

Managing Insensitivity to Group 11 (strobilurin) Fungicides in Ascochyta in Chickpea

Insensitivity of *Ascochyta rabiei* to Group 11 (strobilurin) fungicides has been documented by Dr. Michelle Hubbard with Agriculture and Agri-Food Canada in Swift Current. In 2019, 48 fields were surveyed for Ascochyta and every field that was confirmed with the disease had insensitivity to Group 11 fungicides. Ascochyta is the most damaging disease in chickpeas and managing the disease starts with scouting and preventative action using good agronomics, combined with effective fungicide applications.

To reduce the development of insensitivity in the pathogen it is important to use fungicides that have multiple modes of action that are effective on Ascochyta and avoid solo applications of Group 11 fungicides. It is also important to rotate groups of fungicides to prevent development of multiple insensitivity. Table 1 below outlines the current fungicide products registered for Ascochyta control and identifies the options available to help reduce the development of insensitivity or to manage those Group 11 insensitive populations.

Table 1. Fungicides registered for control of *Ascochyta rabiei* in chickpea. Activity on Group 11 insensitive Ascochyta indicated (Red = no activity; Green = activity; Yellow = check with company)

Fungicide	Company	Non Group 11 Component Registered for Control of <i>Ascochyta rabiei</i> *	Active Ingredients	Groups	Group 3	Group 7	Group 11	Group M3	Group M5	Pre-Harvest Interval
A. GROUP 11 ONLY FUNGICIDES REGISTERED IN CHICKPEAS FOR ASCOCHYTA CONTROL										
Azoshy 250 SC	Sharda Crop Chem	NA	Azoxystrobin	11			x			15 days
Headline® EC	BASF	NA	Pyraclostrobin	11			x			30 days
MPower Spade®	New Agco Inc	NA	Pyraclostrobin	11			x			30 days
Quadris®	Syngenta	NA	Azoxystrobin	11			x			15 days
B. NON GROUP 11 FUNGICIDES REGISTERED IN CHICKPEAS FOR ASCOCHYTA CONTROL										
Bravo® 500 ZN	Syngenta	YES	Chlorothalonil	M5					x	14 days
Echo® 720	UAP	YES	Chlorothalonil	M5					x	48 days
Lance® WDG	BASF	YES	Boscalid	7		x				21 days
Proline® 480 SC	Bayer	YES	Prothioconazole	3	x					7 days
Quash®	Nufarm	Suppression	Metconazole	3	x					21 days
C. FUNGICIDES WITH GROUP 11 + OTHER ACTIVES THAT ARE REGISTERED IN CHICKPEAS FOR ASCOCHYTA										
Delaro® 325 SC	Bayer	YES	Prothioconazole + Trifloxystrobin	3 + 11	x		x			30 days
Dyax™	BASF	YES	Fluxapyroxad + Pyraclostrobin	7 + 11		x	x			30 days
Elatus®	Syngenta	YES	Benzovindiflupyr + Azoxystrobin	7 + 11		x	x			15 days
Lance® AG	BASF	YES	Boscalid + Pyraclostrobin	7 + 11		x	x			30 days
Miravis® Neo 300SE	Syngenta	NO**	Propiconazole + Pydiflumetofen + Azoxystrobin	3 + 7 + 11	x	x	x			30 days
Priaxor®	BASF	YES	Fluxapyroxad + Pyraclostrobin	7 + 11		x	x			30 days

* Column indicates whether Ascochyta is on the label of individual active ingredients (other than Group 11).

** Pydiflumetofen active in Miravis® Neo 300SE not currently registered on solo label but does have *Ascochyta rabiei* listed on current Miravis® Neo 300SE label. Contact company for more information.