

Antibiotics in agriculture - What is going wrong in animal health?

The global spread of resistance to antibiotics shows just how closely human and animal health is linked. The World Health Organization WHO thus refers to the concept of "One Health". We asked Stig Tanzmann (Officer for agriculture with Bread for the World, agricultural scientist and state-certified farmer) to explain the links.



Mr. Tanzmann, are antibiotics being used sensibly in German livestock farming?

No, the usage is far too high. This is shown in surveys, particularly in Lower Saxony and North-Rhine Westphalia, where there is a lot of intensive livestock farming. The problems there are obvious: contamination of animals, humans and the spread of resistance.

And the global situation?

Unfortunately, that is even worse. Antibiotics have been used for decades to fatten animals – i.e. not even exclusively for treating disease. This is now prohibited within the EU, but is still practised in parts of the Global South.

Do they not know better?

Yes and no. Usually there is a lack of awareness of the problem. In particular, there is a lack of state regulation that could react to new developments. At the same time in countries of the Global South there is often no formal training to be a farmer as it is in Germany. So the level of knowledge is often too low, and the dangers are simply not known. In addition to this, antibiotics are often freely available without prescription. As in many countries there is a lack of veterinary structures, the people have to treat their animals themselves, using antibiotics at the slightest suspicion of problems. At the same time we must not forget that even here in Europe an awareness for the problems linked with the use of antibiotics in livestock farming is only growing very slowly and only in some areas.

What role is played by global trade?

Global trade with food and animals is only possible if surpluses are produced. Here and in other industrialized countries production is much too intensive and aimed at exports. Livestock farming and production are designed for maximum output. This makes the animals more susceptible to disease, which is complicated by livestock densities that are far too high.

Does this have consequences for the South?

Global trade is putting pressure on prices because the WTO and free trade agreements have opened up the agricultural markets in the Global South. This destroys small enterprises both in Germany and Africa. A traditional small-farm system has no chance of keeping up.

Why not?

The global market prices are often distorted, and contain neither the social nor the environmental costs. As a result of this, agriculture is also often becoming more intensive in the Global South. But the new animal species are bred for Nordic conditions and optimized animal housing, and are not adapted to the tropical climate and the precarious housing conditions.

The animals become ill more frequently and need more antibiotics. The countries in the south are caught between a rock and a hard place. They have a choice: either give up production altogether, lose jobs and make themselves dependent on imports, or continue to engage in unsustainable production.

What is the policy situation in Germany?

Agriculture is highly regulated in Germany and the EU. At the same time, in Germany in particular the retail sector is enormously powerful. The existing problems are therefore mainly the manifestation of flawed policy and a flawed trading structure which are both aimed at producing meat and milk as cheaply as possible. The message to farmers is "produce more, reduce costs, aim at the global market", while the wishes and needs of many citizens have been completely ignored.

And our farmers?

The farmers, of course, bear some of the responsibility but we cannot make them scapegoats. Many farmers have clearly stated in the animal welfare initiative that they would like to work differently. They have been and are still being let down by politics and trade. These are not willing to organize a division of the resulting additional costs or to pass the necessary market regulations.

How can farmers reduce their antibiotics consumption?

The most important measure: improve animal health. This starts with breeding. We need more resistant animals, which, however, is at the expense of output. In the case of poultry, we have two companies that dominate the global market. This is why state programs with different breeding targets would be a good idea, for example for better adapted animal species. In the case of dairy cattle, for example, the emphasis has always been placed on the annual output. We also need to look at the life-time output – healthy animals with less annual output live considerably longer.

Further measures?

Adequate and appropriate feeding reinforces the immune system. The stalls should therefore be designed in such a way that the animals are not too close together and can fulfil their natural requirements. A very important aspect is the cleaning of the stalls; the Global South has a lot of catching up to do in this respect.

Can we as consumers also contribute towards animal health?

Yes, if we eat less meat, fewer animals have to be produced. And we should also pay attention to the production conditions: is the meat from organic production? Does it come from regional producers with small structures focusing on animal health? And it also helps to ask, for example, whether reserve antibiotics are used.

What has to change in German politics?

The One Health initiative of the action program of the Federal Government (DART) is already a positive step. But the registration of the antibiotics consumption has to be improved, not only in terms of the quantities but also in terms of the types of antibiotic and in which dosage, and whether important drugs are being used in animals for human consumption.

Are the ministries all singing from the same hymn sheet?

They need to work harder with respect to the WHO program and become more involved in the WHO process. Not only G7 or G20, as the developing countries have no voice there. Thus there is also improvement potential in the One Health and One World initiative. Projects for the improvement of veterinary medicine provision and advice in the Global South are to be expanded in BMZⁱ. In parts of the BMZ there is also a lack of sensitivity for the issue, in particular with regard to animal production. And unfortunately the agricultural policy of BMELⁱⁱ is too often in conflict with the development policy goals.

What is especially important to you?

Antibiotic resistance is a global problem with a wide range of very different aspects. The developing countries in particular are confronted with a double challenge. Often they have to develop human and veterinary medicine structures in the first place while avoiding all of the mistakes that the northern hemisphere has made in the last few decades and is only now gradually admitting and reviewing.

Mr. Tanzmann, thank you for your assessment.

ⁱFederal Ministry for Economic Cooperation and Development

ⁱⁱFederal Ministry for Food and Agriculture