



**Dr. Jude Capper**

**@bovidiva**



**Challenging the  
rhetoric – how do  
we communicate  
some of the  
positive attributes  
of livestock  
sustainability?**

**Dr. Jude L. Capper**

***7<sup>th</sup> July 2021***

Source: Dr. Jude L. Capper, 2021

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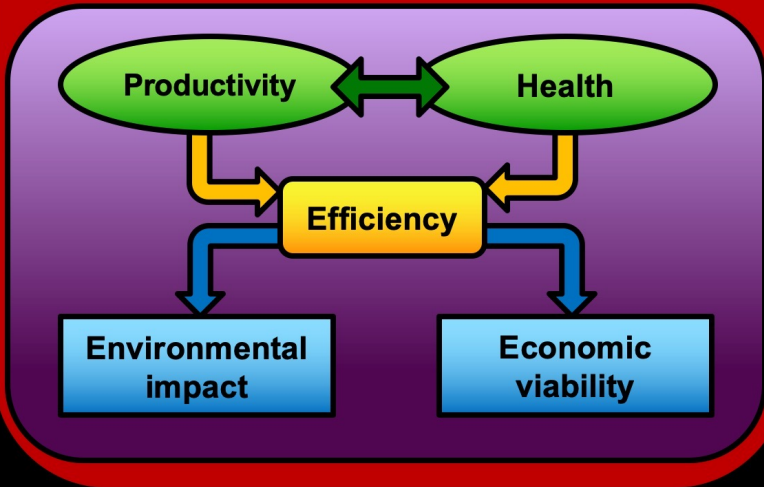
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# Social acceptability and consumer trust are vital for sustainable livestock production

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## Social Acceptability



## Sustainability



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Source: Created by Dr. Jude L. Capper, 2020.





# B Market share for plant-based meat/dairy alternatives is growing

## Tesco sets 300% sales target for plant-based alternatives to meat

In UK first, supermarket's five-year commitment aims to offer more sustainable options



**A 300% sales target is impressive... yet the magnitude of the results depends on the (2018) baseline**

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Source: Created by Dr. Jude L. Capper, 2020. Screenshot from: The Guardian (2020). <https://www.theguardian.com/business/2020/sep/29/tesco-sets-300-per-cent-sales-target-for-plant-based-alternatives-to-meat>





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Do 402,206 Veganuary participants amount to more than a hill of beans?

**JOIN THE  
NEW YEAR'S  
REVOLUTION**



- Slightly greater than the population of Coventry
- If all participants were UK-based they would comprise <1% of the UK population
- Average of 2,095 per participating country
- 62% of participants already vegan, vegetarian or pescatarian

Source: Created by Dr. Jude L. Capper, 2020. Information from: <https://veganuary.com/veganuary-2020-official-survey-results/>

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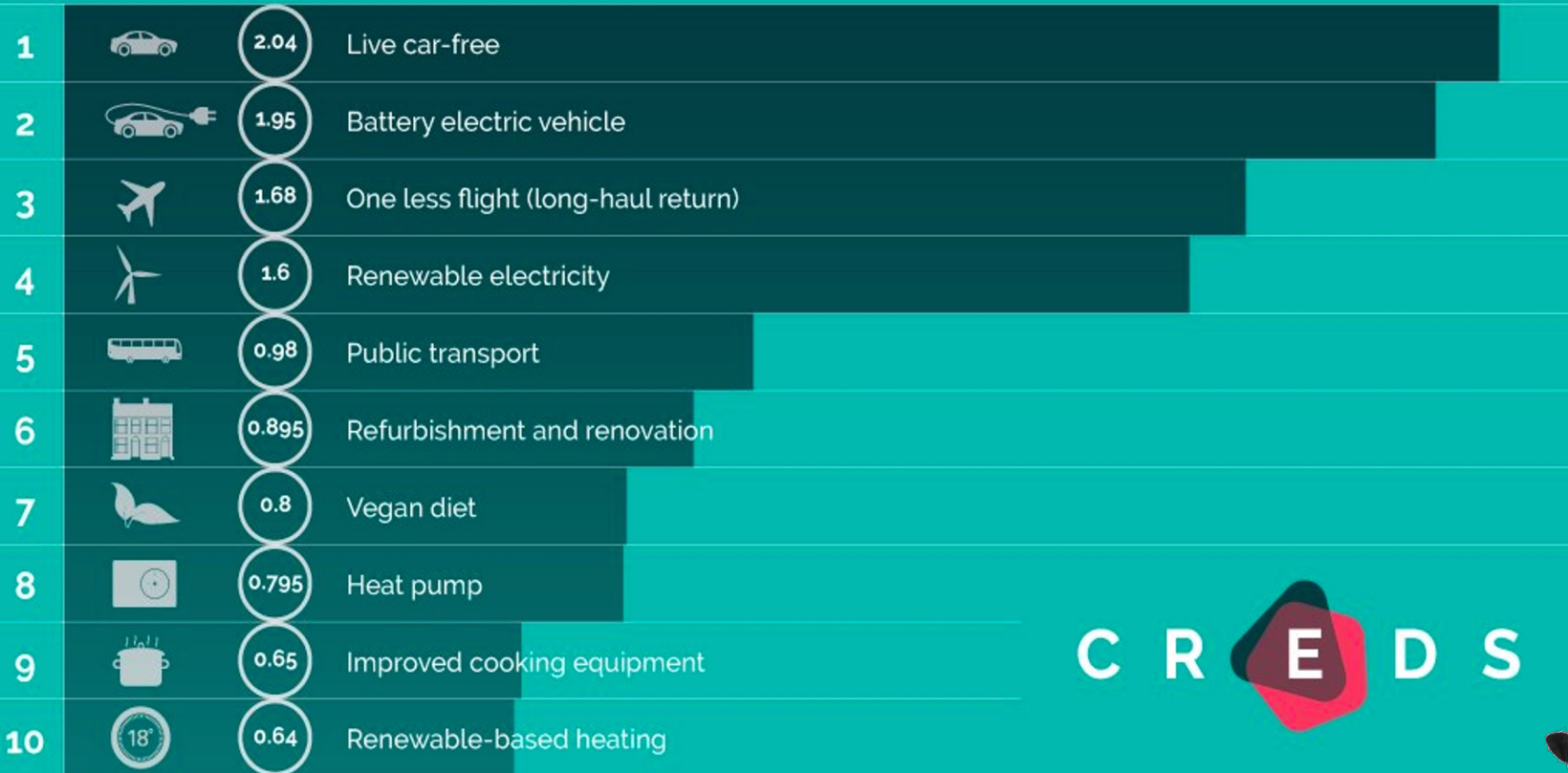




CV

# New CREDS report puts transport, energy and food choices into context

## Top 10 options for reducing your carbon footprint



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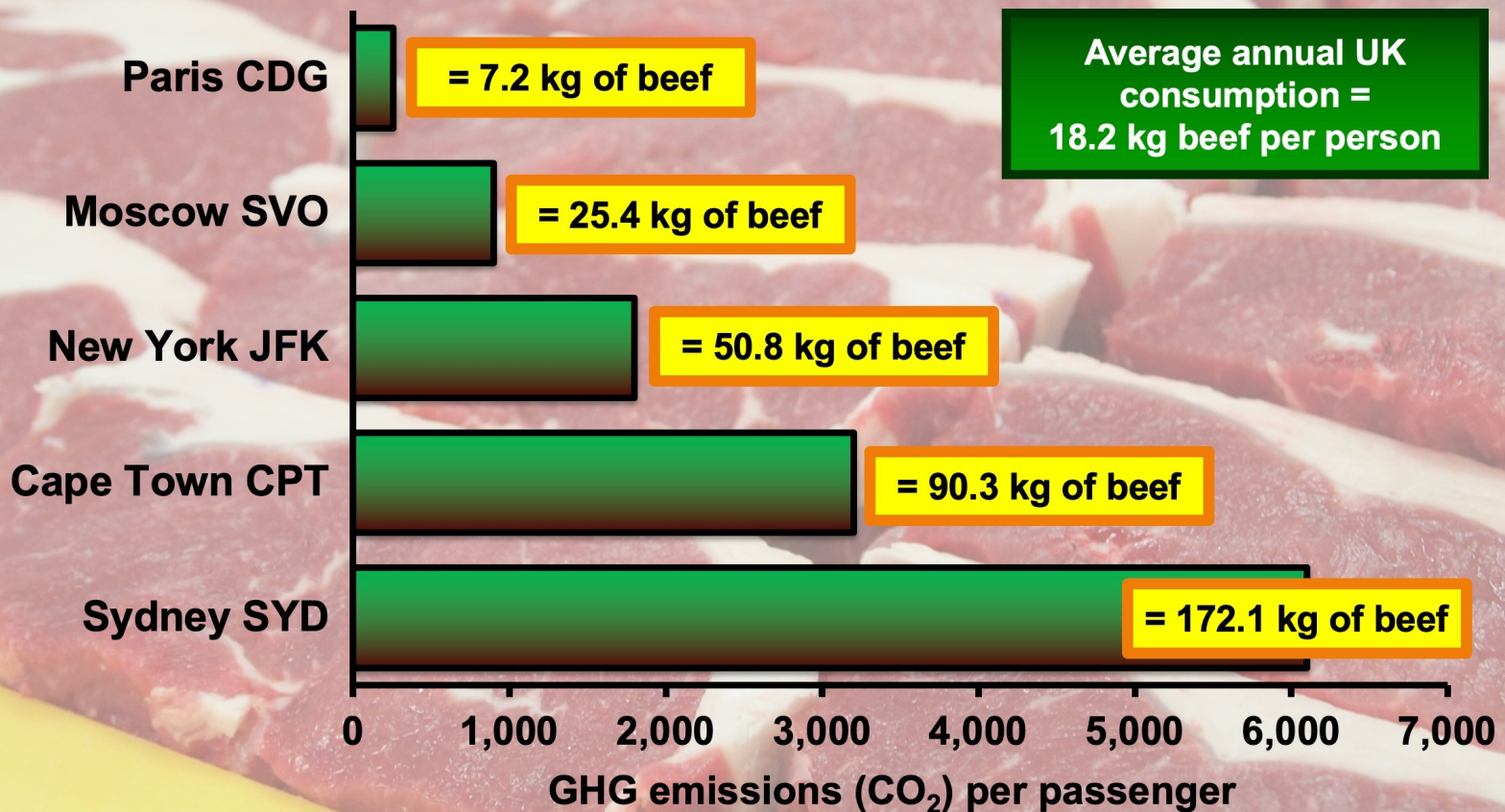
Source: Created by Dr. Jude L. Capper, 2020. . Infographic adapted from Centre for Research into Energy Demand Solutions (2020). Available at: [https://twitter.com/CREDS\\_UK/status/1262984570175176704?s=20](https://twitter.com/CREDS_UK/status/1262984570175176704?s=20)

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# International flights emit considerable quantities of carbon compared to beef production



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Source: Created by Dr. Jude L. Capper, 2020. Calculations based on GHG emissions flight data from: [https://co2.myclimate.org/en/flight\\_calculators/new](https://co2.myclimate.org/en/flight_calculators/new), and on a carbon footprint per kg of boneless beef of 35.5 kg CO<sub>2</sub>-eq (under GWP100) from AHDB: [http://beefandlamb.ahdb.org.uk/wp-content/uploads/2013/05/p\\_cp\\_down\\_to\\_earth300112.pdf](http://beefandlamb.ahdb.org.uk/wp-content/uploads/2013/05/p_cp_down_to_earth300112.pdf)

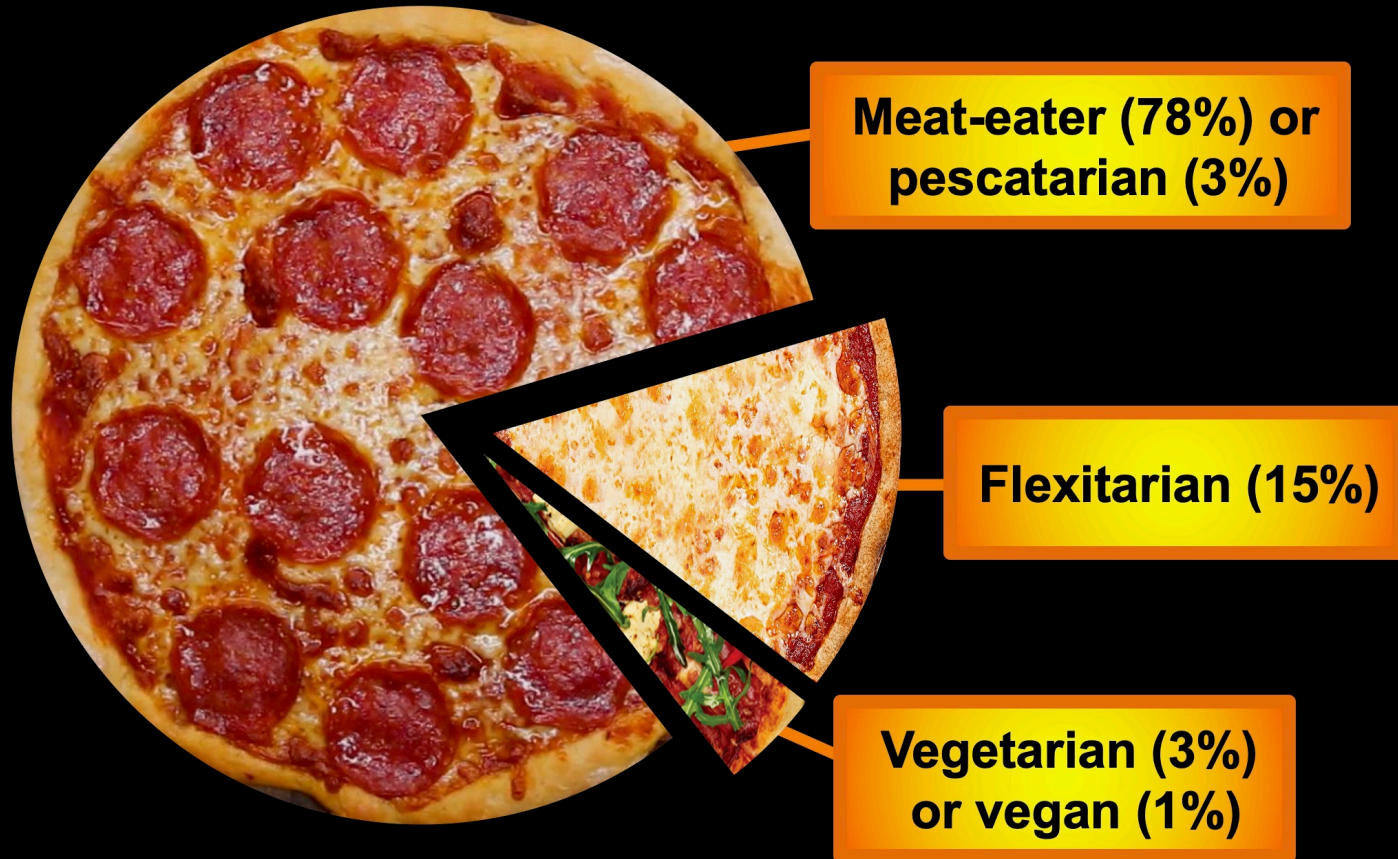
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# The future probably isn't vegan, but it may be flexitarian?



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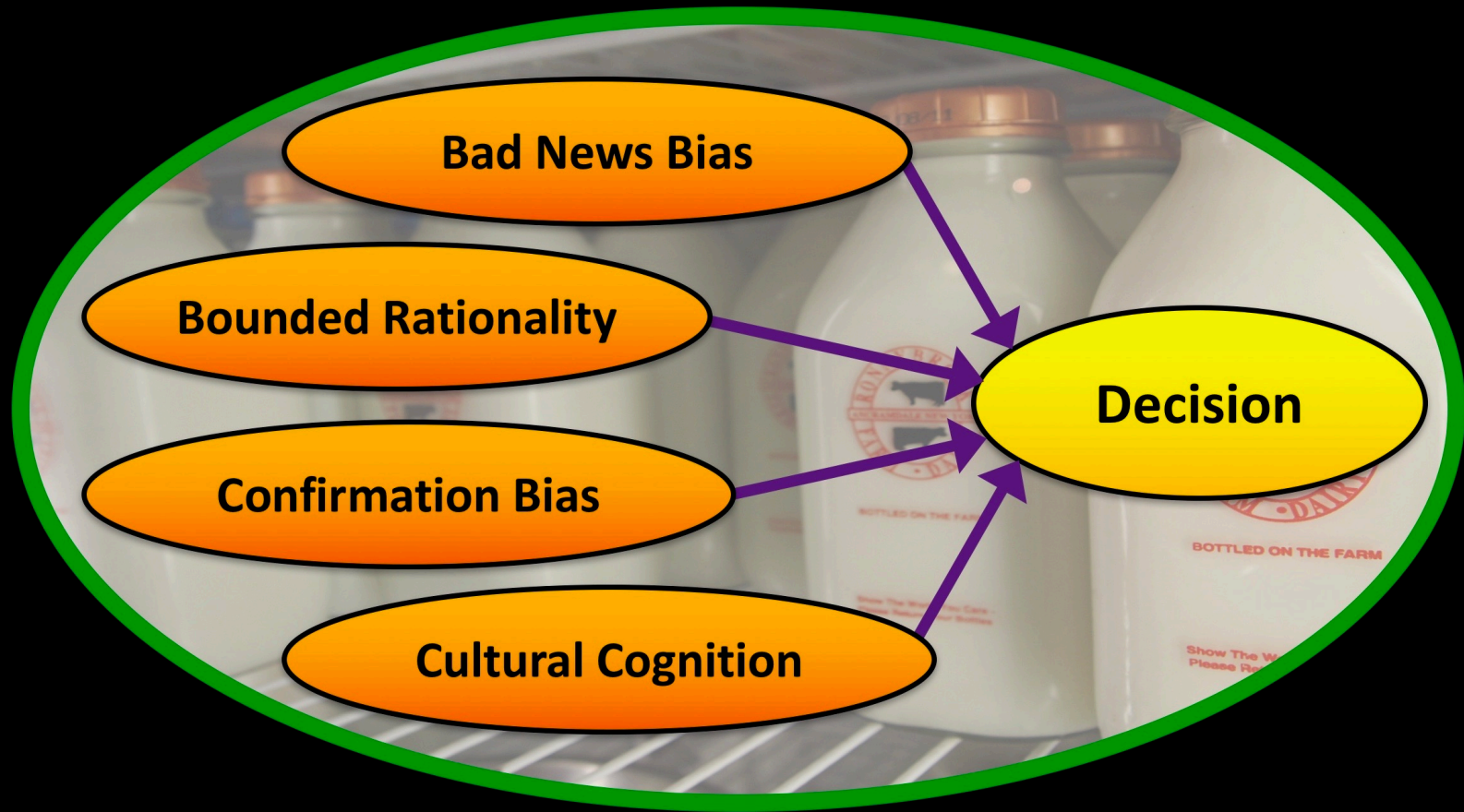
Source: Created by Dr. Jude L. Capper, 2020. Data from: YouGov (2019) Is the future of food flexitarian?  
<https://yougov.co.uk/topics/resources/articles-reports/2019/03/18/future-food-flexitarian> Question: "Which, if any, of these best describes your usual eating habits?" Results adjusted for people who answered "don't know" (3%) or "other" (3%).

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# Four major processes influence consumer decision-making



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Source: Created by Dr. Jude L. Capper, 2017. Information from: Capper and Yancey (2015). Communicating Animal Science to the General Public. *Animal Frontiers*.

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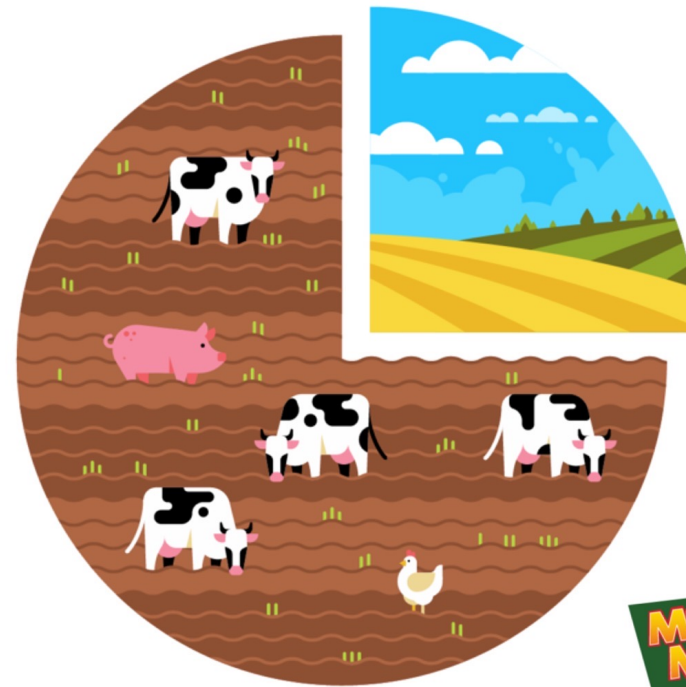


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Bad news bias – need five positive stories to cancel out each negative

We are programmed to believe bad news stories. Tidal wave of factual information needed to overcome them.

LIVESTOCK PRODUCTION USES 75% OF THE EARTH'S AGRICULTURAL LAND.



MEATLESS MONDAY

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Source: Created by Dr. Jude L. Capper, 2020. Infographic from: <https://www.pinterest.co.uk/pin/254383078939543245/>

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65% of UK land is not suitable for growing arable crops



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Source: Created by Dr. Jude L. Capper, 2020. Grazing land includes temporary grass on arable land (6% of total), land used for outdoor pigs or non-agricultural purposes not shown (1.7% of total). Data from DEFRA. 2019. Farming statistics - provisional crop areas, yields and livestock populations at 1 June 2019 – United Kingdom.

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/837834/structure-jun2019prov-UK-10oct19.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/837834/structure-jun2019prov-UK-10oct19.pdf)

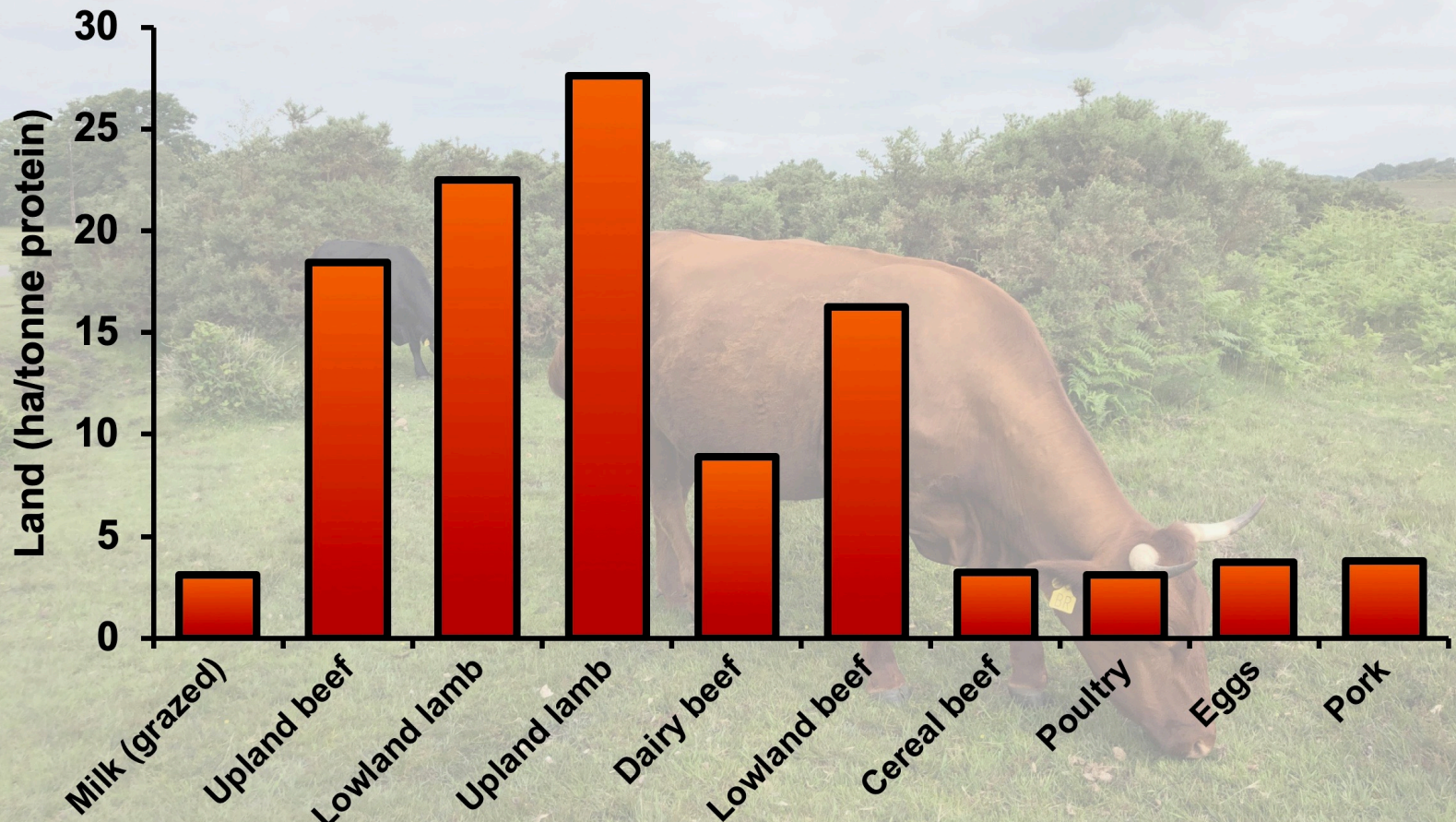
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# Livestock systems vary widely in land use



Source: Created by Dr. Jude L. Capper, 2020; data from Wilkinson and Lee (2018) Review: Use of human-edible animal feeds by ruminant livestock. *Animal*.

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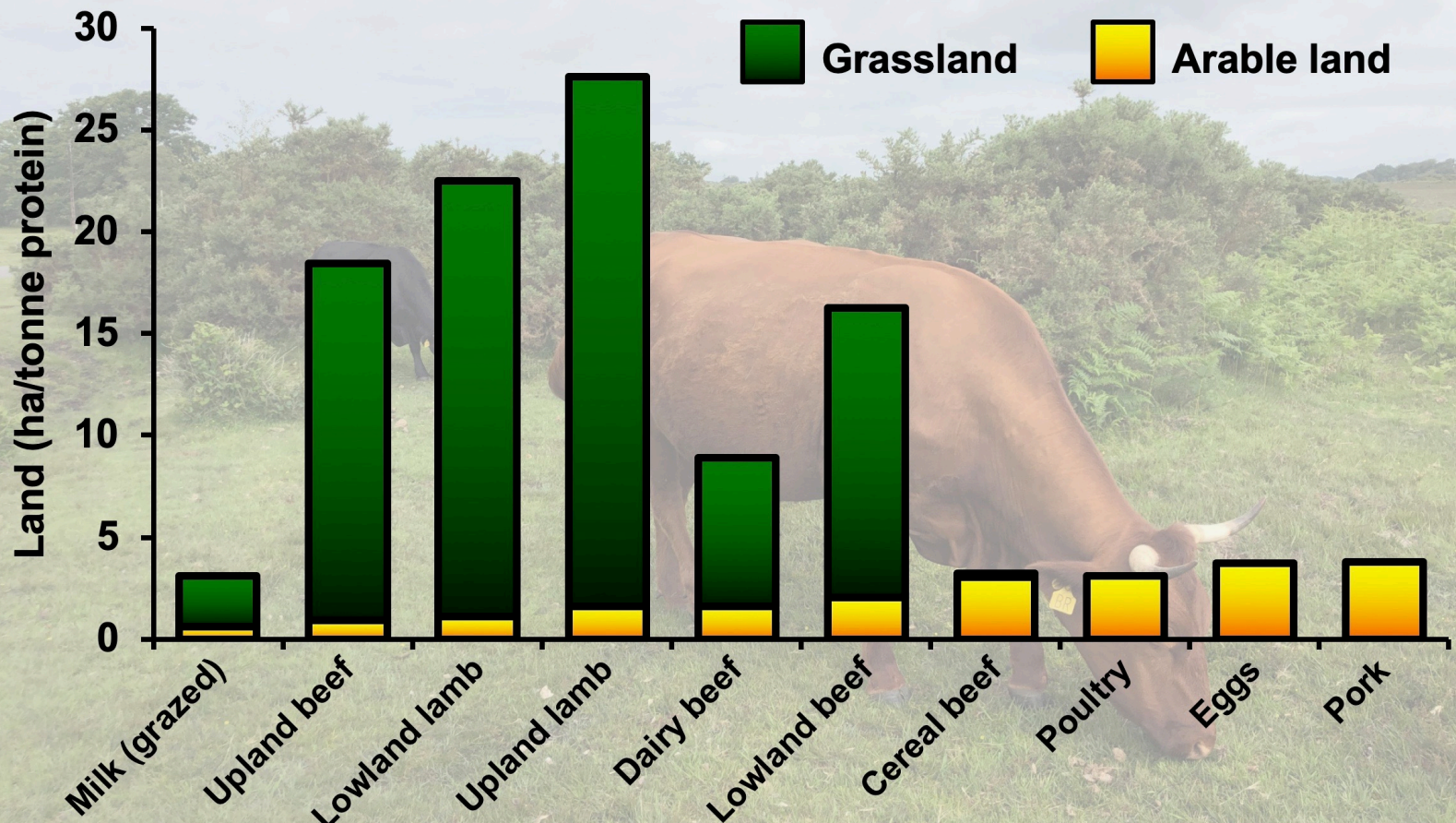
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# Livestock systems vary widely in arable and grassland use



Source: Created by Dr. Jude L. Capper, 2020; data from Wilkinson and Lee (2018) Review: Use of human-edible animal feeds by ruminant livestock. *Animal*.

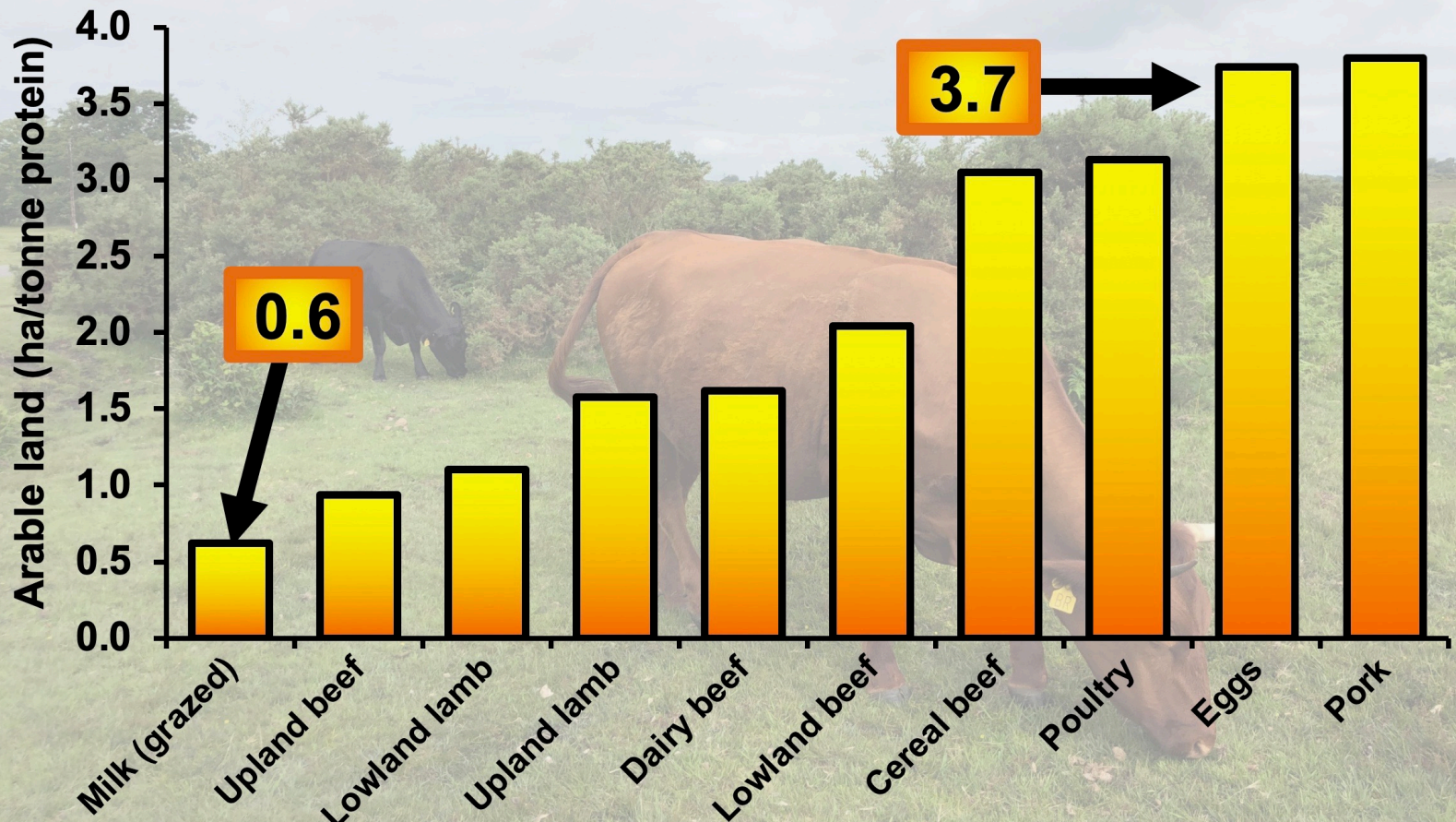
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# Livestock systems vary widely in arable land use



Source: Created by Dr. Jude L. Capper, 2020; data from Wilkinson and Lee (2018) Review: Use of human-edible animal feeds by ruminant livestock. *Animal*.

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# What do these industries have in common? They all provide by-products fed to animals



Source: Created by Dr. Jude L. Capper, 2013

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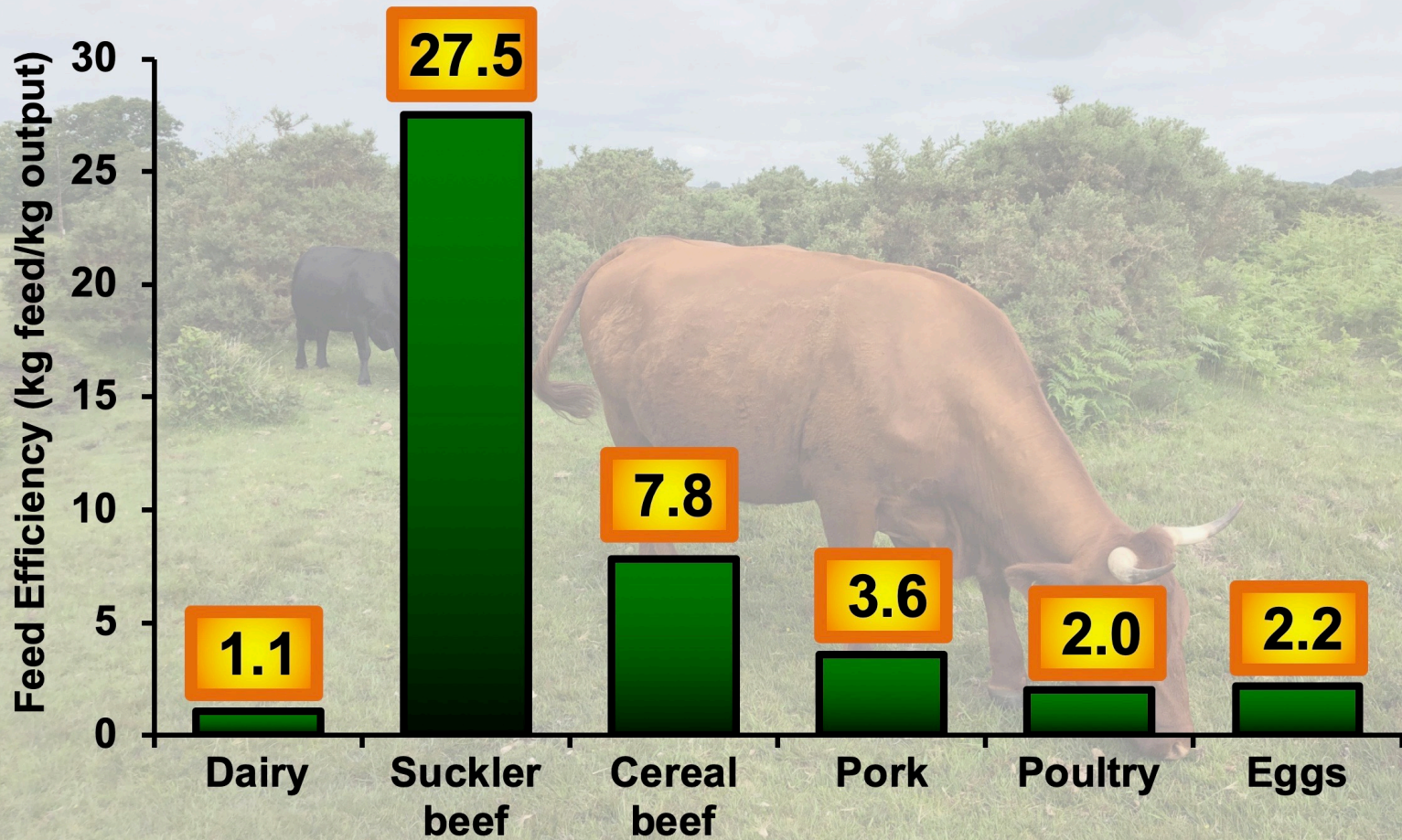
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# Feed efficiency ratios vary between systems and species



Source: Created by Dr. Jude L. Capper, 2020; data from Wilkinson (2011) Re-defining efficiency of feed use by livestock. *Animal*.

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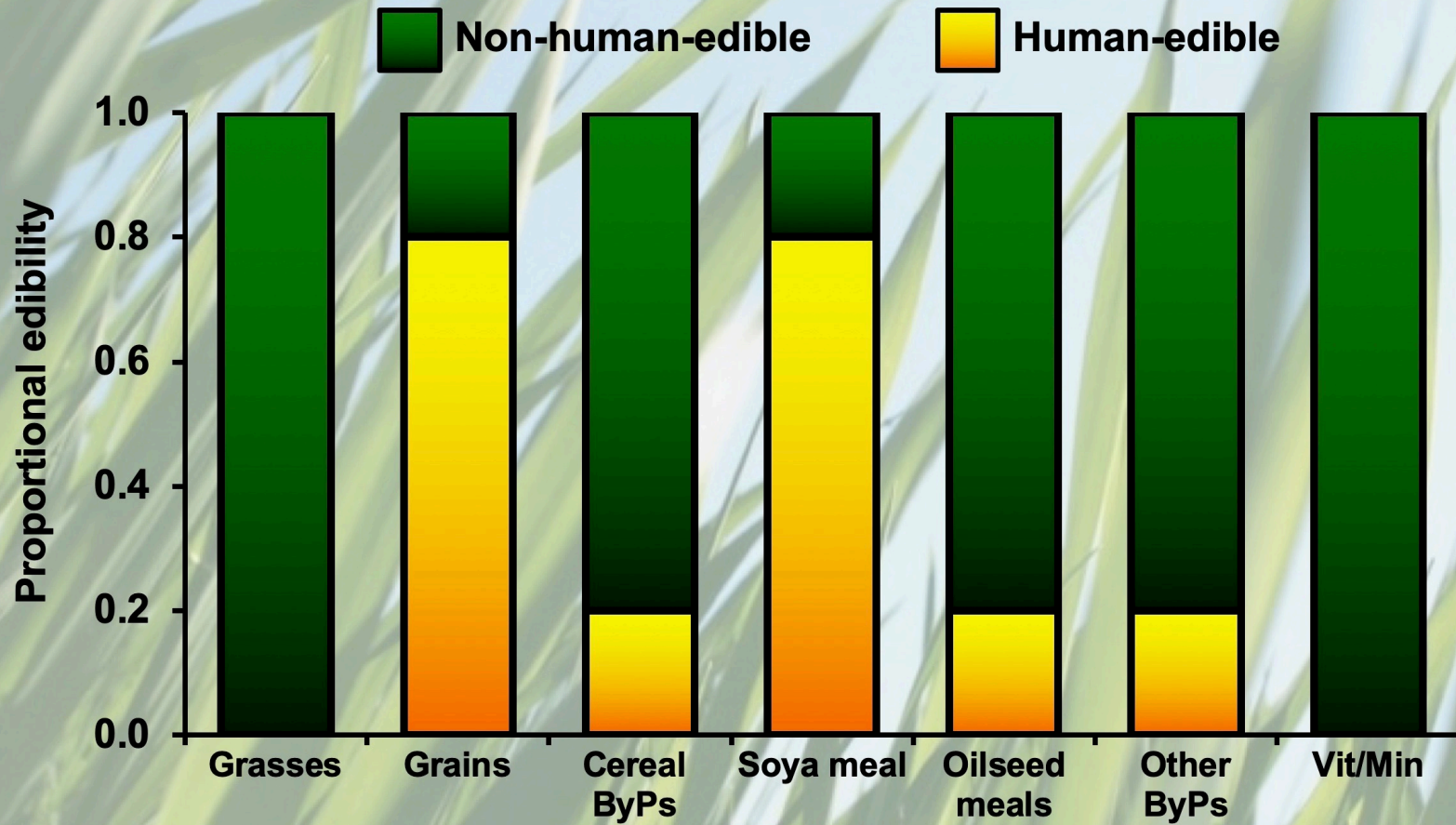
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# Feed efficiency metrics must consider competition for human-edible foods



Source: Created by Dr. Jude L. Capper, 2020; data from Wilkinson (2011) Re-defining efficiency of feed use by livestock. *Animal*.

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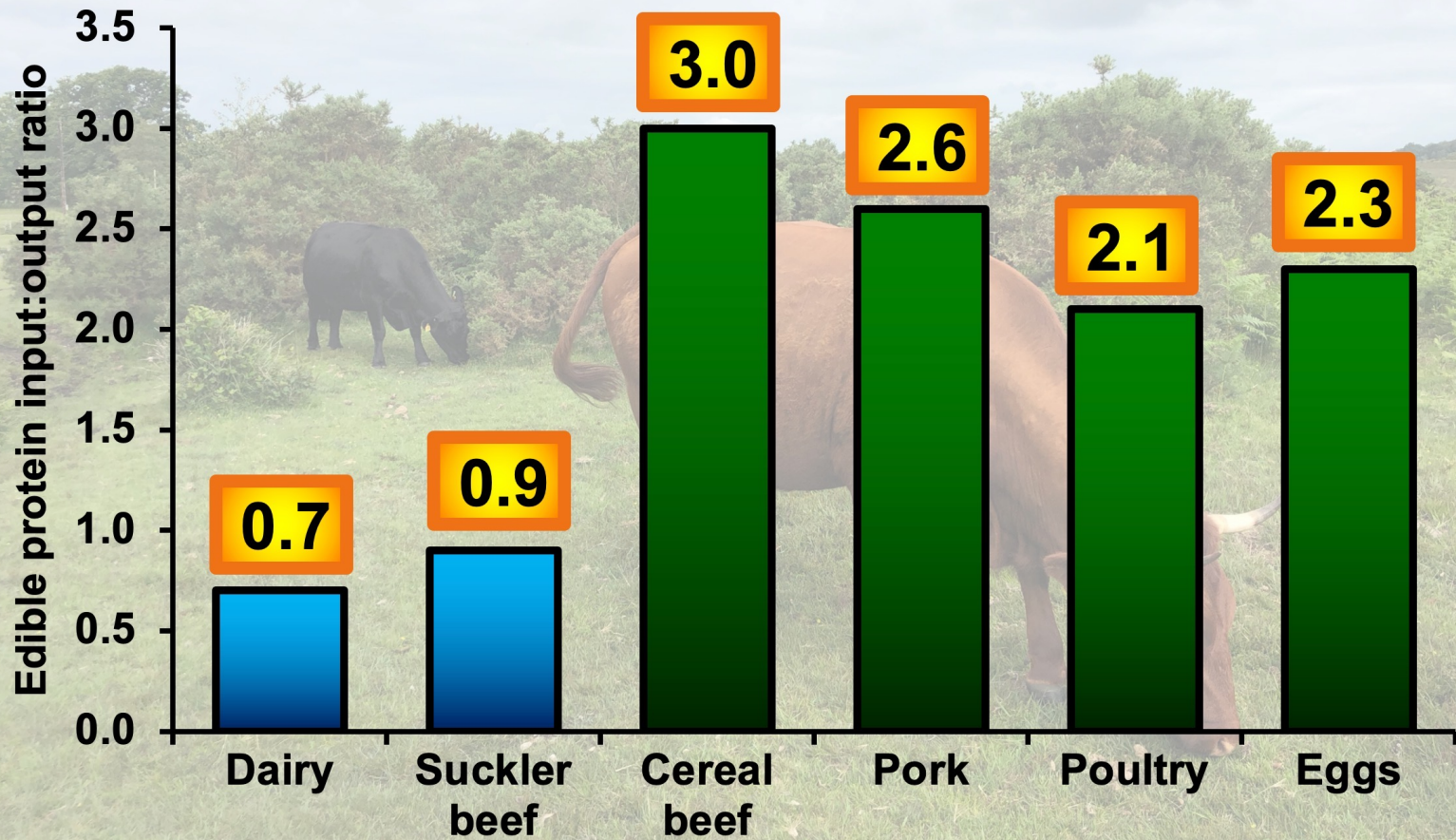
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# Grazing cattle systems produce more human-edible protein than they consume



Source: Created by Dr. Jude L. Capper, 2020; data from Wilkinson (2011) Re-defining efficiency of feed use by livestock. *Animal*.

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# Bounded rationality - we don't have time to research, so need quick, simple explanations

Based on the average UK diet

# 30%

of our protein intake comes from red meat...

...which is vital for our body's growth, maintenance and muscle recovery!



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Harper Adams University

Source: Created by Dr. Jude L. Capper, 2020. Infographic from HCC (2020): <https://meatpromotion.wales/en/news-industry-info/download>

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## Drinks vary in nutrient density and greenhouse gas emissions

	Nutrient density	Carbon footprint g CO <sub>2</sub> /100 g drink
Whole milk	53.8	99
Orange juice	17.2	61
Soya juice	7.6	30
Oat juice	1.5	21
Red wine	1.2	204
Soda	0.0	109
Beer	0.0	101
Water	0.0	10

Source: Created by Dr. Jude L. Capper, 2020. Data from: Smedman et al. (2010). Nutrient density to climate impact (NDCI) index of beverages. Food & Nutr. Res.

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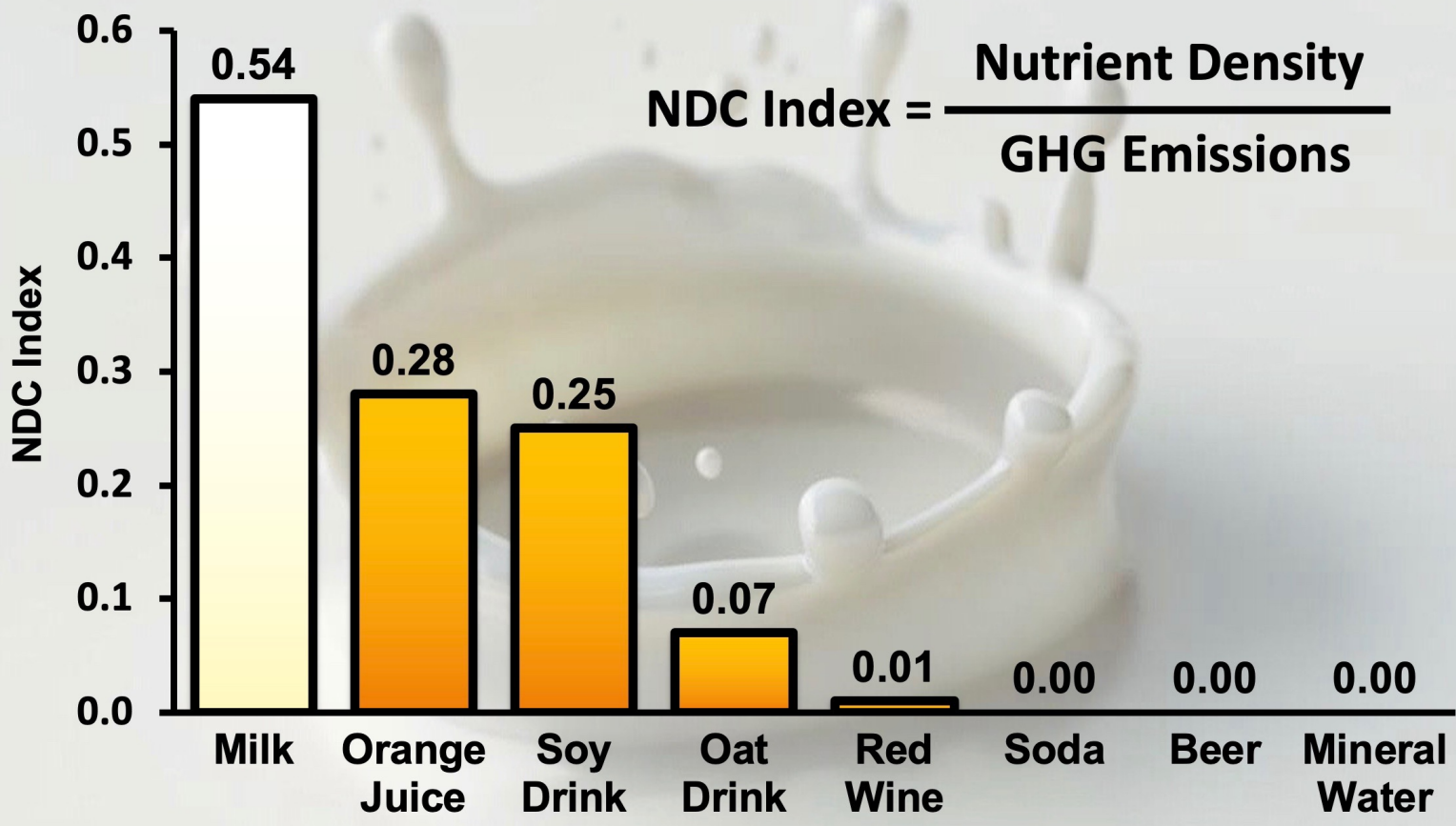


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# Nutrient density should be included when assessing carbon footprint



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Source: Created by Dr. Jude L. Capper, 2020. Data from: Smedman et al. (2010). Nutrient density to climate impact (NDCI) index of beverages. Food & Nutr. Res.

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# Confirmation bias – tapping into consumers' inherent beliefs to improve trust

Consumers may interpret bottle-feeding a calf as caring or cruel, depending on pre-conceived ideas

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Source: Created by Dr. Jude L. Capper, 2020.



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Cultural cognition – we trust people with whom we share values and wish to emulate



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England rugby player credited <3 week recovery from broken leg to drinking 2 pints of milk per day

Source: Created by Dr. Jude L. Capper, 2019. Screenshot from: <http://www.telegraph.co.uk/rugby-union/2017/02/02/england-prop-joe-marler-reveals-secret-behind-hisremarkable/>

The Telegraph

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## Sport | Rugby Union

Rugby Union | Fixtures | Results | Tables | Lions | Aviva Premiership | Brian Moore

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### England prop Joe Marler reveals the secret behind his remarkable recovery in time for Six Nations



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## 5 easy tips for positive communication

**Share your values**

**Stay positive, polite and personal**

**Keep it short, simple and see-through**

**Focus on the important**

**Know when to walk away**

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Source: Created by Dr. Jude L. Capper, 2019. Adapted from: Capper and Yancey. 2015. Communicating Animal Science to the General Public. *Animal Frontiers*.



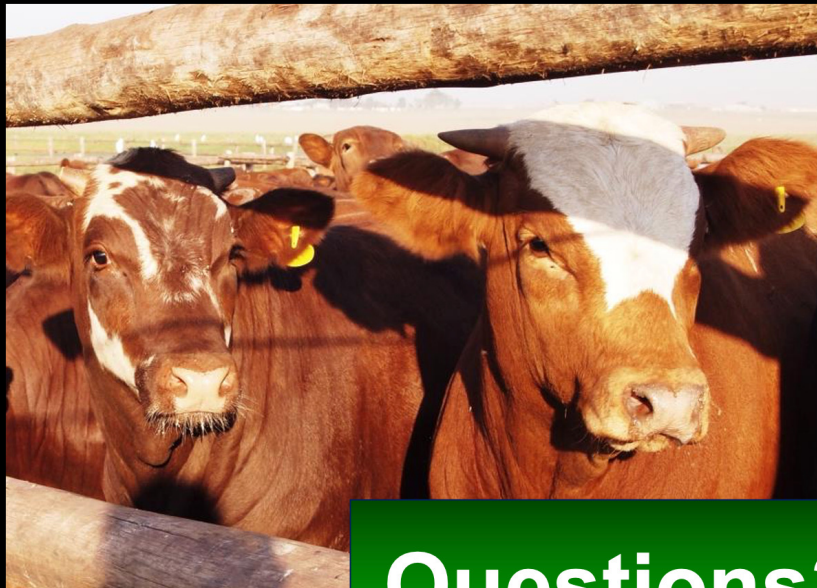




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**Thank you!**

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**<http://bovidiva.com/presentationlinks>**

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**Questions?**



Source: Created by Dr. Jude L. Capper, 2021. Cartoon from: <http://RubesCartoons.com>

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