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## **US Dietary Guidelines- Outline for Oral Testimony**

Compassion in World Farming (Compassion) is an international organization working to achieve humane, fair and sustainable food and farming systems. With its HQ in the UK, Compassion has a US office as well as offices/representatives in 8 other countries. Compassion welcomes the dietary guidelines published by the DGAC. The expertise of the Committee members gives huge weight to their advice to your Departments.

In particular, we would like to support their recognition that diets lower in animal products not only support better health, but also carry benefits for global resource use and environmental impact, including greenhouse gas emissions.

Globally 33% of the world's cereal harvest & 97% of the world's soymeal is used as animal feed. Research shows that several kilos of cereals are needed to produce 1 kg of edible meat (Trostle, R., 2008). For every 100 calories that we feed to animals in the form of crops, we receive on average just 30 calories in the form of meat and milk (Lundqvist, J., et al. 2008).

A report by the UN Environment Programme (UNEP) shows that the world's total edible crop harvest could supply 4,600 kcal per person per day. However, 1,400 kcal (30.5%) is lost or wasted. A further 1,700 kcal is used as animal feed. The resultant meat and dairy products only provide 500 kcal for human consumption. In effect, therefore 1,200 kcal (26%) is lost in the poor return achieved by feeding human-edible crops to farm animals (Nellemann, C., et al. 2009).

The UNEP report calculates that the cereals that are expected to be fed to livestock by 2050 could, if they were instead used to feed people directly, provide the necessary food energy for more than 3.5 billion people. The UK government's Foresight Report concluded "Demand for the most resource-intensive types of food must be contained", adding that "major increases in the consumption of meat, particularly grain-fed meat, would have serious implications for competition for land, water and other inputs" (UK Government Office for Science, 2011).

Hoestra and Mekkonen are two of the world's leading experts on water footprinting. They write that if all meat was replaced by an equivalent amount of crop products such as pulses and nuts this will result in a 30% reduction of the food-related water footprint of the average (American) citizen (Mekonnen, M.M., & Hoekstra, A. Y., 2012). The FAO has produced evidence to show that 14.5% of anthropogenic greenhouse gas emissions are from livestock production. (Gerber, P. J. et al. FAO, 2013).

A 2014 paper from the University of Oxford, studied the average GHG emissions associated with a standard 2,000 kcal diet. The conclusions were: "The age-and-sex-adjusted mean (95 % confidence interval) GHG emissions in kilograms of carbon dioxide equivalents per day (kgCO2e/day) were 7.19 (7.16, 7.22) for high meat-eaters (> = 100 g/d), 5.63 (5.61, 5.65) for medium meat-eaters (50-99 g/d), 4.67 (4.65, 4.70) for low meat-eaters (<50 g/d), 3.91 (3.88, 3.94) for fish-eaters, 3.81 (3.79, 3.83) for vegetarians and 2.89 (2.83, 2.94) for vegans. In conclusion, dietary GHG emissions in self-selected meat-eaters are approximately twice as high as those in vegans". The authors concluded that "It is likely that reductions in meat consumption would lead to reductions in dietary GHG emissions" (Scarborough, P., et al. 2014).

Compassion believes that there is an overwhelming case for your Departments to accept the Guidelines outlined by the DGAC. Not only will this likely improve the health of US citizens, but it can provide a template for other nations globally whose governments are also concerned to improve the health of their citizens.

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