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**Agrochemicals Accepted by the
British Beer and Pub Association
and
BRI
for use on **Cereals****

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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 **Products are withdrawn from the list if they are no longer registered in the UK by PSD even though they do not cause problems in terms of processing.** BRi members not in the UK will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 using toxicological and dietary exposure evidence concerning the safety to humans of the resulting residues and this means that MRLs 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, Ian Slaiding, or Ian Ormrod

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Agrochemicals accepted by the BRI & BBPA for use on cereals

Changes made to the list since Technical Circular 426 (Mar 2008)

MRLs are updated from EU MRL harmonised database, released Sept 2008,

Type	Active Ingredient	Trade Name	Changes
Fungicide for seed treatment	triticonazole	Robust	EU provisional MRL added
Fungicide for seed treatment	ipconazole	Crusoe	added
Storage Insecticide	bifenthrin and malathion	Prostore	Registration for malathion expired. Deleted
Field insecticide	cyfluthrin	Baythroid	Registration expired. Deleted
Fungicide	iprodione	Rovral Flo	
Slug bait	thiodicarb	Genesis	
Insecticide	tau-fluvalinate	Greencrop Malin, Mavrik	Not included in EU positive list, authorisations must be withdrawn by Dec 2010.
Fungicide	fluquinconazole	Baron, Foil	
	flutriafol	Beret Multi, Consol	
	prochloraz	Sportak	
Herbicide	diclofop-methyl	Corniche	
	isoxaben	Flexidor	
Slug bait	metaldehyde	various	
chlorotoluron, clothianidin, cyflufenamid, fluoxastrobin, mepiquat, metrafenone, proquinazid, prosulfocarb, prothioconazole, tralkoxydim			UK MRLs replaced with EU draft temporary MRLs

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 Tablets, Detia Gas-Ex-B, Phostoxin	Accepted	0.1	0.1
Chlorpyrifos-methyl	Reldan 22	Accepted Store for 90 days before malting	3.0	-
Deltamethrin (with 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 50EC, PAN PMT	Accepted for grain admixture and empty stores	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	0.01 (EU draft temp)	-
Clothianidin	Deter, Redigo Deter	Accepted	0.02 EU draft temp	-
Fludioxonil	Beret Gold	Accepted	0.05 (EU draft temp)	0.05
Fuberidazole	Baytan Flowable	Accepted	0.2 (EU draft temp)	-
Guazatine	Ravine	Accepted	0.2 (EU draft temp)	-
Imazalil	Fungazil 50 LS, Robust	Accepted	0.02 ⁵	-
Imidacloprid	Raxil Secur, Baytan Secur	Accepted	0.1 (EU draft temp)	0.05
Ipconazole	Crusoe	Accepted	0.01 ⁵	-
Silthiofam	Latitude	Accepted	0.05 ^{4,5}	-
Thiram	Anchor	Accepted		

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 temp)	-
Thiram	Anchor	Accepted	0.1	1 dithiocarb
Triazoxide	Raxil S, Raxil Pro	Accepted	Proposed UK, 0.05 ⁶	-
Triticonazole	Robust, Kinto	Accepted	0.01 (EU provis.)	-
Insecticides for Pre-harvest (field) use				
Alphacypermethrin	A-Cyper 100EC, Fastac	Accepted	2 ¹	0.5
Bifenthrin	Brigade 80 SC, Starion Flo, UPL bifenthrin	Accepted	0.5	0.05
Chlorpyrifos	Lorsban 480, Pyrinex 48EC	Accepted	0.2	-
Cypermethrin	Cyperkill, Permasect	Accepted	2 ¹	0.5
Deltamethrin	Decis, Bandu	Accepted	2	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, Decoy Wetex	Accepted	0.1 (EU temp)	0.05
Pirimicarb	Aphox	Accepted	0.5 (EU draft temp)	0.05
Tau-fluvalinate	Greencrop Malin, Mavrik	Accepted;. Not included in EU positive list, authorisation must be withdrawn by Dec2010.	0.5 (EU draft temp)	-
Zetacypermethrin	Angri, Fury 10EW	Accepted	2 ¹	0.5

Barley (continued)

Active ingredient	Trade names (not exhaustive)	BBPA Status	MRL (mg/kg)	
			EU	Codex
Fungicides				
Azoxystrobin	Amistar Pro	Accepted	0.3	-
Boscalid	Deuce, Maitre	Accepted BEFORE ear emergence only	3 (EU draft temp)	-
Bromuconazole	Tote	Accepted for use BEFORE ear emergence only	0.2 (EU draft temp)	-
Carbendazim	Contrast, Punch C	Accepted	2.0	0.5
Chlorothalonil	Apache, Bravo 500	Accepted	0.1	0.1
Cyflufenamid	Cyflamid	Accepted	0.1 (EU draft temp)	-
Cyproconazole	Alto Extra, Furlong	Accepted	0.1 (EU draft temp)	-
Cyprodinil	Unix, Barclay Amtrak	Accepted	3 (EU draft temp)	3.0
Epoxiconazole	Cloister, Opus, Epic, Landmark, Mantra	Accepted BEFORE ear emergence only	1 (EU draft temp)	-
Famoxadone	Charisma, Medley	Accepted	0.02 ⁵	0.2
Fenpropidin	Patrol, Landgold Fenpropidin	Accepted	0.5 (EU draft temp)	-
Fenpropimorph	Allegro Plus, Corbel	Accepted	0.5	0.5
Fluoxastrobin	Fandango, Bayer UK831	Accepted	0.5 (EU draft temp)	-
Fluquinconazole	Baron, Foil	Accepted BEFORE ear emergence only, Not included in EU positive list, authorisations must be withdrawn by Dec2010.	0.05 (EU draft temp)	-
Flusilazole	Genie 25, Sanction 25	Accepted	0.2 (EU draft temp)	0.1

Barley (continued)

Active ingredient	Trade names (not exhaustive)	BBPA Status	MRL (mg/kg)	
			EU	Codex
Fungicides CONTINUED				
Flutriafol	Beret Multi, Consul	Accepted (also for seed treatment). Not included in EU positive list, authorisations must be withdrawn by Dec2010.	0.5 (EU draft temp)	-
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	Trimangol 80	Accepted	2.0 ²	1.0
Metconazole	Caramba	Accepted	0.1 (EU draft temp)	-
Metrafenone	Attenzo, Flexity	Accepted BEFORE ear emergence only	0.5 (EU draft temp)	-
Picoxystrobin	Acanto	Accepted	0.2 ⁴	-
Prochloraz	Sportak 45EW, Agate	Accepted. Not included in EU positive list, authorisations must be withdrawn by Dec2010.	1	2.0
Propiconazole	Alto Xtra, Prophet	Accepted	0.2 ⁴	0.05
Proquinazid	Justice, Talius	Accepted	0.02 (EU, draft temp)	-
Prothioconazole	Fandango, Prosaro	Accepted (also for seed treatment)	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, Torch	Accepted	0.3	-
Sulphur	Headland S	Accepted	50 (EU draft temp)	-
Tebuconazole	Aurigen, Bayer UK226	Accepted	2 (EU draft temp)	0.2

Barley (continued)

Active ingredient	Trade names (not exhaustive)	BBPA Status	MRL (mg/kg)	
			EU	Codex
Fungicides (cont)				
Triadimenol	Bayfidan	Accepted (also for seed treatment)	0.2 (sum of triadimenol+ triadimefon)	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)	-
Mepiquat	Terpal	Accepted	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)	-
Desiccants				
Diquat	Reglone	NOT ACCEPTED	10	5
Glufosinate-ammonium	Harvest	Accepted	0.1 (EU draft temp)	-
Glyphosate ³	Barclay Gallup 360, Roundup Gold,	Accepted	20	30
Trisulphonium cation resulting from the use of glyphosate		Accepted	10	-
Herbicides				
Amidosulfuron	Barclay Cleave	Accepted	0.05 (EU draft temp)	-
Bifenox	Aspire, Oram	Accepted	0.1 (EU draft temp)	-
Bromoxynil	Mixtures	Accepted	0.05	-
Carfentrazone-ethyl	Mixtures	Accepted	0.05	-
Chlorotoluron	Mixtures	Accepted	0.1 ⁶ (EU, draft temp)	-

Barley (continued)

Active ingredient	Trade names (not exhaustive)	BBPA Status	MRL (mg/kg)	
			EU	Codex
Herbicides (continued)				
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)	-
Diclofop-methyl	Corniche	Accepted (Not included in EU positive list, authorisation must be withdrawn by Dec 2010)	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, Firebird	Accepted	0.05 ⁵	-
Fluroxypyr	Starane	Accepted	0.1 ⁴	-
Flurtamone	Bacara, Graduate	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, Not included in EU positive list, authorisations must be withdrawn by Dec2010.	0.1 (EU draft temp)	-

Barley (continued)

Active ingredient	Trade names (not exhaustive)	BBPA Status	MRL (mg/kg)	
			EU	Codex
Herbicides (continued)				
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)	1 (EU, draft, temp))	-
Prosulfocarb	Defy, Arcade	Accepted	0.05 (EU draft temp)	-
Thifensulfuron- methyl	Calibre	Accepted	0.05 ⁵	-
Tralkoxydim	Grasp 400SC	Accepted	0,02 ⁵	-
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 expired. Use up by March 09).	1 (EU, draft temp)	-

Barley (continued)

Active ingredient	Trade Name	Use	BBPA /BRi status	MRL (mg/kg)	
				EU/UK	Codex
Miscellaneous					
Metaldehyde	various	Molluscicide	Accepted. Not included in EU positive list, authorisations must be withdrawn by Dec2010.	0.05 (EU draft temp)	-
Methiocarb	Decoy Wetex, Draza		Accepted	0.1(EU, draft temp)	0.05

Footnotes:

- ¹ Sum of isomers
- ² Sum of bisdithiocarbamates expressed as CS₂
- ³ Including glyphosate trimesium salts
- ⁴ EU provisional
- ⁵ limit of detection