Commission Regulation (EC) No 1353/2000 of 26 June 2000 concerning the permanent authorisation of an additive and the provisional authorisation of new additives, new additive uses and new preparations in feedingstuffs (Text with EEA relevance)

## COMMISSION REGULATION (EC) No 1353/2000

of 26 June 2000

concerning the permanent authorisation of an additive and the provisional authorisation of new additives, new additive uses and new preparations in feedingstuffs

(Text with EEA relevance)

<sup>F1</sup>Article 1

## **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).

### Article 2

The conditions for the authorisation of the preparations No 16 and No 17 belonging to the group 'Enzymes' listed in Annex II to the present Regulation are hereby replaced by those set out in the said Annex according to Directive 70/524/EEC.

### Article 3

The preparations belonging to the group 'Enzymes' listed in Annex III to the present Regulation shall be authorised according to Directive 70/524/EEC as additives in animal nutrition under the conditions laid down in the said Annex.

#### Article 4

The preparation belonging to the group 'Micro-organisms' listed in Annex IV to the present Regulation shall be authorised according to Directive 70/524/EEC as additives in animal nutrition under the conditions laid down in the said Annex.

### Article 5

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Communities*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

# F1ANNEX I

| $[F^1]$ |
|---------|
|---------|

## ANNEX II

| No(or<br>EC | Additive | Chemica<br>formula  | , or                                | age | content                    | <br>mOther<br>provisio |   |
|-------------|----------|---|-------------------------------------|-----|----------------------------|------------------------|---|
| No)         |          | descript  | io <b>c</b> ategory<br>of<br>animal |     | Units of kg of confeedings |                        | authorisation   |
| 16          | beta-    | of endo-1,4-beta-glucanase produced by Trichoder longibrac (IMI SD 142) having a minimum activity of: | ma<br>hiatum                        |     | 250 CU                     |                        | 30.9.2000 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: 500-1 000 CU. For |
|             |          |   |                                     |     |                            |                        | use   |

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.

|  |             |        |    | in compound feed rich in non-starch polysaccharides (mainly betaglucans), 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 per kg of complete feedingstuff: 500-1 000 CU.  |

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  $^{\circ}$ 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.

|  | ,       | I.       | I.     |    | ı  |
|--|---------|----------|--------|----|--|
|  |         |          |        |    | For use in compound feed rich in non-starch polysaccharides (mainly betaglucans), 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. |
|  |         |          |        |    | Recommended dose per kg of complete feedingstuff:  |

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.

|  |                    |        | 3. | 500-1 000 CU. 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 |    | 30.9.2000 In the directions for use of the additive and premixture, indicate the storage temperature, storage life and stability to pelleting. |
|  |                    |        |    | Recommended<br>dose<br>per<br>kg   |

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.

|    |                                   |                         |            | 3. | of complete feedingstuff: 500-1 000 CU. 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 | for fattening ma hiatum | 750<br>EPU | 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.

|  | Liquid<br>form:<br>2<br>000<br>EPU/<br>ml |            | 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. |
|  | Laying<br>hens                            | 750<br>EPU | 1. | 30.9.2000 In the directions for use of the additive and premixture, indicate the storage temperature, storage life        |

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.

|  |         |          |            | 2. | and stability to pelleting.  Recommended dose 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 40 % wheat. |
|  | Piglets | 4 months | 750<br>EPU |    | 30.9.2000 In the directions for use of the additive and premixture, indicate the storage                                  |

<sup>1</sup> 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.

<sup>1</sup> 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  $^{\circ}$ C.

|  |                    |            |   |    | temperature,<br>storage<br>life<br>and<br>stability<br>to<br>pelleting.   |
|--|--------------------|------------|---|----|---|
|  |                    |            |   | 2. | Recommended dose per kg of complete feedingstuff: 1 500-3 000 EPU.  |
|  | Di C               |            |   |    | For use in compound feed rich in non-starch polysaccharides (mainly arabinoxylans), e.g. containing more than 40 % wheat. |
|  | Pigs for fattening | 750<br>EPU | _ |    | 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. |

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.

## ANNEX III

| No.    | Additive | Chemica   | l Species           | Maximu | mMinimu | mMaximu | mOther   | Period        |
|--------|----------|-----------|---------------------|--------|---------|---------|----------|---------------|
| (or EC |          | formula.  | or                  | age    | content | content | provisio | nsof          |
| No)    |          | descripti | io <b>c</b> ategory |        |         |         | _        | authorisation |

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.

|   | of<br>animal                                   |     | Units of activity/<br>kg of complete<br>feedingstuff   |    |   |
|---|--|-----|--|----|---|
| beta- glucana EC 3.2.1.4  Endo-1 beta- glucana EC 3.2.1.6 | endo-1,4-<br>beta-<br>,4- xylanase<br>produced | 4)- | Endo-1,4-beta-glucanase: 1 800 U  Endo-1,3(4)-beta-glucanase: 1 800 U  Endo-1,4-beta-xylanase: 2 600 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 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 |

|    | ı         |              |                          |   | 1   |   |    | I                 |
|----|-----------|--------------|--------------------------|---|-----|---|----|-------------------|
|    |           |              |                          |   |     |   | 3. | 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- | Preparation  | ofTurkeys                | _ | 750 | _ | 1  | 30.9.2001         |
|    | beta-     | of           | for                      |   | EPU |   |    | In                |
|    | xylanase  | endo-1,4-    | fattening                |   |     |   |    | the<br>directions |
|    | EC        | beta-        |                          |   |     |   |    | for               |
|    | 3.2.1.8   | xylanase     |                          |   |     |   |    |                   |
|    |           | produced     |                          |   |     |   |    | use<br>of         |
|    |           | by           |                          |   |     |   |    | the               |
|    |           | Trichoder    | та                       |   |     |   |    | additive          |
|    |           | longibrac    | hiatum                   |   |     |   |    | and               |
|    |           | (IMI         |                          |   |     |   |    | premixture,       |
|    |           | SD 135)      |                          |   |     |   |    | indicate          |
|    |           | having a     |                          |   |     |   |    | the               |
|    |           | minimum      |                          |   |     |   |    | storage           |
|    |           | activity of: |                          |   |     |   |    | temperature,      |
|    |           |              | Solid                    |   |     |   |    | storage           |
|    |           |              | form:                    |   |     |   |    | life              |
|    |           |              | 101111.<br>6             |   |     |   |    | and               |
|    |           |              | 000                      |   |     |   |    | stability         |
|    |           |              | EPU/                     |   |     |   |    | to                |
|    |           | -            | cd O/                    |   |     |   |    | pelleting.        |
|    |           |              | g <sup>d</sup><br>Liquid |   |     |   |    |                   |
|    |           | -            | Liquid<br>form:          |   |     |   |    | Recommended       |
|    |           |              | 6                        |   |     |   |    | dose              |
|    |           |              | 000                      |   |     |   |    | per<br>lsa        |
|    |           |              | EPU/                     |   |     |   |    | kg<br>of          |
|    |           |              | ml                       |   |     |   |    | 01                |
|    |           | 1            | r <b>-</b>               | I | l   | l |    | I                 |

| 42 | Endo 1 44                     | Provocation  | Piga for  | 4,000 II | 3. | 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 Trichoder longibrac (IMI SD 135) having a minimum activity of:  Character of the authorised preparation | fattening  ma hiatum  Solid form: 4 000 U/ g <sup>e</sup> 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 kg of |

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|    |   |   | xylanase: 1,99 % wheat: 97,7 % calcium propionate 0,3 % lecithin: 0,01 % | - |  |   |    | 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 | Trichoder<br>longibrac<br>(ATCC<br>2106),<br>endo-1,4-<br>beta-<br>xylanase<br>produced<br>by<br>Trichoder<br>longibrac<br>(IMI | for<br>Afattening<br>ma<br>hiatum<br>ma<br>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 complete feedingstuffs: |

| pro<br>by<br>Asp<br>acu<br>(CF<br>589<br>hav | endo-1,3(4)- beta- glucanase: 150 U/ gf endo-1,4-   |   |    | endo-1,3(4)- beta- glucanase: 150 U endo-1,4- beta- xylanase: 1 500 U alpha- amylase: 800 U. bacillolysin: 800 U polygalacturonase: |
|--|---|---|----|---|
|  | beta- xylanase:  1 500 U/ g <sup>g</sup> alfa- amylase: 500 U/ g <sup>h</sup> bacillolysin: 800 U/ g <sup>i</sup> polygalacturonase: 50 U/ g <sup>j</sup> |   | 3. | For use in compound feed rich in non-starch polysaccharides (mainly arabinoxylans and betaglucans), e.g. containing more than 30 %  |
|  | Layinghens—   | endo-1,3(4)—beta-glucanase: 150 U endo-1,4-—beta-xylanase: 1500 U | 1. | wheat.  30.9.2001 In the directions for use of the additive and premixture,   |

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|   |     |  | alpha-     |                        |    | indicate           |
|---|-----|--|------------|------------------------|----|--------------------|
|   |     |  | amylase:   |                        |    | the                |
|   |     |  | 1 000 U    |                        |    | storage            |
|   |     |  |            |                        |    | temperature,       |
|   |     |  | bacillolys | i <del>n:-</del>       |    | storage            |
|   |     |  | 800 U      |                        |    | life               |
|   |     |  | 11         | 4                      |    | and                |
|   |     |  | polygalac  | t <del>uro</del> nase: |    | stability          |
|   |     |  | 50 U       |                        |    | to                 |
|   |     |  |            |                        |    | pelleting.         |
|   |     |  |            |                        |    | peneting.          |
|   |     |  |            |                        | 2. | Recommended        |
|   |     |  |            |                        |    | dose               |
|   |     |  |            |                        |    | per                |
|   |     |  |            |                        |    | T .                |
|   |     |  |            |                        |    | kg<br>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                |
|   |     |  |            |                        |    | betaglucans),      |
| I | Į į |  |            |                        |    | petagracans),      |

|    |                       |   |                       |         |    | e.g.<br>containing<br>more<br>than<br>30 %<br>wheat.   |
|----|-----------------------|---|-----------------------|---------|----|--|
| 50 | 6-phytase EC 3.1.3.26 | of 6- phytase produced by Aspergillo oryzae (DSM 11857) having a minimum activity of: | us                    | 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. |
|    |                       |   | 5<br>000<br>FYT/<br>g |         | 2. | Recommended<br>dose<br>per<br>kg<br>of<br>complete<br>feedingstuff:<br>500-1<br>000<br>FYT   |
|    |                       |   |                       |         | 3. | For use in compound feed containing more than 0,25 % phytin bound phosphorus.  |

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

|  |         |          |         |    | additive and premixture, indicate the storage temperature, storage life and stability to pelleting.           |
|--|---------|----------|---------|----|---|
|  |         |          |         | 2. | Recommended<br>dose<br>per<br>kg<br>of<br>complete<br>feedingstuff:<br>500-1<br>000<br>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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|                    |         | 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 | <ol> <li>2.</li> </ol> | 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 |

|    |                               |  |               |       | 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-<br>beta-<br>xylanase<br>produced<br>by<br>Bacillus<br>subtilis<br>(LMG-S<br>15136)<br>having a<br>minimum<br>activity<br>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. |
|    |                               |  |               |       |    | Recommended dose per kg of complete feedingstuff: 10-  |
|    |                               |  |               |       | 3. | For<br>use   |

|    |       |   |              |  |       |                        | in compound feed rich in non-starch polysaccharides (mainly arabinoxylans), e.g. containing more than 40 % wheat.  |
|----|-------|---|--------------|--|-------|------------------------|--|
| 52 | beta- | of cendo-1,3( beta- glucanasa produced by Aspergilla 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: | na<br>hiatum | Endo-1,3(beta-glucanase 1 000 U  Endo-1,4-beta-glucanase 12 000 U  Alpha-amylase: 40 U | :<br> | <ol> <li>2.</li> </ol> | 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-1,3(4)- beta- glucanase: 1 000-2 000 U endo-1,4- |

|  | 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. |
|--|---|----|---|
|--|---|----|---|

- 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 °C.

- 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.

### ANNEX IV

| No. | Additive  | Chemical Species                        |   | Maximu   | mMinimumMaximumOtho                             |  |  | Period                |
|-----|---|---|---|----------|---|--|--|-----------------------|
|     |   | formula<br>descripti                    | or<br>lo <b>c</b> ategory<br>of<br>animal | age      | content content CFU/kg of complete feedingstuff |  | provision                                    | nsof<br>authorisation |
| 19  | Streptoco<br>infantaria<br>CNCM<br>I-841<br>Lactobaca<br>plantarum<br>CNCM<br>I-840 | sof:<br>Streptocol<br>infantariu<br>and | s<br>illus<br>i<br>g<br>ccus<br>s         | 6 months | infantariu<br>1 × 10 <sup>9</sup><br>Lactobaci  | cStreptocod<br>sinfantariu<br>1 × 10 <sup>9</sup><br>Elluctobaci<br>aplantarum<br>0,5 ×<br>10 <sup>9</sup> | sdirections<br>for use<br>of the<br>additive | e,                    |

# **Changes to legislation:**

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