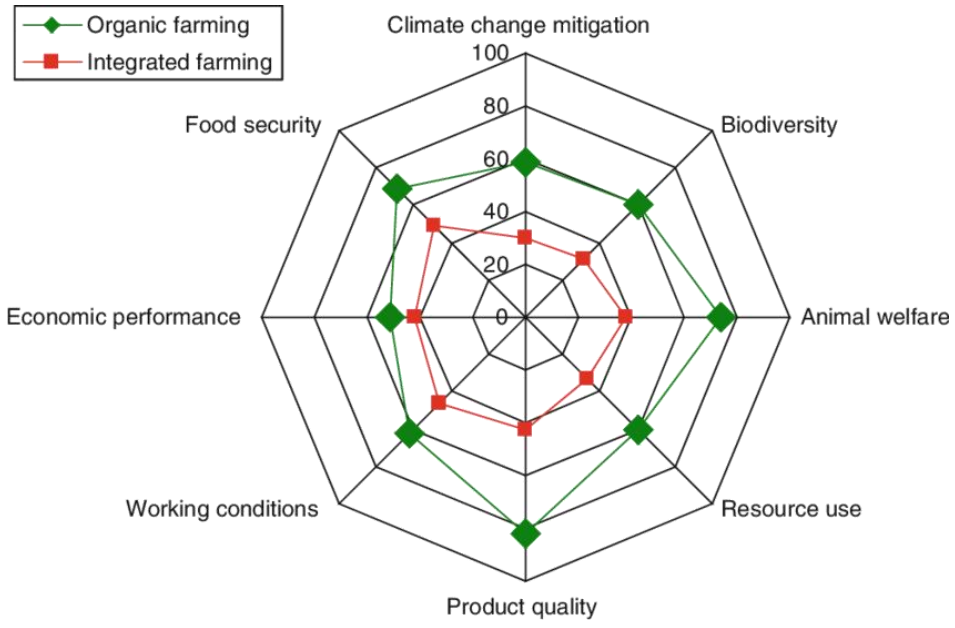
Why an always repeated statement by our assessor, Arnold Schuler, could be seen as dangerous

In defense of organic farming by Alexander Agethle (Mals, February, 2021)

On the subject of the statement published in an interview on the online platform *Barfuss*: "The world population is growing, we (Europe/Italy/South Tyrol) have to import more and more. In order to avoid this, we have to produce more and in a sustainable way."

In my opinion, this statement could be seen as dangerous because it suggests that the necessity to produce more, on one hand, justifies in an indirect way all forms of conventional or integrated farming and on the other hand, discredits all different approaches to finding other solutions. This is mystifying!

Organic farming isn't perfect but in many aspects it's definitely better than the conventional and/or the integrated one.[1]



Source: Schader et al., 2012

The often repeated argument that organic farming wouldn't bring enough earnings is a fallacy and

[1] Schader, C. et al. (2012): *Environmental performance of organic farming*, in *Green Technologies in Food Production and Processing*, pp.180-210, Publisher: Springer, Germany.

ignores today's knowledge about ecological systems in agriculture:

. Instead of the so-called "planar efficiency" that's based on calculating the harvest of products for sale, organic farming has a "deeper efficiency" regarding the whole process: consumption of energy, climate protection and adaptation, humus formation, water reserves, new ground waters, protection against high water levels and biodiversity. For instance, organic ground can retain more water and be a better carbon sink than a conventional one.

. The often-quoted argument that the pretended insufficient earnings will lead to more deleterious imports can be considered anachronistic, because it doesn't respect the current level of scientific research.

. Presently, the reference value for earnings is the output of delicate high-level plants growing in an unsustainable system like the conventional farming. Although we know that this system does not work, we continue to use this measurement as a reference. Many confrontations between organic and conventional farming are based on this criteria, but it's simply inappropriate.

. Highly adapted mixed systems like Agroforest or permacultures clearly produce more earnings per surface area than conventional monocultures. This is the reason why in the tropics organic farming has reached earnings as high as 174% higher then the conventional ones (average on 133 studies[2]). Also, similar studies done at Berkeley University showed that earnings were lower in the US-American farming systems, by at least 19.2%. This difference could be half the value when earnings of entire farming systems are compared, for example, corn with corn or wheat with wheat[3]. For another concrete example, let's have a look at the rice cultivation, one of the most important agri-ecological cultivation systems: here they rely on extensification and they may even reach higher earnings. How can it work? There is no use of artificial nitrogen nor pesticides, the ground becomes better and better and needs half of the general quantity of water and becomes climate friendly because of a large dismission of the wet phase, when methane arises. The great success depends on distancing the plants and therefore leaving more space for the roots in the ground whereby more sprouts can pullulate. That raises yields per hectare from two to eight tons.[4]

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[2] Stolze et al. (2000): *The Environmental Impacts of Organic Farming in Europe*, in: *Organic Farming in Europe: Economics and Policy*, Vol. 6, Stuttgart (Germany).

[3] https://www.topagrar.com/management-und-politik/news/ertraege-im-biolandbau-hoeher-als-gedacht-9550323.html

[4] Norman Uphoff, *Higher Yields with Fewer External Inputs? The System of Rice Intensification and Potential Contributions to Agricultural Sustainability*, in "International Journal of Agricultural Sustainbility", Volume 1, 2003, Issue 1, pp. 38-50.

. The land question: All future case scenarios on farming are claiming lower production of meat and fewer animals, if we will respect the necessary climate tools. A large change towards organic farming will automatically reduce these numbers because of the required surfaces for adequate animal housing. So clearly, more surface areas will be avaiable for direct cultivation of vegetables and even vegetable raw materials.

. Industrial productivity has lead to an enormous consumption of resources such as oil reserves, water, land, plants and various animals… Only 47%[5] of the worldwide production of cereals serves as human nutrition, the rest used as food for animals, fuel for motor and heating and raw material for other industrial products.

. During the last decades, food grades have moved downwards becoming low quality in nutritional value. The indirect effects on people's health have rarely been studied in national economics.

. In the farming sector the most popular mantra says that technological innovation (mechanisation, breeding, use of chemicals, digitalization…) will decrease the per piece cost in the production process and increase the productivity per worker and can lead to general price decreases in the long-term. "Farmers' incomes are falling, no matter how hard they work."[6] The consequences will be further pressure on plants, animals, farmers and workers.

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For South Tyrol, these reflections mean that we'll need to make the change to organic farming and act firmly. A political reflection of this could clearly be a higher budget for scientific research in organic farming.

Currently, the main products of our farming region (milk, fruits and wine) are merely sold on international markets. An organic farming production with more biodiversity, in one of the best climatically placed regions in the Alps, may increase the often quoted self-sufficiency level of South Tyrol and decrease dependencies on international markets and their risks.

(*translation by elfi reiter*)

[5] https://www.weltagrarbericht.de
[6] ibidem