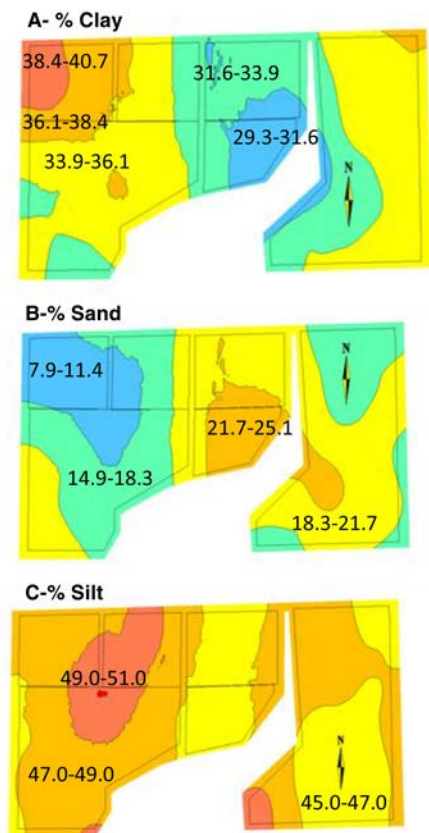


Supplemental Data for:

Marciniak M, Reynolds AG, Brown R, Jollineau M and Kotsaki E. 2017.

Applications of geospatial technologies to understand terroir effects in an Ontario Riesling vineyard.

Am J Enol Vitic 68:169-187. doi: 10.5344/ajev.2016.16083.



Supplemental Figure 1 Soil texture (% by volume) maps at a 10 ha vineyard site at Thirty Bench Winemakers (Beamsville, ON), in 2008. (A) Clay, (B) sand, and (C) silt.

Supplemental Table 1 Least significant difference for a one-way ANOVA for 12 (2007) and 18 (2008 and 2009) vine size sub-zones at a 10-ha site at Thirty Bench Winemakers (Beamsville, ON).

Sub-zone ^a	Weight of cane prunings (kg/vine)		
	2007	2008	2009
WPY-H	0.86 b	1.30 b	1.03 c
WPY-M	0.53 c	0.86 c	0.60 d
WPY-L	0.23 d	0.35 e	0.30 e
WPB-H	0.95 ab	1.48 ab	1.17 ab
WPB-M	0.53 c	0.80 c	0.65 d
WPB-L	0.25 d	0.39 de	0.29 e
SPY-H	–	1.55 a	1.07 bc
SPY-M	–	0.85 c	0.64 d
SPY-L	–	0.42 de	0.31 e
SPB-H	–	1.63 a	1.24 a
SPB-M	–	0.82 c	0.62 d
SPB-L	–	0.29 e	0.28 e
LE-H	1.02 a	1.32 b	1.10 bc
LE-M	0.53 c	0.81 c	0.67 d
LE-L	0.27 d	0.42 de	0.33 e
TR-H	1.05 a	1.56 a	1.19 ab
TR-M	0.53 c	0.83 c	0.65 d
TR-L	0.26 d	0.42 de	0.26 e
Significance	<0.0001	<0.0001	<0.0001

^aSub-block × vine size abbreviations: WPY, wood post yellow; SPB, steel post blue; SPY, steel post yellow; LE, Les Erables; TR, triangle. H, high vine size; M, medium vine size; L, low vine size.

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Supplemental Table 2 One-way ANOVA significance levels (*p*-values) for 18 water status sub-zones, 12 vine size sub-zones, and 30 variables at a 10-ha site at Thirty Bench Winemakers (Beamsville, ON), in 2006 to 2009.

Variables	N	<i>p</i> value 2006	<i>p</i> value 2007	<i>p</i> value 2008	<i>p</i> value 2009
Water status zone discrimination					
Elevation	519	<0.0001	<0.0001	<0.0001	<0.0001
% sand	134	<0.0001	<0.0001	<0.0001	<0.0001
% silt	134	0.692	0.502	0.200	0.525
% clay	134	0.0003	<0.0001	<0.0001	<0.0001
Cation exchange capacity	134	<0.0001	0.004	<0.0001	<0.0001
Soil pH	134	<0.0001	<0.0001	<0.0001	<0.0001
Organic matter	134	0.005	0.029	0.002	0.001
Mean soil moisture	519	<0.0001	<0.0001	<0.0001	<0.0001
Mean leaf ψ	134	<0.0001	<0.0001	<0.0001	<0.0001
Vine size	519	-	<0.0001	<0.0001	<0.0001
Yield	519	<0.0001	<0.0001	<0.0001	<0.0001
Clusters per vine	519	0.113	<0.0001	<0.0001	<0.0001
Berry weight	519	<0.0001	<0.0001	<0.0001	<0.0001
Brix	519	<0.0001	<0.0001	<0.0001	<0.0001
Titrateable acidity	519	<0.0001	<0.0001	0.339	<0.0001
pH	519	<0.0001	<0.0001	0.981	<0.0001
Free volatile terpenes	134	<0.0001	<0.0001	<0.0001	<0.0001
Potential volatile terpenes	134	0.142	<0.0001	<0.0001	0.0002
Total volatile terpenes	134	0.007	<0.0001	<0.0001	0.014
Vine size zone discrimination					
Elevation	519		<0.0001	<0.0001	<0.0001
% sand	134		0.105	<0.0001	<0.0001
% silt	134		0.035	0.409	0.06
% clay	134		0.035	<0.0001	<0.0001
Cation exchange capacity	134		0.001	0.004	<0.0001
Soil pH	134		<0.0001	<0.0001	<0.0001
Organic matter	134		0.057	0.002	0.047
Mean soil moisture	519		<0.0001	<0.0001	<0.0001
Mean leaf ψ	134		<0.0001	<0.0001	0.001
Vine size	519		<0.0001	<0.0001	<0.0001
Yield	519		<0.0001	<0.0001	<0.0001
Clusters per vine	519		<0.0001	<0.0001	<0.0001
Berry weight	519		<0.0001	<0.0001	<0.0001
Brix	519		<0.0001	<0.0001	<0.0001
Titrateable acidity	519		<0.0001	0.673	<0.0001
pH	519		<0.0001	0.988	<0.0001
Free volatile terpenes	134		<0.0001	<0.0001	0.292
Potential volatile terpenes	134		<0.0001	<0.0001	0.283
Total volatile terpenes	134		<0.0001	<0.0001	0.318