LESS IS MORE

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The use of antibiotics in animal husbandry has declined over recent years. This is important in the fight against resistant bacteria that may also enter humans through food.

Whether at the hospital or in the barn, antibiotics come into play when people and animals become ill from a bacterial infection. The extent to which antibacterial medicine is used in animal husbandry is also important for human health. In an annual report, the German Federal Institute for Risk Assessment (BfR) assesses the frequency of antibiotic treatment and the consumption quantity in animals raised for meat production.

DOWNWARD TREND

The development of antibiotic use in the meat production of calves, cattle, piglets and pigs, chickens, and turkeys is analysed and assessed in the BfR reports. Results for 2022 show that numbers are sinking particularly among the animal species with a high level of use in the past.

“This is good news,” says Dr Matthias Flor, a biologist at the BfR. He describes his analysis of the data: “In comparison to the previous year the consumption quantity of antibiotics in the studied animal groups has declined by 12 percent.” The decline was strongest in piglets and turkeys for meat production. Treatment frequency has also declined, again most significantly in piglets. How this continues to develop in 2023 will be revealed in the next report, due to be published in August 2024.

The downwards trend is an important step in the fight against resistant bacteria. “The use of antibiotics leads to bacteria ‘arming’

themselves and becoming increasingly resistant," explains Flor. This is also an important issue for the general public: more than half of those asked in the BfR surveys regularly state that they are concerned about antibiotic resistance.

SLOWING DOWN RESISTANCE

We can encounter resistant pathogens in different places: MRSA germs (Methicillin-resistant *Staphylococcus aureus*) in hospitals, salmonella and *campylobacter* on food. They are especially found on raw poultry meat. While sufficient cooking and frying kills off the bacteria, they can still cause infections or transmit resistance to other bacteria in the human intestine if they come into contact with other food such as salad or bread. If the pathogens and their resistant genes spread, they become a problem, as it is possible antibiotics will no longer work.

The reduced use of antibiotics – in both animal husbandry and in medicine – can lower the long-term risk posed by resistant bacteria. They are a prime example of how closely human, animal, and environmental health are connected to each other in multiple ways. The "One Health" concept represents this. In practice, specialists in human and veterinary medicine as well as in environmental sciences are working closely together to counter global challenges such as antimicrobial resistance, new pathogens, and food-borne zoonoses. At the BfR, too, scientists do research on resistance development and participate in international One Health initiatives. —

More information

BfR information
"Antibiotics"

KITCHEN HYGIENE AS A DEFENCE

ANTIBIOTIC-RESISTANT GERMS ARE ALSO TRANSMITTED THROUGH FOOD. 3 TIPS:

Always store raw meat, especially poultry, separately from ready-to-eat food

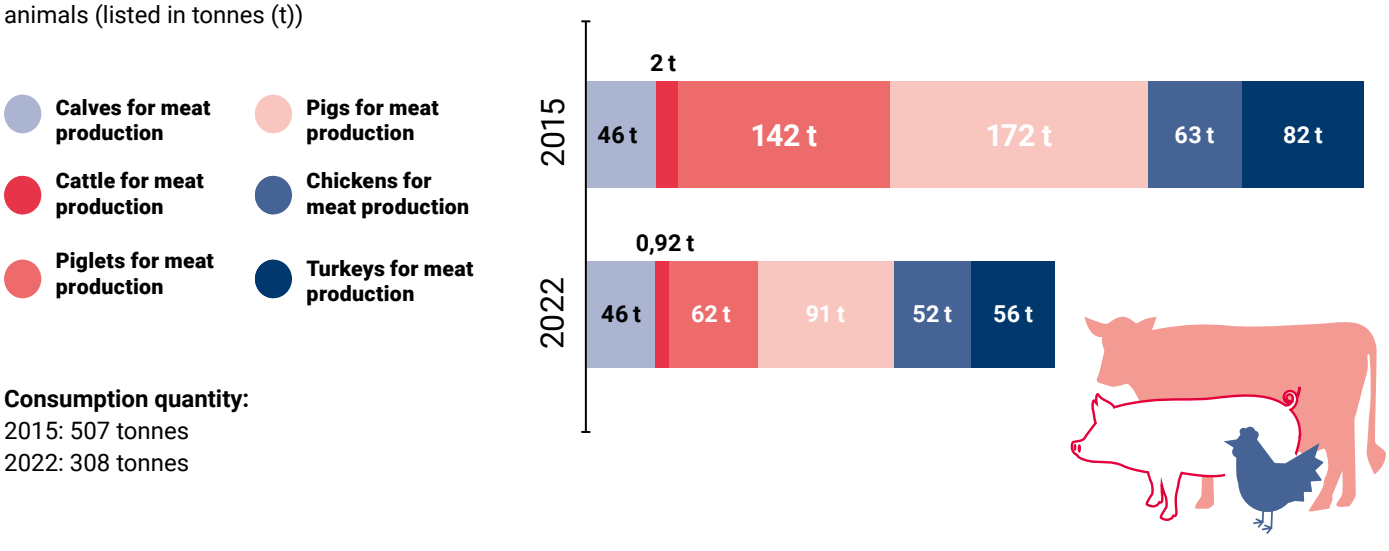
Thoroughly wash hands, kitchen utensils, and preparation surfaces after contact with raw animal food products and before preparing other food

Always thoroughly cook meat (70°C for at least two minutes at the centre)

Antibiotics in animals raised for meat production 2015 and 2022

There has been a considerable decrease in the consumption quantity of antibiotics for almost all groups of animals (listed in tonnes (t))

-39 %
decline in antibiotic consumption quantity in animals raised for meat production since 2015



Consumption quantity:
2015: 507 tonnes
2022: 308 tonnes