

MESSENGER AND CULTURAL METHODS FOR CONTROL OF GRAPE BUNCH ROT, 2001: Fungicide treatments were arranged in a randomized complete block design in a block 'Pinot Noir' planted in 1985 on a 7x10 ft spacing. Vines were trained to a bilateral cordon with spur pruning. The number of buds was adjusted based on pruning weights at the rate of 30 buds/kg canes. Shoot thinning occurred from 10-17 May. Each treatment was replicated on 3 sets of 5 vines. Treatments were applied using a hooded boom sprayer at 100 psi for the first two timings, and 200 psi for the last 3. The rate of water used was 94 gal/A for the first two timings, and 127 for the last 3. Approximately 2.3 to 3 gal of spray suspension was used per 15 vines depending on time of year. All applications were focused on the fruiting zone of the canopy. Fungicides were applied on 19 Jun (50% bloom), 20 Jul (bunch closure), 21 Aug (veraison) and 27 Sep (pre-harvest). Messenger treated vines received an extra application prior to bloom on 6 Jun (EL 17). Leaves were removed from the east side of the fruiting zone on 30 Jun (shatter) on two treatments. The first lateral on the cluster rachis (locally referred to as "wings") was removed on 21 Aug (veraison) on two treatments. Microthiol Dispers 80 WG (10 lb/A) was applied on 1 Jun, and Rally 40 W (2.5-8 oz/A) was applied on 8 and 20 Jun, 6 and 19 Jul, 3 and 24 Aug. for control of powdery mildew. Urea fertilizer was spread within vine rows on 10 May at 127 lb/A. Cassaron 4G (150 lb/A) was initially applied to control weeds in the vine row on 22 Feb and finished on 9 Mar. Roundup Ultra (3 qt/A) was applied 7 Mar to manage weeds which had already emerged. Nets were placed around vines on 17 Sep to protect fruit from possible bird damage. Incidence of Botrytis bunch rot was determined on 1 Oct (22.2° Brix) by examining 50 clusters from the center vines of each set of five vines. Incidence and severity of Botrytis bunch rot was determined on 9 Oct (23.1° Brix) by harvesting and examining 50 clusters from the center vines of each set of five vines. Soluble solids, Brix, were determined using a hand held refractometer.

Weather conditions in Western Oregon were considered dry with 50% below normal rainfall. Bunch rot was observed in late Sep but increased rapidly after 0.47 in rainfall on 25-26 Sep. The amount of bunch rot found on Messenger treated vines was not significantly different than that found on nontreat vines. Also, the Brix level of clusters from Messenger treated vines was not significantly different than that of clusters from nontreated vines. Vines where leaves or wings were removed alone did not have bunch rot levels significantly different from those on nontreated vines. The combination of leaf and wing removal and fungicides resulted in significantly fewer bunches with rot on 9 Oct than nontreated vines. No phytotoxicity was observed on any vines treated with any fungicide.

Treatment and Rate/A	% Incidence of Bunch Rot*		% Severity of Bunch Rot*	Brix (9 Oct)*
	1 Oct	9 Oct		
Nontreated	17.0	85.3 a	12.5	23.0
Messenger at 8 oz/100 gal water.....	19.0	81.3 a	8.2	23.2
Leaf Removal only.....	16.0	82.7 a	7.8	23.1
Wing Removal only.....	7.3	75.3 a	2.4	23.7
Leaf Removal at shatter then Elevate 50 WDG 1 lb at bunch close then Wing Removal beginning of veraison then Rovral 50 WP 2 lb at veraison then Vanguard 75 WG 10 oz at preharvest.....	0.7	20.0 b	0.7	23.5

* Means followed by the same letter do not differ significantly based on Fisher's protected LSD (P=0.05). Means without any letters did not differ significantly.