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Virginia Polytechnic Institute, Blacksburg. Agricultural Extension Service  
MR-68.

SPECIAL  
COLLECTION

GRAPE SPRAY CALENDAR

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VIRGINIA POLYTECHNIC INSTITUTE  
BLACKSBURG, VIRGINIA

Black rot is the most serious disease which affects grapes in Virginia. It is caused by a fungus and the infection takes place early in the season. Successful control can be secured only by applying sprays early.

The fungus is carried over on mummied grapes, leaves, and on the canes. After pruning, all of the mummied fruits, old leaves, and trimmings should be raked up and burned and the vines should be sprayed thoroughly with a dormant spray.

NO.:	TIME OF APPLICATION	MATERIALS TO USE	PURPOSE
1 :	Dormant season	Lime-sulphur, 32° Baume	Scale and general
:		: diluted 1 to 8	: clean-up
2 :	When second or third leaf shows	Bordeaux 4-5-50. Add $\frac{1}{2}$ lb. resin or fish oil soap or 1 lb. soybean flour	Anthracnose, Bitter rot, Black rot, Mildew
:			
3 :	Before blossoms open	Same	Same
4 :	After blossoms fall	Same	Same
5 :	Ten to 14 days later	Same	Same
:	Then at 2-wk. intervals	:	:
:	: until within 2 wks. of harvest time	Same	Same

Skim milk may be substituted for fish oil soap or soybean flour and used at the rate of 1 gallon for each 50 gallons of Bordeaux mixture; or  $\frac{1}{2}$  pint for a 3-gallon mixture.

Lead arsenate, 2 pounds powder to each 50 gallons of solution, should be combined with Bordeaux if chewing insects appear.

For growers having 3-gallon sprayers, the Bordeaux mixture may be made by using:

4 level tablespoonfuls of bluestone	To add lead arsenate, use
5 level tablespoonfuls of lime	12 level tablespoonfuls for
3 gallons of water	a 3-gallon mixture.

Where black rot has been unusually severe, it is suggested that an additional spray of 4-5-50 Bordeaux be applied when the vines are in full bloom.

Successful control will depend upon strict adherence to this schedule, together with thorough application of the materials recommended. It must also be remembered that the first four sprays are the most important, and they must be applied as recommended in order to secure control.

To remove spray residue, wash grapes in a 1 percent hydrochloric or acetic acid solution. For home use, dip grapes in a solution of 1 part vinegar to 5 parts of water. After washing, rinse grapes with clean water before using.

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S. B. Fenne  
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RASPBERRY SPRAY SCHEDULE

<u>TIME OF APPLICATION</u>	<u>MATERIALS 100 GALLONS</u>	<u>MATERIALS 12 GALLONS</u>	<u>MATERIALS FOR 3 GALLONS</u>	<u>TO CONTROL</u>
1. When first green shows in buds.	10 Gallons liquid lime & sulfur 32° Baume or 40# Dry Lime Sulfur	5 quarts liquid lime-sulfur 32° Baume or 5# Dry Lime Sulfur	2½ pints of liquid lime-sulfur 32° Baume or 1¼ pound Dry Lime Sulfur	Scales Anthracnose
2. One week before blossoms open.	8-8-100 Bordeaux mixture	1-1-12 Bordeaux mixture	4 oz.-4 oz.-3 Bordeaux mixture	Leaf Spot Anthracnose
3. Immediately after harvest.	Same as for #2	Same as for #2	Same as for #2	Anthracnose
4. Four weeks after #3	Same as for #3	Same as for #3	Same as for #3	Anthracnose

Explanation:

In Bordeaux mixture formulas the first figure refers to the amount of Bluestone; the second to hydrated spray lime; the third to the amount of water needed.

For example: 8-8-100 would require 8 pounds of Bluestone; 8 pounds of spray lime and 100 gallons of water.

Preparation of Bordeaux Mixture:

1. Use powdered Bluestone.
2. Use fresh hydrated spray lime.
3. Fill the sprayer 1/4 full of water, sift in the recommended amount of powdered bluestone, agitate or stir until dissolved.
4. Add water until the sprayer is 3/4 full.
5. Sift in slowly the recommended amount of fresh lime, agitate and stir until the solution is thoroughly mixed.
6. Add water until the sprayer is full, continue agitation.
7. Spray out immediately.