Healthy Lives from Sustainable Food Systems October 2022

SustAinimal – Sustainable Animal Food Production in War and Peace

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Brief background

The future holds challenges for the livestock industry, including climate change and the risk of more extreme weather events. Production of animal feed and consumption of animal-derived foods change due to political, societal, and environmental factors. The Covid-19 pandemic highlighted vulnerabilities in the global food system, and several actors have emphasized the importance of more sustainable and resilient food production for the future. The importance of having a robust food chain and flexible animal production has been further emphasized in the light of armed conflicts, such as the one taking place in Ukraine in 2022. Food production needs to continue even during times of change or crisis. Preparedness for the unknown requires flexible solutions to ensure continued production of safe and high-quality food using efficient and environmentally friendly methods. The food system needs to be designed so that sudden changes do not compromise biosecurity, animal welfare or antimicrobial resistance and at the same time ensure sufficient output of food. Animals in the food system need to be healthy and raised sustainably, with little negative impact on the environment and climate and a positive impact on biodiversity. New ways of organizing the food system may be needed, including new solutions for production of animal-derived foods, for example with other animal species and different animal-derived food products than we know today.

The Workshop – approach and highlights from the discussions

This workshop had around 40 participants from private companies, the health and livestock sectors, universities, international organizations, ministries, and governmental agencies. Three inspirational speakers were invited to the workshop:

John Young from INASP talked about how to be prepared for disasters in a presentation called "Avoiding catastrophe and building for peace: How research can help." Serina Ahlgren from RISE talked about dependencies, weaknesses, and diets during crisis in her presentation "Sustainable animal food production in war and peace." Finally, Anne Katrine Bolvig from Arla talked about sustainable diets; "Sustainable animal food production in war and peace – a dairy perspective."

The aim of the workshop was to increase awareness of how safe and nutritious food can be produced from sustainable livestock systems with a preparedness perspective. The following questions were discussed during the group discussions:

- Governance of the transition towards sustainable, resilient, and competitive food production: What is the role of communication and public policy from the perspective of primary producers in animal production?
- Adaptation of production systems, species, and breeds the need for agile solutions: How can farmers transform their production in times of change?

Recommendations

FIRST THEME: Path for the transition towards sustainable, resilient and competitive food production

The workshop discussed how to transform the food system. The participants agreed that change can happen without force or legislation, but knowledge and understanding among stakeholders is required. Legislation is necessary as a support, but we need to be aware that it can create inflexible systems and might work better in some countries. Legislation should be there to support the flow instead of enforcing it. Authoritarian approaches are worse than an informed voluntary decision. Knowledge will make it easier to follow the rules. An additional tool for transition is positive incentives. Incentives can be money, but also knowledge and motivation, though having too many "carrots" can cause chaos. The rules of the game: As long as we have a completely market-based arena, it is in the nature of the game that actors will make decisions that will

result in their own benefit. Making decisions for the common good might benefit society as a whole, but it will not necessarily benefit the one who made them. Therefore, we need a "mixed perspective". The farmers fulfil the requirements of the market. If the farmers initiate the change, the authorities can continue the work. Collaboration is absolutely necessary if we are to achieve a transition! Communication is a key factor, and sharing good examples may be an important way to promote change, as they can serve as "free commercials", helping spread ideas and knowledge. When good practice is communicated and rewarded, consumers' decisions can act as "carrots". Still, it is a dilemma. If the transition leads to lower profit, "carrots" will not work well. Such changes will depend more on legislation. Furthermore, it is always important to ensure that legislation supports the intended transition.

SECOND THEME: Adaption of production systems, species, and breeds – the need for agile solutions: How can farmers transform their production in times of change?

- Diversity in farming systems is a key factor. Few large and highly specialized units for primary production with one species/breed, located in a few regions/areas and highly mechanized/digitalized are more vulnerable to changed conditions than are diverse and less specialized types of farms.
- Beef cattle and small ruminants are less vulnerable, from a preparedness and crisis perspective, and require less input goods than dairy cattle.
- Who will produce the food and where? Many young people quit farming, and houses and supermarkets are built on agricultural land. Society needs to make farming competitive and desirable, to ensure that there is a new generation of farmers waiting to contribute to the transition to a sustainable and resilient food system.
- "War legislation" is needed: In a situation of war, requirements for food safety, ethics, and food security need to be balanced and they may differ from those in peace.
- There are many critical inputs, including water, fertilizers, fuel, energy, feed (priority between human and animal food/feed), personnel, seeds, veterinary drugs, breeding stock and internet as well as other technology.
- Healthy animals and farms with good biosecurity are more resilient also in times of war. Healthy animals will decrease the risk of zoonoses and foodborne diseases and, thus, reduce the need for antibiotics.
- Animal owners and staff need to have skills in hand milking/dairying, preservation, slaughter, and culling.
- People need to learn to eat everything from the animal, but also alternative species.
- We need to know where to evacuate animals and where to distribute milk and meat if normal routines are disrupted.
- Self-governance and local markets will probably be more important in times of war or another crisis. We need to

approach different crises on a systemic level. A "good times" mentality has created nonchalance and a knowledge gap around preparedness. One conflict of aims is productivity in times of peace and resilience in times of war. Can dual-purpose breeds be a solution? How can we learn from countries that have war experience? What is the role of WHO/FAO/World Bank in a crisis? Global, national, regional, and local plans are needed. Map the food chains with reference to dependencies along the chain.

Based on the inspirational talks and discussions in the workshop, we wish to address the following solutions for a sustainable ruminant food system with a preparedness perspective:

- Diverse ruminant production, in terms of herd size, breeds, species, regions, technology
- Increased self-sufficiency, both for animal production, feed, and other inputs
- On-farm preparedness/contingency plans
- Long-term plan for agricultural land (national level)
- Ability to mobilize people to work on farms (instead of armed services)
- Practice scenarios
- War legislation and flexible regulatory systems
- Increased awareness among consumers that sustainable food production with a preparedness perspective costs more
- And finally, we must cherish democracy

It is difficult to pinpoint any particular organization that should be responsible for each task, as this involves teamwork between authorities, universities, NGOs, policymakers, media and the industry. To be sure, SustAinimal will take the lead in many of these questions and initiate projects, cooperation/networking, and communication campaigns.

The main objective of the workshop was to increase awareness of how safe and nutritious food can be produced from sustainable livestock systems with a preparedness perspective. We want to share some of the comments and insights from the participants:

- "I need to include aspects of preparedness from now on. In teaching, research, and private life. My own preparedness is not enough, today's workshop has been an eye-opener."
- "This is something I need to know more about!"
- "We have been so privileged in Sweden/Europe!"
- "What should we teach now to future generations?"
- "Preparedness is really needed!
- "We need more farmers. It's very complex."
- "Difference in the weakness of different animals (e.g., chicken

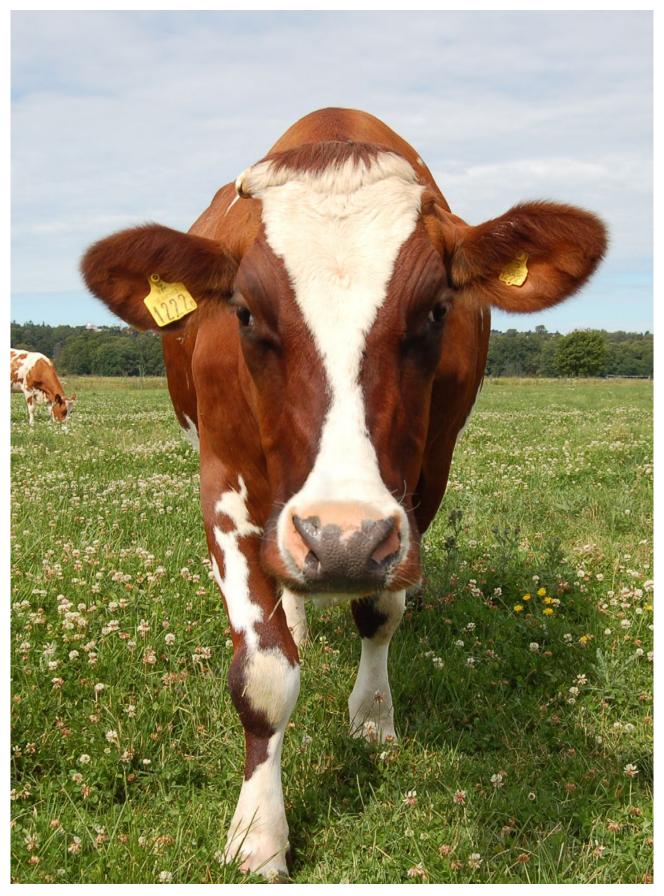


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vs. cattle) as well as between different breeds."

"All the different perspectives and their respective implications."

"Challenging to prepare for the unexpected. This limits our minds!"

"Large wars may affect global food security."

"All countries can be affected by a war - collaboration is the key."

"Holistic approach is critical for lasting solutions in war and peace."

"There is not one global solution – it depends on the context (geographical, cultural etc.)."

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