Pre-Harvest Intervals to Comply with the Maximum Residue Limits (MRLs) of Selected Export Markets for Twelve Fungicides Registered for Use in Blackberries for the 2020 Growing Season - February 29, 2020

Ab	Abound (Azoxystrobin)										
Intended	•	Time	befor	e har	vest	(days)				
Market	0	0 1 3 5 7 14 21									
USA											
Australia											
Canada											
China											
Codex											
EU											
Hong Kong											
Japan											
Korea											
Taiwan											

	Captan									
Intended		Гіте	befor	e har	vest	(days)			
Market	0	0 1 3 5 7 14								
USA										
Australia										
Canada										
China										
Codex										
EU										
Hong Kong										
Japan										
Korea										
Taiwan										

El	Elevate (Fenhexamid)									
Intended	Time before harvest (days)									
Market	0 1 3 5 7 14									
USA										
Australia										
Canada										
China										
Codex										
EU										
Hong Kong										
Japan										
Korea										
Taiwan										

Fontelis (Penthiopyrad)											
Intended		Time	befor	e har	vest	(days)				
Market	0	1	3	5	7	14	21				
USA											
Australia											
Canada											
China											
Codex											
EU											
Hong Kong											
Japan											
Korea											
Taiwan											

Kenja (Isofetamid)											
Intended		Time	befor	e har	vest	(days)				
Market	0	1	3	5	7	14	21				
USA											
Australia											
Canada											
China											
Codex											
EU											
Hong Kong											
Japan											
Korea											
Taiwan											

Luna Tranquility (Fluopyram+Pyrimethanil)								
Intended	•	Γime	befor	e har	vest	(days)	
Market	0	1	3	5	7	14	21	
USA								
Australia								
Canada								
China								
Codex								
EU								
Hong Kong								
Japan								
Korea								
Taiwan								

Pristine	Pristine (Boscalid+Pyraclostrobin)										
Intended	•	Time	befor	e har	vest	(days)				
Market	0	1	3	5	7	14	21				
USA											
Australia											
Canada											
China											
Codex											
EU											
Hong Kong											
Japan											
Korea											
Taiwan											

Prolivio (Pyriofenone)										
Intended	•	Time before harvest (days)								
Market	0	0 1 3 5 7 14 21								
USA										
Australia										
Canada										
China										
Codex										
EU										
Hong Kong										
Japan										
Korea										
Taiwan										

Rally (Myclobutanil)									
Intended	-	Time	befor	e har	vest	(days)		
Market	larket 0 1 3 5 7 1						21		
USA									
Australia									
Canada									
China									
Codex									
EU									
Hong Kong									
Japan									
Korea									
Taiwan									

Key to colors used in charts:

RED means that the product should not be used during this time either because of EPA label restrictions or due to a high risk of exceeding MRLs for a given market.



YELLOW means that the product should be used with caution during this time given all the variables (e.g. tank mixes, application method and calibration, use of adjuvants, environmental conditions, and post-harvest handling) that can impact the time it takes for a residue to degrade in order to meet the MRL for a given market.

GREEN means that the product is likely to be safe for use at this time with low risk of residue remaining at harvest that would exceed MRLs for a given market.

Pre-Harvest Intervals to Comply with the Maximum Residue Limits (MRLs) of Selected Export Markets for Twelve Fungicides Registered for Use in Blackberries for the 2020 Growing Season - February 29, 2020

	Rovral (Iprodione)										
Intended		Time before harvest (days)									
Market	0	0 1 3 5 7 14 21									
USA											
Australia											
Canada											
China											
Codex											
EU											
Hong Kong											
Japan											
Korea											
Taiwan											

Switch	Switch (Cyprodinil+Fludioxonil)									
Intended	1	Time before harvest (days)								
Market	0 1 3 5 7 14 21									
USA										
Australia										
Canada										
China										
Codex										
EU										
Hong Kong										
Japan										
Korea										
Taiwan										

Tanos	Tanos (Cymoxanil+Famoxadone)									
Intended	-	Time before harvest (days)								
Market	0	1	3	5	7	14	21			
USA										
Australia										
Canada										
China										
Codex										
EU										
Hong Kong										
Japan										
Korea										
Taiwan										

Key to colors used in charts:

RED means that the product should not be used during this time either because of EPA label restrictions or due to a high risk of exceeding MRLs for a given market.



YELLOW means that the product should be used with caution during this time given all the variables (e.g. tank mixes, application method and calibration, use of adjuvants, environmental conditions, and post-harvest handling) that can impact the time it takes for a residue to degrade in order to meet the MRL for a given market.

GREEN means that the product is likely to be safe for use at this time with low risk of residue remaining at harvest that would exceed MRLs for a given market.

Acknowledgements: This work was made possible with funding by the Washington Red Raspberry Commission (WRRC), Oregon Raspberry and Blackberry Commission (ORBC), and USDA Technical Assistance for Specialty Crops (TASC). Field collaborators include: Joe DeFrancesco, Peter Sturman, and Gina Koskela (OSU NWREC); Beverly S. Gerdeman and G. Hollis Spitler (WSU Mount Vernon NWREC). Sample analysis and generation of these charts was done by Camille Holladay and Keith Crosby (Synergistic Pesticide Lab in Portland, OR).

Purpose & Methods: This tool was developed to aid blackberry growers in selecting materials to manage key pests close to harvest with a particular export market in mind. Selected markets have been included, some of which have more restricted maximum residue limits (MRLs) or tolerances than required by the US for particular materials. The MRLs used to develop this tool come from those published by www.bryantchristie.com as of February 29, 2020. Please check the database as MRLs are dynamic. The data used to determine whether a longer pre-harvest interval would be necessary for a given market and its published MRL are based on a single application made near the legal US max rate for each material tested in replicated trials conducted at one location each in Oregon and Washington over three years, unless otherwise noted. All samples were extracted by the QuEChERS method and analyzed by GC/MS/MS and LC/MS/MS.

Disclaimer: These charts are just a guide. The authors of this tool cannot guarantee that any of these MRLs have not changed since February 29, 2020; therefore, the user assumes all responsibility for its use subsequently. We also cannot guarantee that a material listed for use in Oregon or Washington is registered for use outside those states (pesticide registration status is determined by the US EPA and State Governments where 'special uses' are concerned). Users outside these states are cautioned to consult with their local extension service to determine what is allowable. We also make no guarantees that any of the products listed will be effective against a particular pest. Finally, given all of the variables that can affect degradation rates - in particular the use of adjuvants and tank mixes, environmental post-application conditions, and post-harvest handling - we cannot guarantee that if a product is used according to this tool it will not leave residues that exceed MRLs for the selected market.