

A Nutrient Management Plan

Jan 17,2007

Sample Vineyard

Vineyard Nutrient Management Plan

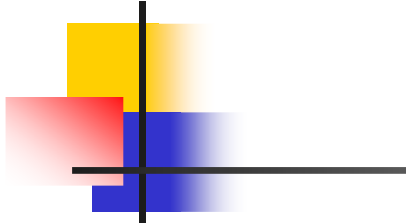
Overall Strategy: Generally, growth is very poor and surrounding soil is low in nutrients.
Need to correct deficiencies and pH and get plants going.

TIMING	SITUATION	STRATEGY
Late March	Uneven Lime Application	Spread out lime that was deposited in "clumps". Then apply an additional 150 g SE2000 (prilled Dolomite) per plant (apply evenly in a 3 foot diameter)
Late March	Weed Competition	Clean up area around plants (a 3 foot diameter circle). This should be done before applying more lime or fertilizer.
Late March/early April	Base fertilizer application	Apply 300 lb/a 10-17-19+6S+3Mg+.2B+.2Zn Apply this also in the 3 foot circle around plants (150 g or 4 oz. Per plant). Broad cast evenly within this zone.
Early Apr- bud break	Growth has been poor. Soil Poor. Plants appear weak. Transplanting Starter for new plantings also.	Apply a soil drench or through the fertigation , Na-Churs 3-18-18 @ 8 L/a + Lular Humic Acid @ 4 L/a. Mix both in water and drench root zone with 1 L of solution. You'll need up to 1000L of water per acre (based on 1000 plant/acre density)
May/June	Moisture	Keep plants well irrigated
Mid-Late June (bloom)	Petiole Analysis	Sample 20-30 representative leaves from opposite 1 st flower cluster. May have additional nutrient application after test results.
80%Capfall (Berry growth)	After Bloom	Recommend that you remove flower clusters so that we can concentrate on vegetative growth.
July	If growth still not satisfactory	Apply a foliar spray of 20-20-20 @ 3 lb/a. Use lots of water for thorough coverage of leaves.
Early August		
AFTER Harvest		
January		
February		



January

- Soil Testing- representative composite sample from field
- Results show soil pH, EC,OM
- N,P,K,S,Mg,B,Ca Zn,Fe,Cu,Mn



Soil Test Report

Evergro Canada Inc.
7430 Hoppcott Road
Delta, BC, V4G 1B6

Phone: 250.812.3670
Fax: 250.544.2012
e-mail: seng@evergro.com

Lab Analysis by Agrichem Analytical
www.agrichem.ca

Phone: 250.538.1712
e-mail: info@agrichem.ca

<i>General</i>	Malkun Farms MAL-012
Sample: 23307 Date Received: March 29, 2006 Date of Report: April 10, 2006	#1 Blueberries

<i>Active pH</i>	<i>Reserve pH</i>	<i>EC (uS)</i>	<i>OM %</i>	<i>BD (mg/cc)</i>
4.27	6.0	183	14	0.54

<i>Available Nutrient Analysis</i>											
	<i>N-NH4 +NO3</i>	<i>P -PO4</i>	<i>K</i>	<i>S -SO4</i>	<i>Mg</i>	<i>Ca</i>	<i>Fe</i>	<i>Cu</i>	<i>Mn</i>	<i>Zn</i>	<i>B</i>
<i>mg/kg</i>	30	256	365	36	197	301	304	26	61	13	0.35
<i>kg/ha</i>	32	276	394	39	213	325	328	28	66	14	0.38
<i>lb/ac</i>	29	247	352	35	190	290	293	25	59	13	0.34
Excess											
High											
Medium											
Low											
	<i>N-NH4 +NO3</i>	<i>P -PO4</i>	<i>K</i>	<i>S -SO4</i>	<i>Mg</i>	<i>Ca</i>	<i>Fe</i>	<i>Cu</i>	<i>Mn</i>	<i>Zn</i>	<i>B</i>

<i>Nutrients Required (lbs/ac)</i>											
<i>Crop</i>	<i>N</i>	<i>P</i>	<i>K</i>	<i>S</i>	<i>Mg</i>	<i>Ca</i>	<i>Fe</i>	<i>Cu</i>	<i>Mn</i>	<i>Zn</i>	<i>B</i>
Blueberries	150	30	30								1

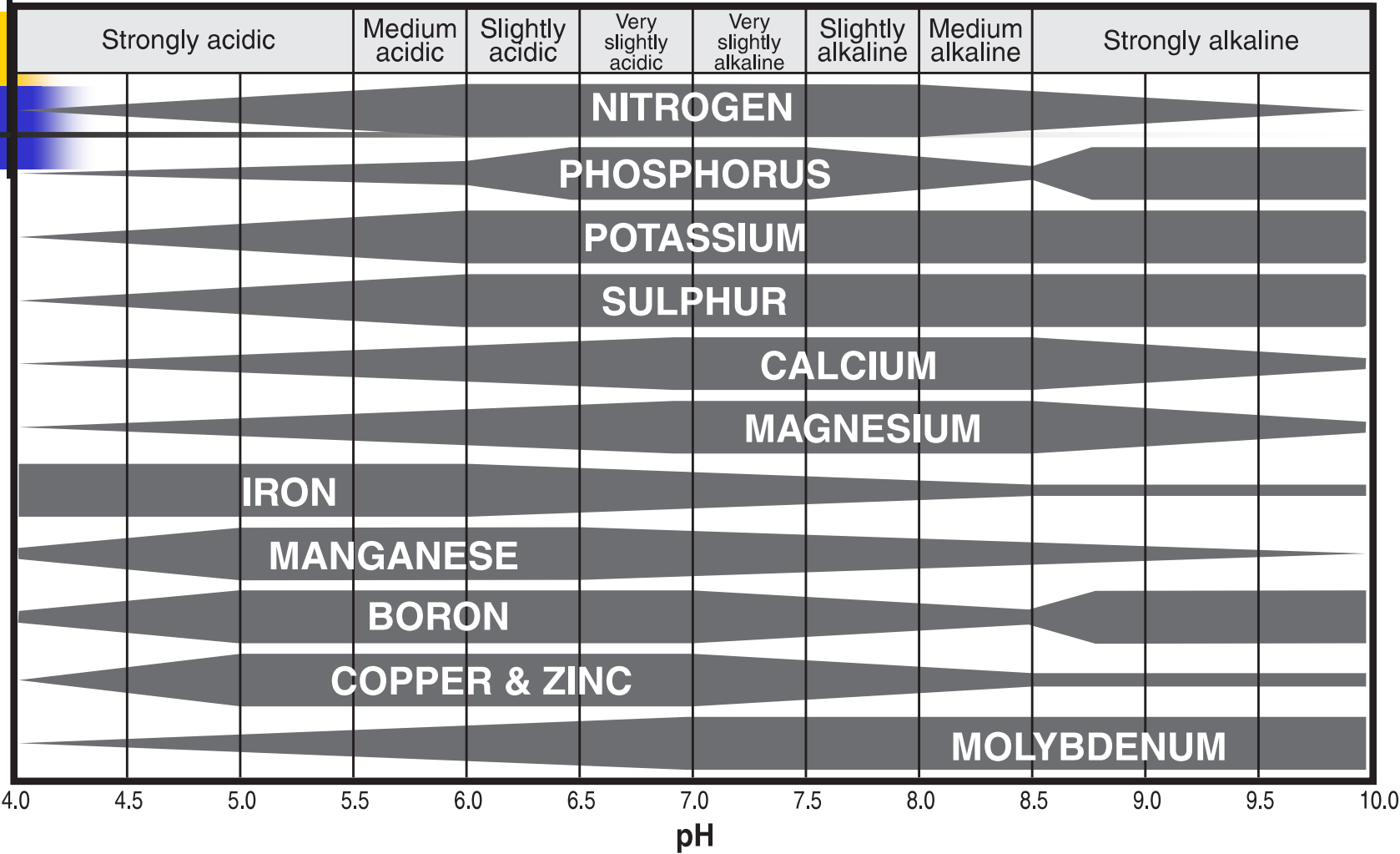
<i>Comments</i>
The soil pH is low, apply Liquid Lime @ 100 L/a. This will make the nutrients more available. If you lime properly, the amount of fertilizer applied can be reduced since all the levels are high. For fertilizer, apply 15-10-10 Blue Blend @ 400 lb/a 1st application. Following applications can just be 20-0-0+14S for additional N @ 200-300 lb/a depending on the size of plants.



February

- What's the soil pH
- Ideal soil pH is 6.2

The Influence of Soil pH on the Availability of 12 Plant Nutrients





Correcting pH

- Correction with Lime
- Dolomite vs. CaCO_3 lime
- SE2000 vs SE Coarse



March

- Apply soil nutrients
- Organic vs. Granular fertilizer
- New **VI Wine Grape Blend**- mature plants
- **10-17-19+S+Mg+B+Zn**-young plants
- **0-21-25+S+Mg+B+Zn**- no N Blend



VI Wine Grape Blend

- **8-17-20+11S+3Mg+.3B+.3Zn**
- Rate/acre : 300 lb/a This is application for rows. No need to reduce rate.
- Lower N to cut down on vegetative growth



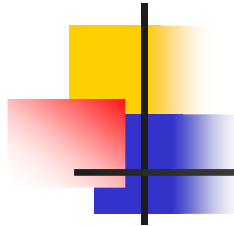
April

- **Poor Growth?**- Apply a soil drench to roots of Na-Churs 3-18-18 @ 4 L/a + On-Core @ 4 L/a.



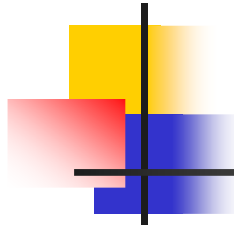
May

- **PreBloom-** Foliar Bortrac @0.4 L/a or Solubor @ 2 lb/a
- **PreBloom-** Add foliar Na-Churs 3-18-18 @ 4 L/a



June

- **Petiole Analysis**- 25-30 leaves opposite 1st flower cluster.
- Nutrient adjustments may be needed after results.



July

- K deficiency- Apply Na-Churs 0-0-30 @ 4 L/a
- Ca deficiency- Apply Caltrac @ 1.5 L/a
- Mg deficiency- Apply HydroMag @ 1.5 L/a
- More growth- Apply 3-5 lb/a 20-20-20



August

- **Berry Sizing** Na-Churs 3-18-18 @ 4L/a
OR
- Na-Churs 0-0-30 @ 4 L/a (good coverage)



September

- Nutrient Program complete till harvest



October/November

- Cover crops to increase soil OM
- Subsoiling
- Erosion Control