

Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EC) No 1353/2000. (See end of Document for details)

^{F1}ANNEX I

Textual Amendments

- F1** Deleted by Commission Implementing Regulation (EU) 2017/1145 of 8 June 2017 on the withdrawal from the market of certain feed additives authorised pursuant to Council Directives 70/524/EEC and 82/471/EEC and repealing the obsolete provisions authorising those feed additives (Text with EEA relevance).

[^{F1}]

ANNEX II

No (or EC No)	Additive	Chemical formula, or description	Species or category of animal	Maximum age	Minimum content	Maximum content	Other provisions	Period of authorisation
					Units of activity/ kg of complete feedingstuff			
16	Endo-1,4-beta-glucanase EC 3.2.1.4	Preparation of endo-1,4-beta-glucanase produced by <i>Trichoderma longibrachiatum</i> (IMI SD 142) having a minimum activity of:	Chickens for fattening	—	250 CU	—	1.	30.9.2000 In the directions for use of the additive and premixture, indicate the storage temperature, storage life and stability to pelleting.
			Solid form: 2 000 CU/g ^a Liquid form: 2 000				2.	Recommended dose per kg of

a 1 CU is the amount of enzyme which liberates 0,128 micromoles of reducing sugars (glucose equivalents) from barley beta-glucan per minute at pH 4,5 and 30 °C.

b 1 EPU is the amount of enzyme which liberates 0,0083 micromoles of reducing sugars (xylose equivalents) from oat spelt xylan per minute at pH 4,7 and 30 °C.

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		CU/ ml				3.	complete feedingstuff: 500-1 000 CU. For use in in compound feed rich in non- starch polysaccharides (mainly beta- glucans), e.g. containing more than 40 % barley.
		Laying hens	—	250 CU	—	1.	30.9.2000 In the directions for use of the additive and premixture, indicate the storage temperature, storage life and stability to pelleting.
						2.	Recommended dose

a 1 CU is the amount of enzyme which liberates 0,128 micromoles of reducing sugars (glucose equivalents) from barley beta-glucan per minute at pH 4,5 and 30 °C.

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							per kg of complete feedingstuff: 500-1000 CU.
						3.	For use in compound feed rich in non-starch polysaccharides (mainly beta-glucans), e.g. containing more than 40 % barley.
			Piglets	4 months	250 CU	—	1. 30.9.2000 In the directions for use of the additive and premixture, indicate the storage temperature, storage life and stability to pelleting.

a 1 CU is the amount of enzyme which liberates 0,128 micromoles of reducing sugars (glucose equivalents) from barley beta-glucan per minute at pH 4,5 and 30 °C.

b 1 EPU is the amount of enzyme which liberates 0,0083 micromoles of reducing sugars (xylose equivalents) from oat spelt xylan per minute at pH 4,7 and 30 °C.

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						2.	Recommended dose per kg of complete feedingstuff: 500-1000 CU.
						3.	For use in compound feed rich in non-starch polysaccharides (mainly beta-glucans), e.g. containing more than 40 % barley.
		Pigs for fattening	—	250 CU	—	1.	30.9.2000 In the directions for use of the additive and premixture, indicate the storage temperature, storage life and

a 1 CU is the amount of enzyme which liberates 0,128 micromoles of reducing sugars (glucose equivalents) from barley beta-glucan per minute at pH 4,5 and 30 °C.

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							2.	stability to pelleting. Recommended dose per kg of complete feedingstuff: 500-1 000 CU.
							3.	For use in compound feed rich in non-starch polysaccharides (mainly beta-glucans), e.g. containing more than 40 % barley.
17	Endo-1,4-beta-xylanase EC 3.2.1.8	Preparation of endo-1,4-beta-xylanase produced by <i>Trichoderma longibrachiatum</i> (IMI SD 135) having a minimum activity of:	Chickens for fattening	—	750 EPU	—	1.	30.9.2000 In the directions for use of the additive and premixture, indicate the storage temperature,

a 1 CU is the amount of enzyme which liberates 0,128 micromoles of reducing sugars (glucose equivalents) from barley beta-glucan per minute at pH 4,5 and 30 °C.

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			Solid form: 6 000 EPU/ g ^b Liquid form: 2 000 EPU/ ml				storage life and stability to pelleting.
						2.	Recommended dose per kg of complete feedingstuff: 1 500-3 000 EPU.
						3.	For use in compound feed rich in non-starch polysaccharides (mainly arabi-noxylans), e.g. containing more than 40 % wheat.
		Laying hens	—	750 EPU	—	1.	30.9.2000 In the directions for use of the additive and premixture,

a 1 CU is the amount of enzyme which liberates 0,128 micromoles of reducing sugars (glucose equivalents) from barley beta-glucan per minute at pH 4,5 and 30 °C.

b 1 EPU is the amount of enzyme which liberates 0,0083 micromoles of reducing sugars (xylose equivalents) from oat spelt xylan per minute at pH 4,7 and 30 °C.

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							indicate the storage temperature, storage life and stability to pelleting.
						2.	Recommended dose per kg of complete feedingstuff: 1 500-3 000 EPU.
						3.	For use in compound feed rich in non-starch polysaccharides (mainly arabinoxylans), e.g. containing more than 40 % wheat.
		Piglets	4 months	750 EPU	—	1.	30.9.2000 In the directions for use of the

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b 1 EPU is the amount of enzyme which liberates 0,0083 micromoles of reducing sugars (xylose equivalents) from oat spelt xylan per minute at pH 4,7 and 30 °C.

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							additive and premixture, indicate the storage temperature, storage life and stability to pelleting.
							2. Recommended dose per kg of complete feedingstuff: 1 500-3 000 EPU.
							3. For use in compound feed rich in non-starch polysaccharides (mainly arabinoxylans), e.g. containing more than 40 % wheat.
			Pigs for fattening	—	750 EPU	—	1. 30.9.2000 In the directions for

a 1 CU is the amount of enzyme which liberates 0,128 micromoles of reducing sugars (glucose equivalents) from barley beta-glucan per minute at pH 4,5 and 30 °C.

b 1 EPU is the amount of enzyme which liberates 0,0083 micromoles of reducing sugars (xylose equivalents) from oat spelt xylan per minute at pH 4,7 and 30 °C.

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							use of the additive and premixture, indicate the storage temperature, storage life and stability to pelleting.
						2.	Recommended dose per kg of complete feedingstuff: 1 500-3 000 EPU.
						3.	For use in compound feed rich in non-starch polysaccharides (mainly arabinoxylans), e.g. containing more than 40 % wheat.
a	1 CU is the amount of enzyme which liberates 0,128 micromoles of reducing sugars (glucose equivalents) from barley beta-glucan per minute at pH 4,5 and 30 °C.						
b	1 EPU is the amount of enzyme which liberates 0,0083 micromoles of reducing sugars (xylose equivalents) from oat spelt xylan per minute at pH 4,7 and 30 °C.						

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ANNEX III

No. (or EC No)	Additive	Chemical formula, or description	Species or category of animal	Maximum age	Minimum	Maximum	Other provisions	Period of authorisation
					content	content		
					Units of activity/ kg of complete feedingstuff			
12	Endo-1,4- beta- glucanase EC 3.2.1.4	Preparation of endo-1,4- beta- glucanase, endo-1,3 (4)-beta- glucanase and endo-1,4- beta- xylanase produced by <i>Trichoderma viride</i> (FERM BP-4447) having a minimum activity	Turkeys for fattening	—	Endo-1,4- beta- glucanase 800 U	—	1.	30.9.2001 In the directions for use of the additive and premixture, indicate the storage temperature, storage life and stability to pelleting.
	Endo-1,3(4)- beta- glucanase EC 3.2.1.6				Endo-1,3(4)- beta- glucanase: 1 800 U			
	Endo-1,4- beta- xylanase EC 3.2.1.8				Endo-1,4- beta- xylanase: 2 600 U			
							2.	Recommended dose per kg of complete feedingstuff: Endo-1,4- beta- glucanase: 800-1 200 U Endo-1,3 (4)- beta- glucanase: 1 800-2 700 U Endo-1,4- beta- xylanase:

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							2 600-3 900 U. 3. For use in compound feed rich in non-starch polysaccharides (mainly arabinoxylans and beta-glucans), e.g. containing more than 20 % wheat and 20 % barley.
17	Endo-1,4-beta-xylanase EC 3.2.1.8	Preparation of endo-1,4-beta-xylanase produced by <i>Trichoderma longibrachiatum</i> (IMI SD 135) having a minimum activity of:	Turkeys for fattening	—	750 EPU	—	1. 30.9.2001 In the directions for use of the additive and premixture, indicate the storage temperature, storage life and stability to pelleting. 2. Recommended dose
			Solid form: 6 000 EPU/g ^a Liquid form: 6				

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			000 EPU/ ml				per kg of complete feedingstuff: 1 500-3 000 EPU.
						3.	For use in in compound feed rich in non- starch polysaccharides (mainly arabinoxylans), e.g. containing more than 35 % wheat.
42	Endo-1,4- betaxylanase EC 3.2.1.8	(Preparation of endo-1,4- beta- xylanase produced by <i>Trichoderma longibrachiatum</i> (IMI SD 135) having a minimum activity of:	Pigs for fattening	—	4 000 U	—	1. 30.9.2001 In the directions for use of the additive and premixture, indicate the storage temperature, storage life and stability to pelleting.
		Solid form: 4 000 U/ g ^e Characteristic of the authorised preparation:				2.	Recommended dose per

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			endo-1,4-beta-xylanase: 1,99 % wheat: 97,7 % calcium propionate: 0,3 % lecithin: 0,01 %			3.	kg of complete feedingstuff: 4 000 U For use in compound feed rich in non-starch polysaccharides (mainly arabinoxylans), e.g. containing more than 60 % wheat.
49	Endo-1,3(4)-beta-glucanase EC 3.2.1.6	Preparation of endo-1,3(4)-beta-glucanase produced by <i>Trichoderma longibrachiatum</i> (ATCC 2106),	Chickens for fattening	—	Endo-1,3(4)-beta-glucanase: 150 U	1.	30.9.2001 In the directions for use of the additive and premixture, indicate the storage temperature, storage life and stability to pelleting.
	Endo-1,4-beta-xylanase EC 3.2.1.8	endo-1,4-beta-xylanase produced by <i>Trichoderma longibrachiatum</i> (IMI SD 135)			Endo-1,4-beta-xylanase: 1 500 U		
	Alfa-amylase EC 3.2.1.1	endo-1,4-beta-xylanase produced by <i>Trichoderma longibrachiatum</i> (IMI SD 135)			Alfa-amylase: 500 U		
	Bacillolysin EC 3.4.24.28	<i>Trichoderma longibrachiatum</i> (IMI SD 135)			Bacillolysin: 800 U		
	Polygalacturonase C EC 3.2.1.15	alpha-amylase produced by <i>Bacillus amyloliquefaciens</i> (DSM 13637)			Polygalacturonase: 50 U	2.	Recommended dose per kg of

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	<p>9554) and polygalacturonase produced by <i>Aspergillus aculeatus</i> (CBS 589.94) having a minimum activity of:</p>	<p>endo-1,3(4)-beta-glucanase: 150 U/ g^f endo-1,4-beta-xylanase: 1 500 U/ g^g alfa-amylase: 500 U/ g^h bacillolysin: 800 U/ gⁱ polygalacturonase: 50 U/ g^j</p>				<p>complete feedingstuffs: endo-1,3(4)-beta-glucanase: 150 U endo-1,4-beta-xylanase: 1 500 U alpha-amylase: 800 U. bacillolysin: 800 U polygalacturonase: 50 U</p>	<p>3. For use in compound feed rich in non-starch polysaccharides (mainly arabinoxylans and betaglucans), e.g. containing more than 30 % wheat.</p>
	Layinghens			<p>endo-1,3(4)-beta-glucanase: 150 U</p>	1.	<p>30.9.2001 In the directions for use of the additive</p>	
				<p>endo-1,4-beta-xylanase: 1 500 U</p>			

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				alpha-amylase: 1 000 U	—	and premixture, indicate the storage temperature, storage life and stability to pelleting.
				bacillolysin: 800 U		
				polygalacturonase: 50 U		
						2. Recommended dose per kg of complete feedingstuffs: endo-1,3(4)-beta-glucanase: 150 U endo-1,4-beta-xylanase: 1 500 U alpha-amylase: 1 000 U polygalacturonase: 25 U.
						3. For use in compound feed rich in non-starch polysaccharides (mainly arabinoxylans and

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							betaglucans), e.g. containing more than 30 % wheat.
50	6- phytase EC 3.1.3.26	Preparation of 6- phytase produced by <i>Aspergillus oryzae</i> (DSM 11857) having a minimum activity of:	Chickens for fattening	—	250 FYT	—	<p>1. 30.9.2001 In the directions for use of the additive and premixture, indicate the storage temperature, storage life and stability to pelleting.</p> <p>2. Recommended dose per kg of complete feedingstuff: 500-1 000 FYT</p> <p>3. For use in compound feed containing more than 0,25 % phytin bound phosphorus.</p>

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		Laying hens	—	250 FYT	—	1.	30.9.2001 In the directions for use of the additive and premixture, indicate the storage temperature, storage life and stability to pelleting.
						2.	Recommended dose per kg of complete feedingstuff: 500-1 000 FYT
						3.	For use in compound feed containing more than 0,25 % phytin bound phosphorus.
		Turkeys for fattening	—	250 FYT	—	1.	30.9.2001 In the directions for use of the

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							additive and premixture, indicate the storage temperature, storage life and stability to pelleting.
							2. Recommended dose per kg of complete feedingstuff: 500-1 000 FYT
							3. For use in compound feed containing more than 0,25 % phytin bound phosphorus.
			Piglets	2 months	500 FYT	—	1. 30.9.2001 In the directions for use of the additive and premixture, indicate the storage temperature, storage

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							life and stability to pelleting.
						2.	Recommended dose per kg of complete feedingstuff: 500-1 000 FYT
						3.	For use in compound feed containing more than 0,25 % phytin bound phosphorus.
		Pigs for fattening	—	500 FYT	—	1.	30.9.2001 In the directions for use of the additive and premixture, indicate the storage temperature, storage life and stability to pelleting.
						2.	Recommended dose per

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							in compound feed rich in non-starch polysaccharides (mainly arabinoxylans), e.g. containing more than 40 % wheat.
52	Endo-1,3(4)-beta-glucanase: EC 3.2.1.6	Preparation of endo-1,3(4)-beta-glucanase produced by <i>Aspergillus aculeatus</i> (CBS 589.94),	Chickens for fattening	—	Endo-1,3(4)-beta-glucanase: 1 000 U	1.	30.9.2001 In the directions for use of the additive and premixture, indicate the storage temperature, storage life and stability to pelleting.
	Endo-1,4-beta-glucanase: EC 3.2.1.4	by <i>Aspergillus aculeatus</i> (CBS 589.94),			Endo-1,4-beta-glucanase: 12 000 U		
	Alpha-amylase EC 3.2.2.1	endo-1,4-beta-glucanase produced by <i>Trichoderma longibrachiatum</i> (CBS 592.94) and alpha-amylase produced by <i>Bacillus amyloliquefaciens</i> (DSM 9553), having a minimum activity of:			Alpha-amylase: 40 U	2.	Recommended dose per kg of complete feedingstuff: endo-1,3(4)-beta-glucanase: 1 000-2 000 U endo-1,4-
			Liquid form:				

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			Endo-1,3 (4)- beta- glucanase: 10 000 U/ m ^m Endo-1,4- beta- glucanase: 120 000 U/ m ⁿ Alpha- amylase: 400 U/ ml ^o			3.	beta- glucanase: 12 000-24 000 U For use in in compound feed rich in non starch polysaccharides (mainly arabinoxylans and betaglucans) e.g. containing more than 20 % wheat and 15 % sorghum and 5 % maize.
a	1 U is the amount of enzyme which liberates 0,1 micromoles of glucose from carboxymethylcellulose per minute at pH 5.0 and 40 °C.						
b	1 U is the amount of enzyme which liberates 0,1 micromoles of glucose from barley beta-glucan per minute at pH 5.0 and 40 °C.						
c	1 U is the amount of enzyme which liberates 0,1 micromoles of glucose from oat spelt xylan per minute at pH 5.0 and 40 °C.						
d	1 EPU is the amount of enzyme which liberates 0,0083 micromoles of reducing sugars (xylose equivalents) from oat spelt xylan per minute at pH 4,7 and 30 °C.						
e	1 U is the amount of enzyme which liberates 1 micromole of reducing sugars (xylose equivalents) from oat spelt xylan per minute at pH 5,3 and 50 °C.						
f	1 U is the amount of enzyme which liberates 1 micromole of reducing sugars (glucose equivalents) from barley beta-glucan per minute at pH 5,0 and 30 °C.						
g	1 U is the amount of enzyme which liberates 1 micromole of reducing sugars (xylose equivalents) from oat spelt xylan per minute at pH 5,3 and 50 °C.						
h	1 U is the amount of enzyme which liberates 1 micromole of glucosidic linkages from water insoluble cross-linked starch polymer per minute at pH 6,5 and 37 °C.						
i	1 U is the amount of enzyme which liberates 1 microgram of phenolic compound (tyrosine equivalents) from casein substrate per minute at pH 7,5 and 40 °C.						

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j	1 U is the amount of enzyme which liberates 1 micromole of reducing material (galacturonic acid equivalents) from poly D-galacturonic substrate per minute at pH 5,0 and 40 °C.
k	1 FYT is the amount of enzyme which liberates 1 micromole of inorganic phosphate per minute from sodium phytate at pH 5.5 and 37 °C.
l	1 IU is the amount of enzyme which liberates 1 micromole of reducing sugars (xylose equivalents) from birchwood xylan per minute at pH 4,5 and 30 °C.
m	1 U is the amount of enzyme which liberates 0,0056 micromoles of reducing sugars (glucose equivalents) from barley-glucan per minute at pH 7.5 and 30 °C.
n	1 U is the amount of enzyme which liberates 0,0056 micromoles of reducing sugars (glucose equivalents) from carboxymethylcellulose per minute at pH 7.5 and 30 °C.
o	1 U is the amount of enzyme which liberates 1 micromole of glucose from a cross-linked starch polymer per minute at pH 7.4 and 37 °C.

ANNEX IV

No.	Additive	Chemical formula, or description	Species or category of animal	Maximum age	Minimum content	Maximum content	Other provisions	Period of authorisation
					CFU/kg of complete feedingstuff			
19	<i>Streptococcus infantarius</i> CNCM I-841 <i>Lactobacillus plantarum</i> CNCM I-840	Mixture of: <i>Streptococcus infantarius</i> and <i>Lactobacillus plantarum</i> containing a minimum of: <i>Streptococcus infantarius</i> $0,5 \times 10^9$ CFU/g and: <i>Lactobacillus plantarum</i> 2×10^9 CFU/g	Calves	6 months	<i>Streptococcus infantarius</i> 1×10^9	<i>Streptococcus infantarius</i> 1×10^9 <i>Lactobacillus plantarum</i> $0,5 \times 10^9$	In the directions for use of the additive and premixture, indicate the storage temperature, storage life and stability to pelleting.	30.9.2001

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