

# FARM ANTIBIOTIC USE AND HUSBANDRY

THE NEED FOR BETTER ANIMAL HEALTH AND  
WELFARE



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## Europe's regulation of farm antibiotics leads the world

- Antibiotic growth promoters have been banned in the EU since 2006.
- On 28 January 2022, a new EU Veterinary Medicines Regulation comes into force which will:
  - ban all routine farm antibiotic use.
  - ban all preventative group treatments in livestock.
  - draw up a list of antibiotics that cannot be used in farming at all.

## Is the European Union's strategy working?

### Yes:

- Sales of veterinary antibiotics in Europe down by 34% during 2011–18.
- Further falls in use in some countries are likely in coming years.

### No:

- ~ 65% of antibiotics used in Europe are used in animals (JIACRA 2017).
- Farm antibiotic use remains extremely high in some EU countries.
- Group treatments still account for 88% of farm antibiotic use in Europe.

**What about improving animal husbandry and animal health?**

**There is clear evidence that farming systems with higher animal health and welfare can eliminate most antibiotic use.**

## Slower-growing chickens use fewer antibiotics

- Standard broilers are slaughtered at 32-40 days old.
- Slower-growing breeds are used for free-range (56 days) and organic production (81 days).
- In the Netherlands, slower-growing breeds (45–49 days) are used for supermarket production but standard breeds used for export and the food-service industry.

### Antibiotic use in Dutch broilers 2019

(defined daily doses animal per animal year)  
(SDa 2000)

| Standard broilers<br>(32-40 days) | Slower-growing<br>broilers<br>(45-49 days) |
|-----------------------------------|--|
| 13.1                              | 2.3  |

Slower-growing birds in Netherlands  
are also kept with lower stocking density

# Antibiotic use in organic, free-range and intensive pig production in Denmark

Pigs farms 2016 – 2018, daily doses per 1,000 animal days (Nielsen et al. 2021)

|                  | Organic | Free-range non-organic | Indoor (intensive) | Indoor/organic ratio |
|------------------|---------|------------------------|--------------------|----------------------|
| Sows and piglets | 1.1     | 4                      | 16.5               | 15                   |
| Weaning piglets  | 4.8     | 33.7                   | 72                 | 15                   |
| Slaughter pigs   | 2.88    | 8.3                    | 10.5               | 3.75                 |

Minimum weaning age: 21 days indoor intensive, 30 days free-range, 40 days organic

“It seems logical to suspect, that not only strict regulations on antibiotic usage but also improved health related to conditions like being born outdoors, higher weaning age and lower stocking density have an effect on antibiotic usage.”

[...]

“A significant reduction in antibiotic use in pig production would require housing and management changes or regulatory changes in the conventional indoor system.”

## Later weaning and less intensive husbandry help achieve much lower antibiotic use in Swedish pigs

Mean antibiotic treatment per 1,000 pig days (Sjolund et al. 2016)

|                       | Belgium | France | Germany | Sweden |
|-----------------------|---------|--------|---------|--------|
| Suckling piglets      | 175.6   | 59.1   | 245     | 76     |
| Weaning piglets       | 407.1   | 374.3  | 633.4   | 21.4   |
| Fattening piglets     | 33      | 7.3    | 52.9    | 6.1    |
| Entire growing period | 142.9   | 108    | 242.8   | 22.7   |

Mean weaning age

| Belgium | France | Germany | Sweden |
|---------|--------|---------|--------|
| 23.5    | 24     | 24.4    | 35     |

# Antibiotic use in intensively reared veal calves far higher than in extensive beef production

## Antibiotic use in Dutch cattle in 2019 (SDa 2000)

(defined daily doses animal per animal year)

| Suckler herds | Beef | White veal | Rosé veal combination |
|---------------|------|------------|-----------------------|
| 0.6           | 1    | 17.4       | 16.4                  |

## Antibiotic use in Belgian cattle (Catry et al. 2016)

(daily doses per 1,000 animal days)

| Beef cattle (extensive) | Veal calves (intensive) |
|-------------------------|-------------------------|
| 5.4                     | 142                     |



# Survey of antibiotic use by British organic farmers certified by the Soil Association

Antibiotic use on organic Soil Association-certified farms compared with non-organic national averages (ASOA 2021)  
(mg of active ingredient per kg of PCU, for layers doses per bird days)

|                         | Overall | Dairy | Beef | Sheep | Broilers | Pigs | Turkeys | Layers |
|-------------------------|---------|-------|------|-------|----------|------|---------|--------|
| <b>National average</b> | 31      | 22.5  | 24.4 | 16.7  | 17       | 110  | 42      | 0.68   |
| <b>SA average</b>       | 7.46    | 10.66 | 7.22 | 3.33  | 2.95     | 1.42 | 0       | 0      |

Number of organic farms in survey:

57 Dairy cattle, 119 Beef cattle, 93 Sheep, 18 Pigs, 6 Broilers, 1 Turkeys, 14 Laying hens.

## Will Article 107.1 of new EU Regulation be applied?

Article 107.1 of new EU Veterinary Medicines Regulation 2019/6 says:

**“Antimicrobial medicinal products shall not be applied routinely nor used to compensate for poor hygiene, inadequate animal husbandry or lack of care or to compensate for poor farm management.”**

Are these just words or will this be applied?

# **A true One Health approach to antibiotic resistance would aim to improve animal health and welfare**

**Factors which can improve animal health and drastically reduce antibiotic use include:**

- **Access to the outdoors.**
- **Lower stocking densities.**
- **Use of appropriate, resilient breeds.**
- **Later minimum weaning ages for piglets, calves and sheep.**
- **Appropriate diets.**