

Fungicide rotations

Alternatives for rotation with Banrot® and Zyban®

The following table gives some common rotation alternatives to Zyban and Banrot, their resistance group and the diseases each is registered to treat in ornamentals.

Active 1	Zyban Thiophanate- methyl	Banrot Thiophanate- methyl	Bitertanol	Captan	Iprodione	Mancozeb	Furalaxyl	Dazomet	Etridiazole	Chlorothalonil	Propamocarb
Active 2	Mancozeb	Etridiazole									
Poison schedule	S5	S5	S6	S6	-	S5	S5	S6	S5	S6	S5
Resistance group	A & Y	A & X	C	Y	B	Y	D	-	X	Y	Y
Chemical group	Benzimidazole & Multi-site activity	Benzimidazole & unspecified	DMI	Multi-site activity	Dicarboximide	Multi-site activity	Phenylamide	Thiazole	Unspecified	Multi-site activity	Multi-site activity
Foliar											
Rust (red and white)	X		X			X				X	
Black Spot	X		X	X		X					
Powdery mildew	X		X								
Grey mould	X			X		X				X	
Downy mildew	X			X							
Blossom blight	X			X							
Botrytis blight	X				X	X				X	
Alternaria leaf spot	X					X				X	
Septoria leaf spot	X					X				X	
Fusarium leaf spot	X									X	
Soil											
Pythium		X		X			X	X	X		X
Phytophthora		X					X	X	X		
Rhizoctonia		X						X			
Thielaviopsis (Chalara)		X									

Note: Zyban is no longer available, since March 2008.

To prevent resistance build up when using fungicides, it is a good idea to rotate the use of products with different resistance groups. Each resistance group comprises fungicides that have a particular mode of action.

The mode of action of each active ingredient is listed as a letter and/or number on the product label. The mode of action symbol looks like this:



This table is an indication only, please read the product label carefully for a complete list of diseases each product is registered to control.