

Sunland Analytical

11419 Sunrise Gold Circle, #10
Rancho Cordova, CA 95742
(916) 852-8557

Date Reported 06/23/2000
Date Submitted 06/20/2000

To: Paul Prudent
Agri-Business
1 Dairy Ln
Everywhere, CA 99999

From: Gene Oliphant, Ph.D. \ Randy Horney
General Manager \ Lab Manager

The reported analysis was requested for the following:
Location : GREAT FARM Site ID : FIELD 10 SW.
Thank you for your business.

* For future reference to this analysis please use SUN # 555414-2111238.

SOIL ANALYSIS

pH 7.02 % Organic Matter 0.6
E.C. 0.27 mmho/cm
Tot.Dissolved Salts 172.8 ppm
C.E.C. 24.8 meq/100g
Gypsum Req. (CaSO4*2H2O) None Required
Sodium Absorption Ratio (SAR) 1.4

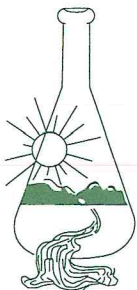
Nitrate 5.69 ppm
Phosphorus 11.58 ppm
Potassium 167.08 ppm
Sulfur 9.86 ppm
Chloride 13.36 ppm
Carbonates 118.34 ppm
Sodium 42.05 ppm
Calcium 2928.69 ppm
Magnesium 1169.57 ppm
Boron 0.16 ppm
Copper 16.47 ppm
Iron 23.58 ppm
Manganese 20.27 ppm
Zinc 1.39 ppm



Very Low	Low	Adequate	Excessive

BASE SATURATION Potassium Sodium Calcium Magnesium
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Values Determined	1.7	0.7	58.9	38.6
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SUN NUMBER 2111238

Information requested by:
Paul Prudent
Agri-Business

Information for:
GREAT FARM
Sample ID: FIELD 10 SW

SOIL RECOMMENDATIONS FOR WALNUT*

YIELD GOAL 1.5 TONS

PRIMARY CONCERNS
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N-P-K-S FERTILIZATION APPLICATION
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ALTERNATES FOR CONSIDERATION -----	POUNDS OF NUTRIENT PER ACRE			
	NITROGEN	P2O5	K2O	SULFUR
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ALTERNATE FERTILIZER APPLICATION 1 Minimum Nutrient Application for Yield	114	See Below	Non Req.	26
ALTERNATE FERTILIZER APPLICATION 2 Sustainable fertilizer application for yield	114	See Below	168	26
ALTERNATE FERTILIZER APPLICATION 3 OPTIONAL soil building alternate application	114	See Below	168	26

MICRO NUTRIENT APPLICATION CONSIDERATIONS
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BASIS FOR CONSIDERATION -----	POUNDS OF NUTRIENT PER ACRE			
	COPPER	IRON	MANGANESE	ZINC
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Micros required to aid plant metabolism	Non Req.	Non Req.	Non Req.	2

COMMENTS
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PHOSPHATE APPLICATION - little yield response in walnut has been demonstrated by phosphate application.

SOIL pH - The optimal pH range for walnut is 6.0 to 8.0. The soil is in the range for normal growth. No modification is required.

DISSOLVED SALTS are in the normal range for walnut growth.

SOIL SODIUM EFFECTS ON WATER PENETRATION - No problem. No gypsum required.

SOIL BORON concentration is below adequate level. Apply 2 lb/ac. Take care in application because excess boron is toxic to plants !!

ORGANIC MATTER - provides a slow nitrogen release and aids water penetration and retention. The organic matter in this soil may provide as much as 26 # Nitrogen/ac during the growing season

* Recommendations are to aid making fertilizer use decisions, but do not guarantee yield.