



## RAWZ – Nutritional Benefits for Cat and Dog New Zealand Canned 94% Venison, Organ Meats & Green Mussels and 94% Venison, Organ Meats & Goat's Milk Diets

#### 1. Benefits of a Wet, Canned Diet

Canned diets offer consumer-friendly convenience as they are shelf-stable products. However, no matter how convenient a food format is, a diet is only as good as the digestibility and acceptance of it. Compared with kibble, canned diets increase the facilitation of digestion. In dogs and cats, they are linked to smoother gut transit and efficient nutrient digestibility. <sup>2,3,5</sup> This can be attributed to the high moisture content associated with cans which also contributes to hydration. <sup>14</sup> This can be advantageous for pet parents that are trying to increase their pets' water intake as well. Wet foods are also very palatable. Flavor-active compounds naturally develop in wet canned foods which, along with the soft, meaty texture, drives the strong palatability. <sup>16,19</sup> Having a palatable diet drives the pet to want to eat wet food, in turn ensuring that nutritional requirements are met. <sup>10,16</sup>

# 2. Venison as a Novel Single Meat Lean Protein, Nutrient - Dense Protein Source, Can be Great for Pet's with Food Sensitivities

These Rawz canned recipes feature venison as the primary animal protein source, offering a high-quality, highly digestible alternative to traditional proteins like chicken or beef. Venison provides essential nutrients to support overall health and wellness. Select recipes include nutrient-rich green mussels, a natural source of omega-3 fatty acids and joint-supporting compounds, as well as goat's milk, which contributes digestible proteins, vitamins, and minerals to promote gut and immune health.

Adequate dietary protein supports tissue maintenance, growth, metabolism, and energy needs. In dogs, insufficient protein intake is linked to loss of lean mass, stunted growth, and amino acid imbalances, while higher protein diets help maintain lean body mass. 8, 18 Venison is naturally lean, making it a good source of essential amino acids. It is also a source of essential minerals such as zinc, potassium, magnesium, and iron. 12,18 Since it is lower in fat, it can also be a great option for pets needing a little more caloric control. To help maintain a lower fat content and preserve the lean profile of these formulas, venison lung was incorporated. This lean organ meat provides protein, iron, phosphorus, and B-complex vitamins. Venison liver was also added to help balance the formula, as it is one of





the most nutrient-dense organ meats, supplying vitamin A, B-complex vitamins, and essential minerals. Additionally, venison liver is highly palatable. Overall, venison is a high-quality, easily digestible protein that's low in fat, helping support lean muscle without excess fat.

#### 3. Green Mussels as a Natural Source of Omega-3

Green mussels provides a rich, natural supply of omega-3 fatty acids, EPA and DHA. <sup>15,11</sup> Not only are EPA and DHA important for overall health, they support anti-inflammatory, skin and coat health, heart health, immune function, and cognitive function. <sup>4,11</sup> Incorporation of these fatty acids has also been linked to relief in dogs affected by osteoarthritis with improved motor activity and gait function. <sup>4,15</sup> Green mussels also contribute protein and a natural source of minerals such as chloride, iodine, selenium, and sodium. Given their wide range of benefits, green mussels can support your pet's long-term health and well-being.

### 4. Goat's Milk for Digestive Health

Supporting a healthy gut and digestion is important for a pet's overall health and wellbeing. Goat's milk contains naturally occurring oligosaccharides which act as prebiotics that nourish gut bacteria, in turn, supporting digestion.<sup>1,17</sup> When compared to cow's milk, goat's milk has lower lactose levels, lower fat content, and smaller fat globules, making it easier to digest.<sup>6</sup> High lactose levels can negatively impact digestive efficiency and cause gastrointestinal upset in dogs and cats.<sup>7</sup> As part of a balanced formula, goat's-milk can help nurture a healthy microbiome and digestion for many pets.





#### References

- 1. ALKaisy QH, Al-Saadi JS, Al-Rikabi AKJ, Altemimi AB, Hesarinejad MA, Abedelmaksoud TG. Exploring the health benefits and functional properties of goat milk proteins. Food Sci Nutr. 2023 Jun 27;11(10):5641-5656. doi: 10.1002/fsn3.3531. PMID: 37823128; PMCID: PMC10563692.
- Bermingham EN, Young W, Kittelmann S, Kerr KR, Swanson KS, Roy NC, Thomas DG. Dietary format alters fecal bacterial populations in the domestic cat (Felis catus). Microbiologyopen. 2013 Feb;2(1):173-81. doi: 10.1002/mbo3.60. Epub 2013 Jan 7. PMID: 23297252; PMCID: PMC3584222.
- 3. Bian Z, Jian X, Liu G, Jian S, Wen J, Zhang H, Lin X, Huang H, Deng J, Deng B, Zhang L. Wet-food diet promotes the recovery from surgery of castration and control of body weight in adult young cats. J Anim Sci. 2023 Jan 3;101:skad039. doi: 10.1093/jas/skad039. PMID: 36734030; PMCID: PMC9997781.
- 4. Carlisle C, Metzger BT, Tintle NL, Polley K, Jackson KH, Le Brun-Blashka S, Griffiths J, Harris WS. The Effects of Omega-3 Supplementation on the Omega-3 Index and Quality of Life and Pain Scores in Dogs. Animals (Basel). 2024 Oct 29;14(21):3108. doi: 10.3390/ani14213108. PMID: 39518831; PMCID: PMC11545626.
- Dikeman CL, Murphy MR, Fahey GC Jr. Diet type affects viscosity of ileal digesta of dogs and simulated gastric and small intestinal digesta. J Anim Physiol Anim Nutr (Berl). 2007 Apr;91(3-4):139-47. doi: 10.1111/j.1439-0396.2006.00656.x. PMID: 17355343.
- 6. Getaneh G, Mebrat A, Wubie A, Kendie H. Review on Goat Milk Composition and its Nutritive Value. J Nutr Health Sci 2016;3(4): 401. doi: 10.15744/2393-9060.3.401
- 7. Grandi, M., Pinna, C., Bonaldo, A., Stefanelli, C., Vecchiato, C.G., Zaghini, G., & Biagi, G. (2018). Effects of dietary supplementation with increasing doses of lactose on faecal bacterial populations and metabolites and apparent total tract digestibility in adult dogs. *Italian Journal of Animal Science*, 17, 1021 1029.
- 8. Hannah, S.S. (1998). Role of Dietary Protein in Weight Management. Medicine, Agricultural and Food Sciences. Retrieved from <a href="https://www.semanticscholar.org/paper/Role-of-Dietary-Protein-in-Weight-Management-Hannah/c9a4f76b26fb17fbeba8d3d251557e153dbb68f9#citing-papers">https://www.semanticscholar.org/paper/Role-of-Dietary-Protein-in-Weight-Management-Hannah/c9a4f76b26fb17fbeba8d3d251557e153dbb68f9#citing-papers</a>.
- 9. Le Guillas, G., Vanacker, P., Salles, C., & Labouré, H. (2024). Insights to Study, Understand and Manage Extruded Dry Pet Food Palatability. *Animals*, *14*(7), 1095. https://doi.org/10.3390/ani14071095





- 10. Magalhães TR, Lourenço AL, Gregório H, Queiroga FL. Therapeutic Effect of EPA/DHA Supplementation in Neoplastic and Non-neoplastic Companion Animal Diseases: A Systematic Review. In Vivo. 2021 May-Jun;35(3):1419-1436. doi: 10.21873/invivo.12394. Epub 2021 Apr 28. PMID: 33910819; PMCID: PMC8193331.
- 11. Marchello, M.J., Berg, P.T., Slanger, W.D., & Harrold, R.L. (1985). CUTABILITY AND NUTRIENT CONTENT OF WHITETAIL DEER1. *Journal of Food Quality, 7*, 267-275.
- 12. Mehler SJ, May LR, King C, Harris WS, Shah Z. A prospective, randomized, double blind, placebo-controlled evaluation of the effects of eicosapentaenoic acid and docosahexaenoic acid on the clinical signs and erythrocyte membrane polyunsaturated fatty acid concentrations in dogs with osteoarthritis. Prostaglandins Leukot Essent Fatty Acids. 2016 Jun;109:1-7. doi: 10.1016/j.plefa.2016.03.015. Epub 2016 Mar 30. PMID: 27269707.
- 13. Peña C, Suarez L, Bautista-Castaño I, Juste MC, Carretón E, Montoya-Alonso JA. Effects of low-fat high-fibre diet and mitratapide on body weight reduction, blood pressure and metabolic parameters in obese dogs. J Vet Med Sci. 2014 Sep;76(9):1305-8. doi: 10.1292/jvms.13-0475. Epub 2014 Jun 11. PMID: 24920548; PMCID: PMC4197164.
- 14. Rialland P, Bichot S, Lussier B, Moreau M, Beaudry F, del Castillo JR, Gauvin D, Troncy E. Effect of a diet enriched with green-lipped mussel on pain behavior and functioning in dogs with clinical osteoarthritis. Can J Vet Res. 2013 Jan;77(1):66-74. PMID: 23814358; PMCID: PMC3525174.
- 15. Samant, S. S., Crandall, P. G., Jarma Arroyo, S. E., & Seo, H. S. (2021). Dry Pet Food Flavor Enhancers and Their Impact on Palatability: A Review. *Foods (Basel, Switzerland)*, 10(11), 2599. https://doi.org/10.3390/foods10112599
- 16. van Leeuwen SS, Te Poele EM, Chatziioannou AC, Benjamins E, Haandrikman A, Dijkhuizen L. Goat Milk Oligosaccharides: Their Diversity, Quantity, and Functional Properties in Comparison to Human Milk Oligosaccharides. J Agric Food Chem. 2020 Nov 25;68(47):13469-13485. doi: 10.1021/acs.jafc.0c03766. Epub 2020 Nov 3. PMID: 33141570; PMCID: PMC7705968.
- 17. Wakshlag JJ, Barr SC, Ordway GA, Kallfelz FA, Flaherty CE, Christensen BW, Shepard LA, Nydam DV, Davenport GM. Effect of dietary protein on lean body wasting in dogs: correlation between loss of lean mass and markers of proteasome-dependent proteolysis. J Anim Physiol Anim Nutr (Berl). 2003 Dec;87(11-12):408-20. doi: 10.1046/j.0931-2439.2003.00452.x. PMID: 14633050.
- 18. Watson PE, Thomas DG, Bermingham EN, Schreurs NM, Parker ME. Drivers of Palatability for Cats and Dogs-What It Means for Pet Food Development. Animals





(Basel). 2023 Mar 23;13(7):1134. doi: 10.3390/ani13071134. PMID: 37048390; PMCID: PMC10093350.

19. Zicker, S. C., Jewell, D. E., Yamka, R. M., & Milgram, N. W. (2012). Evaluation of cognitive learning, memory, psychomotor, immunologic, and retinal functions in healthy puppies fed foods fortified with docosahexaenoic acid-rich fish oil from 8 to 52 weeks of age. *Journal of the American Veterinary Medical Association*, *241*(5), 583–594. https://doi.org/10.2460/javma.241.5.583