

METHODOLOGY
HPLC

MINIMUM VOLUME
60 mL WINE
60 mL GRAPE JUICE

CONTAINER TYPE
WINE: ETS SAMPLE
TUBE, MINIMAL
HEADSPACE FOR
WINE

TURNAROUND
1 WORKING DAY

PREDICTING “SEEDINESS” WITH CATECHIN/TANNIN RATIOS

The ratio of catechin to tannin is an indicator of “seediness” in grapes, and can be a useful tool for making harvest decisions.

THE CATECHIN/TANNIN RATIO

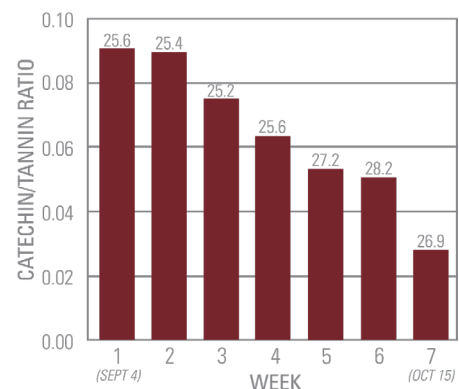
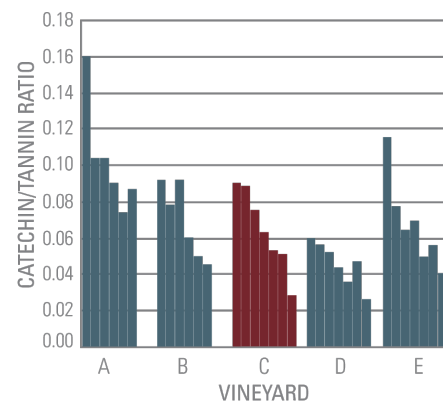
Tannin comes from skins and seeds. Catechin comes only from seeds and is a good marker for seed phenolics in general. The ratio of the two is an indication of the “seediness” of tannin

BECAUSE IT IS A RATIO AND NOT A CONCENTRATION, THE VALUE IS NOT AFFECTED BY DEHYDRATION OR DILUTION DURING BERRY RIPENING.

GRAPHING “SEEDINESS”

During ripening, seed phenolics become less extractable while skin phenolics change little or increase slightly. The catechin/tannin ratio consistently declines during grape ripening, showing the lessening impact of seeds on grape tannin.

The index is a useful tool for harvest decisions. At harvest, samples with lower catechin/tannin ratios can be assumed to have less extractable seed tannin. Wine makers can use this information to help design extraction protocols. If samples have a lower catechin/tannin ratio, excessive seed extraction is less of a concern. If the ratio is high, winemakers should be aware that seed extraction is likely and monitor catechin values during fermentation and maceration. If wines are made in a consistent manner, there is a good correlation between the catechin/tannin ratio in grape samples and the same ratio in finished wines.



TESTING OPTIONS

The ETS grape phenolic extraction and rapid phenolic panel can be used to follow changes in grape phenolics during ripening and to characterize grapes at the point of harvest. The panel measures both catechin and tannin. The ratio of the two (catechin/tannin) has proven to be useful for understanding seed effects on tannin.

ETS will include the catechin/tannin index in all ‘Rapid Phenolic Panel’ analyses for berry and cluster samples during the harvest season.