

# Orchard Floor Management in North Coast Organic Pear Orchards

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# Objective

In the second year of this project the objective was to determine if the efficacy of several weed control methods, 3 organic herbicides (Acetic acid, BioLink and Matratec), EcoCover (a mulch derived from recycled shredded paper), tree mulch (made from shredded trees) and combinations of these improved after a second year of treatment.

This experiment was conducted in a young non-bearing orchard in Kelseyville, CA.

Spray volume was 70 GPA using

Single 8006E TeeJet nozzle.

Natural Wet at 1%v/v

Note: BioLink replaced GreenMatch in second year of study because Marrone discontinued the sale of GreenMatch due to formulation problems.

# Treatments 2012

## 1. UNTREATED CONTROL

2. Acetic Acid 20% 1-Application April 19<sup>th</sup>

3. Acetic Acid 20% 2-Applications April 19<sup>th</sup> June 20

4. Biolink 6% -1 Application April 19<sup>th</sup>

5. Biolink 6 % -2 Applications April 19<sup>th</sup> June 20

6. Matran 10% -2 Applicatons April 19<sup>th</sup> June 20

7 Ecocover paper mat-alone March 27

8. Ecocover + tree mulch Feb 9, 2011

9. Tree mulch alone Feb 16, 2011

10. Tree mulch + Acidic Acid Feb 16, 2011 April 19<sup>th</sup>



**Tree Mulch +Acetic Acid  
from Last Year  
March 6**





# Tree Mulch

## March 6





# **Biolink pre March 6 Green Match 2011**





# EcoCover March 3





## New EcoCover Applied April 27



<b>Treatments</b>		<b>Phytotoxicity 4/27/12</b>		
		<b>Broadleaf</b>	<b>Grass</b>	
<b>1. UNTREATED CONTROL</b>		-	-	
<b>2. Acetic Acid 20% 1-Application</b>		<b>4.25</b>	<b>5.5</b>	
<b>3. Acetic Acid 20% 2-Applications</b>		<b>4.5</b>	<b>5</b>	
<b>4. BioLink 6% -1 Application</b>		<b>4.25</b>	<b>4.75</b>	
<b>5 BioLink 6% -2 Applications</b>		<b>4.25</b>	<b>4.5</b>	
<b>6. Matratec 10% -2 Applications</b>		<b>2.75</b>	<b>2.25</b>	
<b>7 EcoCover paper mat-alone</b>		-	-	
<b>8. EcoCover + tree mulch</b>		-	-	
<b>9. Tree mulch alone</b>		-	-	
<b>10. Tree mulch + Acidic Acid( 1 App)</b>		<b>3.5</b>	<b>3.5</b>	
Phytotoxicity ratings are based on a 1-10 scale; 1=no damage; 10= complete damage		Control ratings are based on a 1-10 scale; 1=no control; 10= complete control		



**Acetic Acid-just  
after application  
on April 19**





**Biolink-just after  
application on  
April 19**





**Acetic Acid-just  
after application  
on April 19**





# June 28<sup>th</sup> –Field Day





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BioLink 6%  
(Fatty Acid)  
2 App- 4/19 & 6/20  
5

















<b>Treatments</b>		Phytotoxicity 4/27/12		8/13/12
		Broadleaf	Grass	Control
<b>1. UNTREATED CONTROL</b>		-	-	<b>2</b>
<b>2. Acetic Acid 20% 1-Application</b>		4.25	5.5	<b>2.25</b>
<b>3. Acetic Acid 20% 2-Applications</b>		4.5	5	<b>2.75</b>
<b>4. BioLink 6% -1 Application</b>		4.25	4.75	<b>2.5</b>
<b>5 BioLink 6% -2 Applications</b>		4.25	4.5	<b>2.25</b>
<b>6. Matratec 10% -2 Applications</b>		2.75	2.25	<b>2.75</b>
<b>7 EcoCover paper mat-alone</b>		-	-	<b>6.5</b>
<b>8. EcoCover + tree mulch</b>		-	-	<b>3.5</b>
<b>9. Tree mulch alone</b>		-	-	<b>4.25</b>
<b>10. Tree mulch + Acidic Acid( 1 App)</b>		3.5	3.5	<b>3.75</b>
Phytotoxicity ratings are based on a 1-10 scale; 1=no damage; 10= complete damage		Control ratings are based on a 1-10 scale; 1=no control; 10= complete control		





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