

Feed vs food supplemental information

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The figures and data here are the supplemental information for the manuscript "" on global feeds and livestock production by Jessica Couture, Roland Geyer, Darcy Bradley, Benjamin Halpern, and Steve Gaines.

Figure S1

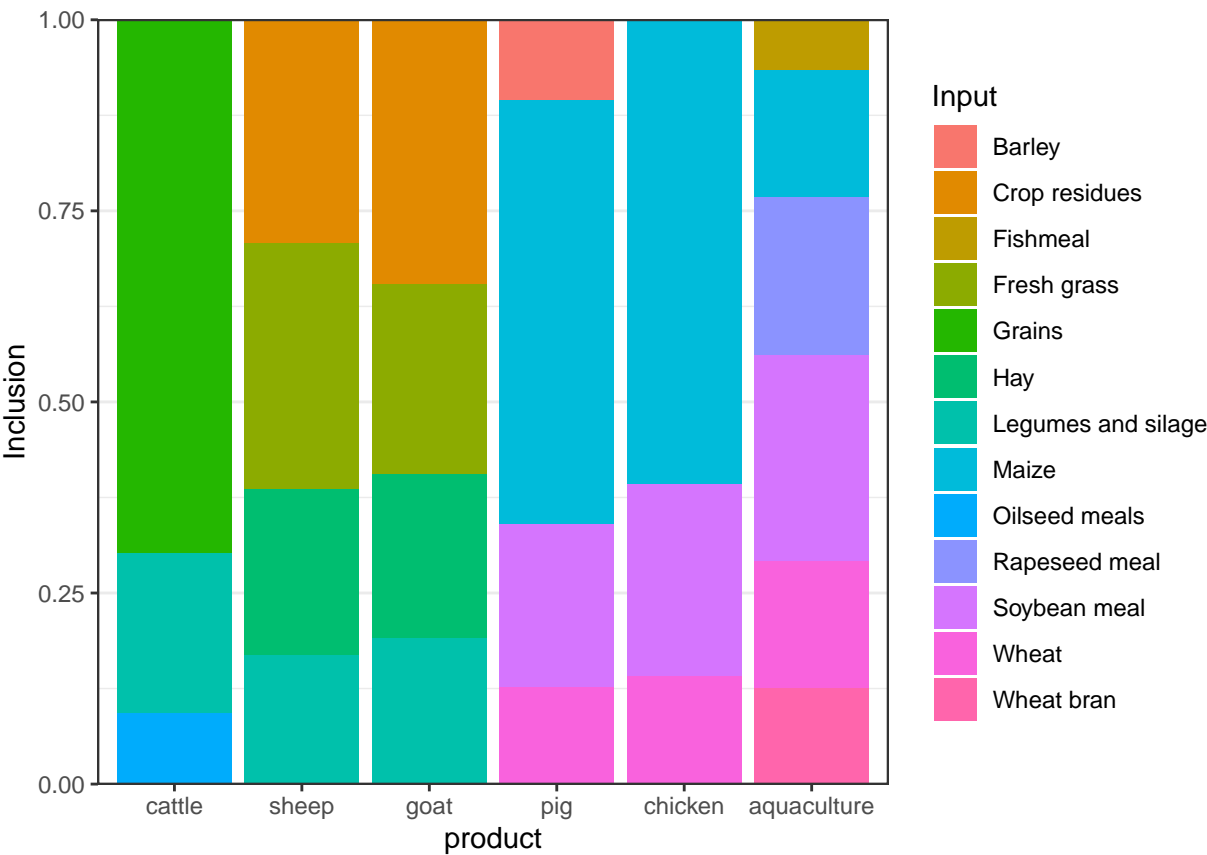


Table S1

Protein content of inputs to livestock and aquaculture feeds. Bolded ingredients (those with protein content greater than 20%) are replaced in growth projection scenarios, non-bolded are kept at constant inclusion rates to 2050.

input	proteinContent
Fishmeal	68.00
Soybean meal	49.50
Oilseed meals	44.78
Rapeseed meal	40.00
Fresh grass	19.00
Barley	12.50
Wheat	12.00
Hay	11.00
Maize	10.00
Wheat bran	9.00
Grains	8.50
Legumes and silage	7.50
Crop residues	3.25

Figure S2

Projection of production to 2050 based on current and recent trends in growth. Calculated based on total meat production from 1998-2018.

$$Production_{year} = \beta_1 (year) + \beta_0$$

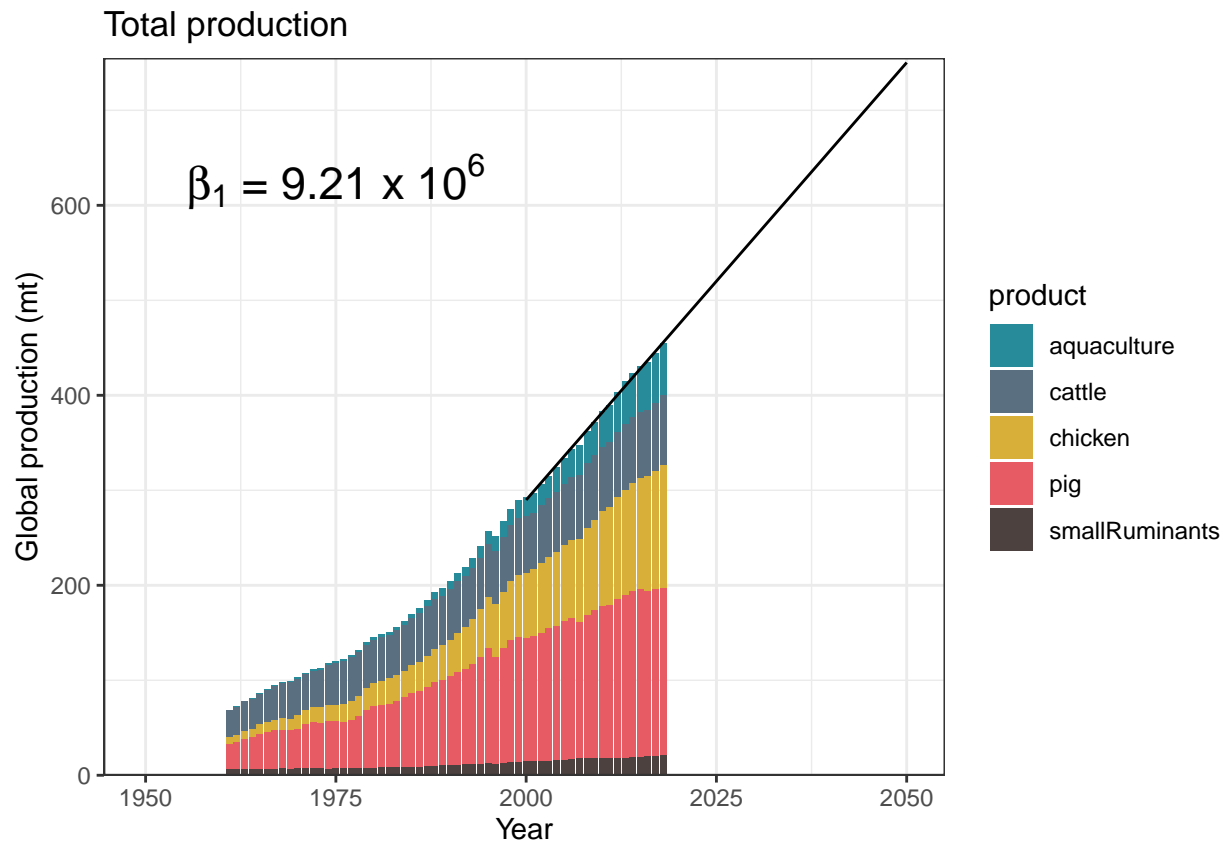
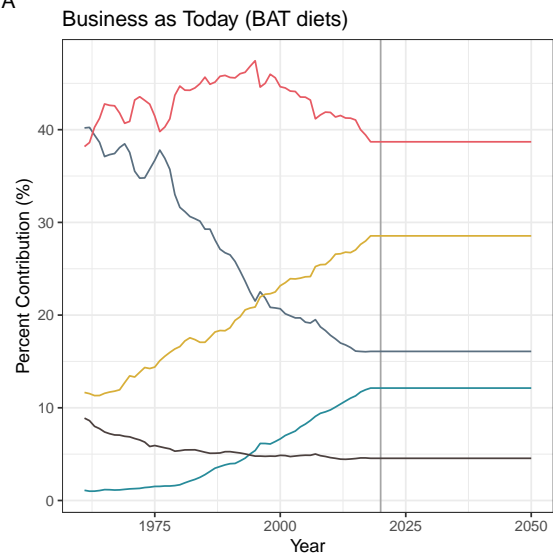


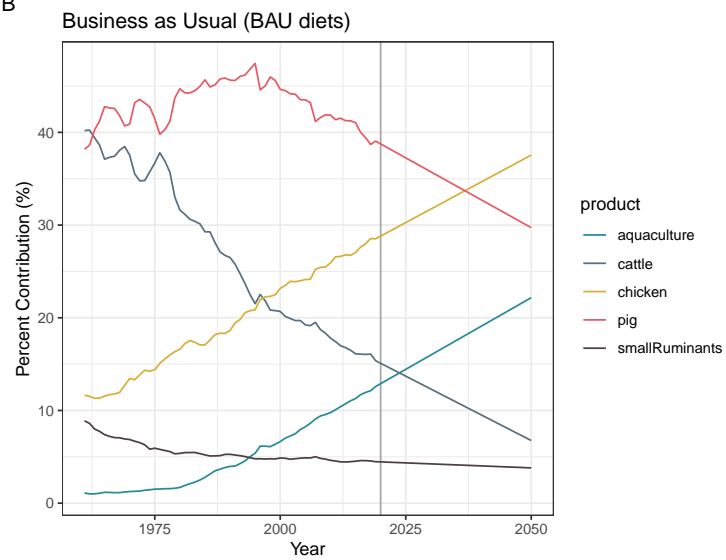
Figure S3

Diet scenarios were calculated based on the below composition scenarios applied to total production levels projected above (Figure S1).

A



B



C

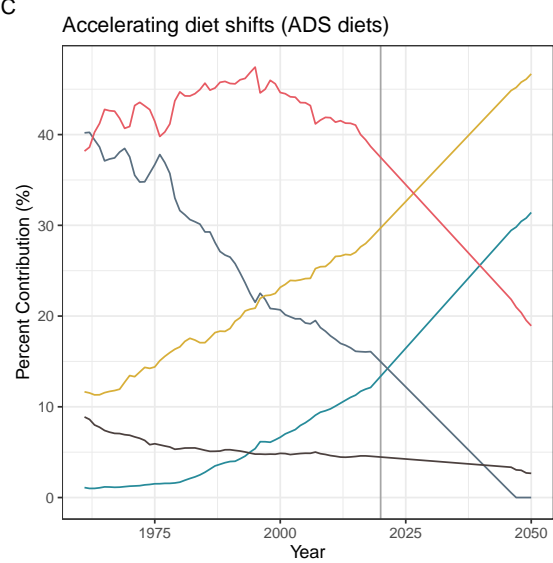


Figure S4

Projected greenhouse gas emissions of conventional versus alternative production methods for feed inputs. Alternative methods (dotted lines) refer to no till farming for crop inputs and yeast byproduct from biodiesel production from wheat. Real benefits of no-till farming vary by soil-type, location and over time, so these results are likely optimistic.

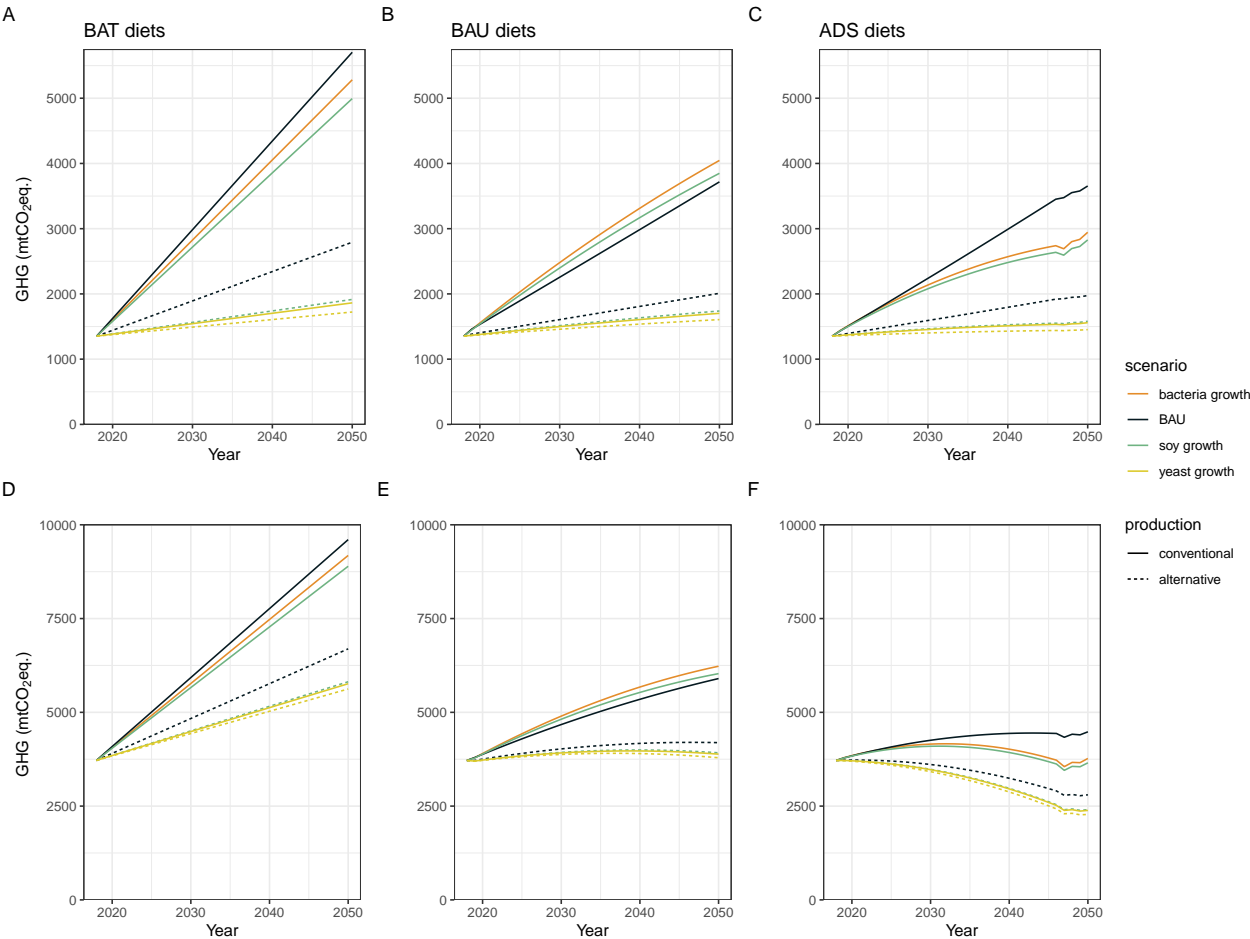


Figure S5

Contribution of feeds to total production emissions for projected years

