

Farm antibiotic use in France

Levels of farm antibiotic use in France

France has been collecting data on the annual sales of veterinary antibiotics since 1999, and the “Agence nationale de sécurité sanitaire de l’alimentation, de l’environnement et du travail” (Anses) publishes the results in annual reports at:

<https://www.anses.fr/fr/content/suivi-des-ventes-dantibiotiques-veterinaires> .

France has achieved significant reductions in its overall use of farm antibiotics in recent years: use has been cut by 51% between 2007 and 2014/15. See Table 1.

Table 1 Active ingredient of antibiotics sold for use in veterinary medicine in France (tonnes) 1999-2014/15 [1]

1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014/15
1,311	1,384	1,375	1,327	1,294	1,261	1,296	1,238	1,328	1,172	1,059	1,015	910	782	699	650

A new law (n°2014-1170) came into force on the 1st January 2015 which banned promotions (price discounts) of farm antibiotics. In anticipation of this new law, buyers of farm antibiotics are believed to have built up stocks while promotions were still permitted, leading to an increase in sales in 2014 (to 782 tonnes), and these stocks were then used up in 2015 leading to a large fall in sales (to 514 tonnes). Because these large changes in sales are not believed to have accurately represented consumption during these two years, Anses believes a better estimate of the most recent usage level is obtained by taking an average over these two years (i.e. 650 tonnes).

The overall use of antibiotics classified as “critically important in human medicine”, the fluoroquinolones and 3rd and 4th generation cephalosporins, remains quite high in France.

Furthermore, the farm use of the antibiotic colistin, which is now a last-resort antibiotic in human medicine for certain life-threatening infections, remains very high in France. The average total use of polypeptides in 2014/15, the class of antibiotics containing colistin, was 41 tonnes (sales were 51 tonnes in 2014 and 31 tonnes in 2015). This is about 40 times more than the total human consumption of colistin throughout the whole of the EU.

Data from the European Medicines Agency shows that a large majority (approximately 90%) of farm antibiotic use in France is for mass medication, in animal feed or drinking water [2].

Comparison with other EU countries

The most recent statistics for all EU countries are for 2014, and in 2014 farm antibiotic use in France was below the EU average. Sales are calculated in terms of weight of active ingredient per unit of livestock (the EU unit of livestock is called a “Population Correction Unit” or PCU), and use in France was 107 mg/PCU, whereas the average for 29 European countries (EU/EEA) was 152 mg/PCU.

The latest data from Anses giving the average use for 2014/15 are 17% lower than the 2014 figure. The Anses data are not given in terms of mg/PCU, but these data do suggest that the real French level for 2014/15 in terms of use per PCU is actually about 89 mg/PCU.

Despite these ongoing French reductions, use in France remains much higher than in the Nordic countries (Norway 3.1 mg/PCU, Iceland 5.2 mg/PCU, Sweden 11.5 mg/PCU, Finland 22.3 mg/PCU, Denmark 44.2 mg/PCU) [2]. With the exception of Denmark, in all of these Nordic countries most

farm antibiotics are used for individual treatments. Use in France is nevertheless lower than in Germany (149 mg/PCU in 2014 according to ESVAC, but latest German data for 2015 show a large cut in 2015 to about 97 mg/PCU in 2015 [3]) and much lower than in Italy (360 mg/PCU) and Spain (419 mg/PCU).

Care must be taken when comparing internationally, as antibiotic use is different in different species. Usually, intensively farmed species like pigs, poultry and veal calves (when they are intensively farmed) have very high antibiotic use, whereas extensively farmed sheep and cattle raised on pasture tend to have much lower antibiotic use. So countries with different proportions of different species can be expected to have different use levels.

Ideally, international comparisons should be by species, but most countries do not produce such data. Some countries, like France, Denmark and the Netherlands do produce species data, and compared with these countries French use is very high. See Table 2.

Table 2 Antibiotic use in different species in France, Denmark and the Netherlands (kg/PCU)[1][4][5]

	France (2014/15)	Denmark (2015)	Netherlands (2015)
Pigs	129	46	53
Poultry	123	21	45
Cattle	47	32	83

Regulatory situation in France

In France, as in the rest of the European Union, since 2006 antibiotics cannot be used for growth promotion and a veterinary prescription is always required.

However, most European countries, including France, still permit antibiotics to be used for routine disease prevention. This means, for example, that it remains legal for a prescription to be written for mass medication of animals (usually pigs or poultry) via feed or drinking water, even in situations when no disease has been diagnosed in any of the animals.

Routine preventative use is no longer practiced in the Nordic countries and the Netherlands, which is why these countries have lower levels of antibiotic use than France and most of Europe.

The French government's "Agence nationale de sécurité sanitaire de l'alimentation, de l'environnement et du travail" (Anses) recommended in 2014 an end to routine preventative use [6][7]. Anses recommended that group treatments be limited to situations where a disease outbreak had already occurred and there was a possibility the disease was likely to spread ("metaphylaxis"). However, this recommendation does not appear to have been implemented.

Since April 2016

(<https://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000032251629&categorieLien=id>), new restrictions have been put on the use of antibiotics classified as "critically important". These antibiotics can now only be used for treatments of sick animals, or for metaphylaxis, and can no longer be used for prevention (also called prophylaxis). Critically important antibiotics can also now only be used if sensitivity testing of the infectious bacteria shows that other, less important antibiotics are unlikely to be effective.

National action plan

The French government's 2012 "National Action Plan for the Reduction of the Risks of Antibiotic Resistance in Veterinary Medicine" has set a target to achieve a reduction of 25% in use over five

years (2012 to 2017) by developing alternatives capable of protecting animal health while avoiding recourse to antibiotics [8].

However, even achieving such a reduction would still mean that consumption in France would be significantly higher than in the Nordic countries.

What still needs to be done

France should implement Anses's recommendation to ban routine preventative use. The European Parliament has also voted to ban routine preventative use of farm antibiotics, but this needs to be accepted by the Council of Ministers in the upcoming trilogue on Veterinary Medicines Products Regulations. France needs to support the European Parliament's position and implement a ban without further delay.

Positive action has been taken by France on the antibiotics it classifies as critically important in human medicine. However, action also needs to be taken to ban all use of the antibiotic colistin which is very widely used in French farming.

Less intensive farming systems, which promote animal health and welfare need to be encouraged. Intensively farmed veal calves, pigs and poultry all have high levels of antibiotic use in France.

An example of how less intensive farming practices, focused on animal health, can reduce antibiotic use is provided by a recent study of the French, Belgian, German and Swedish pig industries [9][10]. It found that the median number of antibiotic treatments was nearly 7 times higher in France than in Sweden (and in Belgium and Germany the number of treatments was even higher than in France). A major reason for the lower use in Sweden appears to be later weaning of piglets, which is likely to lead to fewer problems with post-weaning diarrhoea. In Sweden, the median age of weaning was found to be 35 days, whereas in France, Belgium and Germany it was between 22 and 25 days. In France, Belgium and Germany, antibiotic use in weaners was extremely high and accounted for most use throughout the pigs' lives. In contrast, median antibiotic use in Swedish weaners was over 100 times lower.

Pig farmers in France, and most EU countries, can wean as early as 21 days. Council directive 2008/120/EC mentions an official weaning age of 28 days, but allows weaning at 21 days when certain minimal requirements are met. In contrast, in Sweden weaning is not legally permitted before 28 days. French animal-health and welfare laws should be amended to ensure a later weaning age.

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