



Maintaining Nutrient Levels of Soil in Almonds: 3 years

Bisabri Ag Research and Consulting. Westley, CA 2020

Experiment Info:

Planted:	2/1/2008
Harvest:	8/14/2020
Yield Goal:	2500
Target Fert.:	
Variety:	Nonpariel
Population:	148
Row Width:	21
Prev. Crop:	
Plot Size:	1470 sq
Replications:	5

Soil Test Values (ppm):

pH:	6.0
CEC:	25.4
%OM:	2.4
Bray P1:	14
Bicarb P:	15
K:	242
S:	79
%K:	2.4
%Mg:	24.6
%Ca:	52.9
%H:	
Zn:	1.4
Mn:	6
B:	2.1

Objective:

To prove that AgroLiquid Fertilizers applied at rates that are considerably lower than those of conventional fertilizers are as effective as conventional fertilizers in production of almonds and build soil nutrient levels equal to conventional fertilizers.

This is the 3rd year of a planned 3-year replicated plot experiment comparing nutrient levels in the soil with the grower standard of conventional fertilizer with AgroLiquid fertilizers with Flavonol Polymer Technology. We compared 10-34-0, Actagro's Structure® (7-21-0) potassium thiosulfate and Zinc EDTA with AgroLiquid with Flavonol fertilizers PrG, (9-24-3), Kalibrate (2-0-10) (6 S) and Micro 500 were successfully used to feed a large almond crop and maintain soil levels of NPK and trace nutrients. Treatments were banded under the trees and then watered in with micro sprinklers.

Building Nutrient Levels of Soil in Nonpariel Almonds. Westley, CA 2020

November 2020 soil test results in Nonpariel Almonds, Westley Ca

	pH	CEC	Organic		Base Saturation			Sodium %	Nitrogen ppm	Phos ppm Bray	Potassium ppm	Mg ppm	Calcium ppm	Sodium ppm
			Matter %	Calcium %	Magnesium %	Potassium %								
Structure, potassium thiosulfate Zinc EDTA	5.90	23.00	3.00	49.90	26.80	3.00	3.40	1.00	64.00	269.00	749.00	2300.00	180.00	
ProGerminator, Kalibrate	6.00	25.40	2.40	52.90	24.90	2.40	5.10	5.00	14.00	242.00	759.00	2690.00	297.00	
Micro 500	6.60	22.80	2.20	64.20	23.80	2.60	3.30	1.00	33.00	235.00	661.00	2934.00	174.00	
10-34-0, potassium thiosulfate Zinc EDTA														

	Sulfur ppm	Zinc ppm	Mn ppm	Fe ppm	Cu ppm	B ppm
Structure, potassium thiosulfate Zinc EDTA	28.00	2.30	13.00	17.00	7.00	1.20
ProGerminator, Kalibrate	79.00	1.40	6.00	8.00	5.70	2.10
Micro 500	277.00	0.70	5.00	6.00	3.10	2.10
10-34-0, potassium thiosulfate Zinc EDTA						

Conclusions:

- Over 3 years of application both the PrG and Structure soil samples were better than the 10-34-0.
- PrG applied only 18 gallons per acre over the season compared to 45 gpa of 10-34-0 and 30 gpa of Structure. Over the 3 year period of time that is 54 gpa of PrG compared to 135 of 10-34-0 gpa and 90 gpa of Structure® .
- Soil analysis of Potassium is very close between the Kalibrate using 16.5 gpa and potassium thiosulfate using 30 gpa.
- These results show that the soil levels of nutrients can be maintained with significantly less inputs while maintaining yields are not only possible but has been done. This is also done for a lower cost using AgroLiquid products.