



2006

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

**Modified by MAGB under permission from
BBPA to show agrochemicals approved by
them for use on cereals only**

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 hops and 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 **Products are withdrawn from the list if they are no longer registered in the UK by PSD even though they do not cause problems in terms of processing.** BRi members not in the UK will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. For hops, the Codex MRLs and the US Crop tolerances (which mean the same as MRLs) are also given. 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,
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Agrochemicals accepted by the BRi and BBPA for use on

CEREALS

Changes made to the list since Technical Circular 408 (July 2006)

The list has been extended to the extent that chemicals accepted for barely 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.

MRLs are updated to include Directives 2006/60,61 and 62.

Type	Active Ingredient	Trade Name	Changes
Herbicide	Prosulfocarb	Defy	Added

Barley (full list)

MRLs are updated to include Directives 2006/60, 61 and 62.

Common Chemical Name	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	Accepted	0.1	0.1
Bifenthrin* + malathion*	Prostore	Accepted	0.5 (bif.) 8.0 (mal)	0.05 (bif)
Chlorpyrifos-methyl*	Reldan 22 Greencrop Storeclean	Accepted Store for 90 days before malting	3.0	-
Diatomaceous Earth	Demeter, SilicoSec, DiaMite	Accepted subject to continued UK and EU registration	-	-
Magnesium phosphide	Detia Gas-Ex-B-Forte	Accepted	0.1	0.1
Pirimiphos-methyl*	Actellic D	Accepted	5.0	7.0
	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	-	-
Clothianidin	Deter	Accepted	UK 0.05	-
Fludioxonil	Beret Gold	Accepted	-	-
Fuberidazole	Baytan Flowable	Accepted	Proposed ⁶ UK, 0.05	-
Guazatine	Panoctine, Ravine	Accepted	Proposed UK, 0.2	-
Imazalil	Panoctine Plus, Robust	Accepted	0.02 ⁵	-
Imidacloprid	Raxil Secur, Baytan Secur	Accepted	-	-
Silthiofam	Latitude	Accepted	UK 0.05 ⁵ EU 0.05 from Feb 07	-
Tefluthrin	Evict	Accepted	Proposed UK, 0.02	-
Thiram	Anchor	Accepted	-	-
Triazoxide	Raxil S	Accepted	-	-
Triticonazole	Robust, Premis Pro	Accepted	-	-

Barley (continued)

Common Chemical Name	Trade names (not exhaustive)	BBPA Status	MRL (mg/kg)	
			EU	Codex
Insecticides for Pre-harvest (field) use				
Alphacypermethrin	Fastac	Accepted	0.2 ¹	0.5
Bifenthrin*	Talstar, Starion	Accepted	0.5	0.05
Chlorpyrifos*	Lorsban 480, Dursban WG	Accepted	0.2	-
Cyfluthrin	Baythroid	Accepted	0.02	-
Cypermethrin*	Cyperkill, Permasect	Accepted	0.2 ¹	0.5
Deltamethrin*	Decis, Bandu	Accepted	1.0	1.0
Esfenvalerate	Sumi-alpha	Accepted	RR, SS isomers, 0.2 ⁵ RS, SR isomers, 0.05	2 (fenvalerate)
Lambda - cyhalothrin	Dovetail, Hallmark	Accepted	0.05 ⁵	-
Methiocarb	New Draza, Barclay Poacher, Decoy Wetex	Accepted	0.05	0.05
Pirimicarb	Aphox	Accepted	Proposed UK, 0.5	0.05
Tau-fluvalinate	Mavrik	Accepted	Proposed UK, 0.2	-
Zetacypermethrin	Fury 10EW	Accepted	0.2 ¹	-
Fungicides				
Azoxystrobin*	Amistar	Accepted	0.3	-
Boscalid	Tracker	Accepted BEFORE ear emergence only	UK 0.3	-
Bromuconazole	Granit,	Accepted BEFORE ear emergence only	UK, 0.05	-
Carbendazim	Bavistin	Accepted	0.1 (2 from 15 Sept 06)	-
Chlorothalonil	Amistar Opti, Bravo 500	Accepted	0.1	0.1
Cyflufenamid	Cyflamid (NF-149 EW)	Accepted	UK 0.1	-
Cyproconazole	Alto 240 EC	Accepted	Proposed UK, 0.05	-

Barley (continued)

Common Chemical Name	Trade names (not exhaustive)	BBPA Status	MRL (mg/kg)	
			EU	Codex
Cyprodinil*	Unix, Barclay Amtrak	Accepted	Proposed UK, 1.0	-
Epoxiconazole	Opus, Landmark Mantra, Epic	Accepted BEFORE ear emergence only	-	-
Famoxadone	Charisma	Accepted	0.2 ⁴	-
Fenbuconazole	Krug 5EC Reward 5EC	Accepted	Proposed UK, 0.05	0.2
Fenpropidin	Patrol, Landgold Fenpropidin	Accepted	UK, 0.5	-
Fenpropimorph	Corbel, Pluton	Accepted	0.5	-
Fluoxastrobin	Fandango	Accepted	UK 0.5	-
Fluquinconazole	Baron	Accepted BEFORE ear emergence only	Proposed UK, 0.5	-
Flusilazole	Genie 25, Sanction	Accepted	Proposed UK, 0.1	0.1
Flutriafol	Consul	Accepted (also for seed treatment)	Proposed UK, 0.05	-
Iprodione	Rovral Flo	Accepted	1.0 (0.5 from Feb 07)	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
Maneb	X-Spor SC, Trimangol 80	Accepted	2.0 ²	1.0
Metconazole	Caramba	Accepted	Proposed UK, 0.1	-
Metrafenone	Flexity, Attenzo	Accepted BEFORE ear emergence only	UK 0.5	-
Picoxystrobin	Acanto	Accepted	UK 0.2 (EU 0.2 from April 07)	-
Prochloraz	Sportak, Agate	Accepted	1	0.5
Propiconazole	Alto Xtra, Rhombus	Accepted	0.05 ⁵ (0.2 from Feb 07)	0.05
Proquinazid	Proquinazid 200g/l EC	Accepted	0.05	-
Prothioconazole	Proline, Fandango	Accepted (also for seed treatment)	UK 0.05	-

Barley (continued)

Common Chemical Name	Trade names (not exhaustive)	BBPA Status	MRL (mg/kg)	
			EU	Codex
Pyraclostrobin	Bas 528 00f, Jenton,	Accepted BEFORE ear emergence only	UK 0.2 (0.3 from April 07)	-
Quinoxifen	Apres, Fortress, Orka	Accepted BEFORE ear emergence only	(0.2 from April 07)	-
Spiroxamine	Array, Sage	Accepted	0.3	-
Sulphur	Headland S	Accepted	-	-
Tebuconazole	Folicur, Raxil, Beam	Accepted	Proposed UK, 0.05	0.2
Triadimenol + Triadimefon	Bayfidan	Accepted	0.2	0.5 for each
Trifloxystrobin	Twist, Sphere, Aprix	Accepted	UK 0.5 (EU 0.3 from Dec 06)	-
Growth Regulators				
Chlormequat	various	Accepted	2.0	2.0
2-Chloroethylphosphonic acid (ethephon)	Cerone, Cyclade,	Accepted	0.5	1.0
Imazaquin	Satellite	Accepted	Proposed UK, 0.05	-
Mepiquat	Terpal	Accepted	Proposed UK, 0.05	-
Trinexapac-ethyl	Moddus	Accepted	Proposed UK, 0.2	-
Dessicants				
Diquat	Reglone	NOT ACCEPTED	10	5
Glufosinate-ammonium	Harvest	Accepted	-	-
Glyphosate* ³	Barclay Gallup Biograde 360, Roundup, Touchdown	Accepted	20	20
Trisulphonium cation Resulting from the use of glyphosate		Accepted	10 from April2007	
Herbicides				
Amidosulfuron	Barclay Cleave	Accepted	Proposed UK, 0.01	-

Barley (continued)

Common Chemical Name	Trade names (not exhaustive)	BBPA Status	MRL (mg/kg)	
			EU	Codex
Herbicides (continued)				
Bifenox	Banco, Fox	Accepted	Proposed UK, 0.05	-
Bromoxynil	Mixtures	Accepted	(0.05 from April 07)	-
Carfentrazone-ethyl	Mixtures	Accepted	0.05	-
Chlorotoluron	Mixtures	Accepted	Proposed UK, 0.1	-
Clopyralid	Dow Shield	Accepted	Proposed UK, 2.0	-
Cinidon-ethyl	Lotus	Accepted	-	-
2,4-D	Mixtures	Accepted	0.05 ⁵	0.5
2,4-DB	Mixtures	Accepted	0.05 ^{4,5}	-
Dicamba	Mixtures	Accepted	Proposed UK, 0.2	-
Dichlorprop-P	Duet, Headland Link	Accepted	Proposed UK, 0.1	-
Diclofop-methyl	Corniche	Accepted	Proposed UK, 0.05	-
Diflufenican	Ardent, Capture	Accepted	Proposed UK, 0.05	-
Fenoxaprop-P-ethyl	Corniche	Accepted	-	-
Florasulam (DE 570)	Boxer	Accepted	0.01 ^{4,5}	-
Flufenacet	Crystal	Accepted	UK 0.05 ⁵ EU 0.05 from Dec 06	-
Fluroxypyr	Starane 2	Accepted	0.1	-
Flurtamone	Bacara	Accepted	(0.02 from April 07)	-
Glufosinate-ammonium	Challenge	Accepted	Proposed UK, 0.05	-
Glyphosate* ³	Roundup, Touchdown Quattro, Barclay Gallup 360	Accepted	20	20
Imazamethabenz-methyl	Assert, Dagger	Accepted	-	-
Iodosulfuronmethyl Na	Chekker	Accepted	UK 0.05 ⁵ (EU 0.02 from Feb 07)	-
Ioxynil	Mixtures	Accepted	(0.05 from April 07)	-
Isoproturon	Mixtures	Accepted	0.05 ^{4,5}	-
Isoxaben	Flexidor	Accepted	-	-

Common Chemical Name	Trade names (not exhaustive)	BBPA Status	MRL (mg/kg)	
			EU	Codex
Herbicides (continued)				
Linuron	Mixtures	Accepted	0.05 ^{4,5}	-
MCPA	Mixtures	Accepted	Proposed UK, 0.1	-
MCPB	Mixtures	Accepted	-	-
Mecoprop-P	Mixtures	Accepted	0.05	-
Methabenzthiazuron	Clayton Benson	Accepted Withdrawn in EU from Oct 2006	Proposed UK, 0.05	-
Metsulfuron-methyl	Ally Express	Accepted	0.05 ⁵	-
Pendimethalin	Stomp 400 SC	Accepted	0.05 ^{4,5}	-
Pinoxaden	Axial	Accepted	0.05 (UK)	-
Prosulfocarb	Defy	Accepted	0.02 (UK)	-
Thifensulfuron-methyl	Calibre	Accepted	0.05 ⁵	-
Tralkoxydim	Grasp	Accepted	Proposed UK, 0.05	-
Tri-allate	Avadex BW Granules	Accepted	Proposed UK, 0.05	-
Triasulfuron	Banvel T, Lo-gran	Accepted	0.05 ⁵	-
Tribenuron-methyl	Calibre, Quantum	Accepted	-	-
Trifluralin	Mixtures	Accepted	Proposed UK, 0.1	-

Common Chemical Name	Trade Name	Use	BBPA /BRi status	MRL (mg/kg)	
				EU/UK	Codex
Miscellaneous					
Metaldehyde	Optimol	Slug bait	Accepted	-	-
Methiocarb	New Draza, Decoy Wetex,	Slug bait	Accepted	0.05	0.05
Thiodicarb	Genesis	Slug bait	Accepted	0.05	0.5

Footnotes:

¹ Sum of isomers

² Sum of bisdithiocarbamates expressed as CS₂

³ Including glyphosate trimesium salts

⁴ EU provisional

⁵ limit of detection

⁶ Proposed UK MRLs can be found at

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

* analysis available from BRI