Impact on available plant protection products in sugar beets in Sweden of the ‘cut-off criteria’ and substitution provisions in the proposed Regulation of the European Parliament and of the Council concerning the placing of plant protection products in the market

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Background

In Annex II to the proposed Regulation, the Commission sets out criteria for approval of active substances and candidates for substitution. The Parliament proposed a range of amendments and additions to these criteria.

Objective

To give an indicative impact for crop protection in Sweden of the proposal of the European Commission and the amendments of the European Parliament.

Methodology

For approval criteria and methodology we refer to reference 1.

Result

The result is presented in appendix 1 and summarized in table 1.

Table 1. Number of available active ingredients

	Available 2008	**Commission cut off**		**Commission substitution***		**Parliament cut off**		**Parliament substitution***	
		gone	left	gone	left	gone	left	gone	left
Insecticides seed treatment	3	-	3	2	1	3	0	3	0
Fungicides seed treatment	2	-	2	-	2	-	2	2	0
Herbicides Non selective	1	-	1	-	1	-	1	1	0
Herbicides Selective	11	1	10	2	9	4	7	9	2
Insecticides foliar application	8	1	7	5	3	8	0	8	0
Fungicides foliar application	3	-	3	-	3	-	3	-	3
Molluscicides	1	-	1	-	1	-	1	-	1
Total	**29**	**2**	**27**	**9**	**20**	**15**	**14**	**23**	**6**

** Possible cut off products included*

Discussion

Sweden has already now under current legislation a relatively low availability to PPP:s in sugar beets. This is especially true for fungicides and herbicides.

Table 2. Number of active ingredients registered in the UK and Sweden 2008

	UK	Sweden
Insecticides	7	8
Fungicides	13	3
Herbicides – total	4	1
Herbicides – dicot	9	7
Herbicides – grass	7	3

The cut-off of the Commission proposal would risk two substances, the insecticide esfenvalerate and the selective herbicide triflusulfuron-methyl. This herbicide is of great importance for the control of many important dicot weeds such as GALAP (snärjmåra), POLCO (åkerbinda), GERSP (näva), POLAV (trampört) and BRANA (raps).

The substances falling under risk for substitution of the Commission proposal are one grass herbicide and six insecticides where two are intended for seed treatment. The two substances for seed treatment against soil borne and foliar insecticides are the only two available products on the Swedish market.

The Commission proposal would lead to lower profitability for many beet growers. The use of the herbicide triflusulfuron-methyl would have to be replaced by use of other less effective products. This would lead to an increase in herbicide use expressed in kg active ingredient per hectare.

Access to effective seed treatment products against insects is critical for fast and even plant establishment.

Cut off following the Parliament amendments would lead to a loss of 15 substances or more than 50 %. This would include all available insecticides, three important herbicides for dicot control, one grass herbicide and the two insecticides used for seed treatment.

When substances at risk for substitution are added only six of 29 substances would be left.

Loss of seed treatment products both in terms of insecticides and fungicides would put adequate plant establishment at a very high risk. Weed control would become very difficult and expensive. Expensive and in many cases not available hand labour would become necessary. There are no available insecticides for foliar control. Sugar beet production would not continue if the Parliament amendments are passed. The crop would become unprofitable.

References

1. PSD Pesticides Safety Directorate. 2008. Assessment of the impact on crop protection in the UK of the “cut-off criteria” and substitution provisions in the proposed Regulation of the European Parliament and of the Council concerning the placing of plant protection products in the market.
2. BBRO, the British Beet Research Organisation. 2008. The impact of proposed EU regulations for the approval of plant protection products on the sugar beet crop in the United Kingdom.

Products approved for use in sugar beets in Sweden 2008

	Active ingredient	Product	Active ingredient g/l (kg)	Reg. no.	Highest dose l or kg/ha	Registration holder	Commission cut off	Commission, substitution	Parliament cut off	Parliament, substitution
Non selective herbicides	glyphosate	Touchdown Premium	396	4472	3,0**	Syngenta				Gw
		Verdys	486	4752	3,0**	Dow				Gw
		Glypro Bio	486	4753	3,0**	Dow				Gw
		Envision	607	4490	2,4**	Cheminova				Gw
		Glyphomax	486	4437	3,0**	Dow				Gw
		Glyphomax Bio	486	4457	3,0**	Dow				Gw
		Glyfonova 360 SL	486	4368	3,0**	Cheminova				Gw
		Glyfonova Bio	486	4471	3,0**	Cheminova				Gw
		Jablo Glyfosat	486	4354	3,0**	Monsanto				Gw
		Kvick Down Bio	486	4367	3,0**	Cheminova				Gw
		Roundup	486	3220	3,0**	Monsanto				Gw
		Roundup Bio	486	3937	3,0**	Monsanto				Gw
		Roundup Max	747	4466	1,5**	Monsanto				Gw
Insecticides	alpha cypermethrin	Fastac	100	3705	0,2	BASF			Bees	
		Fastac 50	50	4530	0,4	BASF			Bees	
	beta-cyfluthrin	Beta-Baythroid SC 025	25	4365	0,3	Makhteshim-Agan			Bees	
	cypermethrin	CYPERB	107	4071	0,2	KLARSÖ			Bees	
	deltamethrin	Decis	25	3546	0,3	Bayer AB		ARfD<0,01	Bees, End?	
	dimethoate	Danadim progress	400	4641	1,25	Cheminova		ADI<0,001 ARfD<0,01	Bees, End?	
		Roxion 40 EC	400	3966	1,25	BASF		ADI<0,001 ARfD<0,01	Bees, End?	
	esfenvalerate	Sumi-alpha 5 FW	50	3753	0,4	DuPont	PBT		PBT Bees	
	lambda cyhalotrin	Karate 2,5 WG	25	4164	0,5	Syngenta		2 PBT, ARfD<0,01	1 POP, Bees	
	pirimicarb	Pirimor	500	3815	0,3	Syngenta		2 PBT	Bees	
Selective herbicides	cycloxidim	Focus Ultra	100	3987	6,0 (5,0)	BASF				1 PBT/Gw
	desmedipham (under reg.)									1 PBT
	ethofumesate	Partner	500	4111	1,6 (0,8)	Bayer AB	*	*	*	1 PBT/Gw
		Tramat 50 SC	500	3846	1,6 (0,8)	Bayer AB	*	*	*	1 PBT/Gw
	phenmedipham	Betanal SC****	160	4112	6,0 (3,0)	Bayer AB				
		Betasana 2000	160	4303	6,0 (3,0)	AgroDan				
	metamitron	Goltix Trippel WG	280	4174	9,0 (3,0)	Makhteshim-Agan				
	phenmedipham		65							
	ethofumesate		65							1 PBT/Gw
	clethodim	Select	240	4376	1,0 (1,0)	Nordisk Alkali				Gw
	clopyralid	Matrigon	100	3273	1,5 (1,2)	Dow			1 POP	
		Cliophar 100 SL	100	4508	1,5 (1,2)	Chimac-Agriphar			1 POP	
	chloridazon	Pyramin DF	650	2545	7,0 (4,0)	BASF			1 POP	
	chloridazon	Fiesta T	360	4087	8,0 (6,0)	BASF			1 POP	
	quinmerac		60							Gw
	metamitron	Goltix SC 700 *****	700	4237	5,0 (3,0)	Makhteshim-Agan				
		Goltix WG	700	3297	5,0 (3,0)	Makhteshim-Agan				
	tepraloxydim	Astrum	50	4780	2,0 (2,0)	BASF		2 PBT	1 POP	
	triflusulfuron-methyl	Safari 50 DF	500	4187	120 g (30 g)	DuPont	End?		End?	
Molluscicides	Järn(III)fosfat	Ferramol Snigel Effekt		4414		W. Neudorff GmbH KG				
Fungicides	azoxystrobin	Amistar	250	4219	1,0 (1,0)	BASF				
	pyraclostrobin	Comet	250	4583	1,0 (1,0)	BASF				
	sulphur	Kumulus DF	800	3022	6	BASF				
Insecticides and fungicides for seed treatment	imidacloprid	Gaucho WS 70	700	4288		Bayer AB		2 PBT	1 POP, Bees	
		Montur FS 190	150	4289		Bayer AB		2 PBT	1 POP, Bees	
	tefluthrin	Montur	40	4289		Bayer AB		ARfD<0,01	Bees	
	methiocarb	Mesurol 500 SC	500	4019		Bayer AB			Bees	
	hymexazol	Tachigaren	707	3513		Du Pont				1 PBT
	fludioxonil	Maxim Tech.	930	4723		Syngenta				1 PBT/Gw
Not approved seed treatment products	clothianidin	Janus, Mundus							Bees	1 PBT/Gw
	thimethoxam	Cruiser							Bees	
	thiram						End?		End?	

** only for use until 31 Dec 2009*

*** spring, before emergence*

Glossary

ADI	acceptable daily intake (for consumers)
ARfD	acute reference dose
Gw	groundwater
ha	hectare
PBT	persistent, bioaccumulating, toxic
POP	persistent organic pollutant