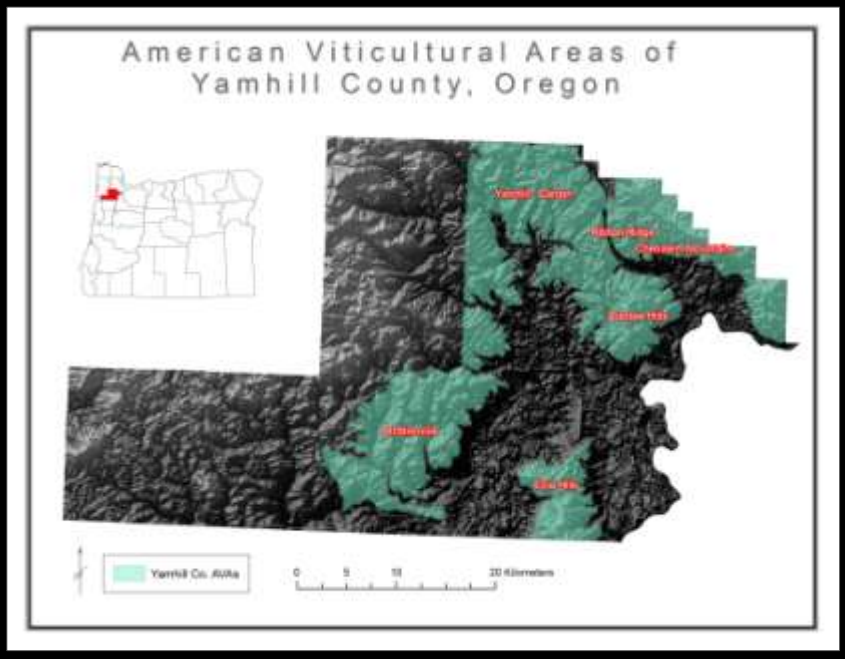
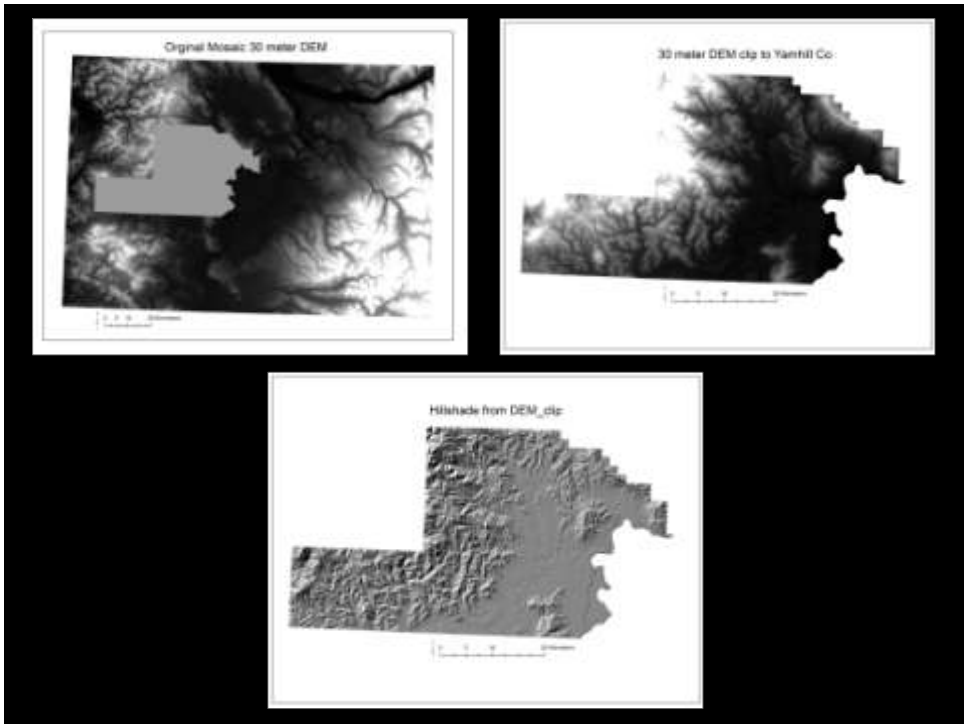
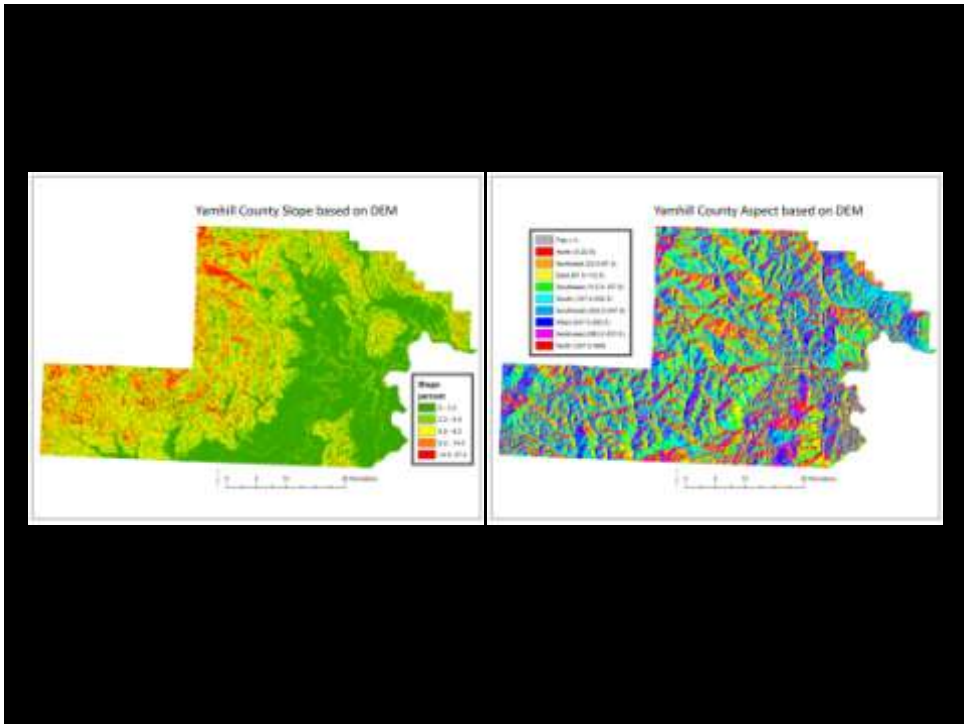
VINEYARD SITE SUITABILITY IN YAMHILL COUNTY

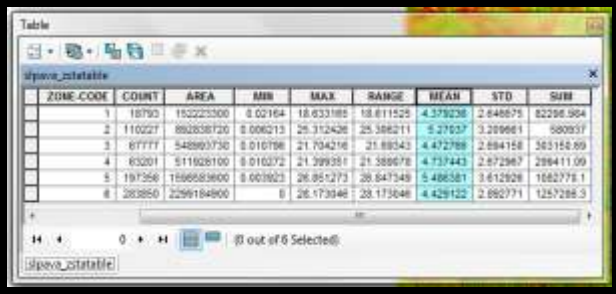
Willow Campbell Geog 593 December 9th, 2010



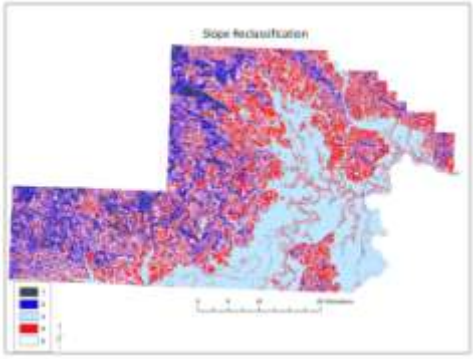

Orginal Mosaic 30 meter DEM
30 meter DEM clip to Yamhill Co
Hillshade from DEM_clip

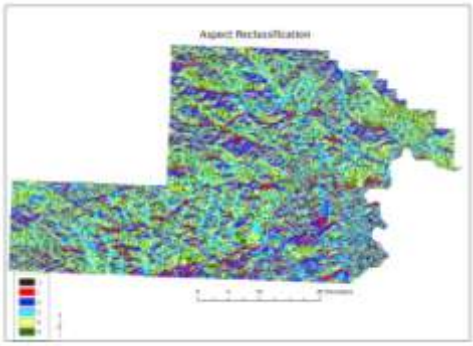

Yamhill County Slope based on DEM
Yamhill County Aspect based on DEM

- Zonal Statistics Tool



- Used to find the average Yamhill County AVA slope

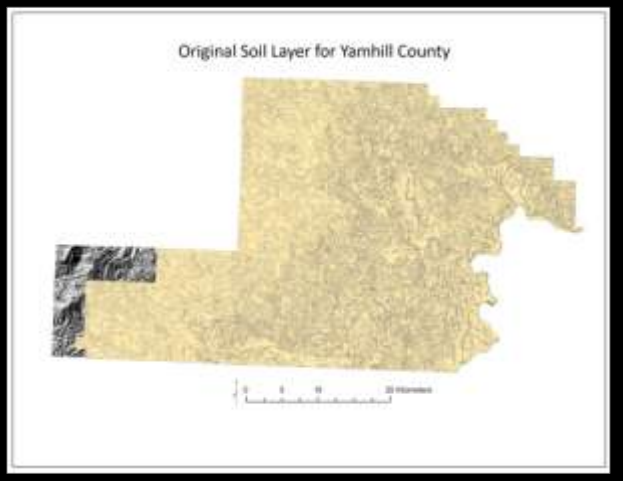


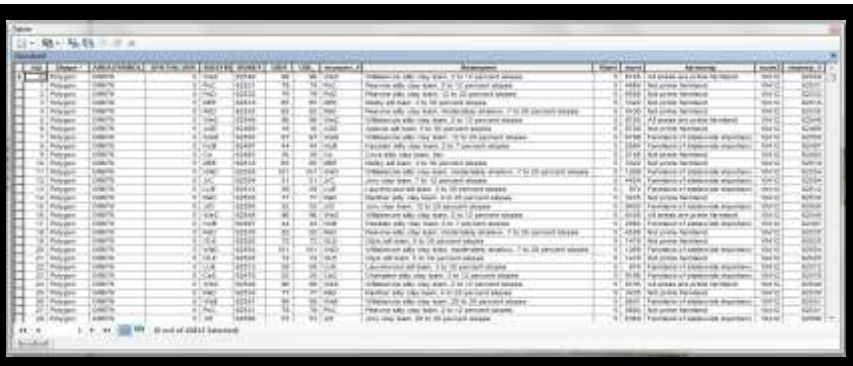


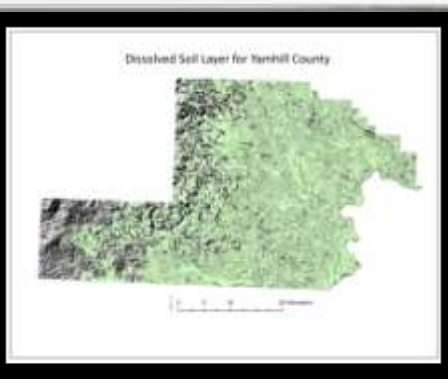
Old value	New value
0-2.3	3
2.3-5.5	5
5.5-9.2	4
9.2-14.5	2
15.5-37.4	1

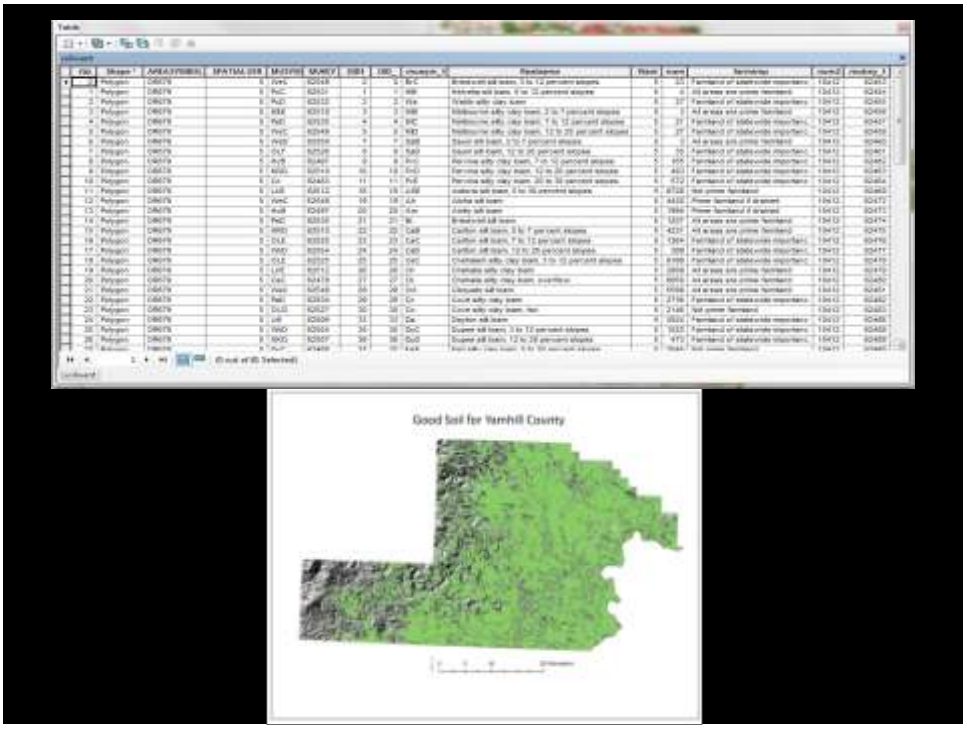
Old value	New value
Flat -1	-1
North 0-22.5	1
Northeast 22.5-67.5	2
East 67.5-112.5	3
Southeast 112.5-157.5	4
South 157.5-202.5	5
Southwest 202.5-247.5	4
West 247.5-292.5	3
Northwest 292.5-337.5	2
North 337.5-360	1

Soils

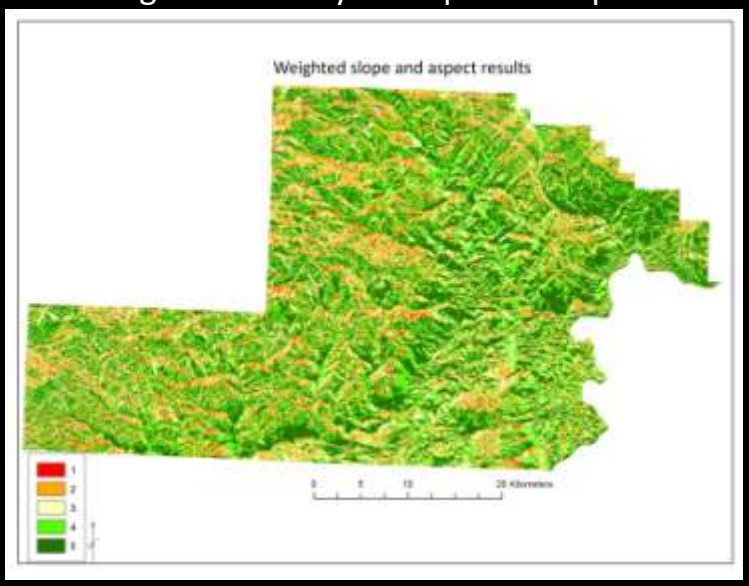

Original Soil Layer for Yamhill County



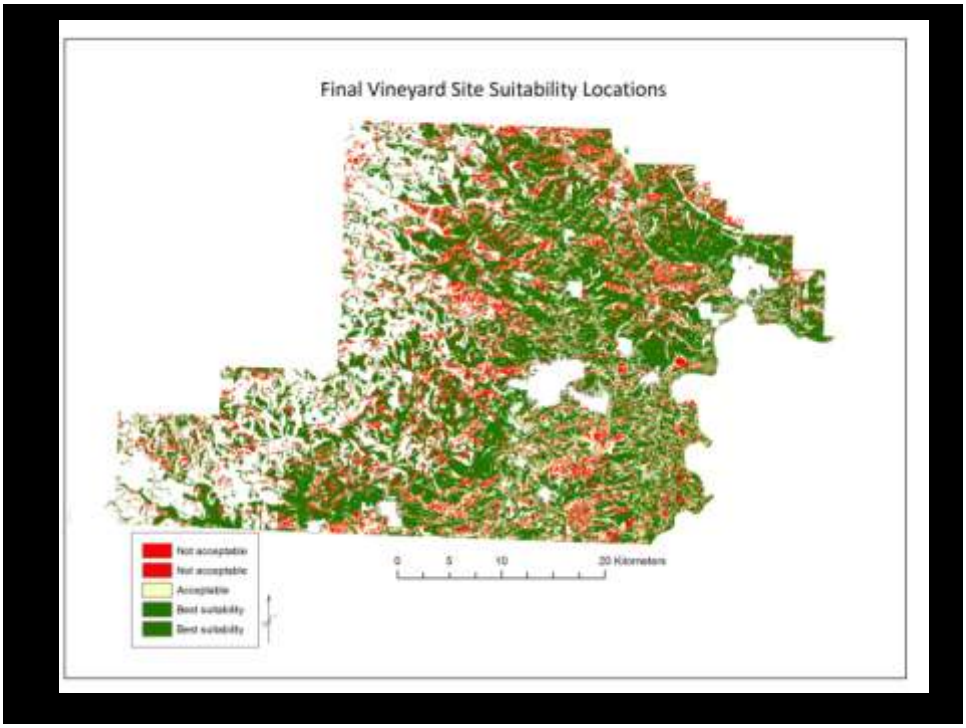

Dissolved Soil Layer for Yamhill County

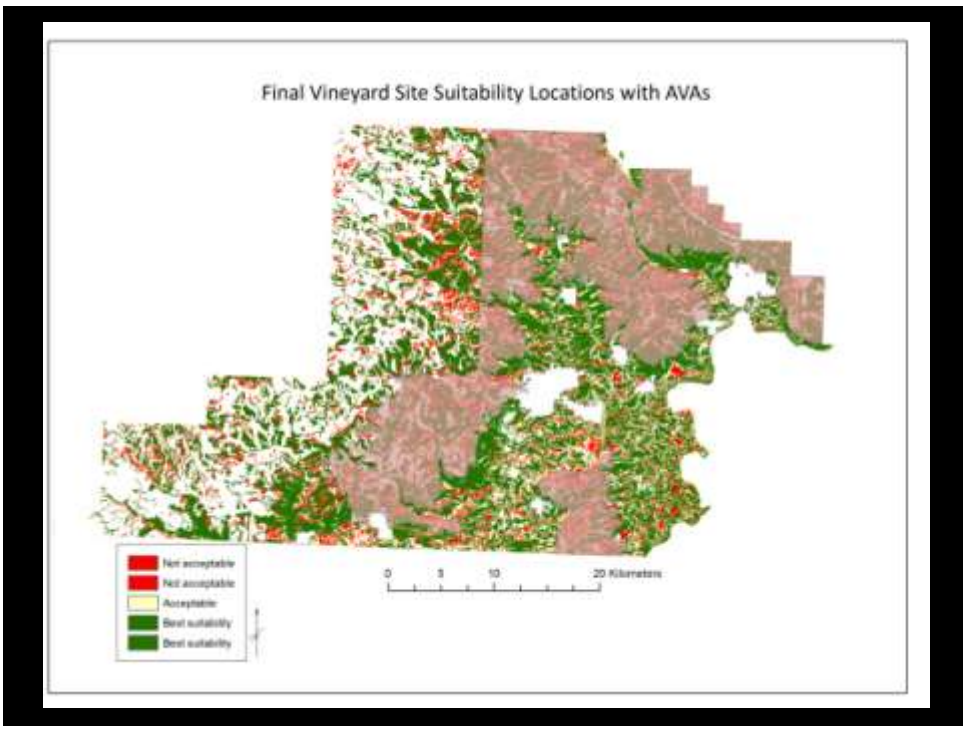


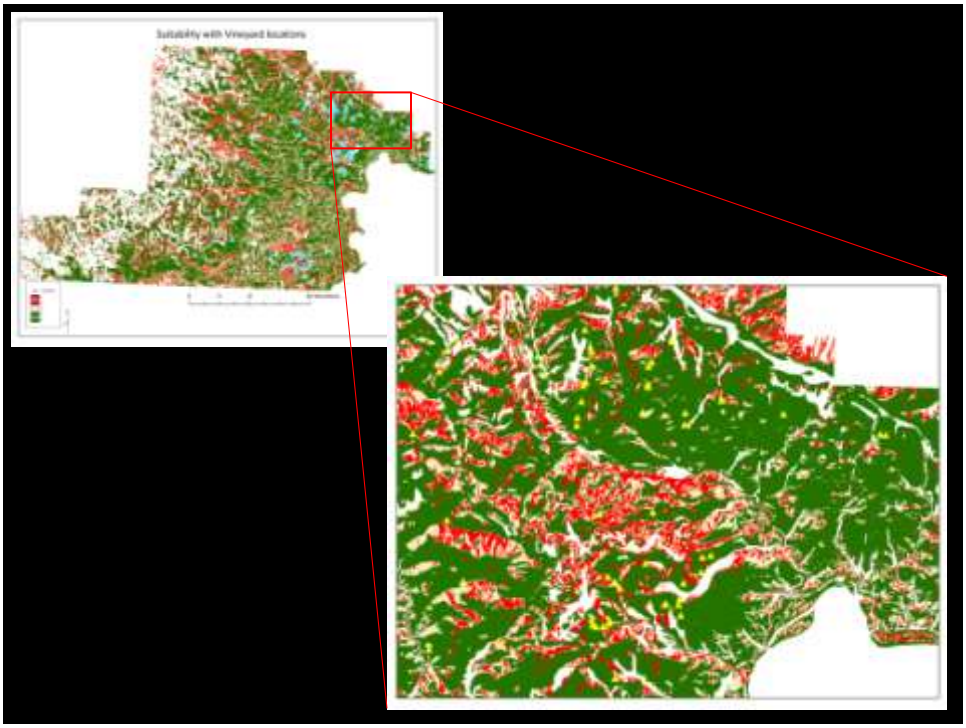
Weighted Overlay of Slope and Aspect



60% weight given to aspect and 40% weight given to slope


Final Vineyard Site Suitability Locations
Not acceptable
Not acceptable
Acceptable
Best suitability
Best suitability
0
5
10
20 Kilometers


Final Vineyard Site Suitability Locations with AVAs
Not acceptable
Not acceptable
Acceptable
Best suitability
Best suitability
0
5
10
20 Kilometers



References

- American Viticultural Areas shapefile – David Banis
- DEM - http://seamless.usgs.gov/
- Graphics - http://commons.wikimedia.org
- Landcover shapefile - http://www.oregon.gov/DAS/EISPD/GEO/index.shtml
- Soil Data - http://nrcs.usda.gov/
- Vineyard Info - http://www.oregonwine.org
- Ashenfelter, O. and K. Storchmann. 2010. Using Hedonic models of solar radiation and weather to assess the economic effect of climate change: The case of Mosel Valley vineyards. *The Review of Economics and Statistics,* Vol. 92(2), pp.333-349.
- De Blij, H.J. 1983. Geography of viticulture: rationale and resource. *J. Geography,* pp. 112-121.
- MacNeil, K. 2001. The wine bible. Workman Publishing, New York, pp. 738-749.

Questions?