

Southern Oregon Climate Action Now

**SOCAN**

Confronting Climate Change

<https://socan.eco>

Alan R.P. Journet Ph.D.

Cofacilitator

Southern Oregon Climate Action Now

[alan@socan.eco](mailto:alan@socan.eco)

541-500-2331

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Reference SB85-3

Chair Golden and members of the Senate Committee on Natural Resources

I write as cofacilitator of Southern Oregon Climate Action Now (SOCAN), an organization of over 2,000 rural Southern Oregonians who are concerned about the climate crisis and urge statewide action to address it. The mission of SOCAN is to promote awareness and understanding of the science of global warming and its climate chaos consequences and stimulate individual and collective action to address it. Since rural Oregonians occupy the frontlines in experiencing the impact of the drought, shrinking snowpack, wildfires and extreme weather that the climate crisis imposes, we are strongly committed to statewide action.

I have [previously submitted testimony](#) on SB85-1, and will not repeat that here. However, in relation to the -3 amendment, I would like to reiterate the point that, in terms of furthering the climate crisis, CAFOs are a disaster. This is because of the greenhouse gas emissions that they inevitably release.

While greenhouse gas emissions result from the entire CAFO operation, my focus here is on the emissions that are produced from the husbandry of different animals and the production of different foods. A good comparison is presented in Figure 1 (Ritchie 2020) which assesses emission per kilogram of food produced. The critical data to compare are the beef (and dairy) cattle, lamb and goats, pork and chicken. It is very evident that among these domestic farm animals, poultry are the least problematic in terms of greenhouse gas emissions per unit of food produced, whether considering meat or eggs. Pork scores in the same vicinity. Meanwhile, dairy cattle, and lamb and goats score slightly higher. Finally, beef cattle clearly hit the climate pollution ball out of the park.

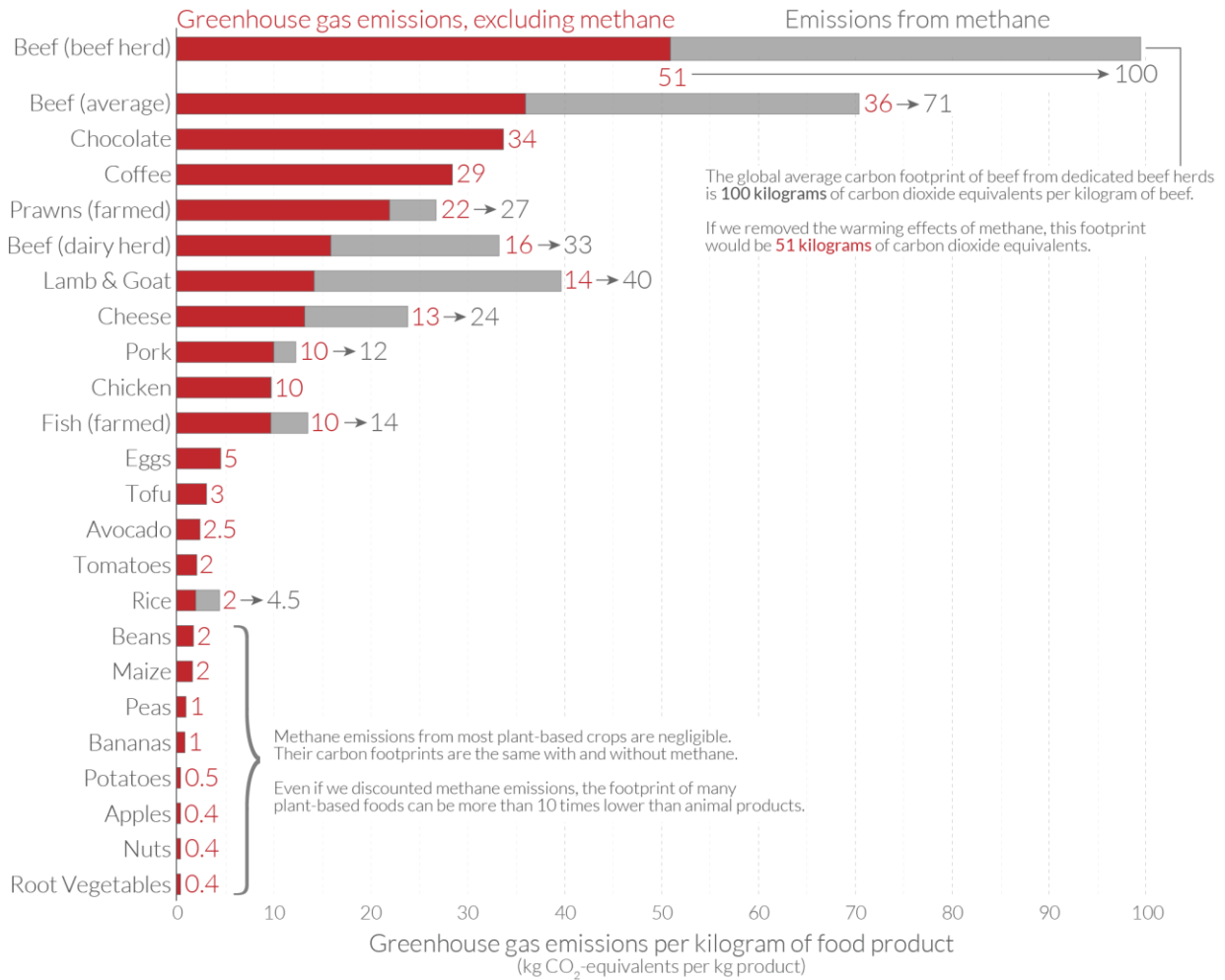
Another recent perspective is offered by UN (undated) citing the 2022 IPCC graphing Kilograms of emissions (again in carbon dioxide equivalent terms) per kilogram of food produced and reporting a similar patterns (Figure 2). Here, we find again that cattle (with a value similar to the Ritchie 2020 cattle average) similarly feature as the most climatically damaging of listed foods. Lamb clocks in at a little over half the cattle value, while cheese and pork follow and

poultry score as the least damaging, with eggs lower than the meat and finally milk, according to this analysis and somewhat surprisingly, rating even lower than eggs.

## Greenhouse gas emissions from food, short vs. long-lived gases

Greenhouse gas emissions are measured in carbon dioxide-equivalents (CO<sub>2</sub>eq) based on their 100-year global warming potential (GWP).

Global mean emissions for each food are shown with and without the inclusion of methane – a short-lived but potent greenhouse gas.



Note: Greenhouse gas emissions are given as global average values based on data across 38,700 commercially viable farms in 119 countries. Data source: Poore & Nemecek (2018). Reducing food's environmental impacts through producers and consumers. *Science*. OurWorldinData.org – Research and data to make progress against the world's largest problems. Licensed under CC-BY by the authors Joseph Poore & Hannah Ritchie.

Figure 1. Assessment of Kilograms of greenhouse gas emissions in carbon dioxide equivalent per kilogram of product. (Ritchie 2020)

The difference in details between these two studies is less significant than the overall pattern that identifies in both sources that cattle are the greatest emitters of greenhouse gases. Figure 1 indicates exactly why this is the case: the problem is the methane emitted as a result of the enteric fermentation of anaerobic bacteria in the gut of cattle which is largely belched out by the animals.

Considering other environmental issues generated by large CAFOs, McGarry (2020) concluded that: “the Clean Water Act is limited in two aspects that allow for CAFOs to escape permitting

and regulation under the National Pollution Discharge Elimination System: (1) the CWA does not allow EPA to regulate potential discharges, and (2) the Trump Administration’s limiting definition of waters of the United States under the CWA. The CWA is limited in that it can only regulate actual discharges into **waters** of the United States.”

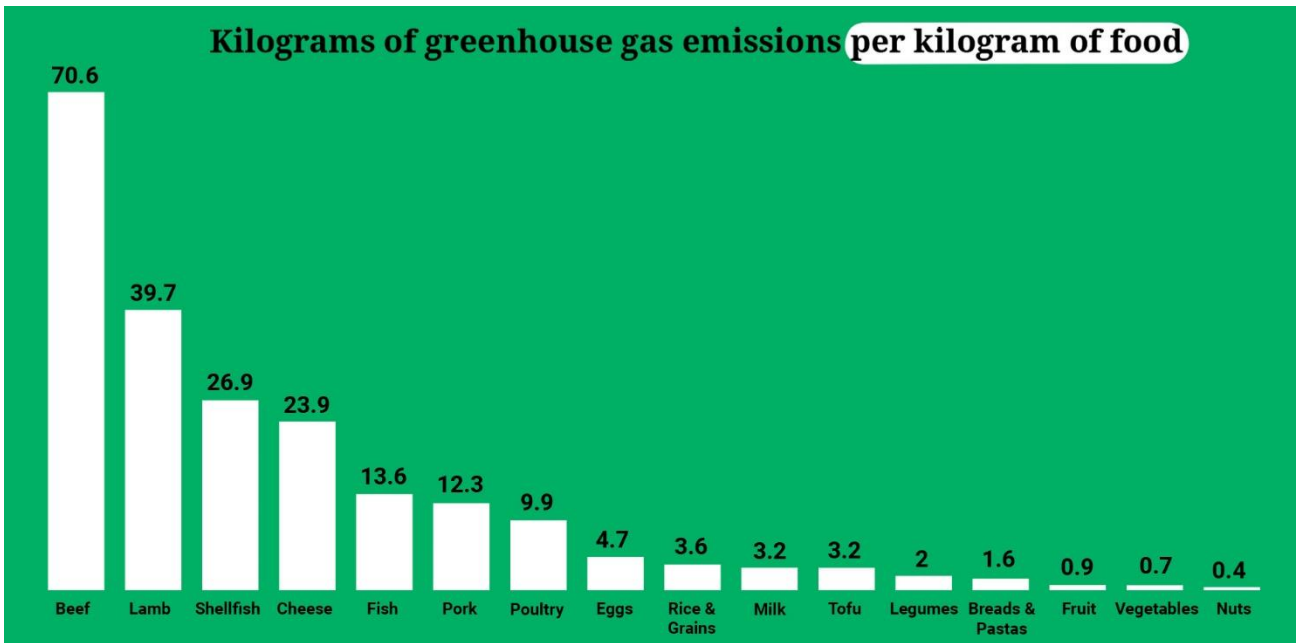


Figure 2. Assessment of Kilograms of greenhouse gas emissions in carbon dioxide equivalent per kilogram of product. (UN undated)

Despite the claims of those owning or managing CAFOs or representing them organizationally, the evidence indicates that CAFOs are not excessively burdened with regulations CAFO

Before concluding, I note that Amendment -1 seems to be posted twice and no -2 is evident. While applying the moratorium just to Tier 2 poultry operations may offer some value in some arenas, the elimination of beef and dairy cattle from the provisions of this moratorium massively undermines the purpose of the proposal.

For these reasons, SOCAN records opposition to the -3 amendment to SB85 and reiterates support for the -1 amendment (s) as posted on March 21<sup>st</sup> 2023. However, should -3 be approved, we support that as a first step to addressing the CAFO problem in Oregon.

Respectfully Submitted

Alan Journet

Sources:

McGarry D 2020 Environmental, Natural Resources, & Energy Law Blog: Nobody is Watching How the Sausage is Made: The Failure to Regulate CAFOs .

<https://law.lclark.edu/ingredients/templates/details/blogs.php?id=133>

Ritchie H. 2020 The carbon footprint of foods: are differences explained by the impacts of methane? Our World in Data. <https://ourworldindata.org/carbon-footprint-food-methane>

UN undated Food and Climate Change: Healthy diets for a healthier planet. United Nations, Climate Action <https://www.un.org/en/climatechange/science/climate-issues/food>