

The Errata list

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| Text correction | | | |
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| | Old | New | |
| Page | 18 | Section oat - Figure 8 shows the composition of whole grains | Must be deleted |
| Page | 21 | Section moisture content - shown in Error! Reference source not found. | Change with - shown in Table 15 |
| Page | 32 | Section 2.3.2- Experiment No. 3 Sweet potatoes and no. 2. Oat | Change with - Experiment No. 2 Sweet potatoes and No. 3 Oat |
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| Page | 35 | Section 2.3.5.2 - The extrudates were dried after extrusion. | Change with - The extrudates were dried and cooled after extrusion figure 17 and Figure 18 |
| Page | 38 | Section 2.3.5.5 - The final product will be staying in the dryer | Change with - The final product will be staying in the dryer Figure 21 |
| Page | 39 | Section 2.4.1 - Electronic Moisture Analyzer | Change with - Electronic Moisture Analyzer Figure 24 |
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| Page | 40 | Section 2.4.3- Rotronic Water Activity Systems | Change with - Rotronic Water Activity Systems Figure 26 |
| Page | 41 | Section 2.4.6.1 - Two commercial protein bars and the baked and extruded bars | Change with -Two commercial protein bars and the baked and extruded bars Figure 28 |
| Page | 43 | Section 2.4.6.2 - The baked bar and the extruded bars | Change with - The baked bar and the extruded bars Figure 31 |
| Page | 53 | Section 3.3.2.2.4 - Bulk density of the extruded bar Figure 41. | Must be deleted |
| Page | 55 | Section 3.5.2 - the Error! Reference source not found. | Table 32 |
| Page | 56 | Section 3.5.2 - The nutritional value as energy (Kcal/60g), % of fat, starch, sugar, dietary fiber, protein and dry matter of the extruded bars are shown in the Table 31. The data is calculated according to the USDA's National Nutrient Database, information from the manufacturer and literature and MATVARETABELLEN. | Must be deleted |

| | | | |
|------|----|---|-----------------|
| Page | 59 | <p>Section 3.6.1.1 - Table 34 in overall appearance of the four bars showed that a significant difference was found in the overall acceptance between the extruded bar and the commercial Quest bar. No significant difference was found in the overall acceptance between the backed bar and the two commercial bars; PROTEINBAR chocolate and Quest bar (As the p-value is higher than 0.05). The extruded bar is significant different than the backed bar, the PROTEINBAR chocolate and the Quest bar at 5% level of significance (significant at p-value 0.05). But the remaining protein bars are not significantly different from each other. Moreover, based on the confidence interval, if zero is included in 95% confidence interval, the different bar is not significantly different.</p> | Must be deleted |
| Page | 61 | <p>Section 3.6.1.1 - The results in the results in Table 36 showed significant difference in the overall acceptance of the smell between the extruded bar and backed bar (p-value is less than 0.05). No significant difference was found in the overall acceptance between the extruded bar and the PROTEINBAR chocolate and the Quest bar (p-value higher than 0.05).</p> | Must be deleted |

3Results

3.1 A literature survey of bars on the market

3.1.1 Energy and protein bars available on the market

The nutrition information of different commercial bars that have been reviewed and the results are shown in Figure 32. The highest protein contents are found in Cliff builders bar and in Rise protein bar, both with 20 g protein per serving (40-60 g). The other commercial bars do not have remarkable high protein content (< 10%), except for MacroBar and Vega sport with 15% protein content. These are mostly used as energy bars, since the amounts of carbohydrate are most prominent. The bar with the highest energy contents Figure 1 are Kate's Real Food bar, ProBar and Tine YT bar with approximately 360 kcal per 100 g, which must be considered as a meal replacement category (> 250 Kcal per gram).

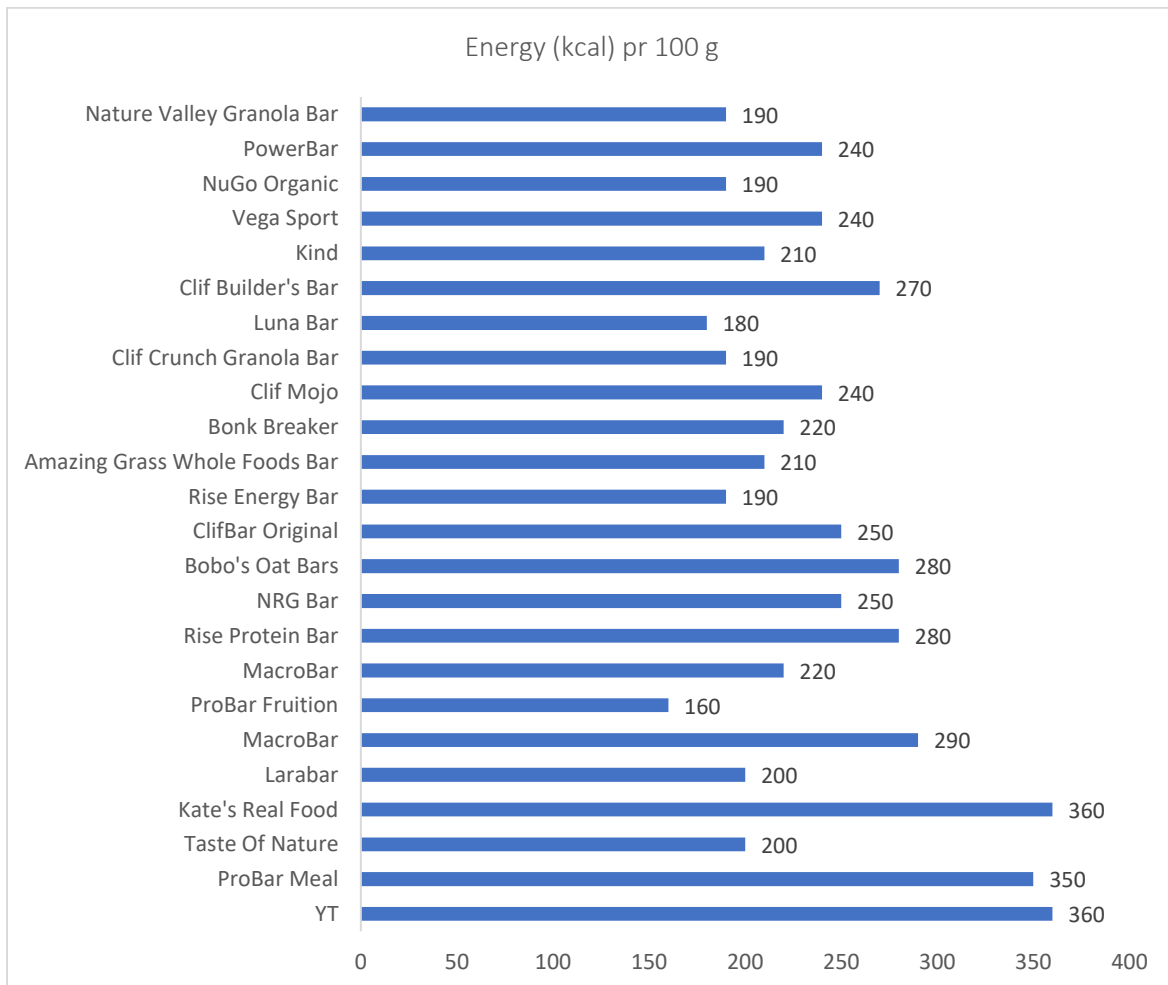
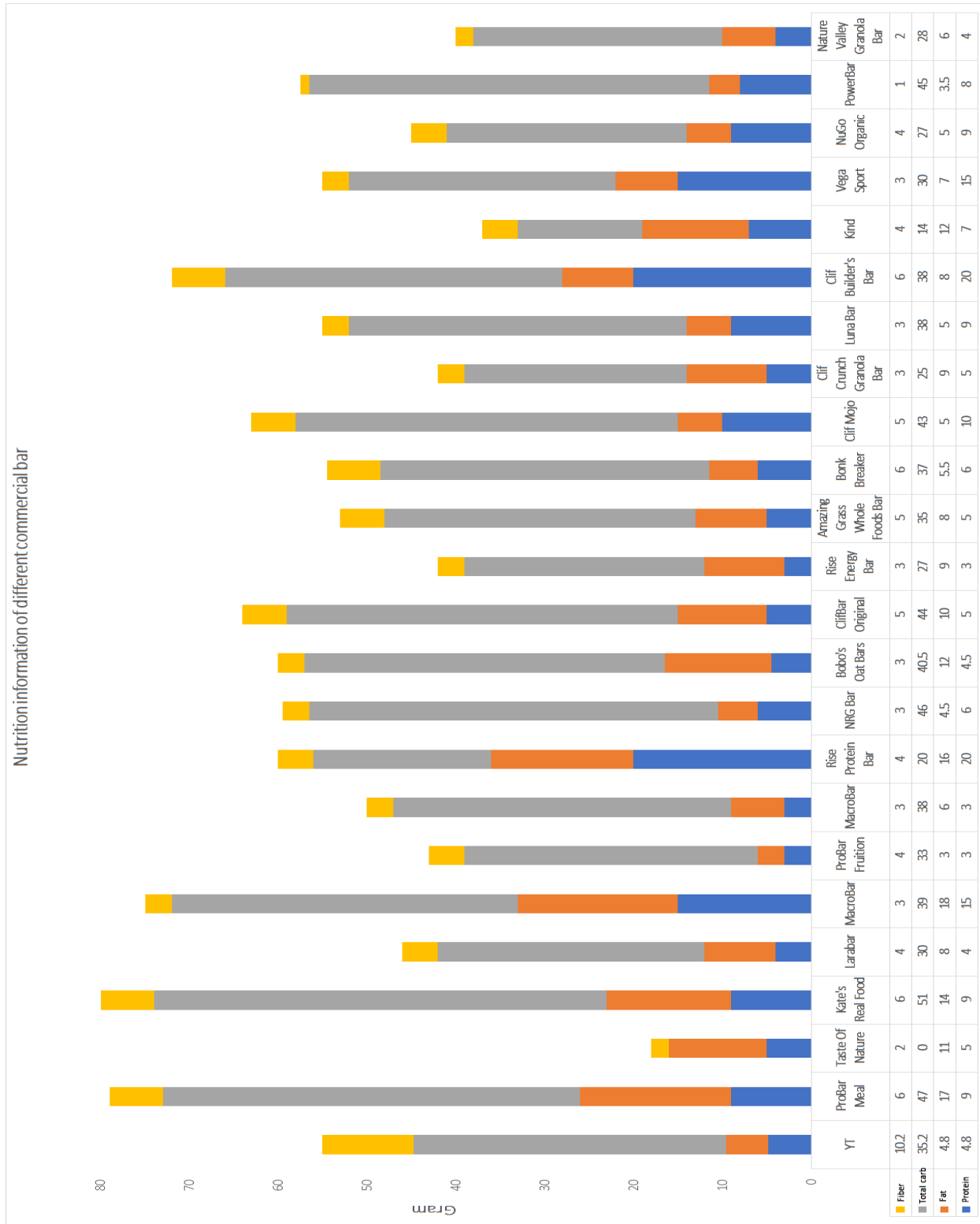


Figure 1. Energy (Kcal) pr. 100 g in different commercial bars

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Figure 34. Nutrition content in (g/total serving size of protein, fat, carbohydrate and fiber) in different commercial bars included in the literature review.



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different from each other. Moreover, based on the confidence interval, if zero is included in 95% confidence interval, the different bar is not significantly different.

Table 35. Multiple comparisons of the four bars related to overall taste

Dependent Variable: overall acceptance of taste
Tukey HSD

| (I) protein food bar | (J) protein food bar | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|----------------------|----------------------|-----------------------|------------|------|-------------------------|-------------|
| | | | | | Lower Bound | Upper Bound |
| Extruded | Oven Backed | -.625 | .446 | .508 | -1.84 | .59 |
| | chocolate bar | -1.750* | .446 | .003 | -2.97 | -.53 |
| | Quest bar | -.375 | .446 | .834 | -1.59 | .84 |
| Oven Backed | Extruded | .625 | .446 | .508 | -.59 | 1.84 |
| | chocolate bar | -1.125 | .446 | .078 | -2.34 | .09 |
| | Quest bar | .250 | .446 | .943 | -.97 | 1.47 |
| chocolate bar | Extruded | 1.750* | .446 | .003 | .53 | 2.97 |
| | Oven Backed | 1.125 | .446 | .078 | -.09 | 2.34 |
| | Quest bar | 1.375* | .446 | .022 | .16 | 2.59 |
| Quest bar | Extruded | .375 | .446 | .834 | -.84 | 1.59 |
| | Oven Backed | -.250 | .446 | .943 | -1.47 | .97 |
| | chocolate bar | -1.375* | .446 | .022 | -2.59 | -.16 |

*. The mean difference is significant at the 0.05 level.

Table 35 showed that significant differences were found in the overall acceptance of taste between the extruded bar and the commercial PROTEINBAR chocolate (p-value is less than 0.05). No significant difference was found in the overall acceptance of the taste between the backed bar and the commercial PROTEINBAR chocolate bar and Quest bar (p-value higher than 0.05).

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Table 37. Multiple comparisons of the four bars related to overall texture

Dependent Variable: overall acceptance of texture
Tukey HSD

| (I) protein food bar | (J) protein food bar | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|----------------------|----------------------|-----------------------|------------|------|-------------------------|-------------|
| | | | | | Lower Bound | Upper Bound |
| Extruded | Oven Backed | -1.375 | .506 | .051 | -2.76 | .01 |
| | chocolate bar | -1.250 | .506 | .087 | -2.63 | .13 |
| | Quest bar | -.750 | .506 | .460 | -2.13 | .63 |
| Oven Backed | Extruded | 1.375 | .506 | .051 | -.01 | 2.76 |
| | chocolate bar | .125 | .506 | .995 | -1.26 | 1.51 |
| | Quest bar | .625 | .506 | .610 | -.76 | 2.01 |
| chocolate bar | Extruded | 1.250 | .506 | .087 | -.13 | 2.63 |
| | Oven Backed | -.125 | .506 | .995 | -1.51 | 1.26 |
| | Quest bar | .500 | .506 | .757 | -.88 | 1.88 |
| Quest bar | Extruded | .750 | .506 | .460 | -.63 | 2.13 |
| | Oven Backed | -.625 | .506 | .610 | -2.01 | .76 |
| | chocolate bar | -.500 | .506 | .757 | -1.88 | .88 |

Table 37 showed no significant difference in the overall acceptance of texture between the bars (p-value higher than 0.05).

3.6.1.2 Tukey Test / Honest Significant Difference

Tukey's multiple comparison tests are one of various tests that it used to specify which mean(average) value between a set of means vary from the rest.