



Phytotherapy – A strategy to reduce antimicrobial use

A database implemented in Switzerland by the Federal Food Safety and Veterinary Office

Context

Phytotherapy is the use of herbal medicine to treat injuries and diseases. It has been known for millennia and there are animals described that self-medicate themselves with plants. Contrary to homeopathy, the active substances are measurable and the mode of action is proven.

Veterinary herbal medicine describes the use of fresh, dried or conserved plants and produced other preparations. Those can be essential oils, tree saps, starch, wax, mucus or plant milk. These can be extracted by distillation, pressure, fractionation, concentration or fermentation. However, isolated plant compounds are not counted as phytotherapy.

In Switzerland, there is a new document mentioning phytotherapy as one measure to reduce the use of antimicrobials and since 2017 a database providing support for vets to use herbal remedies.

Problem & Solution

Through using a lot of antibiotics in the past, antibiotic resistant microbes have become more prevalent. Therefore, the reduction of antimicrobial use (AMU) is an urgent issue. A possible solution could thus be to first use phytotherapy for diseases of low severity and only refer to antimicrobials in emergencies.

Outcome

Some livestock diseases do not justify antibiotic treatment, neither in terms of their manifestation nor their severity, yet they are often worthy of attention. Complementary medicine expands the available therapeutic options, especially for these diseases.

Phytotherapy should promote healing and strengthen animal health, thus contributing to prevention so that a disease state does not arise in which the administration of antibiotics would then be indicated. In doing so, it works mainly on the skin and skin appendage organs, gastrointestinal tract, respiratory tract or vaginal and uterine mucous membranes.

The therapy benefits from the fact that its multi-substance mixtures usually have both antimicrobial, reducing the adhesion of pathogenic germs to mucosal surfaces (anti-adhesive effect), anti-inflammatory and regeneration-promoting effects. The impact of phytotherapy can be very rapid, e.g. when essential oils are used for spasmolysis in the digestive tract, or it can take several days or weeks, e.g. in the treatment of ulcers on the soles of hooves.

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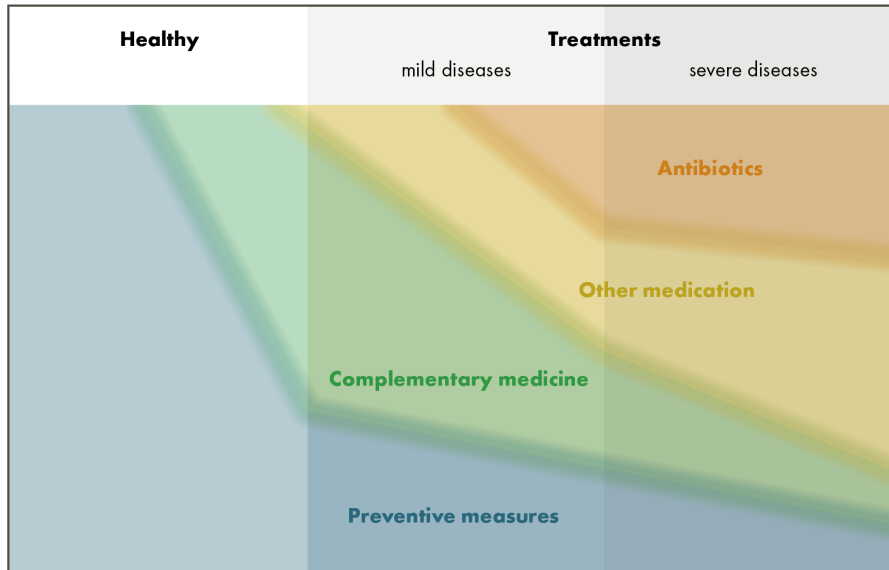
Phytotherapy, Antimicrobials, Animal health, Complementary medicine



Practical recommendations

In case of diseases, instead of referring directly to antimicrobials, the following examples could be used:

- Herba *Echinaceae purpureae* as stimulant for the immune system
- Bulbus *Allii sativi* for antibiotic and anthelmintic properties.
- Folia *Myrtilli* for diarrhoea treatment.



Position of complementary medicine in veterinary management of bacterial infectious diseases.

Illustration by FiBL

On-farm / Market application

A collection of bioactive plant parts can be found listed in the following database, to each entry available products on the marked are listed: <https://www.vetpharm.uzh.ch/perldocs/physyqry.htm>

Herbs, roots, fruits, flowers and leaves for phytotherapy purposes; photo: Thomas Alföldi, FiBL



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