

## DECISIONS

## COMMISSION IMPLEMENTING DECISION

of 3 November 2011

**on granting a derogation requested by Italy with regard to the Regions of Emilia Romagna, Lombardia, Piemonte and Veneto pursuant to Council Directive 91/676/EEC concerning the protection of waters against pollution caused by nitrates from agricultural sources**

(notified under document C(2011) 7770)

(Only the Italian text is authentic)

(2011/721/EU)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources<sup>(1)</sup> and, in particular, the third subparagraph of paragraph 2 of Annex III thereto,

Whereas:

- (1) If the amount of manure that a Member State intends to apply per hectare each year is different from those specified in the first sentence of the second subparagraph of paragraph 2 of Annex III to Directive 91/676/EEC and in point (a) of that subparagraph, that amount is to be fixed so as not to prejudice the achievement of the objectives specified in Article 1 of that Directive and it has to be justified on the basis of objective criteria, such as long growing seasons and crops with high nitrogen uptake.
- (2) Italy submitted to the Commission a request for a derogation under the third subparagraph of paragraph 2 of Annex III to Directive 91/676/EEC with regard to the Regions of Emilia Romagna, Lombardia, Piemonte and Veneto.
- (3) The requested derogation concerns the intention of Italy to allow the application in the Regions of Emilia Romagna, Lombardia, Piemonte and Veneto of up to 250 kg nitrogen per hectare per year from cattle manure and treated pig manure on farms with at least 70 % of crops with high nitrogen demand and long growing season. Approximately 10 313 cattle farms

and 1 241 pig farms in the Regions of Emilia Romagna, Lombardia, Piemonte and Veneto corresponding to respectively 15,9 % and 9,7 % of total cattle and total pig farms in the same Regions, 10,7 % of the utilised agricultural land and 29,1 % of the total dairy livestock and 49,3 % of total pig numbers in the same Regions are estimated to be potentially encompassed by the derogation. Besides, also arable farms can apply for the derogation.

- (4) The legislation implementing Directive 91/676/EEC and establishing the action programmes in Emilia Romagna (Decision n. 1273/2011 5.9.2011), Lombardia (Decision n. IX/2208 14.9.2011), Piemonte (Decision 18-2612 19.9.2011) and Veneto (Decision n. 1150 26.7.2011), has been adopted and applies in conjunction with this Decision for the period 2012 to 2015.
- (5) The designated vulnerable zones to which the action programmes apply cover about 63 % of the utilised agricultural area (UAA) of Emilia Romagna, 82 % of the UAA of Lombardia, 38 % of the UAA of Piemonte and 87 % of the UAA of Veneto.
- (6) Water quality data submitted show that for groundwater in the Regions of Emilia Romagna, Lombardia, Piemonte and Veneto 89 % of groundwater bodies have mean nitrate concentrations below 50 mg/l nitrate and 63 % have mean nitrate concentrations below 25 mg/l nitrate. For surface waters, more than 98 % of monitoring sites have mean nitrate concentrations below 25 mg/l and no points have nitrate concentrations over 50 mg/l nitrate.
- (7) The Regions Emilia Romagna, Lombardia, Piemonte and Veneto account for more than 70 % of livestock in Italy: in particular, 67,1 % of dairy cattle, 60,6 % of other cattle, 81 % of pigs and 79,4 % of poultry. Livestock numbers show a decreasing trend in the period 1982-2007 (20 % on average for the four Regions).

<sup>(1)</sup> OJ L 375, 31.12.1991, p. 1.

- (8) In the period 1979-2008, chemical nitrogen consumption declined, as well as utilisation of mineral phosphorus fertilisers; the latter has been reduced by 70 %.
- (9) Grassland, maize grain, maize silage and winter cereals occupy about 53 % of the total agricultural area in Emilia Romagna, Lombardia, Piemonte and Veneto.
- (10) The supporting documents presented in the request for the derogation show that the proposed amount of 250 kg nitrogen per hectare per year from cattle manure and treated pig manure is justified on the basis of objective criteria such as high net precipitation, long growing seasons and high yields of crops with high nitrogen uptake.
- (11) After examining the request, the Commission considers that the proposed amount of 250 kg per hectare from cattle manure and treated pig manure will not prejudice the achievement of the objectives of Directive 91/676/EEC, subject to certain strict conditions being met.
- (12) The measures provided for in this Decision are in accordance with the opinion of the Nitrates Committee set up pursuant to Article 9 of Directive 91/676/EEC,
- (d) 'late maturing maize' means maize class FAO 600-700, planted from mid March to the beginning of April, with a growing cycle of at least 145-150 days;
- (e) 'maize or sorghum followed by winter herbage' means medium-late or early maturing maize or sorghum followed by winter herbage, such as Italian ryegrass, barley, triticale or winter rye;
- (f) 'winter cereal followed by summer herbage' means winter wheat, winter barley or triticale, followed by summer herbage, such as maize, sorghum, *Setaria* or *Panicum* sp.;
- (g) 'crops with high nitrogen demand and long growing season' means grassland, late maturing maize, maize or sorghum followed by winter herbage and winter cereal followed by summer herbage;
- (h) 'cattle manure' means livestock manure excreted by cattle, including during grazing or in processed form;
- (i) 'manure treatment' means the processing of pig manure into two fractions, a solid fraction and a liquid fraction, performed in order to improve land application and enhance nitrogen and phosphorus recovery;
- (j) 'treated manure' means the liquid fraction resulting from pig manure treatment, with a minimum nitrogen to phosphate ratio (N/P<sub>2</sub>O<sub>5</sub>) of 2,5;
- (k) 'treated manure with nitrogen removal' means treated manure with a nitrogen content of less than 30 % compared to nitrogen content of the raw pig manure;
- (l) 'soils with low Organic Matter content' means soils with organic carbon content lower than 2 % in the top 30 centimetres of soil;
- (m) 'non-saline and low salinity soils' means those soils with electrical conductivity on saturated soil paste extract EC<sub>e</sub> < 4 mS/cm or electrical conductivity on aqueous extract with 1:2 soil/water ratio EC 1:2 < 1 ms/cm, or areas defined as certainly not affected by risk of salinisation, as indicated on the soil map defined at regional level;
- (n) 'nitrogen use efficiency' means the percentage of total nitrogen applied in livestock manure form which is available to crops in the year of application.

HAS ADOPTED THIS DECISION:

#### Article 1

The derogation requested by Italy, by letters of 10 March 2011 and of 28 July 2011, with regard to Regions Emilia Romagna, Lombardia, Piemonte and Veneto for the purpose of allowing a higher amount of livestock manure than that provided for in the first sentence of the second subparagraph of paragraph 2 of Annex III to Directive 91/676/EEC and in point (a) thereof, is granted, subject to the conditions laid down in this Decision.

#### Article 2

##### Definitions

For the purpose of this Decision, the following definitions shall apply:

- (a) 'farms' means agricultural holdings with or without livestock rearing;
- (b) 'parcel' means an individual field or a group of fields, homogeneous regarding cropping, soil type and fertilisation practices;
- (c) 'grassland' means permanent or temporary grassland (generally temporary lies less than 4 years);

#### Article 3

##### Scope

This Decision applies on an individual basis to farms, where 70 % or more of the acreage of the farm is cultivated with crops with high nitrogen demand and long growing season, and subject to the conditions set out in Articles 4 to 7.

*Article 4***Annual application and commitment**

1. Farmers who want to benefit from a derogation under this Decision shall submit an application to the competent authorities annually by 15 February.
2. Together with the annual application referred to in paragraph 1 they shall undertake in writing to fulfil the conditions provided for in Articles 5, 6 and 7.

*Article 5***Manure treatment**

1. Farmers benefiting from a derogation for the application of pig treated manure shall notify each year to the competent authorities the following information:

- (a) the type of manure treatment;
- (b) the capacity and main characteristics of the treatment plant, including its efficiency;
- (c) the amount of manure sent to treatment;
- (d) the amount, the composition, including a specification of the nitrogen and phosphorus content, and the destination of the solid fraction;
- (e) the amount, the composition, including a specification of the nitrogen and phosphorus content, and the destination of the treated manure;
- (f) the estimation of gaseous losses during treatment.

2. The solid fraction resulting from manure treatment shall be stabilised in order to reduce odours and other emissions, improving agronomic and hygienic properties, facilitating handling and enhancing nitrogen and phosphate availability to crops. The resulting product shall not be applied to derogated farms. The competent authorities shall adopt measures to encourage the use of stabilised solid fraction on soils with low organic matter content. Those soils are indicated in maps established at regional level and made available to farmers.

3. The competent authorities shall establish the methodologies to assess the composition of treated manure, the variations in composition and treatment efficiency for each farm benefiting from individual derogation.

4. Ammonia and other emissions deriving from manure treatment shall be monitored by the competent authorities in representative locations for each treatment technique. On the basis of the monitoring results, an inventory of emissions shall be established by the competent authorities.

*Article 6***Application of manure and other fertilisers**

1. The amount of cattle manure, including by the animals themselves, and treated manure applied to the land each year on farms benefiting from a derogation shall not exceed the amount of manure containing 250 kg nitrogen per hectare, subject to the conditions laid down in paragraphs 2 to 12.
2. The total nitrogen inputs shall not exceed the foreseeable nutrient demand of the considered crop. It shall take into account the supply from the soil and the increased manure nitrogen availability due to manure treatment. It shall not exceed maximum application standards, as established in the action programmes applicable to the farm.
3. The total phosphorus inputs shall not exceed the foreseeable nutrient demand of the considered crop and take into account the phosphorus supply from the soil. Phosphorus in chemical fertilisers shall not be applied in derogated farms.
4. A fertilisation plan describing the crop rotation of the farmland and the planned application of manure and mineral fertilisers shall be prepared for each farm by 15 February at the latest.

The fertilisation plan shall include the following:

- (a) the number of livestock, a description of the housing and storage system, including the volume and type of manure storage available;
- (b) a calculation of manure nitrogen and phosphorus produced in the farm;
- (c) the description of manure treatment and characteristics of treated manure (if relevant);
- (d) the amount, type and characteristics of manure delivered outside the farm or in the farm;
- (e) the crop rotation and acreage of parcels with crops with high nitrogen demand and long growing season and parcels with other crops;
- (f) the expected yields for each cultivated crop, depending on nutrient and water availability, as well as local conditions, such as climate, soil type, etc.;
- (g) the estimated nitrogen and phosphorus crop requirements for each parcel;
- (h) a calculation of manure nitrogen and phosphorus to be applied over each parcel;

- (i) a calculation of nitrogen from chemical fertilisers to be applied over each parcel;
- (j) the estimation of the amount of water needed for irrigation and the precise indication of water source; the authorisation for water abstraction or the contract for water use with the relevant 'water consortium' or the map indicating that the farm is located in areas where the shallow groundwater is in contact with the root zone shall be included in the plan.

Plans shall be revised no later than 7 days following any changes in agricultural practices to ensure consistency between plans and actual agricultural practices.

5. Fertilisation accounts shall be prepared by each farm on a parcel basis. They shall include applied amounts and time of application of manure and chemical fertilisers.

6. The authorisation for water abstraction or the contract for water use with the relevant 'water consortium' or the map indicating that the farm is located in areas where the shallow groundwater is in contact with the root zone shall be available at the farm. The amount of authorised or contracted amount of water, where applicable, shall be sufficient to reach crops yields obtained in conditions without water constraints.

7. Results of nitrogen and phosphorus analysis in soil shall be available for each farm benefiting from a derogation. Sampling and analysis shall be carried out before the 1<sup>st</sup> June at least once every 4 years for phosphorus and for nitrogen for each homogeneous area of the farm, with regard to crop rotation and soil characteristics. At least one analysis per 5 hectares of farmland shall be required.

8. Livestock manure applied on derogation farms shall have a nitrogen use efficiency at least of 65 % for slurry and 50 % for solid manure.

9. Livestock manure and chemical fertilisers applied on derogation farms cannot be spread after 1 November.

10. At least two thirds of the amount of nitrogen from manure, excluding nitrogen from manure from grazing livestock, shall be applied before 30 June each year. For this purpose, farms benefiting from a derogation shall dispose of adequate storage capacity for livestock manure, which can cover at least periods during which manure application is not allowed.

11. Liquid manure, including treated manure and slurries, shall be applied through low emissions application techniques. Solid manure shall be incorporated within 24 hours.

12. In order to protect soils from risk of salinisation, treated manure with nitrogen removal shall be allowed only on non-saline and low-salinity soils. For that purpose, farmers intending to apply treated manure with nitrogen removal shall measure electrical conductivity on parcels to be used for application at least every 4 years and shall include results in the application referred to in Article 4(1). The competent authorities shall establish a protocol to be used by farmers to measure electrical conductivity. The competent authorities shall establish maps showing areas at risk of salinisation.

#### Article 7

##### Land management

Farmers benefiting from a derogation shall ensure that the following conditions are met:

- (a) 70 % or more of the acreage of the farm shall be cultivated with crops with high nitrogen demand and long growing season;
- (b) temporary grassland shall be ploughed in spring;
- (c) temporary and permanent grassland shall not include more than 50 % of leguminous or other plants fixing atmospheric nitrogen;
- (d) late maturing maize shall be harvested (the whole plant);
- (e) winter herbage, such as Italian ryegrass, barley, triticale or winter rye, shall be seeded within 2 weeks after harvest of maize/sorghum and shall be harvested no earlier than 2 weeks before maize/sorghum sowing;
- (f) summer herbage, such as maize, sorghum, *Setaria* or *Panicum* sp. shall be seeded within 2 weeks after harvest of winter cereals and shall be harvested no earlier than 2 weeks before winter cereals sowing;
- (g) a crop with high nitrogen demand shall be seeded within 2 weeks after ploughing grass and fertilisers shall not be applied in the year of ploughing of permanent grassland.

#### Article 8

##### Other measures

1. The competent authorities shall ensure that derogations granted for the application of treated manure are compatible with the capacity of manure treatment plants.
2. The competent authorities shall ensure that each granted derogation is compatible with the authorised water use in the farm benefiting from the derogation.

*Article 9***Measures on manure transport**

1. The competent authorities shall ensure that transport of livestock manure to and from farms benefiting from a derogation is recorded through geographic positioning systems or is registered in accompanying documents, specifying the place of origin and destination. The recording through geographic positioning systems is obligatory for transports covering distances longer than 30 km.
2. The competent authorities shall ensure that a document specifying the amount of transported manure and its nitrogen and phosphorus content is available during transport.
3. The competent authorities shall ensure that treated manure and solid fractions resulting from manure treatment are analysed with regard to their nitrogen and phosphorus content. The analysis shall be performed by recognised laboratories. The results of the analysis shall be communicated to the competent authorities and to the receiving farmer. A certificate of the analysis shall be available in each transport.

*Article 10***Monitoring**

1. The competent authorities shall ensure that maps showing the percentage of farms, percentage of livestock, percentage of agricultural land covered by individual derogations and maps showing local land use for each municipality are drawn up and updated every year. Data on crop rotations and agricultural practices in farms benefiting from derogations shall be collected and updated every year.
2. A monitoring network for sampling of surface and shallow groundwater shall be established and maintained to assess the impact of the derogation on water quality. The draft monitoring network shall be submitted to the Commission. The amount of initial monitoring sites cannot be reduced and the location of the sites cannot be changed during the period of applicability of this Decision.
3. A reinforced water monitoring shall be conducted for agricultural catchments located in proximity to most vulnerable water bodies, to be identified by the competent authorities.
4. Monitoring sites shall be established, in order to provide data on nitrogen and phosphorus concentration in soil water, on mineral nitrogen in soil profile and corresponding nitrogen and phosphorus losses through the root zone into groundwater, as well as on nitrogen and phosphorus losses by surface and subsurface run-off, both under derogation and non-derogation conditions. The monitoring sites shall include main soil types, fertilisation practices and crops. The draft monitoring network

shall be submitted to the Commission. The amount of initial monitoring sites cannot be reduced and the location of the sites cannot be changed during the period of applicability of this Decision.

*Article 11***Verification**

1. The competent authorities shall ensure that all the applications for derogation are submitted to administrative control. Where the control demonstrates that the conditions provided for in Articles 5, 6 and 7 are not fulfilled, the applicant shall be informed thereof. In this instance, the application shall be considered to be refused.
2. A programme of field inspections shall be established based on a risk analysis, results of controls of the previous years and results of general random controls of legislation implementing Directive 91/676/EEC. The field inspections shall cover at least 5 % of farms benefiting from a derogation in respect to the conditions set out in Articles 5, 6 and 7 of this Decision.
3. The competent authorities shall ensure on-the-spot controls of at least 1 % of manure transport operations, based on risk assessments and results of administrative controls referred to in paragraph 1. Controls shall include, at least, assessment of accompanying documents, verification of manure origin and destination and sampling of transported manure.
4. The competent authorities shall be granted the necessary powers and means to verify compliance with this Decision. Where verification indicates non-compliance with this Decision, the competent authorities shall take the necessary action for redress. In particular, farmers which do not comply with Articles 5, 6 and 7 shall be excluded from derogation the following year.

*Article 12***Reporting**

The competent authorities shall submit to the Commission every year by December, and for the year 2015 by September, a report containing the following information:

- (a) evaluation of the implementation of the derogation, on the basis of controls at farm level, as well as controls on manure transport, and information on non-compliant farms, on the basis of the results of the administrative and field inspections;
- (b) information on manure treatment, including further processing and utilisation of the solid fractions, and provide detailed data on characteristics of treatment systems, their efficiency and composition of treated manure, as well as final destination of solid fractions;



- (c) maps showing areas with low organic matter content, as well as the measures taken in order to encourage the use of the stabilised solid fraction on soils with low organic matter content, as referred to in Article 5(2);
- (d) the methodologies to assess the composition of treated manure, the variations in composition and treatment efficiency for each farm benefiting from individual derogation, referred to in Article 5(3);
- (e) the inventory of ammonia and other emissions from manure treatment, referred to in Article 5(4);
- (f) the established protocol to measure electrical conductivity and maps showing areas affected by salinisation, referred to in Article 6(12);
- (g) the methodologies to verify the compatibility of granted derogations with the capacity of manure treatment plants, referred to in Article 8(1);
- (h) the methodologies to verify the compatibility of each granted derogation with the authorised water use in the farm benefiting from the derogation, referred to in Article 8(2);
- (i) maps showing the percentage of farms, percentage of livestock and percentage of agricultural land covered by individual derogations and maps showing local land use, as well as data on crop rotations and agricultural practices in derogation farms, referred to in Article 10(1);
- (j) the results of water monitoring, including information on water quality trends for ground and surface waters, as well as the impact on derogation on water quality as referred to in Article 10(2);
- (k) the list of most vulnerable water bodies, referred to in Article 10(3);
- (l) summary and evaluation of data obtained from the monitoring sites referred to in Article 10(4).

#### Article 13

#### Application

This Decision shall apply in conjunction with the regulations implementing the action programme in Emilia Romagna (Decision n. 1273/2011 5.9.2011), Lombardia (Decision n. IX/2208 14.9.2011), Piemonte (Decision 18-2612 19.9.2011) and Veneto (Decision n. 1150 26.7.2011).

This Decision shall apply from 1 January 2012.

It shall expire on 31 December 2015.

#### Article 14

This Decision is addressed to the Italian Republic.

Done at Brussels, 3 November 2011.

*For the Commission*

Janez POTOČNIK

*Member of the Commission*