

Good practices to reduce the use of antibiotics and/or antimicrobial resistance by supporting healthy and productive livestock submitted by NEPLUVI (Association of Dutch Poultry Processing Industries)

The long-term goal of the implemented Dutch program is reduction of antimicrobial (multi) resistance with the focus on antibiotics, the route followed however is reduction of the use of antibiotics and, when needed, thoughtful use.

0. Name of the practice/initiative/program and its location:

- Reduction program on the use of antibiotics in the Dutch poultry sector.
- A national program based at the poultry platform organisation AVINED.
- A close collaboration between all the organisations in the production chain (LTO/NOP, NVP (organisations for poultry farmers), COBK (organisation for breeders and hatcheries), NEPLUVI (organisation for the poultry processing industries), ANEVEI (association for the egg industries), all organised within AVINED), feed industry (Nevedi), veterinarians (KNMvD) and the government (Ministry of Agriculture and the Ministry of Public Health).
- There is a further tuning with the Dutch pig sector, veal calve sector, dairy sector.

1. Livestock species, farming system and type of antimicrobial targeted:

- All poultry species:
 - ✓ Broiler sector: rearing (grand)parent stock, production (grand)parent stock, broilers
 - ✓ Egg sector: rearing (grand)parent stock, production (grand)parent stock, rearing layers, layers
 - ✓ Turkeys

The use in duck production is very low, there is no active program in place yet

- All antibiotics.

2. Scale of the initiative (farm level/regional/national):

National

3. What is the main focus of the practice (you may tick more than one):

- Incentives for change,**
- Education and training,
- Animal management and livestock husbandry systems**

4. Who is responsible for the implementation of the practice (please name):

- Private sector (company/farmer)**
- Farmer's organisations**
- Veterinary/extension service**
- NGO
- Intergovernmental organisation
- Government**
- Other

This depends on the part of the program. The program is a cooperation between sector

(organisations and private), veterinarians and government. Each party involved has responsibilities. In general: farms and vets are classified by AVINED. Farmers and the veterinarians with a high use of antibiotics have to work together to reduce the use of antibiotics on farm (private responsibilities). Animal health research and programs: this is the responsibility of the farmers and other branch organisations. In the collaboration with the Government agreements have been made: an example: the ministry of Agriculture has forbidden the preventive use of antibiotics.

5. Is there evidence available of the effect/outcome of the practice (if so please describe):

a. Reduced use of antimicrobials

- broilers: reduction 72% in 2017 since the start of the program in 2009
- rearing (grand) parent stock: 25% since the start of the program in 2011
- parent stock: a stable and low use of antibiotics
- Egg sector: a stable and very low use of antibiotics
- Turkey: reduction of 50% since start program in 2011.

b. Reduced antimicrobial resistance

Annual report official monitoring of antimicrobial resistance in farm animals (MARAN).

- A general conclusion of the 2017 report: *The ongoing reduction of antibiotic use in livestock in the past seven years is reflected by the ongoing reduction of antibiotic resistance in animals and the food thereof.*
- ESBL's on chicken fillets: a decreasing trend: from 83% in 2012 to 24% in 2016.

https://www.wur.nl/upload_mm/b/0/1/74ce6009-b112-428d-aeb7-99b95063aab6_Maran%20report%202017.pdf

c. Increased or reduced clinical disease (other health parameters)

There is no data available that allows us to answer this question.

There is no indication of increased disease problems and innovations seem to increase the health status of the birds

d. Rise or decline in animal productivity

There is no data available that allows us to answer this question. There is no indication of decline in production and innovations seem to have a beneficial effect.

e. Altered residue level in animal product(s)

There is no altered residue level in animal products. Since long there is a program in place and the level of residues is during the AB reduction program close to zero.

New in the approach by the sector is the introduction of a system to verify the use of AB during the growth/production of the birds as registered.

6. Brief description of the scope of the activities and of the activities as such:

(e.g. number of farms/animals targeted, more detail description of the farming systems and the measures taken)

- All poultry farms (2.600): registration of all antibiotics delivered on farm (within two weeks after delivery) in a central database by the veterinarians. The data are

combined with the sector data on the farms and flocks (all flocks are in a register from start to finish).

- All poultry farms: contract between one farmer and one vet.
- All poultry farms: mandatory farm health plan (yearly) and animal treatment plan (yearly) drawn up by farmer and vet.
- Voluntary agreement by all hatcheries: no use of antibiotics in the hatchery.
- Guidelines for the prescription of medicines (KNMvD): first choice, second choice and third choice. These guidelines have become standards. In the reduction the reduction of third and second choice gets extra attention.
- Preventive use of antibiotics is forbidden (government rule).
- Benchmark reports for poultry farms and veterinarians (ever 6 or 3 months)
- Benchmark reports for hatcheries and feed suppliers
- Classification of farmers and vets (red, orange, green category): this is valid for all farmers with broilers, rearing (grand) parent stock and turkeys.
- The categories are proposed by the experts of the Veterinary Medicines Authority. A new institution to support the reduction of AB use.
- Broiler farmers in red or orange categories have to take action. This is valid for farmers that participate in the quality program IKB Kip (90%).
- Mandatory improvement plan after every use of a third choice antibiotic (in fact fluoroquinolones) an after the use of colistine.
- Research on animal health and AMR.
- Sectoral monitoring of correct use and correct registration of antibiotics. Samples on 10% of the farms ever year (feathers, manure, water). Samples are analysed on more than 100 antibiotics.

7. Website or link to supporting documents:

- Sector report in the use of antibiotics in the Dutch poultry sector 2016 (Dutch): <https://www.avined.nl/sites/www.avined.nl/files/sectorrapportage2016.pdf>
- Report on the use of antibiotics in all animal production sectors (English): <http://www.autoriteitdieregenesmiddelen.nl/Userfiles/Eng%20rapport%20AB%202016/engels-def-rapportage-2016-deel-1-en-2-22-09-2017.pdf>
- Reduction programs 2016 – 2020 and previous plans (Dutch): <https://www.avined.nl/basic-page/antibiotica-aanpak>

8. Are there any other side effects found?

Stimulation of innovation is a side effect of program in place:

Hatchery systems with early feeding and drinking possibilities and developments in the feed composition of feed used for early feeding.

Farm management especially during the first week seems to have improved

The veterinarian is getting a better role in supporting the farmer (“gate keeper”)