

First Week Summary

During the first week 116 submissions were received, that represented a wide range of countries and conditions of livestock production.

There was a very engaging discussion of the Question 1 related to the definition of “Food Loss and Waste” and how to view the alternative use of crops for food or feed in that respect. A large majority of participants did not consider food that is redirected to animal feed as “food loss”, although some found that its use for feed might compromise food security. Several comments also dealt with the justification for keeping livestock as food animals and the pros and cons of a vegetarian or vegan diets.

The specific cultivation of crops for feed depends on the relevance and scale of the livestock sector. Cultivation of maize or other grains for poultry or pigs was frequently mentioned and also that very often their use for either food or feed is not known by the producers until harvest or not all.

A large variety of ‘non-food parts’ in the food supply chains that are either currently used or have a potential for use were mentioned, as well as material from ‘food loss and waste’ that could be utilized as animal feed. These options would be further explored during the second week of the e-conference.

Second Week Summary

During the second week the focus of the discussions was on opportunities and technologies for improved use of ‘food loss and waste’ and of ‘non-food parts’ of crops as animal feed and in that respect also the role of the food and feed manufacturing industries. There were 43 submissions, mainly from participants representing developing countries.

Three main areas were addressed:

- Opportunities for utilizing crops as livestock feed that have been damaged before harvest through natural disasters,
- Opportunities for utilizing food losses and waste as livestock feed; and
- Opportunities for utilizing food by-products and ‘non-food parts’ as livestock feed

Utilizing damaged crops for feed very much depends on the extent of the damage, the possibilities for utilization in time, the location of occurrence, and the type of crop. Suggestions were made for conservation of the damaged crops through drying or ensiling to allow for later use and transportation to other locations. Implementation of such proposals under real life conditions however, can be difficult as occurrence of damages may be unpredictable, the time to react being short and crop owners may not be livestock owners. If unfit for harvest, grazing of the damaged crops by livestock may be the easiest option, but which could only be suitable for those crop farmers that are also livestock owners. Many contributions stressed the need to check the damaged crop for mould and mycotoxins. Research could develop technical options, and institutional arrangements are needed to prepare for natural disasters.

Only one contribution came from developing countries about the utilization of food waste for feeding to livestock, presumably due to the lower importance of food waste in those countries. South Korea and Japan were presented as countries, which both recycle ca. 40% of their food waste as animal feed. This shows that it is possible to safely feed food waste to livestock, while in many parts of the world laws restrict or ban the use of food waste for livestock feeding. This is the case in

the EU which was said to recycle only ca. 3% of food waste as animal feed. Food waste is a current topic in the US, and there are companies in the US that collected food wastes and transfer them to livestock operations, and they do it for profit. Usually, they collect food waste from large distribution centers. They can transport food waste in the range of 100 to 150 km because often there is a shortage of livestock within this distance.

The utilization of crop by-products by the feed industry and of 'non food parts' of crops by livestock owners are well established practices that are important in most regions and livestock production systems. In fact, in developing countries large parts of the feed base constitute of such feed resources. Constraints for utilization can be the mismatch of supply and demand with respect to season and location. Irregular supply of by-products may also hamper the use of material by the commercial feed industry. In order to prepare and conserve excess by-products and 'non food parts' for transport to feed deficient locations feed blocks are produced and promoted in some countries. However, it would be interesting to better understand the economic viability of these operations and whether the feed manufacturing industry is getting involved.

Third Week Summary

During the third week the focus of the discussions was on responsibilities for promoting the use of 'food loss and waste' and of 'non-food parts' of crops as animal feed with specific focus on researchers, NGOs and Civil Societies, policy makers and farmers. There were 22 submissions that either responded directly to the distributed questions or provided general information related to the topic.

All four groups of actors were considered important with respect to the discussed topics. While researchers, NGOs and Civil Societies, policy makers were seen as responsible for promoting the issues, farmers were mainly viewed as recipients of receiving information and training.

Researchers were mainly seen as responsible for developing knowledge and information about opportunities and constraints for better use of 'food loss and waste' and 'non food parts', NGOs and Civil Societies for promoting and policy makers for providing the supportive environment. Interaction between these groups in bringing research findings to implementation was seen as important by most contributions but some participants also cautioned that research in developing countries is often not related and contributing to the real issues. The Message 194 presented an interesting example of the potential complexity of issues related to research and implementation on a commercial level.

While the majority of submissions came from participants representing the research community it would be useful to better understand views and positions of the other actors. The contribution from the UK (Message 182) indicated potential for conflicting positions taken by NGOs.

With respect to utilization of 'food loss and waste' information from the EU highlighted that 'feed safety' has higher priority than utilization of resources and very specific regulations are in place in that respect. The definition and labeling of material as waste may have the consequence that the material will be banned for use as feed. Feed safety and utilization of 'food loss and waste' as feed are also affected by standards of OIE and the Codex Alimentarius Commission. Opportunities and constraints to implement these in developing countries could be important issues that have not been particularly raised during the discussions so far.

Fourth Week Summary

The fourth week provided opportunities for further general discussion and views of the topics introduced before. There were 59 submissions that covered a broad range of topics. The discussions started with an explanation and justification for the FAO 'food loss and waste definition'. It was general consensus of the participants who commented that the definition regarding the clause of animal feed being food loss needs review and change. Several suggestions for ways of change and precision of defining were made. Some participants also commented on the issue of food loss and waste in general, in particular with respect to the views of rural societies in developing countries.

The role of different actors in preventing food loss and waste was also further commented in several messages, in particular with a detailed explanation from the EU with their activities initiated in Europe. A submission from Nigeria highlighted the importance of regulations for utilization of food waste for feeding; the only message that mentioned that point from a developing country participant. Other messages again mentioned the responsibilities of Research and NGOs related to the discussed topics and some examples of country specific activities by these actors were given. The importance of economics and markets related to the use of raw material for either food or feed was raised by an entrepreneur from India and a commercial processor of fruit and vegetable waste in the USA explained his approach.

Very positive comments were made by participants about the lively and interesting discussions during the e-conference and the benefits of it for raising awareness and creating better knowledge and information in their countries.

All messages have been compiled in one file for further review and reading by participants and other interested persons and a summary report of the e-conference will be prepared.