



## Climate Change (Agriculture Sector) Regulations 2010

Anand Satyanand, Governor-General

### Order in Council

At Wellington this 23rd day of September 2010

Present:

His Excellency the Governor-General in Council

Pursuant to sections 163 and 168 of the Climate Change Response Act 2002, His Excellency the Governor-General, acting on the advice and with the consent of the Executive Council and on the recommendation of the Minister for Climate Change Issues, makes the following regulations.

### Contents

		Page
1	Title	2
2	Commencement	2
3	Interpretation	2
4	Chief executive may issue guidelines or standards	4
5	Information required to calculate emissions from importing or manufacturing synthetic fertilisers containing nitrogen	4
6	Method of calculating emissions from importing or manufacturing synthetic fertilisers containing nitrogen	5

r 1	<b>Climate Change (Agriculture Sector) Regulations 2010</b>	2010/335
7	Information required to calculate emissions from slaughtering cattle, deer, goats, pigs, poultry, or sheep	5
8	Method of calculating emissions from slaughtering cattle, deer, goats, pigs, poultry, or sheep	6
9	Information required to calculate emissions from dairy processing of milk or colostrum	7
10	Method of calculating emissions from dairy processing of milk or colostrum	7
11	Information required to calculate emissions from exporting from New Zealand live cattle, pigs, or sheep	8
12	Method of calculating emissions from exporting from New Zealand live cattle, pigs, or sheep	8
13	Information required to calculate emissions from producing eggs	9
14	Method of calculating emissions from producing eggs	9
15	Emissions returns must record total emissions	9
	<b>Schedule</b>	10
	<b>Emissions factors</b>	

---

## Regulations

- 1 Title**  
These regulations are the Climate Change (Agriculture Sector) Regulations 2010.
- 2 Commencement**  
These regulations come into force on 1 January 2011.
- 3 Interpretation**  
In these regulations, unless the context otherwise requires,—  
**Act** means the Climate Change Response Act 2002  
**bull** means an uncastrated male bovine, but, in relation to table 1 or 2 only, excludes a vealer  
**cattle** means any group or combination of bulls, cows, heifers, steers, or vealers  
**cow** means a female bovine with more than 6 permanent teeth, but, in relation to table 1 or 2 only, excludes a vealer

**customs point** means the point where goods are entered for import under section 39 or export under section 49 of the Customs and Excise Act 1996

**deer** means any group or combination of hinds or stags

**ewe** means a female sheep with more than 2 permanent teeth

**heifer** means a female bovine with no more than 6 permanent teeth, but in relation to table 1 or 2 only, excludes a vealer

**hind** means a female deer

**hogget** means a male sheep or female sheep with 1 or 2 permanent teeth

**lamb** means a male or female sheep that does not have any permanent teeth

**layer hen** means a bird that is kept to produce eggs for sale

**milk fat** means the fat content of raw milk from sheep

**milk solids** means milk-fat and protein components of raw milk from cows, heifers, or goats

**ram** means an uncastrated male sheep with more than 2 permanent teeth

**raw milk** means untreated milk from cows, heifers, sheep, or goats

**sheep** means any group or combination of ewes, hoggets, lambs, rams, or wethers

**slaughter point** means the final point at which the carcass is weighed before it is—

- (a) broken down into cuts or boneless products; or
- (b) chilled or frozen

**stag** means a male deer

**steer** means a castrated male bovine, but, in relation to table 1 or 2 only, excludes a vealer

**synthetic fertilisers containing nitrogen** means a nitrogen-containing substance or mix of substances, produced by chemical manufacture,—

- (a) whose main function is to provide nutrients for plants; and
- (b) which is described as, or held out to be for, or suitable for, sustaining or increasing the growth, productivity,

or quality of plants or, indirectly, animals through its application to plants or soil

**tonne**, in relation to regulation 5 or 6, includes part of a tonne

**vealer** means a male or female bovine that—

- (a) is under 12 months of age; and
- (b) weighs between 40 kg and 160 kg at the slaughter point

**wether** means a castrated male sheep with more than 2 permanent teeth.

#### **4 Chief executive may issue guidelines or standards**

- (1) The chief executive may, by notice in the *Gazette*, issue guidelines or standards in relation to the information required to be collected by these regulations.
- (2) The chief executive may, by notice in the *Gazette*, amend or revoke a guideline or standard.
- (3) A participant who complies with a guideline or standard that is issued under this regulation, and is in force, is to be treated as complying with the requirements of these regulations to which the guideline or standard relates.

#### **5 Information required to calculate emissions from importing or manufacturing synthetic fertilisers containing nitrogen**

A participant who, in a year, carries out the activity of importing or manufacturing synthetic fertilisers containing nitrogen must collect and record the following information for the year:

- (a) the total number of tonnes of synthetic fertilisers containing nitrogen imported (recorded at the customs point) or manufactured (measured at the point of manufacture); and
- (b) the percentage of nitrogen in the synthetic fertilisers containing nitrogen recorded under paragraph (a); and
- (c) the total number of tonnes of nitrogen contained in the synthetic fertilisers containing nitrogen recorded under paragraph (a), calculated by multiplying the total number of tonnes of fertiliser recorded under paragraph (a) by the percentage of nitrogen recorded under paragraph (b); and

- (d) the total number of tonnes of synthetic fertilisers containing nitrogen exported (recorded at the customs point) from New Zealand; and
- (e) the percentage of nitrogen in the synthetic fertilisers containing nitrogen recorded under paragraph (d); and
- (f) the total number of tonnes of nitrogen contained in synthetic fertilisers containing nitrogen recorded under paragraph (d), calculated by multiplying the total number of tonnes of fertiliser recorded under paragraph (d) by the percentage of nitrogen recorded under paragraph (e).

**6 Method of calculating emissions from importing or manufacturing synthetic fertilisers containing nitrogen**

A participant who, in a year, carries out the activity of importing or manufacturing synthetic fertilisers containing nitrogen must use the following formula to calculate emissions from the activity for the year:

$$E = (A - B) \times 5.72$$

where—

- E is the emissions in tonnes from the synthetic fertilisers containing nitrogen imported or manufactured
- A is the total number of tonnes of nitrogen recorded by the participant under regulation 5(c)
- B is the total number of tonnes of nitrogen as recorded by the participant under regulation 5(f).

**7 Information required to calculate emissions from slaughtering cattle, deer, goats, pigs, poultry, or sheep**

A participant who, in a year, carries out the activity of slaughtering cattle, deer, goats, pigs, poultry, or sheep and is the operator of a risk management programme registered under the Animal Products Act 1999, but is not a retail butcher (as defined in section 4(1) of the Animal Products Act 1999), must collect and record the following information:

- (a) for each animal type listed in table 1 of the Schedule slaughtered during the year, the total number of

tonnes of that slaughtered animal type as calculated at the slaughter point; and

- (b) for each animal type listed in table 2 of the Schedule slaughtered during the year, the total number of animals of that slaughtered animal type.

**8 Method of calculating emissions from slaughtering cattle, deer, goats, pigs, poultry, or sheep**

- (1) A participant who, in a year, carries out the activity of slaughtering cattle, deer, goats, pigs, poultry, or sheep and is the operator of a risk management programme registered under the Animal Products Act 1999, but is not a retail butcher (as defined in section 4(1) of the Animal Products Act 1999), must use the following formula to calculate emissions from the activity for the year for each animal type:

$$E = (A \times B) + (C \times D)$$

where—

- E is the emissions in tonnes from the slaughter in the year of an animal type for which information is recorded under regulation 7(a) or (b) for that animal type
- A is, where information is recorded under regulation 7(a) for an animal type, the total number of tonnes as recorded under regulation 7(a) for that animal type
- B is the emissions factor for the animal type dealt with in A
- C is, where information is recorded under regulation 7(b) for an animal type, the total number of animals slaughtered as recorded under regulation 7(b) of that animal type
- D is the emissions factor for the animal type dealt with in C.
- (2) If a participant carries out the slaughtering of more than 1 animal type, the participant must add up the results of the calculation for each animal type and record the total.

**9 Information required to calculate emissions from dairy processing of milk or colostrum**

A participant who, in a year, carries out the activity of dairy processing of milk or colostrum must collect and record the following information:

- (a) the total quantity in tonnes of milk solids from goats subject to dairy processing by the participant in the year; and
- (b) the total quantity in tonnes of milk solids from cows or heifers subject to dairy processing by the participant in the year; and
- (c) the total quantity in tonnes of milk fat from sheep subject to dairy processing by the participant in the year.

**10 Method of calculating emissions from dairy processing of milk or colostrum**

- (1) A participant who, in a year, carries out the activity of dairy processing of milk or colostrum must use the following formula to calculate emissions from the activity for the year:

$$E = A \times B$$

where—

- E** is the emissions in tonnes from the dairy processing of milk or colostrum for each animal type listed in table 3 of the Schedule
- A** is the total quantity in tonnes of—
- (a) milk solids from goats recorded under regulation 9(a) that is subject to dairy processing by the participant; or
  - (b) milk solids from cows or heifers recorded under regulation 9(b) that is subject to dairy processing by the participant; or
  - (c) milk fat from sheep recorded under regulation 9(c) that is subject to dairy processing by the participant
- B** is the emissions factor, as listed in table 3 of the Schedule, for goats, cows, heifers, or sheep from which milk solids or milk fat was produced.

- (2) If a participant carries out dairy processing for more than 1 animal type, the participant must add up the results of the calculation for each animal type and record the total.

**11 Information required to calculate emissions from exporting from New Zealand live cattle, pigs, or sheep**

A participant who, in a year, carries out the activity of exporting from New Zealand live cattle, pigs, or sheep in accordance with an animal welfare export certificate must collect and record the total number of animals of each animal type listed in table 4 of the Schedule that are exported live from New Zealand during the year.

**12 Method of calculating emissions from exporting from New Zealand live cattle, pigs, or sheep**

- (1) A participant who, in a year, carries out the activity of exporting from New Zealand live cattle, pigs, or sheep in accordance with an animal welfare export certificate must use the following formula to calculate emissions from the activity for the year for each animal type:

$$E = A \times B$$

where—

E is the emissions in tonnes from the animals exported live from New Zealand for each animal type for which information is recorded under regulation 11

A is, where information is recorded under regulation 11 for an animal type, the total number of animals of that animal type that are exported live from New Zealand in the year

B is the emissions factor for the animal type dealt with in A.

- (2) If a participant carries out the exporting of more than 1 animal type, the participant must add up the results of the calculation for each animal type and record the total.



**13 Information required to calculate emissions from producing eggs**

A participant who, in a year, carries out the activity of producing eggs and is the operator of a risk management programme registered under the Animal Products Act 1999 must record the average number of layer hens owned or controlled by the participant in a year, calculated in accordance with the following formula:

$$A = (B + C + D + E)/4$$

where—

- A is the average number of layer hens owned by or under the control of the participant in a year
- B is the number of layer hens owned by or under the control of the participant on 1 January
- C is the number of layer hens owned by or under the control of the participant on 1 April
- D is the number of layer hens owned by or under the control of the participant on 1 July
- E is the number of layer hens owned by or under the control of the participant on 1 October.

**14 Method of calculating emissions from producing eggs**

A participant who, in a year, carries out the activity of producing eggs and is the operator of a risk management programme registered under the Animal Products Act 1999 must use the following formula to calculate emissions from the activity for the year:

$$E = A \times B$$

where—

- E is the emissions in tonnes from the production of eggs
- A is the average number of layer hens recorded under regulation 13
- B is 0.007 per layer hen.

**15 Emissions returns must record total emissions**

An emissions return submitted by a participant required to comply with these regulations must record—

- (a) the emissions calculated under each of the relevant provisions of these regulations; and
- (b) the total emissions from the relevant activities in the relevant year, calculated by adding together the emissions calculated under each of the relevant provisions of these regulations.

**Schedule**  
**Emissions factors**

rr 7, 10, 11

Table 1  
Slaughtering cattle, deer, goats, pigs,  
poultry, and sheep

<b>Animal type</b>	<b>Emissions factor for each tonne of animal type calculated at slaughter point</b>
Bull	11.0
Cow	7.9
Heifer	7.1
Steer	10.5
Vealer	5.2
Hind	7.3
Stag (less than 80 kg)	8.2
Stag (80 kg or more)	17.0
Goat	17.6
Pig	3.5
Poultry	0.5
Ewe	7.5
Hogget	8.3
Lamb	4.5
Ram	23.5
Wether	23.1
Adult sheep (being ewes or wethers not distinguished by processors)	15.7

Table 2  
Slaughtering cattle, deer, goats, pigs,  
poultry, and sheep

<b>Animal type</b>	<b>Emissions factor for each animal type</b>
Bull	1.980
Cow	1.980
Heifer	1.980
Steer	1.980
Vealer	1.980
Hind	0.770
Stag (less than 90 kg)	0.770
Stag (90 kg or more)	0.770
Goat	0.250
Pig	0.027
Poultry	0.000
Ewe	0.300
Hogget	0.300
Lamb	0.300
Ram	0.300
Wether	0.300
Adult sheep (being ewes and wethers not distinguished by processors)	0.300

Table 3  
Processing of milk or colostrum

<b>Animal type</b>	<b>Emissions factor for each tonne of milk solids or milk fat</b>
Cow or heifer	6.14
Goat	2.69
Sheep	7.61

Table 4  
Exporting live cattle, pigs, or sheep

<b>Animal type</b>	<b>Emissions factor for each animal type for live export</b>
Bull less than 1 year	3.10
Bull 1 year up to 2 years	5.70
Bull 2 years and older	8.20
Cow or heifer older than 1 year	4.50
Heifer younger than 1 year	2.70
Steer younger than 1 year	3.00
Steer older than 1 year	5.40
Pig up to 6 months	0.32
Pig 6 months up to 1 year	0.61
Pig 1 year and older	0.61 plus 0.59 for each additional year (for example: 3-year-old = 0.61 + 0.59 + 0.59 = 1.79)
Ewe and female hogget	0.49
Lamb	0.39
Male hogget	0.61
Ram or wether	1.00

Rebecca Kitteridge,  
Clerk of the Executive Council.

---

### Explanatory note

*This note is not part of the regulations, but is intended to indicate their general effect.*

These regulations, which come into force on 1 January 2011, specify the information and formulas required to calculate the emissions of certain agricultural activities listed in Part 5 of Schedule 3 of the Climate Change Response Act 2002.

---

Issued under the authority of the Acts and Regulations Publication Act 1989.  
Date of notification in *Gazette*: 24 September 2010.  
These regulations are administered by the Ministry of Forestry and Agriculture.

---