands up to long term aging. In Riesling, floral and citrus notes are emphasized. Good as a single-strain or as a blending component.

- QA23: Usually used in terpenic whites, it enhances the aromatic aspects of a grape. In Riesling, QA23 focuses on citrus notes and makes an elegant, fruit-focused, floral, and aromatic wine.
- ICV-D47: Elements of apple, rose and peach are brought out by D47 in a Riesling. Lees contact gives rise to ripe spicy aromas with tropical and citrus tones developing. Adds volume/mouthfeel.
- **T306:** Rose and peach notes are nicely emphasized. Contributes to mouthfeel and is a good blending component.
- **R2:** Sauternes isolate used for expression of tropical/ passion fruit notes in an intense, direct fruit-style Riesling.
- **R-HST:** Austrian isolate that retains fresh varietal character while contributing body and mouthfeel, rose and peach characteristics are accentuated. Used
- to produce a crisp, leaner-styled Riesling capable of showing minerality that is intended for aging.
- **ICV-GRE:** Brings fresh tropical fruit tones foreword along with good mouthfeel. Also effective for reducing herbaceous and vegetal notes in under-ripe Fruit.

#### Roussanne

- **W15:** Swiss isolate used to create white wines with a focus on intense, bright fruit and a heavy mouthfeel that gracefully stands up to long term aging. In Roussanne, elements of mineral, spice, citrus zest, and floral notes are Emphasized. Good single-strain choice.
- **VL3:** Mineral, spice, and citrus zest are all enhanced by VL3 in Roussanne. Good single-strain choice or as a blending component.
- **BA11:** In Roussanne, floral elements are developed, along with clean aromatics, lingering flavours, and an intensified mouthfeel.
- **ICV-D47:** Elements of spice, as well an increase in volume are brought out by D47 in Roussanne. Lees contact gives rise to ripe spicy aromas with citrus tones developing. Good for adding spice to a blend. Lees aging recommended.
- **QA23:** Usually used in terpenic whites, it enhances the aromatic aspects of a grape. In Roussanne, QA23 focuses on citrus zest notes and makes an elegant, fruit-focused, floral, and aromatic wine.
- **ICV-D21:** Floral and citrus zest notes are emphasized, along with an increase in volume. Maintains good acidity.
- **ICV-D254:** Contributes mineral, spice, and volume to a Roussanne. Good as a blending component.

#### Sauvignon Blanc

VL3: Enhances the classic Sauvignon Blanc characteristics

including citrus zest, lemon grass, and lime leaf. Very French in style, with complexity and not just fruit being emphasized. Good single-strain choice or as a blending component.

- QA23: Usually used in terpenic whites, it enhances the aromatic aspects of a grape. In Sauvignon Blanc, QA23 focuses on citrus notes and makes an elegant, fruit-focused, floral, and aromatic wine.
- **ICV-D47:** Complex white with citrus and floral notes. Lees contact gives ripe spicy aromas with tropical and citrus tones developing. Adds volume/mouthfeel. Barrel fermentation and lees aging recommended. Good single-strain or as a blending component.
- **T306:** Exotic fruit and pineapple, with elegant tropical notes in Sauvignon Blanc. Contributes to mouthfeel and lees aging is recommended. Good as a blending component.
- **BA11:** In Sauvignon Blanc, fresh fruit aromas of citrus, pear/melon, tropical fruit and some spice develop, along with clean aromatics, lingering flavours, and an intensified mouthfeel.
- **R2:** Sauternes isolate used for expression of Sauvignon Blanc aromas, tropical/passion fruit notes in an intense, direct fruit-style wine.
- **ICV-K1:** Creates a light, crisp, fresh wine that will bring out the grassy/asparagus qualities of a Sauvignon Blanc.
- **W15:** Swiss isolate used to create white wines with a focus on intense, bright fruit and a heavy mouthfeel that gracefully stands up to long term aging.
- **Rhône 4600:** Tropical fruit with enhanced mouthfeel contribution. Does not enhance varietal characteristics, but does contribute fat roundness and balance along with light esters. Good as a blending component.
- **ICV-GRE:** Brings fresh pear and melon tones foreword along with good mouthfeel. Useful for reducing herbaceous and vegetal notes in under-ripe fruit.

#### Viognier

- **BA11:** In Viognier, floral, stone fruit and tropical flavors and aromas develop, along with clean aromatics, lingering flavours, and an intensified mouthfeel. Great single strain.
- QA23: Often used in terpenic whites, it enhances the aromatic aspects of a grape. In Viognier, QA23 really brings out the floral and tropical notes, making an elegant, fruit focused, aromatic wine.
- **R2:** Sauternes isolate well suited for the creation of a floral, tropical, intense, direct fruit-style wines, such as Viognier.
- ICV-D47: Complexwhite with stone fruits and spice. Adds volume/mouthfeel. Barrel fermentation and lees aging

recommended. Lees contact gives ripe spicy aromas. Good single-strain or as a blending component.

- **ICV-GRE:** Brings fresh tropical fruit and a good mouthfeel. Useful for reducing herbaceous and vegetal notes in under-ripe fruit.
- **ICV-D254:** Usually used as a blending component, D254 gives stone fruit flavours, aromas of nuts, smoke, and sourdough, along with a creamy mouthfeel. Good for adding complexity and mouthfeel to a blend.

# **ROSÉ:**

- **Rhône 4600:** Complex aromatics along with strawberry, pear and pineapple. Enhances mouthfeel and volume. Great single strain choice or as a blending component.
- **ICV-GRE:** Stable fresh fruit characters, along with high fore-mouth volume enhancement. Good as a single-strain or as a blending component.
- **ICV-D21:** Enhances mouthfeel while maintaining acidity for bright, fresh fruit in the final wine. Useful as a blending component to freshen-up hot climate/high pH fruit.
- **W15:** Bright fruit with heavy mouthfeel makes W15 a good single strain-selection by itself, or as a blending component.
- **71B:** "Fruit salad" character, long-lived aromas from production of esters and higher alcohols. Can metabolize up to 30% of the malic acid in a must.

# French/American Hybrids and Labrusca

Here at more wine we are aware of the growing prevalence of French Hybrid and Non-Vinifera grapes being used for home and commercial winemaking. Being located in California we have little to no opportunity to work with these fruits and as such cannot include our own notes on pairing yeasts with them. However, as we are committed to providing the best and most accurate information to our customers, we'd like to ask if you wouldn't mind sharing your notes about working with these grapes. Please send any and all tasting notes for the yeast strains you are using, as well of course as the type of fruit and any fermentation data that you can provide us, i.e.: starting Brix, pH, temperature levels, etc. to: pairings@ morewinemaking.com This will allow us to start developing a data base from which we will be able to better support our Mid West and East Coast fellow winemakers in the future.

# REDS (Hybrids & Labrusca):

- **Baco Noir:** Wood, spice, richness, rustic, smoky. High acidity. Suggested yeasts: AMH, BDX, MT, SYR, BM45, ICV-D254.
- · Chambourcin: Spicy, fragrant, herbaceous, with good

acidity and structure. Suggested yeasts: AMH, SYR, RC212, T306, MT, BM45.

- **Chancellor:** Rich body, tannic, Good for adding body and structure to blends. Flavours of plum and cedar. Suggested yeasts: BDX, MT, SYR, VQ15, BM45
- Concord: Suggested yeasts: BDX, MT.
- **De Chaunac:** Fruity, with low to mild tannins. Suggested yeasts: BDX, MT, SYR. BM45, RC212.
- Maréchal Foch: Deep purple colour, medium structure, with deep berry fruit. Suggested yeasts: AMH, RC212, ICV-GRE, BDX, MT, SYR, BM45, T306, VQ15.
- Norton (Cynthiana): Deeply pigmented, spicy raspberry, often with coffee and chocolate notes. Suggested yeasts: ICV-D254, ICV-GRE, BM45, AMH, BDX, MT, SYR.
- Frontenac: BM45, RC212

### WHITES (Hybrids & Labrusca):

- **Aurore:** Suggested yeasts: W15, R2, ACV-GRE, AMH, ICV-D47, QA23, T306, 58W3,
- Catawba: Suggested yeasts: T306, R2, W15, ICV-GRE
- Cayuga: Suggested yeasts: ICV-D47, T306, W15, 58W3, R2, ICV-GRE
- **Delaware:** Suggested yeasts: W15, R2, T306
- Muscadine: Suggested yeasts: W15, R2, 58W3, T306, QA23, ICV-D47, AMH, ICV-GRE
- **Niagara:** Suggested yeasts: W15, T306, QA23, R2.
- Seyval: Suggested yeasts: W15, ICV-D47, QA23, T306, R2, ICV-GRE, 58W3
- Vidal: Suggested yeasts: QA23, T306, W15, R2, ICV-GRE, 58W3, AMH
- Vignoles: Suggested yeasts: R2, T306, W15, ICV-D47, 58W3, AMH, ICV-GRE