

*Friskare kor för klimatets skull NMSM 2019*

# **Friska kor behöver inte antibiotika**

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*(Public funded only)*

# Anknytningen till dagens tema och världen



***"A move away from 'grain fundamentalism' to higher quality milk, meat and egg calories to fight malnutrition",  
CGIAR, 2018***

UNICEF beräknar att 149 miljoner barn i världen är *"stunted"*



Mjölksprodukter reducerar förekomsten av *"stunting"*

Vietnam, Lien et al., 2009; Bangladesh, Choudhury and Headey, 2018

# Produktiva djur, emissioner och djurhälsa

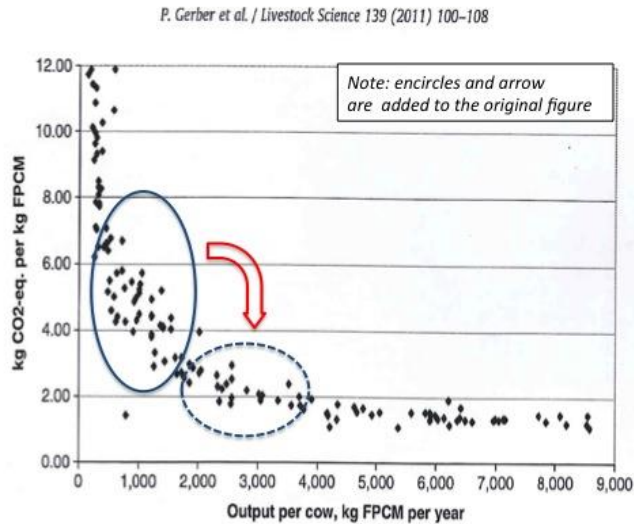


Fig. 5. Relationship between total greenhouse gas emissions and output per cow. Each dot represents a country in the database.

Mycket stor variation mellan länder vad gäller effektivitet. Beror på skötsel, hälsa, foder och gener.



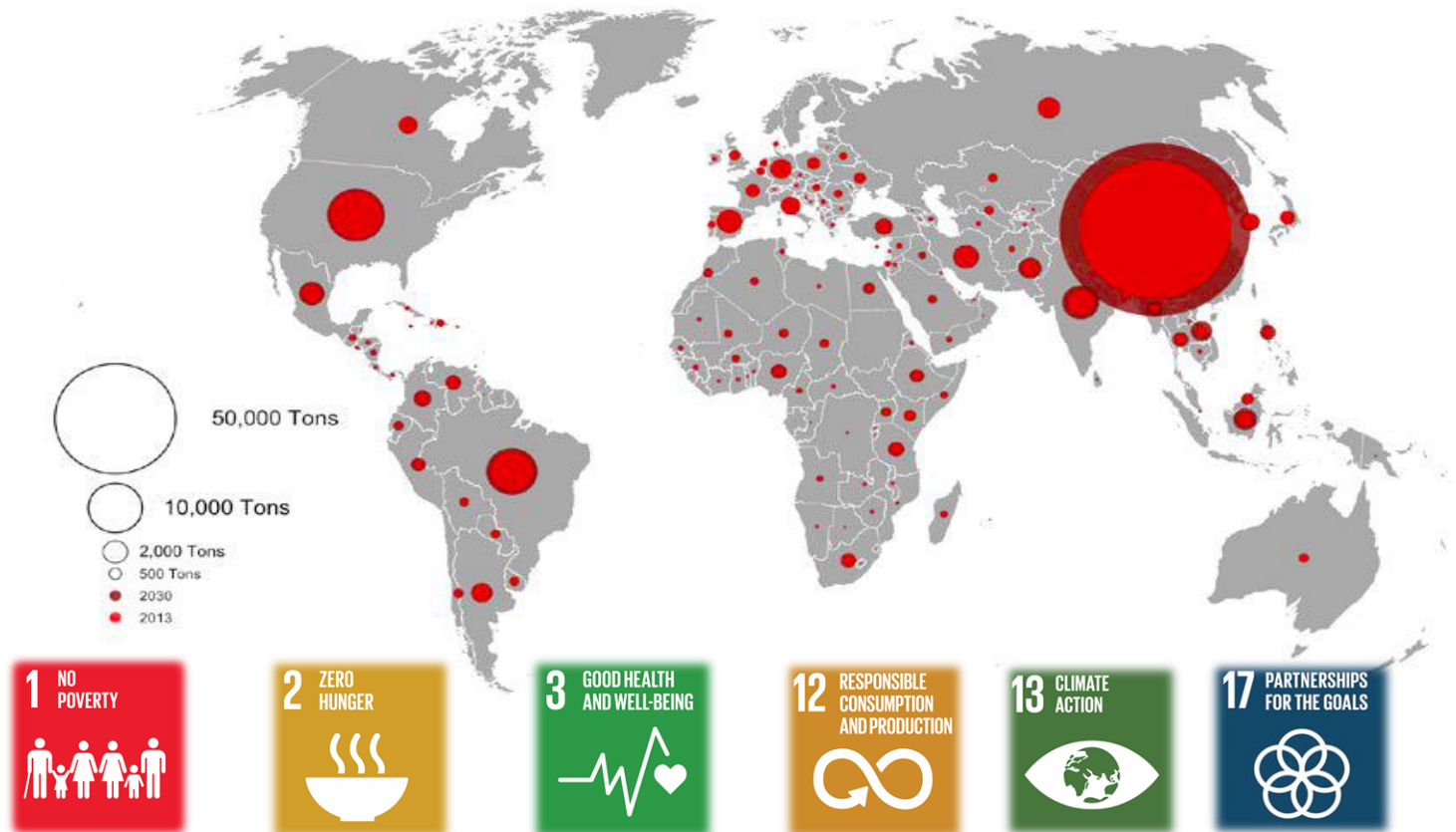
*“..animal-sourced food produced in resilient, sustainable & low-GHG emission systems present major opportunities for adaptation & mitigation while generating significant co-benefits in terms of human health”*

ipcc, augusti 2019

**Friska djur** producerar mer mjölk, ägg och kött per emissionsenhet!

# Djurhållningen och AMR

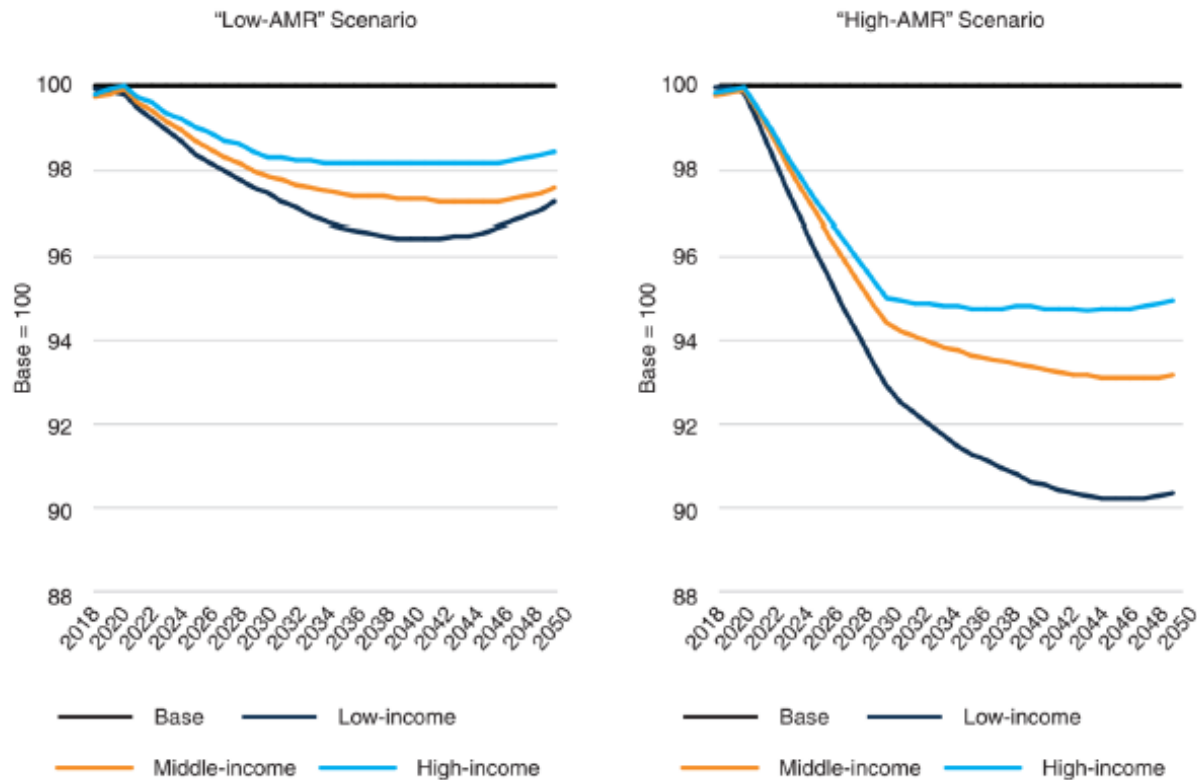
Djurhållningen bedöms vara den största användaren av antimikrobiella läkemedel globalt, f.f.a. p.g.a. förebyggande användning och som tillväxtbefrämjare



**Fig. S9.** Antimicrobial consumption for food animal production by country, in 2013 (light red) and projected for 2030 (dark red). Van Boeckel et al., 2017

# Utveckling och spridning av antibiotikaresistens hotar produktivitet och produktion globalt

**FIGURE 5.** Decline in Livestock Production Could Be Substantial and Most Pronounced in Low-Income Countries



World Bank, 2016

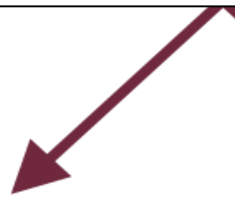
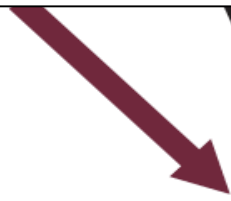
# Länken mellan djurhållning och människor



*"Interventions that restrict antibiotic use in food-producing animals are associated with a reduction in the presence of antibiotic-resistant bacteria in these animals.*

*A smaller body of evidence suggests a similar association in the studied human populations, particularly those with direct exposure to food-producing animals.*

*The implications for the general human population are less clear, given the low number of studies."* Tang et al., The Lancet Planetary Health, November 2017





# Förskrivningen av läkemedel

*Table 6. Antimicrobial prescriptions required*

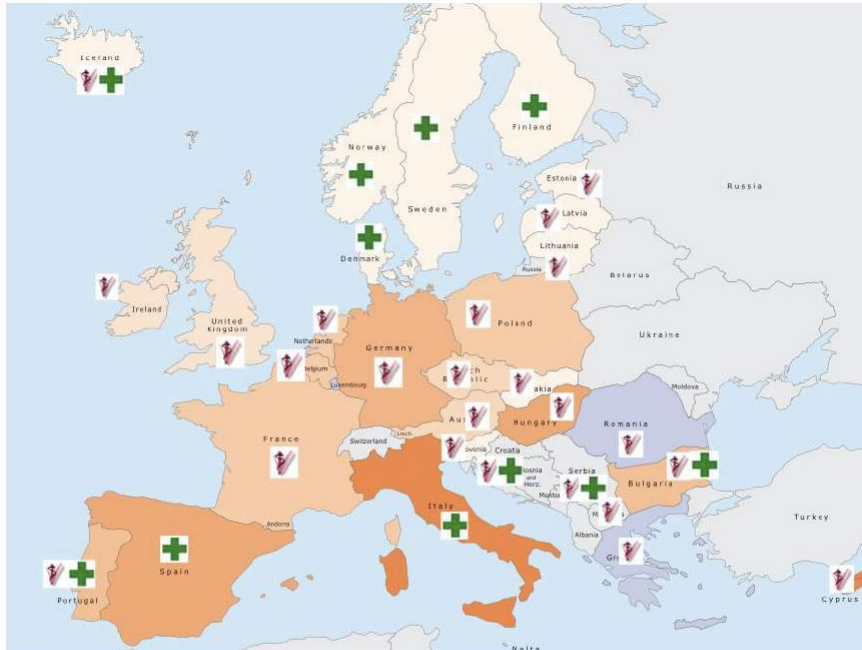
World Bank income group	Yes, in all cases	Number of countries
High income	42 %	12
Low income	9 %	11
Lower middle income	20 %	20
Upper middle income	48 %	27

Data from 70 non-EU countries  
European Commission, 2017






# Försäljningen av veterinära läkemedel

I flera länder kommer läkares och veterinärers inkomster till stor, eller största, del från försäljning av läkemedel. “*A perverted incentive*”?



On this map, the lighter-coloured countries in the north of Europe are the lowest consumers of antibiotics in relation to the biomass (< 50 mg/kg). The darker-coloured countries are the highest consumers. No data were available for the countries in purple or grey. Icons show whether medicines are mainly dispensed by veterinarians or pharmacists:

-  : veterinary medicines are (nearly) exclusively dispensed by pharmacies;
-  : veterinary medicines are (nearly) exclusively dispensed by veterinarians;
-  : pharmacists and veterinarians hold comparable market shares.

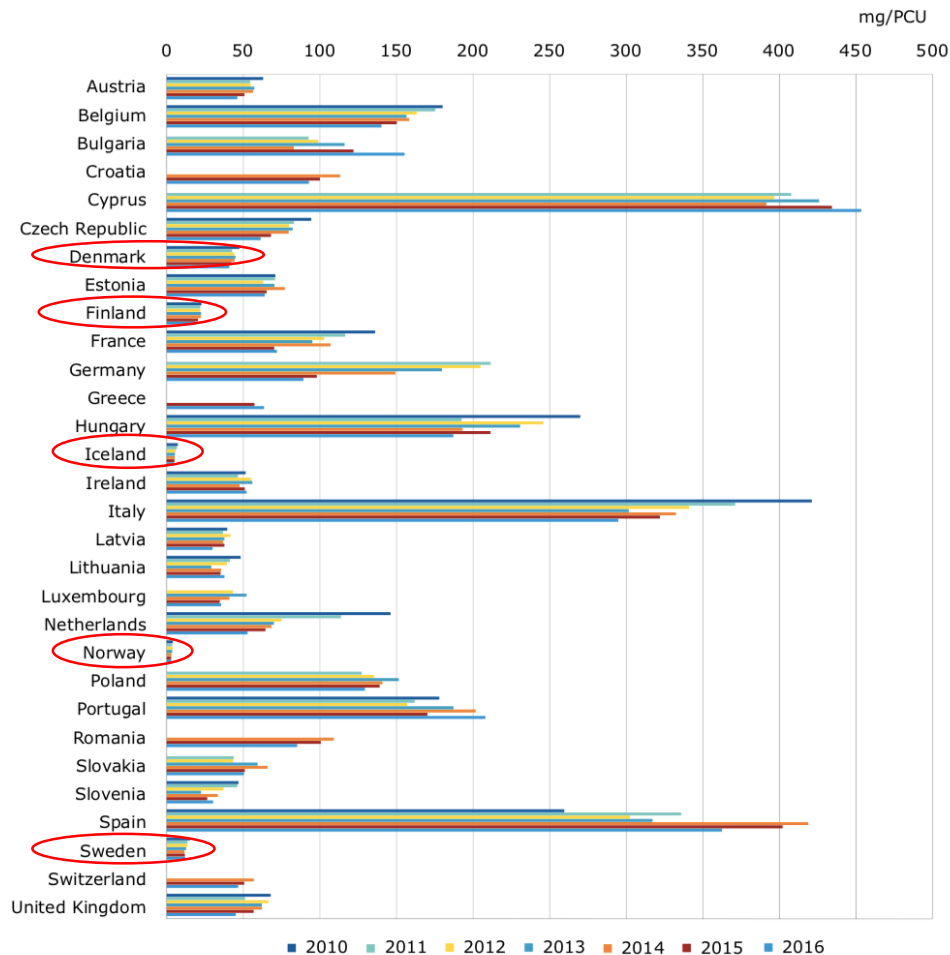
Sources: ESVAC 2013; *Semaine Vétérinaire* special issue n°1565 and 1566 (20-27 December 2013).

FVE, 2015

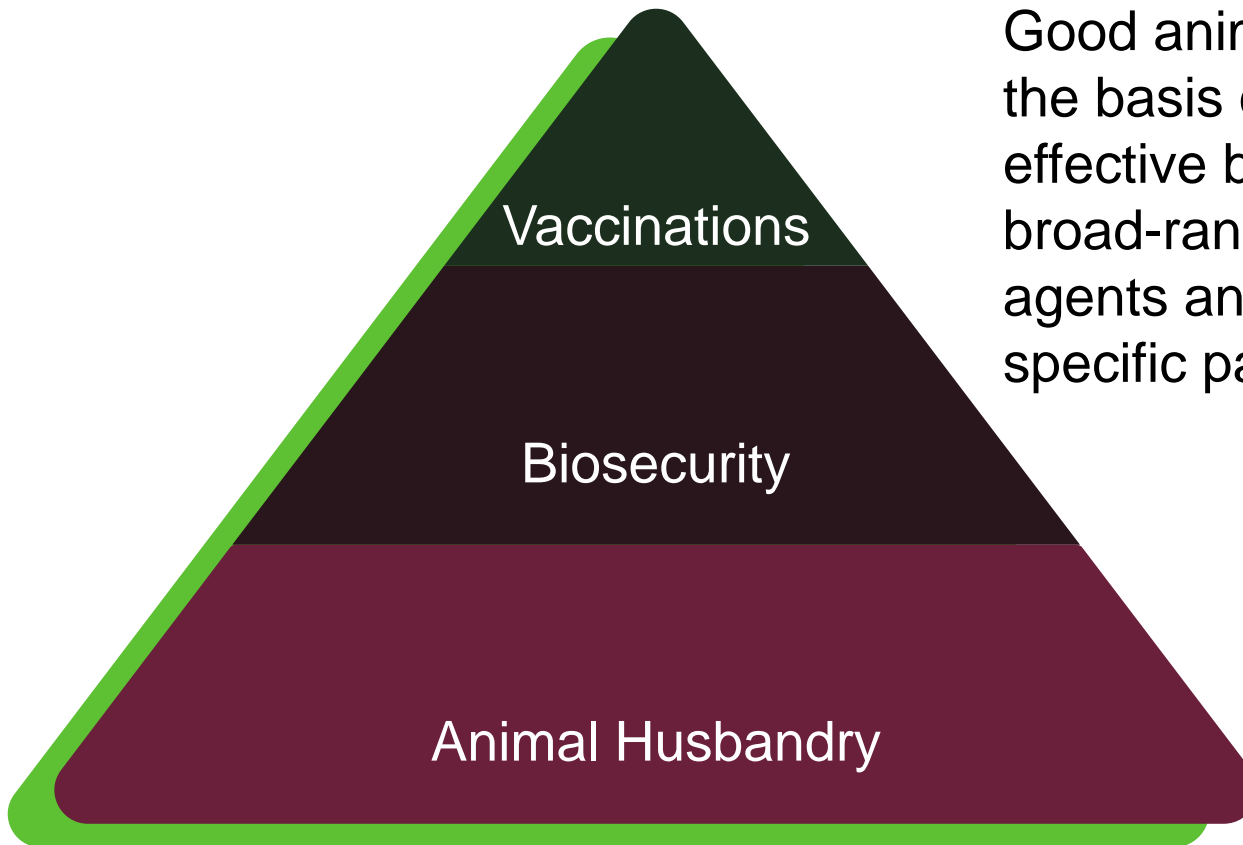


# Försäljningen av antimikrobiella veterinära läkemedel för livsmedelsproducerande djur i de Nordiska länderna är lägst i Europa

**Figure 33.** Total sales of veterinary antimicrobial agents for food-producing species, in mg/PCU, from 2010 to 2016, for 30 European countries<sup>1-8</sup>



# Professionellt djurhälsoarbetet minskar behovet av antibiotika – sjukdomsförebyggande åtgärder är nyckeln



Good animal husbandry forms the basis of disease prevention, effective biosecurity act as a broad-range filter of infectious agents and vaccinations target specific pathogens.

Här gör mjölk-  
producenter  
ett utomordentligt  
arbete!

Och när antibiotika används skall den användas ansvarsfullt och på ett medicinskt rationellt sätt. Generella rekommendationer:

- *use only quality-controlled drugs and*
- *avoid antibiotics critical for humans,*
- *treat only for therapeutic purposes and*
- *strive for treating animals individually (except for poultry),*
- *treat only after a proper clinical diagnosis (if needed after microbiological diagnosis),*
- *use only antibiotics adequate for the diagnosis and*
- *in correct dosage and duration, and finally,*
- *respect withdrawal periods.*

# Funkar det?

Trait (National data)	1989	2018
Sales of Ab mg/PCU (all farm animals)	32	12 *
Resistance (Pencillinase+ <i>Staph. A.</i> )	8-10%	2%
Incidence treated mastitis	25% **	7%
ECM Kg Milk/cow/year	7 500	10 250

\* 2016, \*\*2004

Sources: ESVAC, SVA/SVARM, Växa

Produktivitet 👍  
Ekonomi...

## Nordic Guidelines for Mastitis Therapy

Agreed in unanimity at The NMSM Annual Conference  
June 12, 2009, Ideon Science Park, Lund, Sweden

### General policy

- Only acute clinical mastitis cases should be chosen for treatment decision.
- Subclinical mastitis in general has too high self-cure or too low cure rate in proportion to the treatment costs during lactation.\*
- Subclinical mastitis should instead be treated during the dry period.
- Pronounced restrictive use should be regarded for *cephalosporins* and *quinolones*.

\* *Exception from this rule could be made in herds during eradication of *Streptococcus agalactiae*.*



**NMSM**  
Nordiske Mælkorganisasjoners  
Samarbejdsråd for Mjølkeavltesarbeid



## Guidelines for the use of antibiotics in production animals

*Cattle, pigs, sheep and goats*



The Swedish Veterinary Association



## The Livestock Antimicrobial Partnership - LAMP

LAST CHANGED: 06 MAY 2019

The Livestock Antimicrobial Partnership, LAMP, is an action network that works with tackling microbial resistance by drawing on practical experience and knowledge from its partners in different parts of world.

On-line course

”Effective Livestock

Contact: s



**GLOBAL AGENDA FOR SUSTAINABLE LIVESTOCK**

### Good practices for responsible use of antibiotics

-addressing antimicrobial resistance by supporting healthy and productive livestock (version 1.0)

**THE LIVESTOCK ANTIMICROBIAL PARTNERSHIP**

This is a presentation of practises and cases from small scale production in Sub-Saharan Africa, poultry production in high-income countries and mastitis prevention in dairy production.

The emergence of antimicrobial resistance (AMR) is a threat to the advances that have been made in human health and well-being over several decades. In addition, food security is put at risk, as our livestock's health and welfare depend on effective treatment options. Scenarios estimate that AMR

#### Key messages

In this first version of the Livestock Antimicrobial Partnerships' *Good practices*, we display practices and some cases from different livestock systems around the world aimed to reduce antibiotic use and maintain or improve animal health.

- In low-income countries the access to animal health service and quality pharmaceuticals are identified as a major challenge.
- The majority of the practises submitted to LAMP are from producers' organisations.
- Where a reduction in use of antibiotics has been implemented by applying these practises, it is indicated that the profit of the production is not severely affected.
- However, combined and reliable records of antibiotic use, antibiotic resistance, animal health and productivity are rare.
- Thus, the "good" of practises are sometimes lacking evidence from the field.



st  
antibiotics