

Resistance management recommendations and proposals for Fungicides not included in current working groups as requested by manufacturers

Compound	Quinoxyfen, Proquinazid
Chemistry	Azanaphthalenes
FRAC MoA Code	13
TAREGT SITE AND CODE	E1 - Signal transduction (mechanism unknown)
Uses	Powdery mildew control in wheat, barley, oats, rye, triticale, grapevines, stone fruit, cucurbits, peppers, chilies, hops, strawberries, pome fruit, mango, field peas.
Resistance Status	<ul style="list-style-type: none"> • Resistance known to these molecules in <i>Erysiphe necator</i> and <i>Blumeria graminis</i>. • Medium risk. • Resistance management required. • Cross resistance seen between the 2 actives in <i>Erysiphe necator</i>. • Active resistance monitoring program for <i>Erysiphe necator</i> and <i>Blumeria graminis</i>
Resistance Mechanism	<ul style="list-style-type: none"> • Unknown
Recommendations	<p>Recommendations for cereals</p> <ul style="list-style-type: none"> • Apply Group 13 fungicides preventatively. • Apply a maximum of 2 Group 13 fungicides containing sprays per crop solo or in mixture (co-formulations or tank mixes) with effective mixture partners from different cross-resistance groups. • If a second application is needed, it should be in tank-mix with an effective powdery mildewicide with another mode of action. • Always follow product specific label recommendations for resistance management. <p>Recommendations for grapes</p> <ul style="list-style-type: none"> • Apply Group 13 fungicides preventatively. • Group 13 fungicides must be applied in spray programs with fungicides of a different mode of action.

	<ul style="list-style-type: none"> • Apply a maximum of 3 Group 13 fungicide containing sprays per season, solo or in mixture (co-formulations or tank mixes) with effective mixture partners from different cross-resistance groups. • Do not exceed 2 consecutive applications of Group 13 fungicides per season. <p>Recommendations for cucurbits, fruiting vegetables and strawberries</p> <ul style="list-style-type: none"> • Apply Group 13 fungicides preventatively. • Group 13 fungicides must be applied in spray programs with fungicides of a different mode of action. • The number of sprays of group 13 fungicides per crop should not exceed 50% of the total number of powdery mildew sprays per season, solo or in mixture (co-formulations or tank mixes) with effective mixture partners from different cross-resistance groups. <p>Do not exceed 2 consecutive applications of Group 13 fungicides per season</p> <p>Always follow product specific label recommendations for resistance management</p>
Requested by / date	
FRAC SC approval / date	