

Reflections on “Sustainable Animal Production”

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The following is an attempt to set the stage for the discussion about “Sustainable Animal Production” to avoid unnecessary arguments due to the fact that individual participants in the virtual conference may mean different things by using the term “sustainability”. These reflections are not meant to come up with the only truth about sustainability, they are just to find kind of an intellectual consensus on how to use the term in the framework of the very timely “Virtual Conference Sustainable Animal Production”.

Sustainability and Sustainable Agriculture

As soon as one starts to ponder upon sustainable agriculture, the question arises as to what the definition of “sustainability” is. Although looking up dictionary definitions is very helpful in most cases, it does not help in the case of sustainability. Neither the latest editions of the contemporary English dictionaries such as the “Webster’s New Encyclopedic Dictionary”, the “Oxford Advanced Learner’s Dictionary of Current English”, nor the latest bilingual English-German dictionaries published by e.g. the renowned Langenscheidt have “sustainability” as an entry word. The same is true for the German term “Nachhaltigkeit”, which is the equivalent of sustainability: there is no such entry in the most current (1990) edition of the Duden, which is kind of the German “language bible”. There is a high probability that dictionaries in other languages lack the term as well.

Looking for a definition, even etymology does not really help: the Latin root of **to sustain** is **sustinere**, which means “to hold up”, “to keep up”, “to maintain”. Since everything can be sustained, growth as well as stagnation, the etymologically derived explanation of the term does not prevent its use both **for** and **against** the same issue.

This lack of a clear definition is especially amazing in the light of the fact that “the word **sustainability** has entered with full force into the deliberations of national and international policy forums”, which is the very first sentence of the foreword of the 1992

FAO Economic and Social Development Paper 110 entitled “Agricultural sustainability: definition and implications for agricultural and trade policy” (1992).

In the absence of a generally recognized definition, any term has the potential to be used for endless arguments without the slimmest chance of consensus. That is exactly what applies to the term “sustainability”, the significance of which is well captured in the foreword to the FAO brochure: “In conjunction with the concept of **development** – a relatively open-ended field of specialty – the usage of **sustainability** becomes an occasion for dispute and even passionate discourse”. One of the reasons why the debate about sustainable agriculture is often overemotional is that any poorly defined term can be misused to pursue special interests. The discussion about sustainable animal production in the U.S. often revolves around “extensive” vs. “intensive”, “small” vs. “big”, “family farmers” vs. “factory farms”, “straw bedding vs. “slatted floors”, “organic” or “natural” vs. “conventional” or “with chemicals” etc.

Before discussing to which extent the supposedly positive terms of the quoted pairs of antonyms such as “small”, “extensive”, “family farmers”, “organic” etc., are relevant components or guarantors of sustainability, it is necessary to agree on defining sustainability in a way that those participating in the discussion can more or less agree upon.

Out of about seventy currently used definitions of sustainable development, the two most widely used ones are:

- 1) **“Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs”**
from the so-called Brundtland report “Our Common Future” of the World Commission on Environment and Development (WCED) in 1987, and
- 2) **“Improving the quality of human life while living within the carrying capacity of supporting ecosystems, with sustainability being defined as a characteristic of a process or state that can be maintained indefinitely”**
from the report “Caring for the earth: A Strategy for Sustainable Living” jointly written by The World Conservation Union (IUCN), the United Nations Environment Programme (UNEP) and the World Wide Fund for Nature (WWF) in 1991.

The general meaning of the two definitions was used for “Agenda 21”, the action plan adopted by the United Nations Conference on Environment and Development held in Rio de Janeiro in 1992.

Sustainable Animal Production

Food is so basic to human well-being that “sustainable agriculture” is the oldest and best-understood of all man-influenced ecosystems. However, the focus has been mainly on cropping systems, since their impact on the environment, on natural resources, on plant biodiversity, and the supply with food staples is more obvious than that of livestock

production. Therefore, little is known and even less published on how animal production should be organized to be recognized as to be sustainable.

Thus, my suggestion is to use the two above outlined definitions of sustainable development for our Virtual Conference on Sustainable Animal Production. And, along with agreeing on how to define sustainable animal production, I think it necessary to agree on the major principles that are directly and indirectly addressed in the two definitions. I suggest that we take into consideration at least the following four principles to make sure that our discussion on sustainable animal production is led in a way that allows for reaching a common ground:

- 1) "...the needs of the present..." and "...the quality of human life..." means **ALL PEOPLE ON OUR EARTH;**
- 2) food for all people on our earth as basic need of the present and the future should not only be available to prevent hunger, but food should be in developing parts of the world **AS ABUNDANT AND SAFE AS FOOD IS IN INDUSTRIALIZED COUNTRIES;**
- 3) "...that can be maintained indefinitely" implies for any production that it is both protecting the resources from degrading **AND ECONOMICALLY VIABLE**, otherwise the production cannot continue;
- 4) to include **ALL** people of our world in the development of sustainable systems, any action (and discussions as well) should be **RANKED FROM GLOBAL TO CONTINENTAL TO REGIONAL TO NATIONAL TO LOCAL** while observing the principle "think globally, act locally"

If these four principles, which to a great extend determine sustainability, are taken into account, it should be possible to prevent arguments that cannot be decided since e.g.:

- one person is thinking in terms of "international free trade with food" and the other person is thinking in terms of "national self-sufficiency with food"; or
- one person is thinking "protecting the family farmer" has the highest priority and the other person is thinking "abundant healthy food for all" has the highest priority.

Abiding to these principles, on the other hand, will provide an understanding of e.g.:

- ownership and/or size of agricultural operations may have a potential impact on sustainability, but more important is, whether the operation in question is polluting the environment or not, whether it is depleting the resources or not, and whether it is economically viable or not, independent of ownership and size; or
- asking undernourished populations not to increase their meat consumption, but consume the grain products without "refining" the nutrients through animal production, may appear to be a move toward sustainability, but neglects the principle that "Improving the quality of human life..." means **ALL** people on our earth. (It would be anyway kind of sarcastic, if sated people tell hungry people what they are to desire.)

Proposal of a common ground for the discussion on Sustainable Animal Production

In contrast to the wide-spread conception that sustainability revolves around limitation, renunciation and decelerating growth to take the responsibility for future generations, sustainability in animal production should revolve around providing efficiently abundant, safe and high-quality food of animal origin to all people today and in the future, while simultaneously preventing any adverse effect of the production on the environment, the natural resources and on biodiversity. While this may be generally recognized as true or at least as acceptable in the framework of “think globally”, it becomes much more complicated and controversial in the realm of “act locally”. Part of the uncertainty at the local level is that sustainable agriculture does not refer to a prescribed set of practices. Instead, it challenges producers to think about the long-term implications of practices and the multiple interactions and dynamics of agricultural ecosystems by looking at the farming system as a whole. All this means that may be different for every farm and every community. Farming methods that improve the sustainability on one farm may not be appropriate to a different farm or region. Each farming practice must be evaluated in a given ecosystem for its ability to contribute to a set of economic, environmental and social goals such as lasting farm production, stewardship of land, water, livestock, wildlife, and improved quality of life for farmers, their families, rural communities and the consumers of the food produced.