

# **Disease Control Programs for Almonds**

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Almond trees are treated annually for protection against an array of plant diseases. Along with the several diseases growers face, there is a list of fungicides from which to choose. Making decisions about fungicide choice and treatment timing for any given disease may have an effect on other diseases as well. Thus it is important to select fungicides that are effective against diseases known to be in the orchard and to apply them at the correct time.

Our objective with this research has been to evaluate various fungicide programs and new fungicides for effectiveness against several diseases.

Brown rot was the only disease that developed in sufficient amount in the 2000 season to allow evaluation of fungicides. All fungicides tested provided control of brown rot in comparison to the non treated control with programs that included Rovral, Vanguard, Indar, Flint and Abound being generally better than those relying on Rally

or Trilogy. However, the suppression of blossom brown rot by Trilogy is noteworthy. This is the first time in our tests that a “soft” non-synthetically produced “organic” type product has shown potential for brown rot control. More evaluation will be required to understand the commercial value of this product to almond disease control.

Shot hole, scab, and rust were not observed or were too infrequent to measure. Leaf blight infections also were at low levels thus the data for leaf blight control is of little value.

Growers should plan a fungicide program that protects against brown rot during bloom and shot hole, scab, leaf blight and perhaps anthracnose later in the season. Trees are most susceptible to brown rot at full bloom so early timings should include a spray at or near full bloom. Later applications are aimed at the other diseases. Late bloom and post bloom fungicide choices should include at least one material with a broad spectrum of activity. Even though disease levels were relatively low in 2000 and inoculum levels for 2001 may also be reduced, any of these diseases could erupt if weather is favorable. Therefore, a carefully planned and executed fungicide program is important.

NICRAC Fungi rpt 00 a

Crop: ALMOND, cv. BUTTE  
 Disease: BROWN ROT *Monilina laxa*  
 LEAF BLIGHT *Seimatosporium leichenicola*

Year: 2000  
 Objective: EFFICACY  
 Location: COLUSA

Treatments	Brown rot		Leaf blight <sup>A</sup>		
	20% bloom	Full bloom	Post bloom	Stikes/40 feet	Dead leaves/tree
18 Feb	2 Mar	24 Mar	20 April	25 July	
ROV+L	ROV+L	CAP	2.3 e	2.5 ab	
VAN	VAN	VAN	2.7 e	0.5 b	
ROV+L	VAN	ABD	9.2 cde	0.2 b	
ROV+L	ABD	CAP	11.0 cde	3.0 ab	
RAL+L	RAL+L	RAL+L	21.7 c	0.2 b	
FLT2+VAN	FLT2+VAN	FLT2+VAN	1.5 e	2.5 ab	
FLT	FLT	FLT	6.2 de	1.0 b	
IND+L	IND+L	IND+L	13.5 cde	1.0 b	
TRL	TRL	TRL	19.2 cd	2.7 ab	
NON TREATED			52.7 b	4.5 a	
NON TREATED			82.0 a	2.5 a	

<sup>A</sup> The fungus was cultured from representative samples

Code	Material	Rate a.f. per acre
ABD	Abound 2EC	15.0 fl oz
CAP	Captan 50W	8.0 lb
FLT2	Flint 50WG	2.0 oz
FLT	Flint 50WG	3.0 oz
IND	Indar 75WP	2.0 oz
RAL	Rally 40E	5.0 oz
ROV	Rovral 75 WDG	10.6 oz
TRL	Trilogy	1 %
VAN	Vangard 75WG	5.0 oz
L	Latron B1956	8.0 fl oz/100 gal

Application:		Hand-gun
Psi:		300
Gal/tree:		2.0
Trees/acre:		202
Design:		RCB
Replication:		4
Rainfall and average daily high Temp (F) (CIMIS Station #32 Colusa)		
Month	Inches Days	T-max
February	4.8	59
March	1.8	67
April	1.1	76
May	1.4	77
June	0.4	91
July	0.0	91