

# Quantum Growth<sup>®</sup> Increases Alfalfa Yield by 11% to 23% While Increasing Nutritional Value

**Location:** Southern California Farm

**Objective:** This test was designed to determine the effect of Quantum Growth on yield and quality of alfalfa when applied as an addition to grower's best practices and to determine return on investment of any benefits provided.

**Results Achieved:** Use of Quantum-VSC<sup>®</sup> and Quantum-Light<sup>®</sup> had significant positive impact on the yield and nutritional value of the alfalfa. **Dairy analysis of the alfalfa found the treated alfalfa of both Quantum-VSC and Quantum-Light to have higher value of milk pounds per ton of dry matter.** The alfalfa from block 2 was increased from Good to Premium and alfalfa from block 4 was raised from Good to Premium/Supreme according to the standards contained in the California Weekly Hay Report supplied by USDA Market News for Friday Nov. 13, 2009 when the analysis was reported.

## The Experiment

ELI's technical representatives provided a treatment plan and assisted in initiating the program. In the experiment, four 1.5-acre blocks were designated as side by side treated vs. control. Samples were taken from blocks 1 & 2 on April 30 and June 18 and sent to Harris Laboratories to determine differences in nutrient uptake levels. Each block was cut, raked and loaded into a weigh wagon to determine the yield in pounds. Additional samples were taken after the 4th cut. Samples were sent to Agri Analysis in Leola, PA for evaluation as dairy feed.

Block 1	Control
Block 2	1 gal Quantum-VSC boom sprayed in late April; 8 oz Quantum-VSC & 8 oz Quantum-Light within one week of each cut starting after second cut on July 18
Block 3	Control
Block 4	1 gal Quantum-Light boom sprayed in late April; 8 oz Quantum-VSC & 8 oz Quantum-Light within one week of each cut starting after second cut

Side by side windrow comparison. Note the height and thickness of the treated windrows along with the deeper green color.



**For more information on Quantum Growth products call 866.871.0154**

**Quantum Growth**<sup>™</sup>

 **Ecological Laboratories** INC.

## The Data

	Cut 1	Cut 2	Cut 3	Cut 4	Total	% Change
Block 1	NO	14,320	16,453	14,100	44,873	
Block 2	X	21,140*	18,675	15,190	55,005	<b>23%</b>
Block 3	X	14,250	13,152	14,110	41,512	
Block 4	X	15,125	14,512	16,510	46,147	<b>11%</b>

## Return on Investment

The chart below shows the additional income that was generated with the blocks that used Quantum Growth. The amounts collected allow for a 15% water weight loss.

Block 2 – 5.06 tons of Good/Premium @ \$135/ton	<b>\$ 683.10</b>
Block 4 – 2.31 tons of Premium @ \$145/ton	<b>\$ 334.95</b>
Cost of Quantum Growth Treatment	<b>-\$ 150.00</b>
<b>Total Additional Income</b>	<b>\$ 868.05</b>

**This translates to additional income of \$289.35 per acre**



Note the increased foliage and larger root system along with thicker root crown and structural roots of the treated plant on the right.

**For more information on Quantum Growth products call 866.871.0154**

**Quantum Growth™**

 **Ecological Laboratories** INC.