



2008

**Agrochemicals Accepted by the
British Beer and Pub Association
and
Brewing Research International
for use on **Cereals****

Agrochemicals Accepted by the BBPA (British Beer and Pub Association) and BRI (Brewing Research International) for use on Cereals for malting and brewing

The Purpose of the BBPA / BRI List

The BRI and BBPA aim to test agrochemicals which, because of their chemical nature or timing of application to barley could potentially affect either the malting, brewing or fermentation processes, or could cause undesirable off-flavours in the finished beer. In the EU, Council Directive 93/71/EEC (Annex III) requires the effects of pesticides on transformation processes to be taken into account and requires an evaluation of the possible occurrence of adverse effects on transformation processes, such as brewing and malting, or on the quality of their products.

In order for a chemical to be included on the list of accepted chemicals, BRI will carry out an initial assessment of factors including; chemical nature; mode of action; time of application; available test data. Following this initial assessment, BRI will conduct any further additional malting or brewing trials necessary to come to a decision. These further trials do not replace or duplicate the toxicological or efficacy testing required by the Pesticides Safety Directorate (PSD) before the chemical can be registered, but are designed to test the suitability of treated crops for processing specifically within the malting and brewing industry.

Since this document is issued in the UK by the BBPA as a Technical Circular, it provides a comprehensive list of all active ingredients **registered in the UK** for barley. **Products are withdrawn from the list if they are no longer registered in the UK by PSD even though they do not cause problems in terms of processing.** BRi members not in the UK will need to check whether listed chemicals are approved for use in their own countries.

Listed agrochemicals are classed as ACCEPTED for use on malting barley for brewing, or NOT ACCEPTED. Agrochemicals accepted for barley are also accepted for wheat for malting and brewing, provided that they are registered for that use by the national authorities. Note that a few pesticides registered for use on wheat are not registered for barley; these have not been evaluated for potential effects in malting or brewing and are therefore not included in this list.

The list is **NOT exhaustive with regard to Trade Names**, and products which are not listed are accepted if they contain the same active ingredient, and are used at the same growth period at the same dose as products which are listed.

Maximum Residue Levels (MRLs). These are as given in EU legislation. An MRL is the maximum concentration of a pesticide residue (expressed as mg/kg), permitted in or on food commodities and animal feeds. MRLs are primarily a check that Good Agricultural Practice is being followed and to assist international trade in produce treated with pesticides. MRLs are **not** safety limits. MRLs are established only where there is toxicological and dietary exposure evidence concerning the safety to humans of the resulting residues and this means that MRL represent residue levels which are toxicologically acceptable. They are generally well below safety limits, thus exposure to residues in excess of an MRL does not automatically imply a hazard to health.

For more details concerning the chemicals listed contact Denise Baxter or Ian Slaiding,
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Agrochemicals accepted by the BRI & BBPA for use on cereals

Changes made to the list since Technical Circular 411 (Mar 2007)

The list has been extended to the extent that chemicals accepted for barley are also accepted for use on wheat or other cereals for malting and or brewing. However, this should not be taken to imply that there is a current registration for that chemical on that cereal. The MRLs given are for barley.

NB. Annex 1 is the list of pesticides which will become the EU's "positive" list.

MRLs are updated to include Directives 2008/17.

Type	Active Ingredient	Trade Name	Changes
Storage insecticide	Pirimiphos-methyl	Actellic D	Use up date extended to 31 st Aug 2008
Storage Insecticide	Malathion and bifenthrin	Prostore	Malathion not accepted onto Annex 1. Registration expires Dec 07. EU use up date Dec 2008
Storage insecticide	Deltamethrin (+ piperonyl butoxide)	K-Obiol EC 25	Added. Now approved for use in grain stores and for mixture with stored grain. Includes ULV formulation added.
Synergist	Piperonyl butoxide	Part of K-Obiol formulation	Re-instated (accepted in 1987 but not included in recent lists because no products registered in UK)

Type	Active Ingredient	Trade Name	Changes
Insecticide	Cypermethrin	Cyperkill, Permasect	MRL for wheat, barley, oats, rye and triticale increased to 2 mg/kg from Sept 2008.
Insecticide	Cyfluthrin	Baythroid	Registration expires Dec 2008
Insecticide	Deltamethrin for field use	Decis, Bandu	Registration expires Nov 2008

Type	Active Ingredient	Trade Name	Changes
Fungicide	Famoxadone	Charisma	MRL for barley and wheat is 0.02 mg/kg (limit of detection)
Fungicide	Bromuconazole	Tote	Replaces Granit: approval until 2013
Fungicide	Cyflufenamid	Cyflamid	Registration expires April 2009
Fungicide	Iprodione	Rovral Flo	Registration expires Dec 2008
Fungicide	Famoxadone	Charisma	MRL for barley and wheat is 0.02 mg/kg (limit of detection)
Fungicide	Bromuconazole	Tote	Replaces Granit: approval until 2013
Fungicide	Cyflufenamid	Cyflamid	Registration expires April 2009
Fungicide	Iprodione	Rovral Flo	Registration expires Dec 2008

Type	Active Ingredient	Trade Name	Changes
Herbicide	Isoproturon	Various mixtures	Registration withdrawn by PSD from Sept. 07. Use up by Sept 09
Herbicide	Trifluralin	Several mixtures	Not accepted onto Annex 1. Registration expires March 2008. Use up date March 2009
Growth Regulator	Prohexadione Calcium	Canopy	Restrictions on use added
Molluscicide	thiodicarb	Genesis	Not accepted onto Annex 1. Registration expires Nov. 2007. EU use up date Nov 2008.
Several active ingredients			Draft temporary EU MRLs added Codex MRLs added

Barley (full list)

Active ingredient	Trade names (not exhaustive)	BBPA Status	Barley MRL (mg/kg)	
			EU	Codex
Insecticides for Admixture with grain or in empty grain stores				
Aluminium phosphide	Degesch Fumigation Pellets, Detia Gas-Ex-B, Phostoxin	Accepted	0.1	0.1
Bifenthrin* + malathion*	Prostore	Accepted Registration expired Dec 07. Use up by Dec 08.	0.5 (bif.) 8.0 (mal)	0.05 (bif)
Chlorpyrifos-methyl*	Reldan 22 Greencrop Storeclean	Accepted Store for 90 days before malting	3.0	-
Deltamethrin + piperonyl butoxide	K-OBiol EC25 and ULV6 formulations	Accepted for grain admixture and empty stores	2.0	2 (delt) 30 (pip)
Diatomaceous Earth	Demeter, SilicoSec, DiaMite	Accepted subject to continued UK and EU registration	-	-
Magnesium phosphide	Detia Gas-Ex-B-Forte Degesch Plates	Accepted	0.1	0.1
Pirimiphos-methyl*	Actellic D	May not be used after Aug 31 st 2008	5.0	7.0
	Actellic 50EC	Accepted for grain admixture and empty stores		
	Actellic Smoke Generator	Accepted for EMPTY STORES only.		
Insecticides and fungicides for Seed treatment only (note that some field chemicals are also approved as seed treatments)				
Carboxin	Anchor	Accepted	0.01 (EU draft temp)	-
Clothianidin	Deter, Poncho250	Accepted	0.05 UK temp	-
Fludioxonil	Beret Gold	Accepted	0.05 (EU draft temp)	0.05
Fuberidazole	Baytan Flowable	Accepted	0.2 (EU draft temp)	-
Guazatine	Panoctine, Ravine	Accepted	0.2 (EU draft temp)	-
Imazalil	Panoctine Plus, Robust	Accepted	0.02 ⁵	-
Imidacloprid	Raxil Secur, Baytan Secur	Accepted	0.1 (EU draft temp)	0.05
Silthiofam	Latitude	Accepted	0.05 ^{4,5}	-

Barley (continued)

Active ingredient	Trade names (not exhaustive)	BBPA Status	MRL (mg/kg)	
			EU	Codex
Insecticides and fungicides for Seed treatment only (note that some field chemicals are also approved as seed treatments) CONTINUED				
Tefluthrin	Austral Plus	Accepted	0.05 (EU draft temp)	-
Thiram	Anchor	Accepted	0.1	1 dithiocarb
Triazoxide	Raxil S, Raxil Pro	Accepted	Proposed UK, 0.05 ⁶	-
Triticonazole	Robust, Kinto	Accepted	Proposed UK, 0.05 ⁶	-
Insecticides for Pre-harvest (field) use				
Alphacypermethrin	Fastac, Fastac Dry	Accepted	0.2 ¹ 2 from Sept 2008	0.5
Bifenthrin*	Starion Flo, UPL bifenthrin	Accepted	0.5	0.05
Chlorpyrifos*	Lorsban 480, Dursban WG	Accepted	0.2	-
Cyfluthrin	Baythroid	Accepted Expires Dec 08	0.02	-
Cypermethrin*	Cyperkill, Permasect	Accepted	0.2 ¹ 2 from Sept 2008	0.5
Deltamethrin*	Decis, Bandu	Accepted Expires Nov 2008	2.0	2.0
Esfenvalerate	Sumi-alpha	Accepted	RR, SS isomers, 0.2 ⁵ RS, SR isomers, 0.05	-
Lambda - cyhalothrin	Dovetail, Stealth	Accepted	0.05	-
Methiocarb	Draza Forte, Barclay Poacher, Decoy Wetex	Accepted	0.1 (EU draft temp)	0.05
Pirimicarb	Aphox	Accepted	0.5 (EU draft temp)	0.05
Tau-fluvalinate	Mavrik	Accepted	0.5 (EU draft temp)	-
Zetacypermethrin	Fury 10EW	Accepted	0.2 ¹ 2 from Sept 2008	0.5

Barley (continued)

Active ingredient	Trade names (not exhaustive)	BBPA Status	MRL (mg/kg)	
			EU	Codex
Fungicides				
Azoxystrobin*	Amistar	Accepted	0.3	-
Boscalid	Tracker	Accepted BEFORE ear emergence only	3 (UK; EU draft temp)	-
Bromuconazole	Tote	Accepted for use BEFORE ear emergence only	0.2 (EU draft temp)	-
Carbendazim	Cleancrop Curve	Accepted	2.0	0.5
Chlorothalonil	Amistar Opti, Bravo 500	Accepted	0.1	0.1
Cyflufenamid	Cyflamid	Accepted Approval expires April 2009	UK 0.1	-
Cyproconazole	Alto 240 EC	Accepted	0.1 (EU draft temp)	-
Cyprodinil*	Unix, Barclay Amtrak	Accepted	3 (EU draft temp)	3.0
Epoxiconazole	Opus, Landmark Mantra, Epic	Accepted BEFORE ear emergence only	1 (EU draft temp)	-
Famoxadone	Charisma	Accepted	0.02 ⁵	0.2
Fenpropidin	Patrol, Landgold Fenpropidin	Accepted	0.5 (EU draft temp)	-
Fenpropimorph	Allergo Plus, Corbel	Accepted	0.5	0.5
Fluoxastrobin	Fandango	Accepted	0.5 (UK ;EU draft temp)	-
Fluquinconazole	Baron	Accepted BEFORE ear emergence only	0.05 (EU draft temp)	-
Flusilazole	Genie 25, Sanction 25	Accepted	0.2 (EU draft temp)	0.1
Flutriafol	Consul	Accepted (also for seed treatment)	0.5 (EU draft temp)	-
Iprodione	Rovral Flo	Accepted Approval expires Dec 2008	0.5 ⁴	2.0
Kresoxim-methyl*	Allegro, Ensign,	Accepted (mixtures with epoxiconazole BEFORE ear emergence only)	0.05 ⁵	0.1
Mancozeb	Micene 80	Accepted	2.0 ²	1.0

Barley (continued)

Active ingredient	Trade names (not exhaustive)	BBPA Status	MRL (mg/kg)	
			EU	Codex
Fungicides CONTINUED				
Maneb	Trimangol 80	Accepted	2.0 ²	1.0
Metconazole	Caramba	Accepted	0.1 (EU draft temp)	-
Metrafenone	Capalo	Accepted BEFORE ear emergence only	0.5 (UK: EU draft temp)	-
Picoxystrobin	Acanto	Accepted	0.2 ⁴	-
Prochloraz	Sportak 45EW, Agate	Accepted	1	2.0
Propiconazole	Alto Xtra, Prophet	Accepted	0.2 ⁴	0.05
Proquinazid	Justice, Talius	Accepted	0.05 (UK, temp)	-
Prothioconazole	Cello, Prosaro	Accepted (also for seed treatment)	0.05 (UK temp) 0.3 (EU draft temp)	-
Pyraclostrobin	Bas 500 06, Comet,	Accepted BEFORE ear emergence only	0.3	0.5
Quinoxifen	Apres, Fortress, Orka	Accepted BEFORE ear emergence only	0.2	-
Spiroxamine	Draco, Sage	Accepted	0.3	-
Sulphur	Headland S	Accepted	50 (EU draft temp)	-
Tebuconazole	Agate, Bayer UK226	Accepted	2 (EU draft temp)	0.2
Triadimenol	Bayfidan	Accepted	0.2	0.5 for each
Trifloxystrobin	Jaunt, Mobius, Twist	Accepted	0.3 ⁴	0.5
Growth Regulators				
Chlormequat	various	Accepted	2.0	2.0
2 Chloroethyl-phosphonic acid (ethephon)	Cerone, Cyclade,	Accepted	0.5	1.0
Imazaquin	Satellite	Accepted	0.05 (EU draft temp)	-

Barley (continued)

Active ingredient	Trade names (not exhaustive)	BBPA Status	MRL (mg/kg)	
			EU	Codex
Growth Regulators (continued)				
Mepiquat	Terpal	Accepted	2 (UK temp) 3 (EU draft temp)	-
Prohexadione calcium	Canopy	Accepted before GS 32 only (max. dose, 1litre/ha).	0.2 ⁴	-
Trinexapac-ethyl	Moddus	Accepted	0.5 (EU draft temp)	-
Dessicants				
Diquat	Reglone	NOT ACCEPTED	10	5
Glufosinate-ammonium	Harvest	Accepted	0.1 (EU draft temp)	-
Glyphosate* ³	Barclay Gallup Biograde 360, Roundup,	Accepted	20	30
Trisulphonium cation resulting from the use of glyphosate		Accepted	10	-
Herbicides				
Amidosulfuron	Barclay Cleave	Accepted	0.01 (EU draft temp)	-
Bifenox	Fox	Accepted	0.1 (EU draft temp)	-
Bromoxynil	Mixtures	Accepted	0.05	-
Carfentrazone-ethyl	Mixtures	Accepted	0.05	-
Chlorotoluron	Mixtures	Accepted	Proposed UK, 0.1 ⁶	-
Clopyralid	Dow Shield	Accepted	2 (EU draft temp)	-
Cinidon-ethyl	Lotus	Accepted	0.1 ^{4,5}	-
2,4-D	Mixtures	Accepted	0.05 ^{4,5}	-
2,4-DB	Mixtures	Accepted	0.05 ^{4,5}	-
Dicamba	Mixtures	Accepted	0.5 (EU draft temp)	-
Dichlorprop-P	Headland Link	Accepted	0.2 (EU draft temp)	-

Active ingredient	Trade names (not exhaustive)	BBPA Status	MRL (mg/kg)	
			EU	Codex
Herbicides (continued)				
Diclofop-methyl	Corniche	Accepted	0.05 (EU draft temp)	-
Diflufenican	Alliance Pro, Capture	Accepted	0.05 (EU draft temp)	-
Fenoxaprop-P-ethyl	Corniche	Accepted	0.1 (EU draft temp)	-
Florasulam (DE 570)	Boxer	Accepted	0.01 ^{4,5}	-
Flufenacet	Crystal	Accepted	0.05 ⁵	-
Fluroxypyr	Snapper	Accepted	0.1 ⁴	-
Flurtamone	Bacara	Accepted	0.02 ⁴	-
Glufosinate-ammonium	Challenge, Harvest	Accepted	0.1 (EU draft temp)	-
Glyphosate* ³	Roundup, Touchdown Quattro, Barclay Gallup 360	Accepted	20	30
Iodosulfuronmethyl Na	Chekker	Accepted	0.02 ⁵	-
Ioxynil	Mixtures	Accepted	0.05	-
Isoproturon	Mixtures	Accepted (registration expires June 09)	0.05 ^{4,5}	-
Isoxaben	Flexidor	Accepted	0.1 (EU draft temp)	-
Linuron	Mixtures	Accepted (Registration expires Mar 09)	0.05 ^{4,5}	-
MCPA	Mixtures	Accepted	0.05 (EU draft temp for sum of both)	-
MCPB	Mixtures	Accepted		-
Mecoprop-P	Mixtures	Accepted	0.05 ^{4,5}	-
Metsulfuron-methyl	Ally Express	Accepted	0.05 ^{4,5}	-
Pendimethalin	Stomp 400 SC	Accepted	0.05 ^{4,5}	-
Pinoxaden	Axial	Accepted (Barley registration expires Sept 09)	0.05 (UK)	-
Prosulfocarb	Defy, Arcade	Accepted	0.02 (UK) 0.05 (EU draft temp)	-
Thifensulfuron-methyl	Calibre	Accepted	0.05 ⁵	-

Barley (continued)

Active ingredient	Trade names (not exhaustive)	BBPA Status	MRL (mg/kg)	
			EU	Codex
Herbicides (continued)				
Tralkoxydim	Grasp 400SC	Accepted	Proposed UK, 0.05 ⁶	-
Tri-allate	Avadex BW Granules	Accepted	0.1 (EU draft temp)	-
Triasulfuron	Teal	Accepted	0.05 ^{4,5}	-
Tribenuron-methyl	Calibre, Quantum	Accepted	0.01	-
Trifluralin	Mixtures	Accepted (Approval expires from March 08. Use up by March 09).	1 (EU, draft temp)	-

Active ingredient	Trade Name	Use	BBPA /Bri status	MRL (mg/kg)	
				EU/UK	Codex
Miscellaneous					
Metaldehyde	Optimol XL	Slug bait	Accepted	0.05 (EU draft temp)	-
Methiocarb	Decoy Draza Wetex,	Slug bait	Accepted	0.05	0.05
Thiodicarb	Genesis	Slug bait (approval expires Nov 2008)	Accepted	0.05 ⁵	2.0

Footnotes:

¹ Sum of isomers² Sum of bisdithiocarbamates expressed as CS₂³ Including glyphosate trimesium salts⁴ EU provisional⁵ limit of detection⁶ Proposed UK MRLs can be found at

http://www.pesticides.gov.uk/food_safety.asp?id=1544&link=%2Fuploadedfiles%2FWeb%5FAssets%2FPSD%2FtemporaryharmonisedMRLsAnnex%2Epdf

* analysis available from BRI