Fertilizer Program Evaluations in Almonds: 3 Years

Bisabri Ag Research and Consulting. Westley, C A 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:	Almonds
Plot Size:	1470
Replications:	6

Soil Test Values (ppm):	
pH:	6.6
CEC:	22.8
%OM:	2.2
Bray P1:	33
Bicarb P:	29
K:	235
S:	79
%K:	2.6
%Mg:	23.8
%Ca:	64.2
%H:	
Zn:	.7
Mn:	5
B:	2.1

Objective:

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.

This is the third year of a planned 6 year replicated plot experiment comparing different applications of AgroLiquid fertilizers compared to conventional fertilizers: 10-34-0, Structure, potassium thiosulfate and EDTA Zinc. Agro Liquid fertilizers PrG, Kalibrate, and Micro 500 were successfully substituted into the conventional programs. Actagro's Structure® (7-21-0) is a fertilizer that has properties seen as a more specialty type fertilizer compared to 10-34-0. Treatments were banded under the tree and then watered in with micro sprinklers.

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	2020 Application Dates (fertlizer rates per acre)						Ave of 6 replicated trials			
	10/8/2019	3/20/2020	4/10/2020	5/12/2020	6/26/2020		2018	2019	2020	Avg.
1	32% UAN: 10 Gal 10-34-0: 7.5 Gal potassium thiosulfate: 5 Gal	32% UAN: 10 Gal 10-34-0: 15 Gal KTS: 10 Gal Zinc EDTA: .5 gal	32% UAN: 15 Gal 10-34-0: 15 Gal KTS: 10 Gal Zinc EDTA: .5 gal	32% UAN: 15 Gal . KTS 10: Gal Zinc EDTA: .5 gal	10-34-0: 7.5 Gal KTS: 10 Gal Zinc EDTA: .5 gal	50 45 45 2	2504	2075	3783	2787
2	32% UAN: 10 Gal Structure: 5 Gal potassium thiosulfate: 5 Gal	32% UAN: 10 Gal Structure: 10 Gal KTS: 10 Gal Zinc EDTA: .5 gal	32% UAN: 15 Gal Structure: 10 Gal KTS 10: Gal Zinc EDTA: .5 gal	32% UAN: 15 Gal . KTS: 10 Gal Zinc EDTA: .5 gal	Structure: 5 Gal KTS: 10 Gal Zinc EDTA: .5 gal	50 30 45 2	2864	2176	3935	2992
3	32% UAN: 10 Gal PrG: 3 Gal potassium thiosulfate: 5 Gal	32% UAN: 10 Gal PrG: 6 Gal KTS: 10 Gal Zinc EDTA: .5 gal	32% UAN: 15 Gal PrG: 6 Gal KTS 10: Gal Zinc EDTA: .5 gal	32% UAN: 15 Gal . KTS: 10 Gal Zinc EDTA: .5 gal	PrG: 3 Gal KTS: 10 Gal Zinc EDTA: .5 gal	50 18 45 2	2899	2164	3958	3007
4	32% UAN: 10 Gal PrG: 3 Gal Kalibrate: 3.3 Gal	32% UAN: 10 Gal PrG: 6 Gal Kalibrate: 3.3 Gal Zinc EDTA: .5 gal	32% UAN: 15 Gal PrG: 6 Gal Kalibrate 3.3: Gal Zinc EDTA: .5 gal	32% UAN: 15 Gal . Kalibrate: 3.3 Gal Zinc EDTA: .5 gal	PrG: 3 Gal Kalibrate: 3.3 Gal Zinc EDTA: .5 gal	50 18 16.5 2	2878	2182	3866	2975

Conclusions:

- Over the 3 year that have been completed both PrG and Structure® produced yields that were significantly higher than 10-34-0.
- PrG applied only 18 gallons per acre over the season compared to 45 gallons per acre with 10-34-0 and 30 gallons per acre with Structure.
- The yield with PrG and Kalibrate at 16.5 gallons per acre over the season was the same as 45 gallons of potassium thiosulfate per acre. Using 1/3 the gallons shows the efficiency of AgroLiquid's potassium with Flavonol Technology is providing the same yields. (see the report Effect of Almond Fertilizer Programs on Leaf Tissue, Effect of Almond Fertilizer Programs on Soil Test Results).
- These results show that AgroLiquid is very efficient in compared to other fertilizers in delivering