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

## ANNEX III

No. (or EC	Additive	Chemica formula,		Maximu age	mMinimu content	mMaximu content	mOther provisio	Period
No)		1	onategory		Units of	activity/	provisio	authorisation
			of animal		kg of confeedings			
12	beta-	glucanase and endo-1,4-beta-xylanase produced by Trichoder viride (FERM BP-4447) having a minimum activity	for fattening	<b>1</b> )-	Endo-1,4-beta-glucanase 800 U  Endo-1,3-beta-glucanase 1 800 U  Endo-1,4-beta-xylanase: 2 600 U	( <del>4)-</del> ::	2.	30.9.2001 In the directions for use of the additive and premixture, indicate the storage temperature, storage life and stability to pelleting.  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-glucanase: 1 800-2 700 U Endo-1,4-beta-xylanase:

				3.	2 600-3 900 U. For use in compound feed rich in non- strach polysaccarides (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	for fattening ma hiatum	750 EPU	2.	30.9.2001 In the directions for use of the additive and premixture, indicate the storage temperature, storage life and stability to pelleting. Recommended dose

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

			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	beta- glucanase EC 3.2.1.6  Endo-1,4- beta- xilanasa EC 3.2.1.8  Alfa- amylase EC 3.2.1.1	of endo-1,3(beta-glucanase producted by Trichoder longibrac (ATCC 2106), endo-1,4-beta-xylanase produced by http://dichoder longibrac (IMI	ma hiatum ma hiatum	Endo-1,30 beta-glucanase 150 U  Endo-1,4-beta-xylanase: 1 500 U  Alfa-amylase: 500 U  Bacillolys 800 U  Polygalac 50 U	: 	2.	30.9.2001 In the directions for use of the additive and premixture, indicate the storage temperature, storage life and stability to pelleting.  Recommended dose per kg of

	us	n:			3.	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 For use in compound feed rich in non- starch polysaccharides (mainly arabinoxylans and betaglucans), e.g. containing more than 30 % wheat.
	Layinghe	ns-	endo-1,3(beta-glucanase 150 U endo-1,4-beta- xylanase: 1 500 U	:	1.	30.9.2001 In the directions for use of the additive

alpha- amylase: 1 000 U  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	<b>-</b>	1				
amylase: 1 000 U 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-sylanase: 1 000 U endo-1,4-beta-sylanase: 1 1 000 U polygalacturonase: 2 5 U  3. For use in compound feed rich in non-starch polysaccharides (mainly arabinoxylans)			alpha-	_		
Dacillolysin:-   Bacillolysin:-   Baci			amylase:			
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  000 U  alpha-amylase: 1  000 U  polygalacturonase: 25 U.  3. For use in compound feed rich in nonstarch polysaccharides (mainly arabinoxylans			1 000 U			
SOO U   polygalacturonase: 50 U   compensation   compound feed rich in nonstarch polysaccharides (mainly arabinoxylans			booillolwa	in:		
polygalacteronase: 50 U  polygalacteronase: 50 U  2. Recommended dose per kg pf complete feedingstuffs: endo-1,3(4)-beta-glucanase: 150 U endo-1,4-beta-xylanase: 1 500 U alpha-amylase: 1 000 U alpha-amylase: 1 000 U polygalacturonase: 2.5 U.  3. For use in compound feed rich in non-starch polysaccharides (mainly arabinoxylans			200 II	I <del>II.</del>		
life and stability to pelleting.  2. Recommended dose per kg of complete feedingstuffs: endo-1,3(4)-beta-glucanase: 150 U endo-1,4-beta-xylanase: I 500 U alpha-amylase: I 000 U polygalacturonase: 25 U.  3. For use in compound feed rich in non-starch polysaccharides (mainly arabinoxylans						temperature,
and stability to pelleting.  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 1 500 U polygalacturonase: 25 U.  3. For use in compound feed rich in non-starch polysaccharides (mainly arabinoxylans			polygalac	t <del>ur</del> onase:		
stability to pelleting.  2. Recommended dose per kg of complete feedingstuffs: endo-1,3(4)- beta- glucanase: 150 U endo-1,4- beta- xylanase: I 500 U alpha- amylase: I 000 U polygalacturonase: 25 U.  3. For use in compound feed rich in non- starch polysaccharides (mainly arabinoxylans			50 U			
to pelleting.  2. Recommended dose per kg of complete feedingstuffs: endo-1,3(4)-beta-glucanase: 1.50 U endo-1,4-beta-xylanase: 1 500 U alpha-amylase: 1 000 U polygalacturonase: 2.5 U.  3. For use in compound feed rich in non-starch polysaccharides (mainly arabinoxylans						
pelleting.  2. Recommended dose per kg of complete feedingstuffs: endo-1,3(4)-beta-glucanase: 150 U endo-1,4-beta-xylanase: 1 Soo U alpha-amylase: 1 Doo U polygalacturonase: 25 U.  3. For use in compound feed rich in non-starch polysaccharides (mainly arabinoxylans						
2. Recommended dose per kg of complete feedingstuffs: endo-1,3(4)-beta-glucanase: I500 U endo-1,4-beta-xylanase: I l son U alpha-amylase: I l one U upolygalacturonase: 25 U.  3. For use in compound feed rich in non-starch polysaccharides (mainly arabinoxylans						
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						
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						
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						dose
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						per
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						kg
feedingstuffs: endo-1,3(4)- beta- glucanase: 150  U endo-1,4- beta- xylanase: 1 500  U alpha- anmylase: 1 000  U polygalacturonase: 25 U.  3. For use in compound feed rich in non- starch polysaccharides (mainly arabinoxylans						
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						complete
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						teedingstuffs:
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						
I 50 U endo-1,4- beta- xylanase: I 500 U alpha- amylase: I 000 U polygalacturonase: 25 U.  3. For use in compound feed rich in non- starch polysaccharides (mainly arabinoxylans						
U endo-1,4-beta- xylanase: 1 500 U alpha- amylase: 1 000 U polygalacturonase: 2.5 U.  3. For use in compound feed rich in non- starch polysaccharides (mainly arabinoxylans						
endo-1,4- beta- xylanase:  I 500 U alpha- amylase:  I 000 U polygalacturonase: 25 U.  3. For use in compound feed rich in non- starch polysaccharides (mainly arabinoxylans						
beta- xylanase:  I 500 U alpha- amylase: I 000 U polygalacturonase: 25 U.  3. For use in compound feed rich in non- starch polysaccharides (mainly arabinoxylans						_
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						
l 500 U alpha- amylase: 1 000 U polygalacturonase: 25 U. 3. For use in compound feed rich in non- starch polysaccharides (mainly arabinoxylans						
500 U alpha- amylase: 1 000 U polygalacturonase: 25 U.  3. For use in compound feed rich in non- starch polysaccharides (mainly arabinoxylans						
U alpha- amylase: 1 000 U polygalacturonase: 25 U.  3. For use in compound feed rich in non- starch polysaccharides (mainly arabinoxylans						
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						and

phytase of 6- for fattening produced by  Aspergillus oryzae (DSM 11857) having a minimum activity of:  Coated form:  2  1. In the direct for use of the addit and premindic the stora temps stora life.	glucans), taining e 6 /6 at.
FYT/ g* Liquid form:  5 000 FYT/ g  2. Record dose per kg of com feedi 5000 000 FYT  3. For use in com feed conta more than 0,25 phyt bour	9.2001 ctions ctions ctive mixture, cate age perature, age ility eting. ommended chaptete lingstuff: -1

Lovina	250 EVT			20.0.2001
Laying hens	 250 FYT	<del></del>	1.	30.9.2001 In
Tens				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

					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

			2.	life and stability to pelleting.  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

					3.	kg of complete feedingstuff: 500-1 000 FYT For use in compound feed containing more than 0,25 % phytin bound phosphorus.
51	Endo-1,4-betaxylan EC 3.2.1.8	endo-1,4- beta- xylanase produced by Bacillus subtilis (LMG-S 15136) having a minimum activity of:	for fattening	10 IU		30.9.2001 In the directions for use of the additive and premixture, indicate the storage temperature, storage life and stability to pelleting.
					3.	Recommended dose per kg of complete feedingstuff: 10-IU

							in compound feed rich in non-starch polysaccharides (mainly arabinoxylans), e.g. containing more than 40 % wheat.
52	Endo-1,3(	<b>4)</b> reparation	Chickens	 Endo-1,3(	<del>(4)-</del>	1	30.9.2001
52	beta- glucanase EC 3.2.1.6 Endo-1,4-	of :endo-1,3() beta- glucanasa produced by Aspergilli :aculeatus (CBS 589.94), endo-1,4- beta- glucanase produced by Trichoder longibrac (CBS 592.94) and alpha- amylase produced by Bacillus amyloliqu (DSM 9553), having a minimum activity of:	for Afattening us us ma hiatum	Endo-1,3(beta-glucanase 1 000 U  Endo-1,4-beta-glucanase 12 000 U  Alpha-amylase: 40 U	: . <u> </u>	1.	In the directions for use of the additive and premixture, indicate the storage temperature, storage life and stability to pelleting.  Recommended dose per kg of complete feedingstuff: endo-1,3(4)-beta-glucanase: I 000-2 000 U endo-1,4-
	I	ı		l	l		P.1.00 1, 1

	Endo-1,3 (4)- beta- glucanase: 10 000 U/ m <sup>m</sup> Endo-1,4- beta- glucanase: 120 000 U/ m <sup>n</sup> Alpha- amylase: 400 U/ ml°	3.	beta- glucanase: 12 000-24 000 U  For use 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.
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- 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 ande 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 teh 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  $^{\circ}$ 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.
- 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.

## **Changes to legislation:**

There are currently no known outstanding effects for the Commission Regulation (EC) No 1353/2000, ANNEX III.