

# FOOD DEUTENOMICS DATA

*UNIVERSAL NANOMOTOR USER GUIDE (empirical cutoff value – non-product related non-medical assessments)*

## DEUTENOMICS OF FOOD

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**we can work when ATPase is at work**

(<https://www.mygoodbrain.org/blog/the-benefits-of-exercise-on-mental-health>)

- **deuterium content of nutrients determines the same of matrix water, produced by mitochondrial nanomotor related proton influx and oxygen, upon complete substrate oxidation in the Krebs- Szent-Györgyi cycle<sup>1,2</sup>**

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**nutrient deutenomics – is the basics of ATPase functions, mitochondrial health and quality of life**

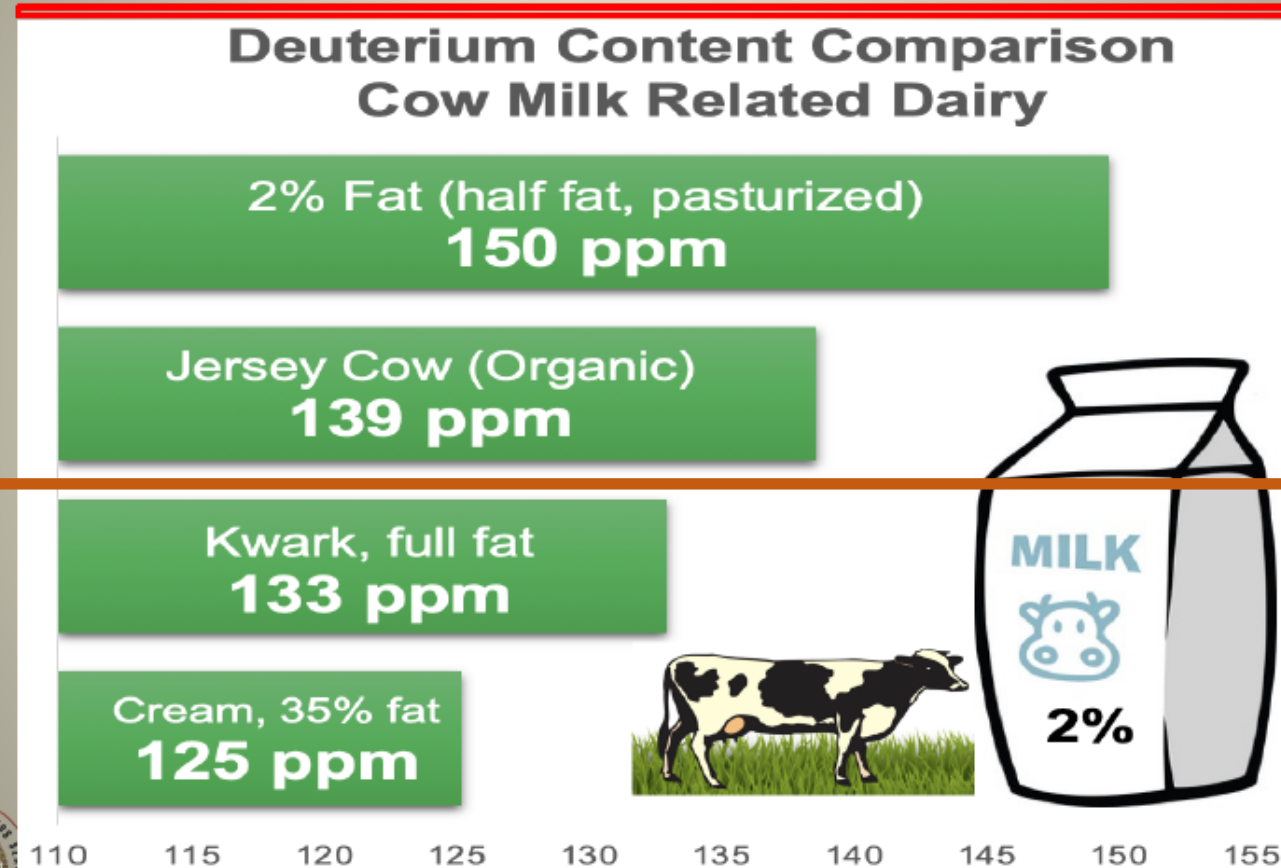
(<https://www.alamy.com/stock-photo/schoolgirl-leaning-on-desk.html>)

- **nutrients profoundly influence mitochondrial ATPase functions and thus health as the prime source of deuterium during life**

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**~133 ppm  
cutoff  
deuterium  
in nutrients**  
(estimated  
average for  
humans in  
temperate climate  
per year)



less favorable for  
mitochondrial  
ATPase

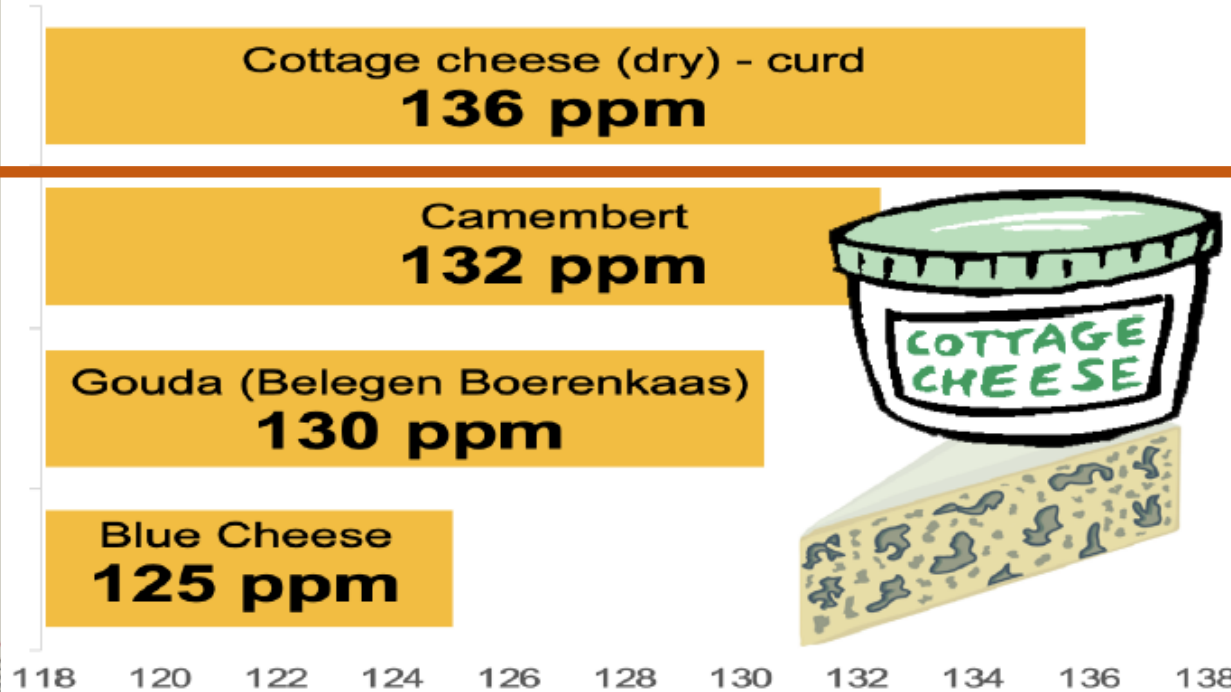
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## Deuterium Content Comparison in Cheeses



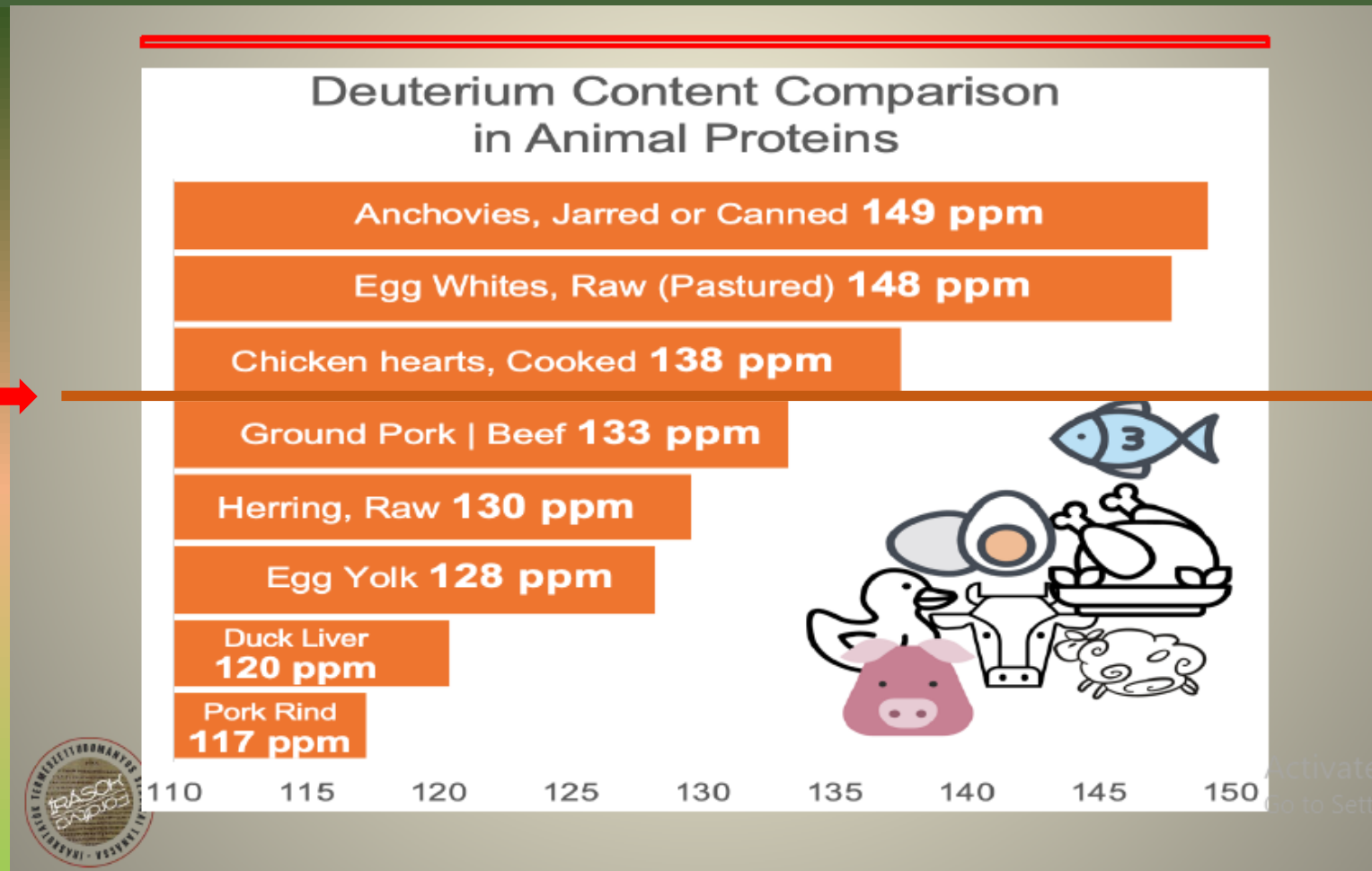
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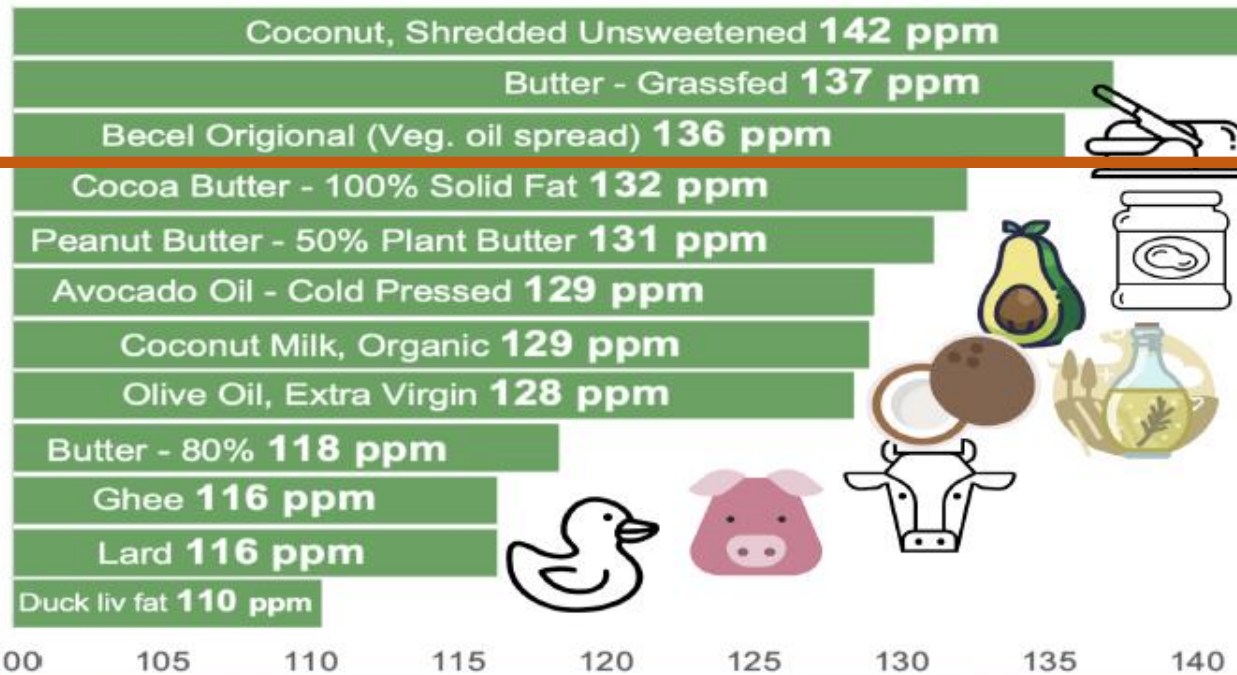


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## Deuterium Content Comparison in Animal & Plant: Fat & Oil Source



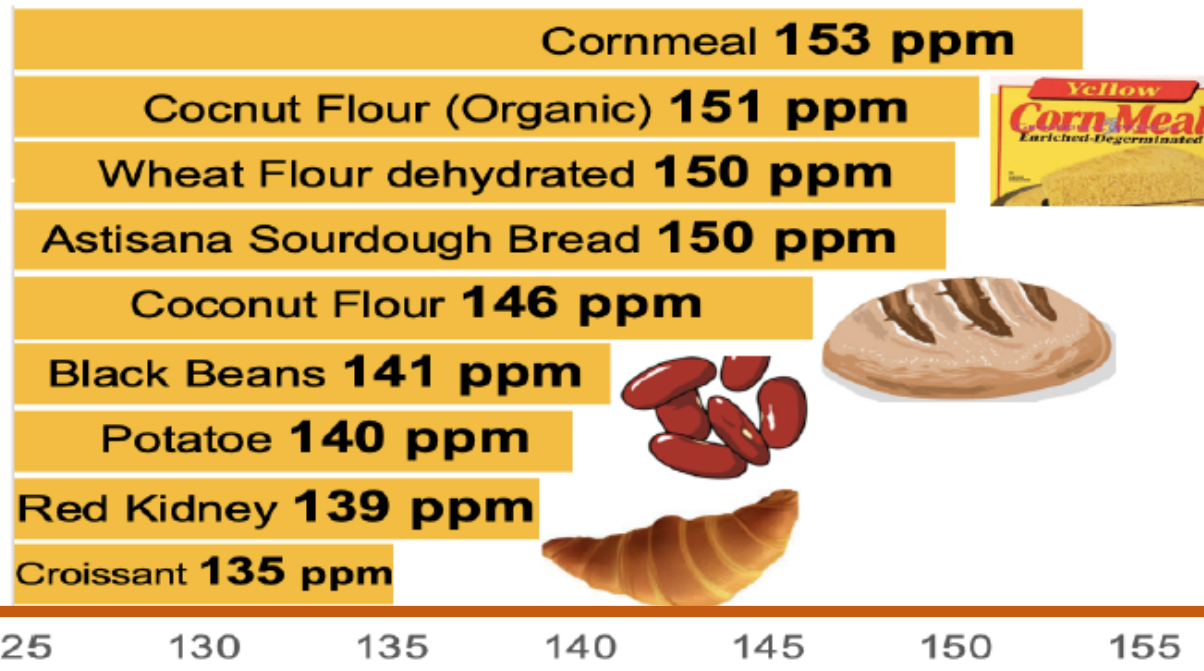
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## Deuterium Content Comparison in Carbs



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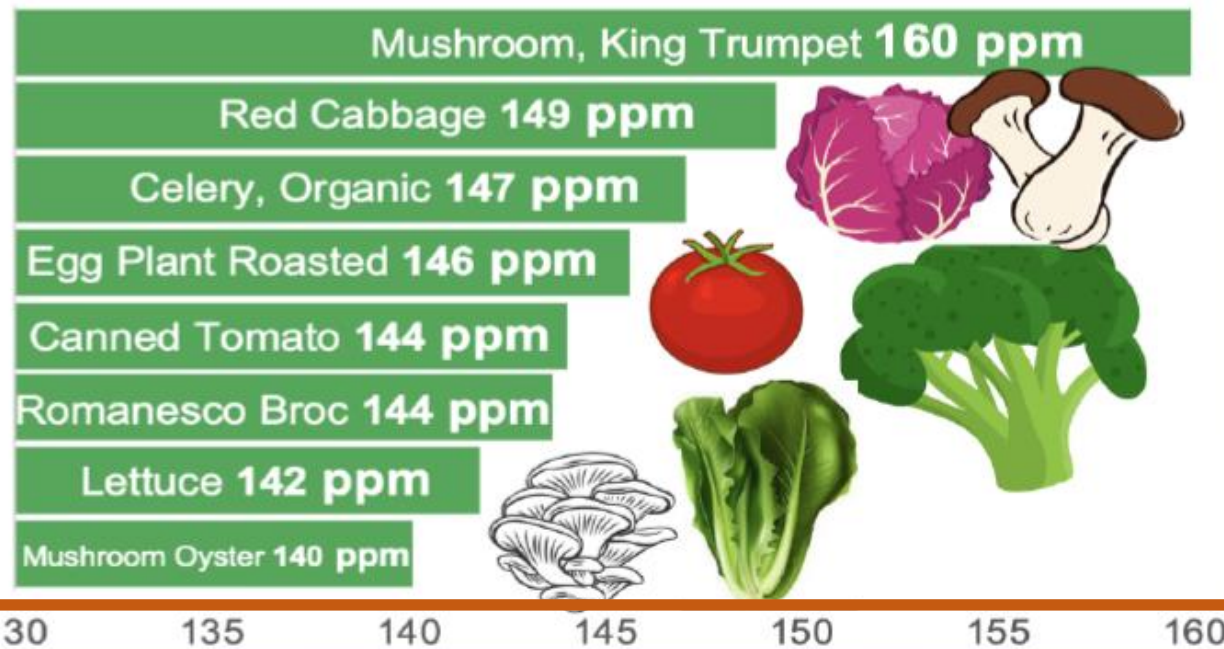
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## Deuterium Content Comparison in Vegetables



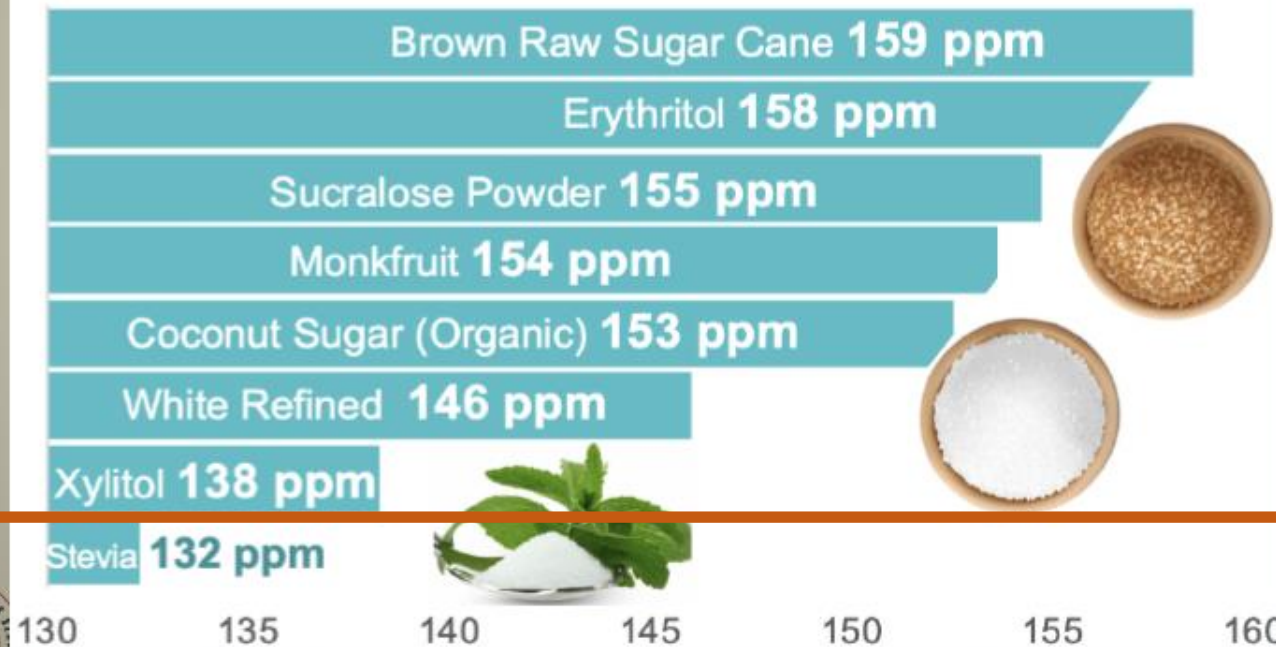
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## Deuterium Content Comparison in Sugars

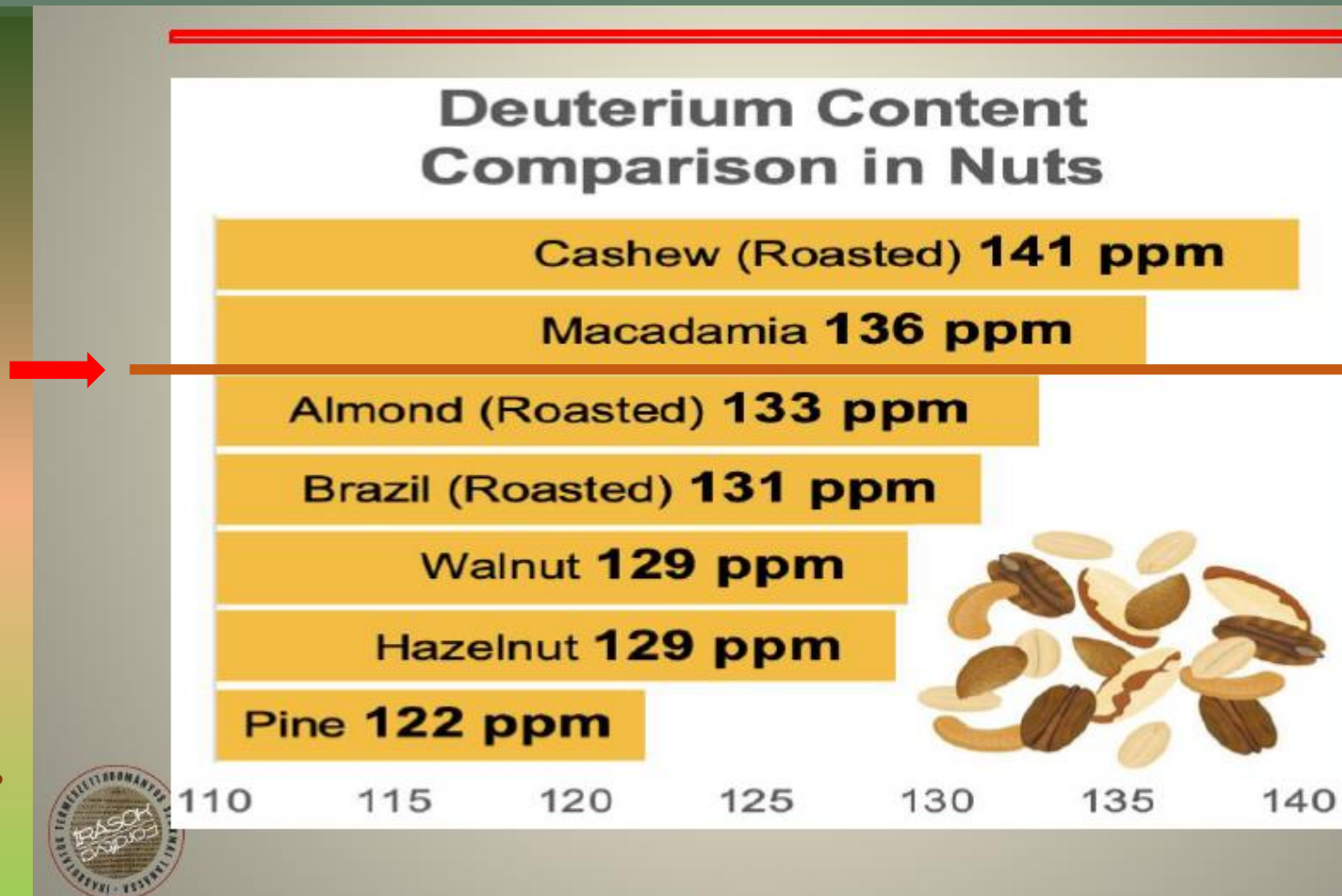


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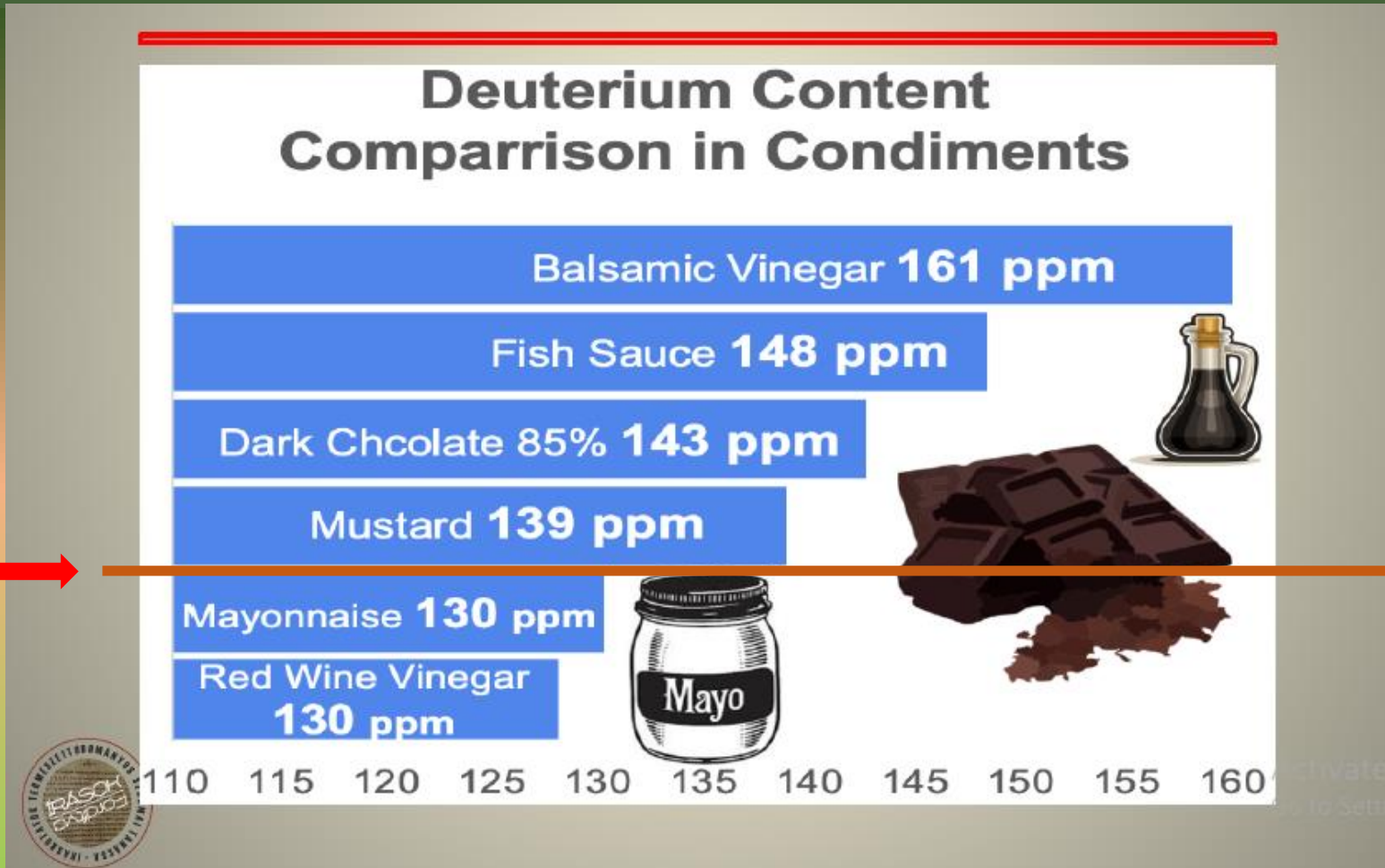
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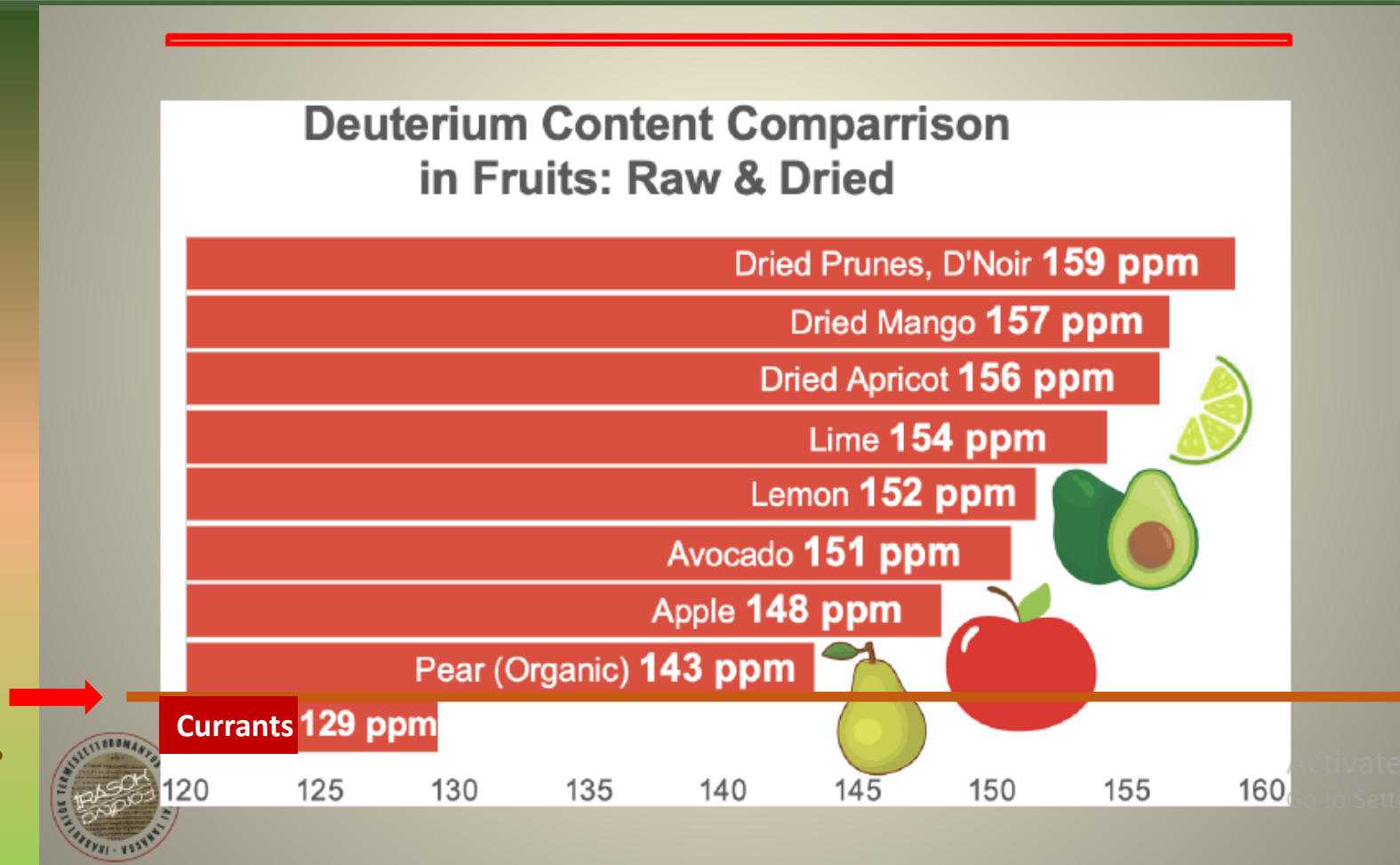
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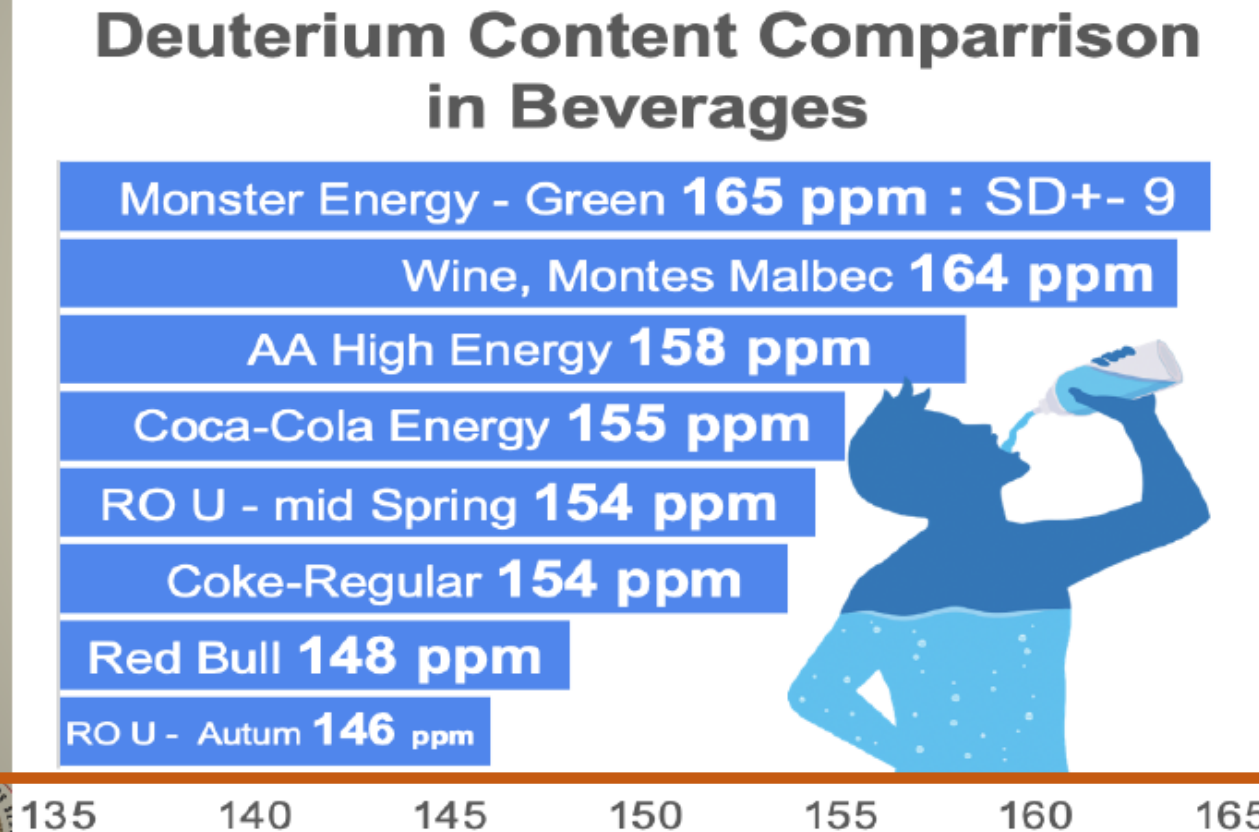
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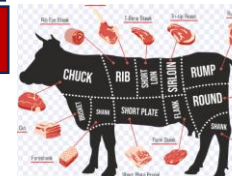
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## Deuterium Content Comparison in a British Columbia Living Habitat (Canada)

|                             |           |
|-----------------------------|-----------|
| squash (from garden)        | 139.9 ppm |
| insect (hooper from garden) | 137.6 ppm |
| twinberry (from yard)       | 137.1 ppm |
| garlic (from garden)        | 135.5 ppm |
| goat (meat)                 | 129.2 ppm |
| lamb (meat)                 | 128.5 ppm |
| cheese (livestock)          | 125.8 ppm |
| beef (market)               | 125.1 ppm |
| beef (livestock)            | 121.2 ppm |
| beef fat (stock)            | 113.4 ppm |



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# TAKEHOME MESSAGE

- **yearly average of deuterium intake, adjusted to geographical location, anthropological and microbiome related assessments, lifestyle and age may provide important guidelines to prevent and treat chronic diseases**

# METHODS

- Deutenomics measurements were performed by James C. Lech at the Department of Physics and Astronomy, Physics of Living Systems, Vrije University Amsterdam, The Netherlands ([jameslech@gmail.com](mailto:jameslech@gmail.com))
- Deuterium Content Comparison in a British Columbia Living Habitat (Canada) - [https://youtu.be/AFvO\\_FHLGvw?si=VM1R4gomKRYQyGtC](https://youtu.be/AFvO_FHLGvw?si=VM1R4gomKRYQyGtC)