

APPENDIX II

CHITOSAN HYDROCHLORIDE

Crop and/or situation (a)	F G o r I (b)	Pests or group of pests controlled (c)	Formulation		Application of chitosan hydrochloride				Application rate of chitosan hydrochloride			PHI (days) (m)	Remarks*
			Type (d-f)	Conc of a.i. g/kg (i)	Method kind (f-h)	Growth stage & season (j)	No. of application min/max (k)	Interval between applications (min)	a.i./hl min max (g/hl)	Water l/ha min max	Total rate each application g a.i./ha min max (g/ha) (l)		
Small fruit crops (3SMFC)	FG	Plant elicitor, plant resistance against pathogenic fungi and bacteria	SP Soluble powder	100% chitosan hydrochloride	Low- Medium volume spraying	Leaf development - development of fruit (BBCH 10-79)	4-8	2 weeks	50 - 200	200 - 400	100-800	0	
Grapevine Vitis vinifera (VITVI)	FG	Plant elicitor, plant resistance against pathogenic fungi and bacteria	SP Soluble powder	100% chitosan hydrochloride	Low- Medium volume spraying	BBCH 10 to BBCH 79	4-8	2 weeks	50 - 100	200 - 600	100-600	0	
Fruit crops (3FRUC) Other than small fruit crops and grapevine	FG	Plant elicitor, plant resistance against pathogenic fungi and bacteria	SP Soluble powder	100% chitosan hydrochloride	Low- Medium volume spraying	BBCH 10 to BBCH 79	4-8	2 weeks	50 - 100	200 - 400	100-400	0	Specific application rates are defined for small fruit crops and grapevine as set out in rows 1 and 2 of this table
Vegetable crops (3VEGC)	FG	Plant elicitor, plant resistance against pathogenic fungi and bacteria	SP Soluble powder	100% chitosan hydrochloride	Low- Medium volume spraying	Leaf development - development of fruit (BBCH 10-79)	4-8	2 weeks	50 - 100	200 - 400	100-400	0	
Cereal crops (3CERC)	FG	Plant elicitor, plant resistance against pathogenic fungi and bacteria	SP Soluble powder	100% chitosan hydrochloride	Low- Medium volume spraying	Leaf development - development of fruit (BBCH 10-79)	4 - 8	2 weeks	50 - 100	200 - 400	100-400	0	

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Spice crops (3SPIC)	FG	Plant elicitor, plant resistance against pathogenic fungi and bacteria	SP Soluble powder	100% chitosan hydrochloride	Low- Medium volume spraying	Leaf development - development of fruit (BBCH 10-79)	4 - 8	2 weeks	50 - 100	200 - 400	100-400	0	
Crops grown for animal consumption	FG	Plant elicitor, plant resistance against pathogenic fungi and bacteria	SP Soluble powder	100% chitosan hydrochloride	Low- Medium volume spraying	Leaf development - development of fruit (BBCH 10-79)	4 - 8	2 weeks	50 - 100	200 - 400	100-400	0	
Cereal crops (3CERC) Seed treatment	FG	Plant elicitor, plant resistance against pathogenic fungi and bacteria	SP Soluble powder	100% chitosan hydrochloride	Low volume spraying	Before sowing	1	Not applicable	50 - 100	Not applicable	Not applicable	0	
Potato (SOLTU) Seed treatment	FG	Plant elicitor, plant resistance against pathogenic fungi and bacteria	SP Soluble powder	100% chitosan hydrochloride	Low volume spraying/ dipping	Before sowing	1	Not applicable	50 - 100	Not applicable	Not applicable	0	
Sugar beet (BEAVA) Seed treatment	FG	Plant elicitor, plant resistance against pathogenic fungi and bacteria	SP Soluble powder	100% chitosan hydrochloride	Low volume spraying/ dipping	Before sowing	1	Not applicable	50 - 200	Not applicable	Not applicable	0	
Ornamental herbaceous plants - bulbous plants	F,G, I	Plant elicitor, plant resistance against pathogenic fungi and bacteria	SP Soluble powder	100% chitosan hydrochloride	Bulb treatment – Dipping/drenching	Germination (BBCH 00-01)	1	Not applicable	50-100	200-800	100-800	n.a.	

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			Type (d-f)	Conc of a.i. g/kg (i)	Method kind (f-h)	Growth stage & season (j)	No. of application min/max (k)	Interval between applications (min)	a.i./hl min max (g/hl)	Water l/ha min max	Total rate each application g a.i./ha min max (g/ha) (l)			
Bulb treatment														
Ornamental herbaceous plants - bulbous plants	F, G	Plant elicitor, plant resistance against pathogenic fungi and bacteria	SP Soluble powder	100% chitosan hydrochloride	Low- Medium volume spraying	Leaf development - Senescence (BBCH 10-92)	1 - 8	5-7 days	50-200	200-400	100-800	0		
Arable crops - Beet crops (3BEEC)	F	Plant elicitor, plant resistance against pathogenic fungi and bacteria	SP Soluble powder	100% chitosan hydrochloride	Low- Medium volume spraying	Leaf development - Senescence (BBCH 10-92)	1 – 8	5-7 days	50-200	200-400	100-800	0		
* For uses where the column „Remarks. As above or other conditions to take into account														
(a) For crops, the EU and Codex classification (both) should be taken into account ; where relevant, the use situation should be described (e.g. fumigation of a structure), EPPO codes are provided in brackets where relevant (https://gd.eppo.int)							(h) Kind, e.g. overall, broadcast, aerial spraying, row, individual plant, between the plant – type of equipment used must be indicated							
(b) Outdoor or field use (F), greenhouse application (G) or indoor application (I)							(i) g/kg or g/L. Normally the rate should be given for the substance (according to ISO)							
(c) e.g. pests as biting and suckling insects, soil born insects, foliar fungi, weeds or plant elicitor (d) e.g. wettable powder (WP), emulsifiable concentrate (EC), granule (GR) etc..							(j) Growth stage at last treatment (BBCH Monograph, Growth Stages of Plants, 1997, Blackwell, ISBN 3-8263-3152-4), including where relevant, information on season at time of application							
(e) GCPF Codes – GIFAP Technical Monograph N° 2, 1989							(k) Indicate the minimum and maximum number of application possible under practical conditions of use							
(f) All abbreviations used must be explained							(l) The values should be given in g or kg whatever gives the more manageable number (e.g. 200 kg/ha instead of 200 000 g/ha or 12.5 g/ha instead of 0.0125 kg/ha)							
(g) Method, e.g. high volume spraying, low volume spraying, spreading, dusting, drench							(m) PHI - minimum pre-harvest interval							