

THE CONCEPT OF "ONE HEALTH" FROM THE PERSPECTIVE OF A FARMER

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REVIEW

Abstract

The concept of "One Health" is very broad, but also a very important one for the entire biosphere. Every day the world's population tends more and more to take a growing interest mainly in its development without caring about how it develops. The main issue is that this way of development shows various negative consequences and impacts. "One Health" approaches are able to spread valuable information for ensuring global health to people, so that they pay more attention, be more careful and conscientious related to biosphere health. Animals are an important component of biospheres linked to our health. Besides the fact that animals are a part of the trophic circuit, they are also a very important source of human diet. On the other side humans show a great influence on farm animals, that's why the population needs to be guided to live healthy and to manage favorable ecosystems for humans, animals and plants. The present study aims to present in brief the concept of "One Health" from the perspective of a farmer related to animal welfare, products and a healthy lifestyle for humans.

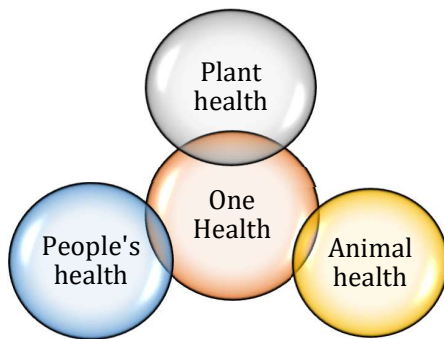
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INTRODUCTION

"One Health" is a particularly well-structured project, with important objectives and very well analyzed. The structure of this project is actually based on the food circuit of plants, animals and humans.

This project says that the health of everyone in this food circuit is dependent on the health of the others.

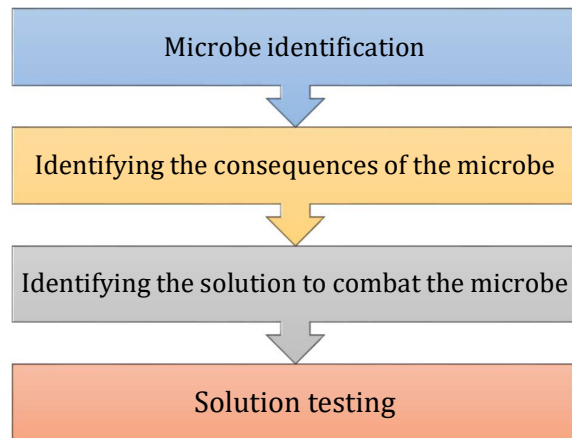


It aims, in addition to informing people about the subject of health, to find solutions where it is needed, and this process requires several steps to be executed.

The first step, and we think that's a very important one, is to identify the negative source

of health. A second step is to analyze all the consequences of the studied source.

A next step is to find a solution to stop the negative source of health, without affecting anything else throughout the microbe circuit. And a final step is to prove and implement the solution found (ILRI, CGIAR, 2023).



Food systems provide essential food products and services for humanity, but at the same time exert pressure on ecosystems and the environment.

Some studies show that total food production would need to increase by at least 60%, to feed a world of over 9 billion people, until the year 2050.

Other studies show that the solution lies not in increasing production, but in, improving food access and distribution, changing diet and reducing food waste.

A HEALTHY LIFE FOR ANIMALS

An important topic in the "One Health" project is animal health. The main health problems in animals, which also affect us humans, are viruses and some diseases.

If we analyze them one by one, we will notice that some viruses are born in animals, later being transmitted to humans, plants or destroying them themselves.

An example of this type of virus is the coronavirus itself, which was born in animals, and subsequently destroyed a huge number of people. Now we can see that this virus was born in a laboratory, so this virus is the result of man. This virus helped us discover that in the future, when a virus will appear, because it will surely appear again, it will be isolated from the beginning to such an extent that it can't spread.

Another measure that should be taken in this situation, is to protect and impose new safety and use measures on all laboratories that handle any risk, regardless of how low risk it may be, in order to avoid any possibility (ILRI, CGIAR, 2023).

Other examples of viruses that were transmitted from animal to human during history are: bubonic plague (also called black death), smallpox, cholera, Spanish flu and many others (PAUL HARTMANN AG, 2023) (Figure 1).

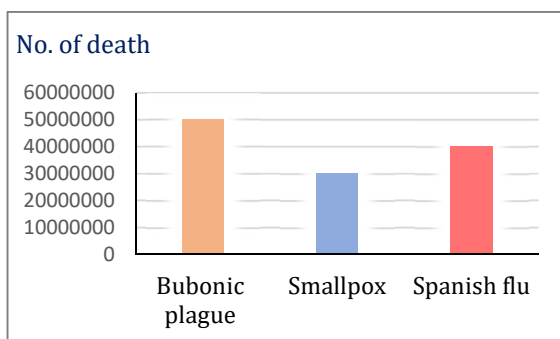


Figure 1 Statistics on the number of people dead from these viruses

If we analyze several animal diseases, we would notice that these are effects of improper nutrition or the living conditions they receive.

Looking to the poorer states, or even a few years ago in Romania, we will notice that we do not find very many large farms, instead we

will find almost in every household a few animals.

This is not the case, on the contrary we would say that it is a very good thing, but the population is not informed, often it does not offer them favorable living conditions or an efficient nutritional, which leads to the production of several diseases to animals.

For this situation, a first solution would be to inform the population about the healthy breeding of animals and to support these people with the necessary ones, because many of them cannot afford to maintain the animals because of the financial problems they encounter.

OUR EDUCATION FROM THE INSTINCTS OF ANIMALS

Every day, the population tends to take more and more in jest the behaviors of animals and consider them without any importance, but we should not forget that animals also have their unwritten laws that help them live.

Now, if we do an analysis, we will notice that there are fewer and fewer people who know general things about animals, that's why we consider this topic to be a very important one.

Everyone thinks we've heard about the horse or the cow, but how many of us know for what reason they sometimes refuse to eat or drink? The answer is a very simple one, when they refuse to eat or drink, it means they are sick. Through this instinct they activate a biochemical process in their body, that helps them, hastening their health. But now we are wondering how this animal instinct would help us?

When we are sick, for some reason, even if we do not have much appetite and even if we go over the laws of animals, we still eat, thus removing that beneficial biochemical process that would help to get healthy. To activate that biochemical process, we should consume only more acidic liquids, such as grape must that contains tartaric acid or cranberry juice that is very rich in citric, malic, quinic and benzoic acid.

Another problem that we face and we could learn from the instincts of animals, would be the one in which we wonder, if it is good to sleep with the window open or not. Looking at animals we notice that many of them sleep in a warmer environment that they often form for themselves. Some examples we have are: hens that sleep with their beak in feathers; horses that put their heads close together to breathe

warmer air, or even penguins that are put in such a way that they can breathe warm air. In conclusion, it is more beneficial for man to sleep with the window closed.

Another instinct of animals is to feed themselves properly. An example of this instinct are the birds that are looking for the harness, necessary for the formation of eggshells during mating, by eating crustaceans or mollusks, hence we should eat only what we need, not everything that arises to us. For example, a person up to twenty-five years of age should eat more developmental products, after, up to fifty years to eat food that help him survive, and after fifty years he should eat food that will help him restore his aging cells (*Jakvis, 1981*).

PRODUCTS OF ANIMALS

Animal products are all the products that an animal produces. Each product contains something specific, more or less beneficial for the human body.

In what follows, we will talk about bee honey. What uses does honey have?

Honey is a product of bees. It contains a multitude of minerals such as iron, copper, manganese, silicon, chlorine, sulfur, calcium,

potassium, sodium, phosphorus, aluminum and magnesium, of course, they all come from the pollen gathered by the bees, and these minerals can vary depending on the type of pollen collected by the bee (*Table 1*).

It has been noticed that, connoisseurs of honey tend to consume much more honey than those who have only some general information about it. Some doctors, who are familiar with bee honey, often include it in the patient's regimens, knowing that it has a multitude of benefits.

According to some studies carried out by bacteriologists, due to the potassium it contains, it does not allow bacteria to survive in it. As a result of the studies carried out by dr. W. G. Sackett, in just a few days, the honey managed to destroy all the pathogenic micro-organisms that were studied at that time. Pathogens of typhoid fever were destroyed, similar pathogens called typhus A and B, pathogens that produce chronic bronchopneumonia and, also, many bacteria associated with large numbers of pathogens (*Jakvis, 1981*).

Other benefits of honey we see in the control of the bladder, the fight against cough, the fight against insomnia, for burns, the nutrition of athletes and much more.

Table 1

Mineral elements in honey (mg/kg)

Item	Honey of very light color			Honey of pronounced color		
	Medium	Minimum	Maximum	Medium	Minimum	Maximum
Potassium	205	100	588	1676	115	4733
Chlorine	52	23	75	113	48	201
Sulfur	58	36	108	100	56	126
Calcium	49	23	68	51	5	266
Sodium	18	6	35	76	9	400
Phosphorus	35	23	50	47	27	58
Magnesium	19	11	56	35	7	126
Silicon dioxide	22	14	36	36	13	72
Silicon	8.9	7.2	11.7	14	5.4	28.3
Iron	2.4	1.2	4.8	9.4	0.7	35.5
Manganese	0.3	0.17	0.44	4.09	0.52	9.53
Copper	0.29	0.14	0.7	0.56	0.35	1.04

Source: <https://www.organichoney.ro/despre-miere/> (A. Vintila, 2020)

CONCLUSIONS

The major challenges facing the promotion and implementation of the "One Health" concept are, among others:

Realization and promotion of licensable techniques and procedures that achieve synergies of the concept's founding domains.

Informing and educating the population, university curriculum appropriate to the concept and complementary qualification of medical personnel.

More than ever, effective cooperative action by specialists in all fields is needed to find the best solutions to ensure a safe future for people, animals, plants, the environment and, in general, for all life. In this we need to consider: diet and nutrition, occupation, lifestyle, agriculture, bioeconomy, biosecurity and bioterrorism.

REFERENCES

- ILRI, CGIAR, 2023. Livestock pathways to 2030: One Health. A series of briefs highlighting seven key areas for governments, investors, experts and policymakers. <https://whylivestockmatter.org/livestock-pathways-2030-one-health#section-women-s-empowerment/>, (accessed on 18.04.2023)
- Paul Hartmann AG, 2023. A look at epidemic pandemics over the years. <https://www.sterillium.info/ro-ro/informatii-medicale/o-privire-asupra-pandemiilor-epidemiilor-de-a-lungul-anilor/>, (accessed on 17.04.2023)
- Jakvis, D. C., 1981. From the secrets of nature, honey and other natural products. The experience and study of a whole life of a doctor. Apimondia publishing house. pp. 17-19, 71, 74, 75, 76-79.
- Vintila, A., Bees, Blog, Honey, Health, 2020. <https://www.organichoney.ro/despre-miere/>, (accessed on 18.04.2023)
- One Health, The New Medical Concept, the security component of human society, 2016. <https://www.roaliment.ro/cercetare/one-health-noul-concept-medical-componenta-securitatii-societatii-umane/>. (accessed on 17.04.2023)