Please complete and return to Kim Brunson at kimb@agmgt.com
Monday November 8, 2021

Poster Title: Riesling and regulated deficit irrigation: A suboptimal relationship

Poster Category:

	Vineyard Establishment
	Vineyard Management
X	Irrigation
	Economics
	Pests, Diseases, Disorders, Nutrition
	Weather
	Resources (ex. AgWeatherNet, Clean Plant Network)

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Abstract (no more than 200 words):

The response of Riesling to regulated deficit irrigation (RDI) and partial rootzone drying (PRD) was evaluated for three years in Prosser, WA. These treatments were compared to a control of fully irrigated vines (FULL). The main interest of the project was to determine the effect of water deficit on vine growth, fruit composition, final yield and wine quality. Irrigation was scheduled by monitoring soil moisture to generate differences in vine water status. The obtained data support that water deficit between fruit set and veraison (a common practice in commercial vineyards of the area) resulted in smaller canopies and higher sun exposure of the fruit zone. Yield and pruning weights were also reduced by deficit impositions. On the other hand, total soluble solids (Brix), pH and titratable acidity (T.A) did not differ among the treatments. One interesting finding was a reduction of berry size in RDI clusters, but it was not possible to determine statistical significance with the collected data. This reduction in size, coupled with higher sun exposure might increase the bitterness of the resulting wines. Therefore, excessive water deficit in the production of white wine grapes is counterproductive, especially in aromatic grapes like Riesling.