

COMPLAINT NUMBER	19/038
COMPLAINANT	T Green
ADVERTISER	Living Green
ADVERTISEMENT	Living Green Magazine, Television and Website
DATE OF MEETING	11 June 2019
OUTCOME	Upheld in part, Not Upheld in part Advertisements to be removed

Description of Advertisement

The magazine and television advertisements for Living Green products described them as “NZ’s most natural home cleaning range”. The magazine advertisement also said: “To us, being the ‘most natural’ means... only using the most natural ingredients, never using harmful chemicals, and using recyclable packaging”. The Living Green website said: “our products are certified to be safer for you, your family and our planet”.

Summary of the Complaint from T Green

The Complainant was concerned it was misleading for the advertisements to describe Living Green products as “NZ’s most natural home cleaning range” and “far safer for you, your family and our world”. The Complainant also said it was misleading for the advertisement to say they are using “recyclable packaging” as some products were wrapped in shrink wrap plastic or had lids that were made of plastic or wood.

Issues Raised

- Truthful presentation
- Environmental claims

Summary of the Advertiser’s Response

The Advertiser said they changed the website text from “the products are certified to be far safer for you, your family and our world” to “our products are certified to be safer for you, your family and our planet” after receiving a complaint. The Advertiser said they believe their products are “NZ’s most natural home cleaning range” and they are “certified to be safer for you, your family and our planet”. This is because they meet the rigorous criteria for the United States Natural Products Association certification. The Advertiser said they do not claim that all their components are recyclable. There was a recyclable logo on the website front page, but this has now been removed.

Summary of the Complaints Board Decision

The Complaints Board ruled a complaint about the magazine, television and website advertising for Living Green home cleaning products was Upheld in part and Not Upheld, in part.

The Complaints Board agreed it was misleading to describe Living Green home cleaning products as “NZ’s most natural home cleaning range” and “certified to be safer for you, your family and our planet” because the Advertiser did not provide sufficient evidence to support these claims.

The Complaints Board agreed it was not misleading to describe Living Green products as “using recyclable packaging”. The Complaints Board accepted the phrase “using recyclable packaging” was substantiated by the Advertiser.

Relevant ASA Codes of Practice

The Chair directed the Complaints Board to consider the complaint with reference to the following codes:

Principle 2: Truthful Presentation: Advertisements must be truthful, balanced and not misleading.

Rule 2(b): Truthful Presentation: Advertisements must not mislead or be likely to mislead, deceive or confuse consumers, abuse their trust or exploit their lack of knowledge. This includes by implication, inaccuracy, ambiguity, exaggeration, unrealistic claim, omission false representation or otherwise. Obvious hyperbole identifiable as such is not considered to be misleading.

Rule 2 (h): Environmental Claims: Environmental claims must be accurate and able to be substantiated by evidence that reflects scientific and technological developments.

Relevant precedent decision

In considering this complaint the Complaints Board referred to a precedent decision, Decision 16/178 Appeal 16/014, which was Upheld, Appeal Allowed.

The Appeal Board ruled the Advertiser SsangYong had not substantiated the claim that the SsangYong Korando SUV was “New Zealand’s best value mid-size SUV”. The Appeal Board said the evidence to prove this claim could include information about all the other mid-size SUVs available in New Zealand, and how the SsangYong Korando was relatively better value overall. The full version of this decision can be found on the ASA website:

<https://www.asa.co.nz/decisions/>

Complaints Board Discussion

Consumer Takeouts

“NZ’s most natural home cleaning range”

The Complaints Board agreed the consumer takeout for “NZ’s most natural home cleaning range” was Living Green home cleaning products are made of natural ingredients and are more natural than all other New Zealand home cleaning products.

“our products are certified to be safer for you, your family and our planet”

The Complaints Board agreed the consumer takeout for “our products are certified to be safer for you, your family and our world” was the products are safer than other home cleaning products, and this is especially important for children and for the planet.

“recyclable packaging”

The Complaints Board agreed the consumer takeout for “recyclable packaging” was packaging which is able to be recycled. It considered in this instance packaging which is biodegradable or able to be composted fits the definition of “recyclable” because it did not have to go to landfill.

The Complaints Board noted its jurisdiction covers the content and placement of advertising and it does not have jurisdiction to consider product labelling.

Do the advertisements make any environmental claims?

The Complaints Board agreed the advertisements were making environmental claims, specifically that the Living Green home cleaning products are “safer” for the environment and they use recyclable packaging.

Are the claims misleading:

Can Living Green’s home cleaning range be described as “NZ’s most natural home cleaning range”?

The Complaints Board agreed it was misleading to describe Living Green home cleaning products as “NZ’s most natural home cleaning range”.

The Complaints Board referred to precedent decision 16/178 Appeal 16/014, where the Appeal Board ruled the Advertiser SsangYong had not substantiated the claim that the SsangYong Korando SUV was “New Zealand’s best value mid-size SUV”. The Appeal Board said this evidence could include information about all the other mid-size SUVs available in New Zealand, and how the Ssangyong Korando was relatively better value overall.

The Complaints Board noted that the word “most” is a superlative term used for comparing one thing favourably with every other member of their group. The term “most natural” is always used in relation to more than one alternative.

The Complaints Board said Living Green is making a statement which contains an absolute claim - that its home cleaning products are New Zealand’s most natural home cleaning range. The Complaints Board said in order to support this claim the Advertiser would need to provide specific evidence, which it has not done. This evidence could include information about all the other natural home cleaning products available in New Zealand and show how Living Green products are the most natural overall, by comparison.

The Complaints Board said the statement is an opinion, not a substantiated fact, but it has not been presented as such. Simply because the Living Green home cleaning range has the United States Natural Products Association certification when other home cleaning products don’t, does not mean, of itself, that the Living Green home cleaning range is the “most natural”. Other home cleaning products may not have applied for United States Natural Products Association certification, but that does not prove they are any less “natural”. It also does not mean that other producers of home cleaning products would be unsuccessful if they did apply for it.

Can Living Green products be described as “certified to be safer for you, your family and our planet”?

The Complaints Board agreed it was misleading to describe Living Green home cleaning products as “certified to be safer for you, your family and our planet”.

The Complaints Board noted the Advertiser had changed the text on the website from “the products are certified to be far safer for you, your family and our world” to “our products are certified to be safer for you, your family and our planet”, after receiving a complaint about it.

The Complaints Board said the statement “certified to be safer for you, your family and our planet” is a comparative claim, implying Living Green home cleaning products are safer than other home cleaning products. The Complaints Board said the statement is an opinion, not a substantiated fact, but it has not been presented as such. Simply because the Living Green home cleaning range has the United States Natural Products Association certification does not mean, of itself, that the Living Green home cleaning range is “safer” than other home cleaning products.

The Complaints Board said while this statement is making a comparison it is not specific about which other products the Living Green range is being compared to. There is a lack of context and a lack of appropriate substantiation for the claim being made.

The Complaints Board noted that the term “natural” does not necessarily equate with being “safe” and some “natural” ingredients can be harmful.

Is the environmental claim “using recyclable packaging” misleading?

The Complaints Board agreed the use of the phrase “using recyclable packaging” in the context of the advertisement had been substantiated and was not misleading. This is because the Board considered the consumer takeout for “using recyclable packaging” would include packaging which is biodegradable or able to be composted, rather than having to go to landfill.

The Complaints Board said lids that are made of wood or bamboo, are biodegradable, and therefore “recyclable”. The Complaints Board noted the detailed information provided by the Advertiser about the recyclability of each component used in their packaging. The Complaints Board noted the Complainant and the Advertiser have a difference of opinion about whether the plastic lids used are “recyclable”.

The Complaints Board said taking into account context, medium, audience and product, two claims in the advertisements were in breach of Principle 2 and Rule 2(b) of the Advertising Standards Code.

Outcome

The Complaints Board ruled the complaint was **Upheld in part and Not Upheld in part**.

Advertisements to be removed.

APPEAL INFORMATION

According to the procedures of the Advertising Standards Complaints Board, all decisions are able to be appealed by any party to the complaint. Information on our Appeal process is on our website www.asa.co.nz. Appeals must be made in writing via email or letter within 14 days of receipt of this decision.

APPENDICES

1. Complaint
 2. Response from Advertiser
-

Appendix 1

COMPLAINT FROM T GREEN

I wish to raise concerns with “Living Green”, a new, supposedly-eco brand providing home cleaning products. Specifically I am concerned with some of Living Green’s claims on their packaging and in advertisements in print and on the television.

I became aware of Living Green when shopping at the supermarket. As someone who is environmentally conscious I am always on the look-out for environmentally friendly products and purchase those products. So when I saw a new brand of products coming out, called Living Green, I was encouraged because the more brands that move into the eco realm the better.

I purchased the laundry liquid. At home I read through the label carefully, as is my want. The label contains, what I consider are, false or dubious claims. It is those claims that I wish to raise a complaint with this ASA about as I detail below. I consider that those claims breach principle 2 of the ASA’s standards, relating to truth.

As further background, I went back to the supermarket and looked at Living Green’s other products including fabric softener, cleaners and dishwashing liquid. Those products all repeat the same claims as the laundry liquid. Since then I have kept an eye out for Living Green and have seen it advertised in much the same way as its products in some magazines, like the November issue of “Mindfood”, and on TV. First untrue or misleading statement: “New Zealand’s most natural home cleaning range”

The laundry liquid (see appendix 1), and the other products I’ve seen, as well as the Mindfood ad (appendix 2) all claim that Living Green’s products are part of “New Zealand’s Most Natural Home Cleaning Range”. This claim was actually why I first bought the laundry liquid as I thought that this meant that Living Green’s products were more natural – that is had more natural ingredients – than other products including other eco products.

After purchasing this product I read the label more closely. On closer inspection, I saw that the laundry liquid had the following statement in small-print about this “most natural” claim, saying: “*We believe this product, which is part of our Home Cleaning Range, meets and exceeds New Zealand’s highest standards for natural cleaning products as supplied by significant commercial suppliers for domestic use in relation to both ingredients and processes used to prepare it. It is prepared and assessed in accordance with the standards set by the US Natural Products Association.”

I was quite concerned about the reliance on how Living Green “believes” the product is most natural. Its range either is or isn’t the most natural. Also, I was worried about the comparison with “significant commercial suppliers”, as again either the range is or isn’t the most natural. I am worried by these statements as either they’re untrue or highly misleading for consumers.

Second untrue or misleading statement: “the products are certified to be far safer for you, your family and our world”

Also on the labelling was a claim that “Our United States Natural Products accreditation is proof that our products are certified to be far safer for you, your family and our world.” Then on their website (appendix 3), Living Green goes on to say that “We identified the pinnacle of international certification that is the hardest to obtain if you really want to use the most natural ingredients in your products”.

From my research, the US Natural Products accreditation isn't proof that the products are far safer nor is this accreditation the “pinnacle” standard. New Zealand's ECNZ's Environmental Choice mark is far more rigorous than the US National Products accreditation. The Environmental Choice mark is also endorsed by the New Zealand government. Here is a link to a comparison between these two marks.

Again, like its claims to be “most natural”, I consider that Living Green's statements are either untrue or highly misleading. The accreditation is not the pinnacle and does not mean that the products are safer for users or the planet. Instead it seems that products with the Environmental Choice mark are likely to more assured of being safer in both respects.

Also, the claims of being “safer” to me that the products are safer than other products including other eco products. But compared with products with the Environmental Choice mark, the US accreditation does not assure that the Living Green products are safer for either users or the planet.

I do not think that Living Green can make the statements that it does, particularly when the statements play on both concerns for users as well as for the planet.

Third untrue or misleading statement: “recyclable packaging” All of the Living Green products claim that their packaging is recyclable. That is not true. When I went back to the supermarket I saw that the toilet cleaner and dishwashing products were wrapped in shrink-wrap plastic. The lids too were made of wood and plastic. Neither the plastic wrappers nor the lids can be recycled, at least by the usual rubbish and recycling collections.

Breach of ASA's Code

I am concerned and disappointed that Living Green appears to be actively misleading consumers in multiple ways in their packaging and advertisements (both in magazines and on TV). I consider that Living Green's advertisements breach the ASA's Advertising Standards Code in the following areas:

- Advertisements must not mislead or be likely to mislead, deceive or confuse consumers, abuse their trust or exploit their lack of knowledge. This includes by implication, inaccuracy, ambiguity, exaggeration, unrealistic claim, omission, false representation or otherwise.
- Comparative advertisements, or advertising that identifies a competing product or service, must be factual, accurate, make clear the nature of the comparison, must not denigrate competitors and must be of 'like' products or services available in the same market.
- Factual information must be able to be substantiated.
- Environmental claims must be accurate and able to be substantiated by evidence that reflects scientific and technological developments.

Absolute environmental claims will be assessed on the complete life-cycle of the product and its packaging, taking into account any effects on the environment of its manufacture, distribution, use, disposal, etc. Examples include, environmentally friendly / safe / kind.

Qualified claims such as “environmentally friendlier / safer / kinder” require an ability to prove a meaningful environmental advantage over competitors or a meaningful improvement on previous formulations, components, packaging or method of manufacture or operation. While I am all for more environmentally friendly products, I am not for products that cloak

themselves with the “eco” label just to suck people in. Those products are likely to reduce people’s trust in brands that claim to be environmentally friendly.

Appendix 2

RESPONSE FROM ADVERTISER, LIVING GREEN

Complaint 1.

Untrue or misleading statement: “New Zealand’s most natural home cleaning range”

*The laundry liquid (see appendix 1), and the other products I’ve seen, as well as the Mindfood ad (appendix 2) all claim that Living Green’s products are part of “New Zealand’s Most Natural Home Cleaning Range”. This claim was actually why I first bought the laundry liquid as I thought that this meant that Living Green’s products were more natural – that is had more natural ingredients – than other products including other eco products. After purchasing this product I read the label more closely. On closer inspection, I saw that the laundry liquid had the following statement in small-print about this “most natural” claim, saying: “*We believe this product, which is part of our Home Cleaning Range, meets and exceeds New Zealand’s highest standards for natural cleaning products as supplied by significant commercial as again either the range is or isn’t the most natural. I am worried by these statements as either they’re untrue or highly misleading for consumers.*

Living Green is advertised as “New Zealand’s most natural home cleaning range”.

Can you explain what this claim is based on?

Living Green’s claim is that it offers “New Zealand’s most natural home cleaning range”. We believe this is an accurate claim:

1. (a) Living Green has applied for, and has been granted, certification for the “natural seal” by the United States Natural Products Association (USNPA) for 18 products in its home cleaning range;
2. (b) No other company with products on New Zealand shelves currently has USNPA natural certification for home cleaning range of products; and
3. (c) No other company with products on New Zealand shelves would be likely, were they to apply for USNPA certification for home cleaning products in their range, to achieve certification for as many products across their range as Living Green has achieved.

The USNPA and New Zealand’s Most Natural (please note Eco is not the same as Natural)

- Living Green’s goal is to provide certified natural indoor cleaning products to consumers. To meet this goal, Living Green sought to identify the most rigorous “natural” product standard certification and set out to meet the requirements of that standard for its home cleaning range. After investing a great deal of time and resources, it has done just that.

- The Ecolabel Index is the largest global directory of ecolabels, currently tracking 463 ecolabels in 199 countries and 25 industry sectors. Through analysing information contained on the Ecolabel Index, Living Green determined that USNPA natural certification for home care products is one of the few defined standards for “natural” home care products internationally. It further assessed the NPA Natural Standard as a suitably rigorous one.
- Information about the USNPA is readily and publicly available on its website and we refer you to the website for further information. However, in summary, the USNPA was founded in 1936 and is the United States’ largest and oldest non-profit organisation dedicated to the natural products industry. The mission statement of the USNPA states, “As the leading voice of the natural products industry, the Natural Products Association's mission is to advocate for the rights of consumers to have access to products that will maintain and improve their health, and for the rights of retailers and suppliers to sell these products.” Furthermore, the NPA “strives to achieve a broader, more accessible marketplace for natural products that will improve the quality of life for consumers worldwide.”
- The USNPA’s President and CEO is Daniel Fabricant, Ph.D. Mr Fabricant was the Director of the Division of Dietary Supplement Programs at the United States Food and Drug Administration (FDA), where he directed agency policy and public affairs. He has a Ph.D. in Pharmacognosy, which is the study of drugs derived from natural sources. Development and implementation of educational and compliance programmes at the USNPA is headed up by Corey Hilmas, MD, Ph.D. Mr Hilmas holds a doctorate in pharmacology and toxicology and worked for the FDA. The credentials of Mr Fabricant and Mr Hilmas demonstrate the depth of experience held by the USNPA, and the credibility of its standards and processes, where senior staff have formally held key positions with a major and active US regulator.
- In 2010, the USNPA launched the first Natural Standard and Certification programme for Home Care products to “protect and equip consumers to maximize their wellbeing”. The NPA Natural Standard is a comprehensive set of guidelines governing whether a product is truly “natural” and can bear the NPA Natural Seal. The NPA Natural Standard encompasses home care products such as household cleaners, laundry detergents, and concentrated and ready to use hard-surface cleaners. A copy of the “Natural Products Association Standard and Certification for Natural Home Care Products” guidelines and documents detailing the processes allowed under the guidelines are freely accessible at their website.
- The NPA Natural Standard is focused on four key areas:
 1. (a) Natural Ingredients: "natural" products should be made up of only, or at least almost only, natural ingredients and should be manufactured with appropriate processes;
 2. (b) Safety: "natural" products should avoid any ingredient that has peer-reviewed, scientific research showing human health or environmental risk;
 3. (c) Responsibility: "natural" products should use no animal testing in development except where required by law; and

4. (d) Sustainability: "natural" products should use biodegradable ingredients and the most environmentally sensitive packaging.
- In order to be deemed "natural", ingredients must come from or be made from a renewable resource found in nature (flora, fauna, mineral) and contain absolutely no petroleum compounds. There are limited allowable methods for processing the ingredients, which are set out in the guidelines
 - There are further strict criteria including, but not limited to:
 1. (a) Products must be made up of at least 95 percent truly natural ingredients or ingredients that are derived from natural sources, excluding water;
 2. (b) Products cannot contain any ingredients with any suspected human health risks;
 3. (c) Products must not be manufactured by processes that significantly or adversely alter the natural ingredients;
 4. (d) Ingredients must be derived from a purposeful, natural source (flora, fauna, mineral);
 5. (e) Manufacturing processes must be minimal and avoid using synthetic/harsh chemicals; and
 6. (f) Non-natural ingredients may only be used when no viable natural alternative ingredients are available and only when there are absolutely no suspected potential human health risks.
 - Transparency and full disclosure of ingredients is required and each ingredient must contain no residues of heavy metals or other contaminants in excess of tolerances set by the United States FDA or the United States Environmental Protection Agency.
 - The USNPA has developed an illustrative list of ingredients that may be allowed for products certified under the NPA Natural Standard due to meeting the NPA definition of natural or being allowed synthetics. This list is not exhaustive and even though an ingredient is included, it may not be accepted in all available forms. For example, an ingredient on the list may be available in both a natural (and natural sourced) form and synthetic (or synthetic sourced) form. In these cases, only those from the natural sources would be allowed. For those ingredients that are available in both natural and synthetic forms, NPA may require documentation such as purchase orders and batch records to verify that only the natural sourced ingredient is being used in NPA-certified natural products.
 - The process for getting USNPA certification is rigorous and subjects an applicant's product to extensive evaluation. To determine whether an ingredient met USNPA natural certification requirements, Living Green had to ensure every ingredient was made with raw materials from natural sources, verify that its products were manufactured using the allowed ecological processes outlined in the NPA Natural Standard, and establish that its products did not contain any prohibited substances identified in the NPA Natural Standard.
 - The NPA Natural Standard requires that companies such as Living Green are transparent and fully disclose ingredients accurately and truthfully. Living Green

strove to maximise its use of recyclable and post-consumer recycled content in packaging. Furthermore, no animal testing of ingredients or products was permitted.

- Ecostore, Seventh generation, and Earthwise each make claims (in various forms, we are instructed) to be plant- based but they do not have USNPA natural certification. Therefore in Living Green’s assessment, while they may be more eco-friendly than other products on the market, they do not possess USNPA natural certification typically, nor do we believe they could get it for their full range with the current ingredients in their range. because they contain ingredients that although may have a botanical origin through processing contain ethyl or other non-natural derivatives and/or are manufactured with synthetic intermediaries in a manner unacceptable to the USNPA standards.. Living Green notes that a critical part of the USNPA’s natural certification process is proof of chain of custody for allowed natural and allowed synthetic ingredients. It does not, obviously, have information about its competitors’ chain of custody and has made no assumptions about whether competitors’ allowed plant based natural and/or allowed synthetic ingredients would or would not qualify on the USNPA’s chain of custody requirements.
- Living Green is justifiably proud of its substantial achievement in obtaining USNPA certification for products in its home cleaning range, and its claim that it is New Zealand’s Most Natural home cleaning range

Complaint 2.

Second untrue or misleading statement: “the products are certified to be far safer for you, your family and our world.

Living Green is advertised as “To be far safer for you, your family and our world”.

Can you explain what this claim is based on?

Living Green claims that its products are “far safer for you, your family and our world”. This is based on meeting the extremely rigorous criteria of the USNPA for “natural” certification and further supported by Living Green’s avoidance of any ingredients categorised as high hazard by the Environmental Working Group (EWG).

1. By prohibiting certain ingredients and processes, the NPA Natural Standard gives insight into which ingredients and processes are particularly harmful for people and the environment. As mentioned above, key requirements for meeting the NPA Natural Standard are using natural ingredients and focusing on safety, responsibility, and sustainability. By achieving the incredibly high standard of USNPA natural certification explained above, including proof of the chain of custody for each ingredient, Living Green’s products are safer for human beings and the environment than products unable to qualify for the USPNA certification or an otherwise equivalent quality standard.
2. Living Green has used the EWG’s Skin Deep® Cosmetics Database hazard ratings, to determine the hazard level of each of its ingredients. The EWG hazard score ranges from 1-2 (low hazard), 3-6 (moderate hazard) and 7-10 (high hazard). The EWG

calculates the scores using studies and data from almost 60 databases. The following description is taken from EWG's website:

"[EWG] categorized every piece of toxicity and hazard information in [EWG's] integrated database into one of 17 categories. [EWG] developed these categories based on our review of available data, and modeled them after a variety of toxicity classification systems developed by government, industry, and academic organizations. [EWG] assigned to each of these categories a weighting factor representing a judgment on their relative importance to and impact on human health. [EWG] assigned higher weighting factors to categories of health concern for which studies provide evidence for effects at low doses, for permanent effects stemming from exposures during development, for toxicity endpoints that tend to impact multiple biological systems in the body or to impair reproduction. These endpoints include cancer, reproductive and development effects, immunotoxicity, neurotoxicity, and effects stemming from exposures to endocrine (hormone) disruptors. Organ systems that are more localized, such as gastrointestinal, kidney, respiratory, etc. are weighted in the mid-range. Toxic endpoints that measure adverse effects at the cellular level, which may or may not have implications for human health (such as mutations or biochemical changes) are weighted the least. This scoring system does not account for individual sensitivities or differences between the severities of different health endpoints within a particular category. "

3. Living Green has determined that 86 per cent of its ingredients are classified as low hazard and 14 per cent are at the low end of the medium hazard grouping. Living Green is currently working on changing those that are deemed medium hazard to natural low hazard alternatives. Furthermore, Living Green avoids all high hazard ingredients. By avoiding any such ingredients, Living Green is demonstrating its commitment to being safer for people and the environment.

4. It is worth noting that Living Green is not the only company that claims its products are "safer". It notes that Ecostore makes a similar claim to "safer" products, similarly based on the EWG's hazard ratings and its ingredient selections, and in their range of products are ingredients that would not be acceptable to USNPA guidelines.

5. Living Green again refers to the USNPA "natural" certification of its products (i.e. as containing qualifying natural ingredients and certain allowed synthetics).

(Please note: further more in-depth information can be provided on request)

Living Green is advertised as "we identified the pinnacle of international standards that was hardest to obtain if you really wanted to use the most natural of ingredients in your products"

Can you explain what this claim is based on?

We believe that we have covered how we established this claim in section 1, if you would like further information and documented evidence of this search history we can provide on demand.

1. Comparison between NPA and NZ Environmental choice as raised by complainant

From my research, the US Natural Products accreditation isn't proof that the products are far safer nor is this accreditation the "pinnacle" standard. New Zealand's ECNZ's Environmental Choice mark is far more rigorous than the US National Products accreditation. The Environmental Choice mark is also endorsed by the New Zealand government. Here is a link to a comparison between these two marks.

Environmental Choice New Zealand is one of many certifying organisations in NZ. Reputable Eco certifications include ISO14020, Enviromark, ECNZ, GreenStar, Biogro. There are other bodies that Living Green Group Ltd (LG) do not consider reputable.

Having undertaken an in-depth analysis of the ECNZ last response, it is clear that they deliberately tried to link their Eco certification process with The United States Natural Products Assn (USNPA) Natural certification process. The two are very different and in the most part, mutually exclusive. Yet ECNZ have attempted to create confusion in the mind of the reader and so dispel the importance and uniqueness of what Living Green has achieved by gaining the USNPA certification for our range of Home Cleaning products. Our entire focus is on the naturalness of the ingredients, not the impact on the environment. That is all our positioning statement says and in our opinion that should be the criteria that the ASA scrutinise us on.

To assist interpretations, there is very different meaning to these two similar and often misunderstood concepts:

Eco - Not harming the environment; eco-friendly (Oxford Dictionary)

Natural - Existing in or derived from nature; Having had a minimum of processing or preservative treatment. (Oxford Dictionary)

We believe this comparison exhibits the different approaches by these two certifying organisations:

- USNPA certifies products based on the *natural status of its ingredients* and the natural precursors and methods for production of these ingredients.
- Environmental choice certifies products based on the *environmental impact* of its ingredients and has a commercial approach to ingredients that are not natural.

The reason why Living Green Group's manufacturing subsidiary Elitepac NZ Ltd did not proceed with ECNZ registration was because it considered the ECNZ certification standards were not adequate to certify a "Natural" product that could be defended domestically and internationally. We evaluated over 300 certifications worldwide and did not find any other body that was as robust, stringent and comprehensive for 'Natural Ingredients' as the USNPA. For this reason, Elitepac undertook the following certifications

1. USNPA Natural products certification. As explained in our earlier response USNPA is superior to ECNZ for natural products formulations.
2. Eco-Warranty – a Eco certification process for manufacturing operations. Independently certified and audited on a regular basis by International Certifications Ltd.
3. ISO 9001 – The best international quality management certification system.

For this reason, we have challenged the ECNZ check list provided to ASA in regards to 'Natural' (as opposed to Eco). We consider that by not separating out 'Natural' (purity of ingredient) from 'Eco' (environment), it has been created to confuse (and therefore mislead) the ASA. In doing so, it would then promote their own influence. It's also important to note the NPA has one judgement criteria for all household products, which means far stricter guidelines. Environmental Choice has different specifications for laundry, machine dishwashing detergents, general purpose cleaners, toiletry products and so on. Allowing in each specification slightly different ingredients and processes.

It couldn't be any clearer than this. Living Green can gain ECNZ certifications based on the check list provided. There is currently (as far as we are aware) not a manufacturer in NZ who at this time could gain USNPA certification for their home cleaning ranges based on their current ingredient formulations because they are not Natural enough!

From the Document provided by ECNZ in regards to EC-22-16 the following information can be applied:

(Index: Simplified Response to EC-22-16 Vs NPA.pdf)

Items raised in the ECNZ List that <u>DO RELATE</u> to the LG brand statement in question "New Zealand's Most Natural Home Cleaning Range"	ECNZ	NPA	Relevant to LG statement of 'Most Natural'
Label must contain a list of ingredients	✓	✓	✓
If the licence holder claims the products are "natural" or "plant-based", these claims are verified. This check is per the recommendations of the Commerce Commission and ISO 14021. ²	✓	✓	✓
Packaging must be recyclable.	✓	✓	✓
No Category 1 or Category 2 endocrine disruptors, mutagens, carcinogens, reproductive toxicants, persistent aquatic ecotoxicants. No EDTA.	✓	✓	✓
All surfactants must be readily biodegradable.	✓	✓	✓

Item's In ECNZ checklist that had been crossed off <u>INCORRECTLY</u>	NPA Meets or exceeds ECNZ requirements	Relevant to LG statement of 'Most Natural'
Its licensing process is against independently developed specifications that take into account the lifecycle impact of the product or service.	✓	✓
Conformance requirements and evidence required to support application are clearly specified.	✓	✓
Meets all local environmental legal requirements.	✓	✓
<0.1 % respiratory or contact sensitisers. (This prohibits common natural degreasers such as orange oils, which cause skin rashes).	✓	✓
<10 % eye corrosives	✓	✓
No NTA, DTPA, APEOs or reactive chlorine compounds	✓	✓
No quaternary ammonium salts that are not readily biodegradable.	✓	✓
No heavy metals (As, Cd, Cr, Pb or Hg)	✓	✓
No phosphates or phosphonates	✓	✓
No halogenated organic solvents, and < 10 % VOCs	✓	✓
No enzymes in aerosol products. Enzymes in other products must be in liquid or dust free granulate form.	✓	✓
Fragrance must be produced and used in accordance with the "Code of Practice" compiled by the International Fragrance Association (IFRA).	✓	✓
Colorants that are approved as food additives by the NZ Food Safety Authority only.	✓	✓
May only include biocides in order to preserve the product, and in the appropriate dosage for this purpose alone.	✓	✓
Label must include instructions for proper use to minimise waste, and guidance on correct recycling or disposal.	✓	✓
Product must be fit for purpose and meet performance criteria.	✓	✗
The final formulated product must not be classified explosive, flammable, oxidising, acutely toxic, skin or respiratory sensitisers, carcinogenic, mutagenic, reproductive/developmental toxicants, target organ systemic toxicants, skin corrosives** or very ecotoxic.	✓	✓

Items raised in the ECNZ List that DO NOT RELATE to the LG brand statement in question "New Zealand's Most Natural Home Cleaning Range"	ECNZ	NPA	Relevant to LG statement of 'Most Natural'
Type I Government-owned ecolabelling programme.	✓	✗ - ECNZ	✗
It meets the ISO14020/24 principles.	✓	✗	✗
A member of the Global Ecolabelling Network (Other members include Nordic Swan Ecolabel, EU Ecolabel, Green Seal (US)).	✓	✗ - ECNZ	✗
Conducts an annual audit of each licence holder to verify ongoing conformance with the criteria.	✓	✗ - bi annual	✗
Verification of product licence includes site visits, where appropriate.	✓	✗	✗
Operated by a not-for-profit Trust.	✓	✓	✗
It is a product certification programme.	✓	✓	✗
Third party independent review of documentation.	✓	✓	✗
The criteria are readily available online.	✓	✓	✗
Criteria are written in NZ to address local environmental issues.	✓	✗ - ECNZ	✗

Living Green Brand also independently meets the remainder of the ECNZ standards Criteria	LG BRAND
Fibre for cardboard packaging must be from FSC or PEFC certified sources.	LG Brand Uses PEFC certified cardboard for Laundry powder boxes supplied by a local NZ supplier
Any use of palm oil or palm kernel oil must be from certified sustainable palm oil suppliers	LG Brand already uses a supplier that is RSPO Certified. Documents can be provided directly to ASA on request.
Must annually report on waste management and progress of ongoing waste minimisation initiatives.	LGG already Eco-warranty which is an annual (yearly) certification audit which requires a that you monitor and measure all waste usage, and progress ongoing waste minimization initiatives. (Covered under environmental control and monitoring). Which is inline with the requirements of ISO1401
Must annually report on energy management and progress of ongoing initiatives to improve energy efficiency.	LG Brand already Eco-warranty which is an annual (yearly) certification audit which requires a that you monitor and measure all energy usage, and progress ongoing initiatives (covered under environmental control and monitoring component) which is inline with the requirements of ISO1401
Restrictions on weight of packaging so as to conserve resources.	LG Brand Follows European Union Directive 2009/34/EC in regards to packaging guidelines. Which covers these issues.
Label must include instructions for proper use to minimise waste, and guidance on correct recycling or disposal	LG Brand product label provide instructions on packaging to advise people to remove labels via the use of perforation strips, best uses correct dosages etc.

1. Please note that the document was written on behalf of ECNZ to promote ECNZ standards and as such are primarily one sided.
2. 17 of the total 37 points on the ECNZ check list where ECNZ had applied crosses next to NPA were incorrect.
3. Only 22 or 59% of points relate to ingredients and naturalness of product. The LG brand *complies with all of them.*
4. 9 of the points have nothing to do with ingredients or naturalness of product
5. 4 of the points relate only to either ECNZ own activities or 'eco' labelling or standards which has nothing to do with Natural standards or labelling requirements.
6. The remaining 6 points that NPA does not specifically relate to, but the NPA did factor in when reviewing LG's documentation, LG Brand *independently meets these requirements*, through its choice of suppliers, its manufacturing facilities and existing Eco-Warranty certification, ISO 9001 certification, BioGro Primary Producer Certification and GMP Certification.

We have attached a comprehensive extended document of outlining with evidence to support our statements of the above and its direct relation to NPA. (Index: Detailed Response to EC-22-16 Vs NPA Criteria.pdf)

In order to provide the board further evidence to the difference between NPA and ECNZ, we have generated our own comparative version of their document relating to the NPA standard. Please note that due to time pressures of 2 weeks this is a relatively short guideline. In comparison to ECNZ who could have been compiling their list since we launched in the market (over 6 months ago). With a greater lead time and the ability to have worked with NPA directly we would have produced a much more comprehensive and in-depth document. (Index: NPA Certification vs ECNZ example.pdf).

However, we believe the answer is obvious, USNPA is the standard of choice internationally for 'Natural' ingredients. There is no other body that sets the bar higher nor is more exacting with regards to what can be certified as 'Natural'. ECNZ are certainly not a credible when it comes to 'Natural' as our response highlights.

Living Green positioning is only about the Most Natural Home Cleaning range in NZ. We do not refer to the Most Eco Friendly range....someone else can try to own that!

This comparison exhibits a brief overview of the different approaches by these two certifying organisations:

- USNPA certifies products based on the natural status of its ingredients and the natural precursors and methods for production of these ingredients.
- Environmental choice certifies products based on the environmental impact of its ingredients and has a commercial approach to ingredients that are not natural.

As seen below USNPA is significantly more stringent than Environmental choice with respect to permitted ingredients in cleaning products. We also have considered the ECNZ laundry standards in our comparison as NPA covers both home cleaning and laundry.

Criteria in NPA Natural Certification	NPA Programme	ECNZ Programme
Products must not be derived from animals where the animal is harmed or animal by-products (e.g. rendering), and no animal testing except where required by law.	✓	✗
60% of the brand must qualify for the NPA Natural Certification regardless of whether all 60% actually undergoes certification	✓	✗
Prohibited are Compounds with "ethoxylate", PEG or the suffix "-eth" in the ingredient name	✓	✗
Products must be made by ingredients that are chosen from a limited set list, from which every individual ingredient has been checked and approved by the certifying body. (In the case of the NPA it is the NPA Illustrative List) Supplied by the certifying body	✓	✗
Prohibited are ingredients with Complexing agents Polycarboxylates, polycarboxylate, iminodisuccinate		✗ (permitted in ECNZ Laundry standards)
If an ingredient name on the set list is available in both a natural (and natural sourced) form and synthetic (or synthetic sourced), only those from the natural sources would be allowed, Non-natural ingredients only when no viable natural alternative ingredient is available	✓	✗
Products must have absolutely no petroleum compounds within ingredients or used in the manufacturing process of each individual ingredients	✓	✗
Ingredients are not allowed that has peer-reviewed, scientific research showing human health or environmental risk	✓	
Sustainability: A product labeled "natural" should use biodegradable ingredients and the most environmentally sensitive packaging.	✓	✓
Product must be made up of at least 95 percent truly natural ingredients or ingredients that are derived from natural sources, excluding water	✓	✗
Any synthetics in a formulation may not exceed 5% of the total formula (calculated without water)	✓	✗
No processes are allowed in the manufacturing of the product or the ingredients that significantly or adversely alter the natural ingredients	✓	✗
Ingredients must come from a purposeful, natural source (flora, fauna, mineral)	✓	✗
Ingredients must be made with Processes that are minimal and don't use synthetic/harsh chemicals and must be manufactured using only an allowed list of ecological processes set out by the standard	✓	✗
Ingredient must not does not contain, or be made with any prohibited substances or be made by any prohibited processes identified in a list of Prohibited processes supplied by the certifying body	✓	✗
Transparency and full disclosure of ingredients per CSPA Voluntary Ingredient Communications Program utilizing INCI labeling standards for each ingredient	✓	✓
Each individual substance must be listed as generally recognized as safe (GRAS) by the FDA when used in accordance with Good Manufacturing Practices (GMP) and contain no residues of heavy metals or other contaminants in excess of tolerances set by the FDA or the EPA or has been reviewed using criteria of the certifying Standard	✓	✗
Documentation for each ingredient such as purchase orders and batch records must be provided to the certifying body for a complete chain of custody	✓	✗

Any fragrances in finished products to be all natural to receive certification. This effectively eliminates fragrance ingredients that require the use of petrochemical solvents for extraction as well as synthetically-sourced additives, these fragrance ingredients include absolutes, concretes, gums, resins, exudates, essential oils, isolates and chemicals	✓	✗
Any colorants in finished products to be natural to receive certification. This eliminates any colorant ingredients that require the use of petrochemical materials for processing as well as other synthetically-sourced additives.	✓	✗
Companies must be transparent, fully disclosing their ingredients and suppliers, raw material sources, and all processing information.	✓	✗
Strive to maximize their use of recyclable and post-consumer recycled content in packaging	✓	✓
Processes that are inconsistent with the 12 Principles of green engineering *2 are prohibited	✓	✗
Prohibited are all Synthetic Glycols	✓	✗
Prohibited are Ethanolamine's like MEA/DEA/TEA (or any derivative of these in the ingredient names) – Foam and viscosity boosting ingredients that interact with other ingredients to form nitrosamines, a known carcinogen	✓	✗
Prohibited are all synthetic polymers (PVP/Acrylates) that contain residual PAH's (polycyclic aromatic hydrocarbons)	✓	✗
Prohibited are Formaldehyde Donors (DMDM Hydantoin/ Diazolidinyl Urea) - Preservatives that work by releasing formaldehyde.	✓	✗
Prohibited are Compounds with PEG or the suffix "-eth" in the ingredient name,	✓	✗
Prohibited are Compounds with "sarcosinate" in the ingredient name	✓	✗
Prohibited are Compounds with "Taurate" the ingredient name	✓	✗
Prohibited are Parabens	✓	✗
Prohibited are all Carbomer, with the exception of approved natural gums.	✓	✗
Prohibited are all quaternary ammonium	✓	✗
Prohibited are Compounds with "Sultaine" in the ingredient name	✓	✗
Prohibited are Compounds with "Sulfosuccinate" in the ingredient name	✓	✗
Prohibited are Compounds with "PPG" in the ingredient name	✓	✗
Prohibited are All Phthalates	✓	✗
Prohibited are All Phosphates and Phosphonates	✓	✓

1. Note the Environmental Choice criteria above is our interpretation of the Environmental Choice information in their draft Licence criteria for detergents and cleaning products EC-22-16 and EC-58-19

2. <https://www.acs.org/content/acs/en/greenchemistry/principles/12-design-principles-of-green-engineering.html>

✓ Equivalent requirement to NPA
✗ No requirement

2. Further information regarding our use of USNPA

ECOGREEN, NATURAL and ORGANIC CLEANING FORMULATIONS

There are a number of different methods marketers claim green credentials. Some are clearly green-wash and others are highly regulated and certified. The difference between Eco/Green and Natural formulations are summarized below: **The discussion below shows that the US Natural Products Assn (USNPA) is the most natural international certification for home cleaning products. Living Green brand cleaning products is the only range in Australia and NZ that have been formulated to meet these USNPA standards.**

(A) UNSUBSTANTIATED PRODUCT CLAIMS

Eco/Green Claims

- **Definition** - These are formulations that are generally safe to use when instructions are followed and biodegrade and do not create an environmental burden.
- **Formulations** – These formulations include ingredients that are generally accepted as environmentally acceptable. The ingredients also in the may be plant derived or mineral derived. However, there are often ingredients that are not e.g. EDTA, TAED, paraben preservatives, etc. The seem to all use low cost easy to use and thicken sulphate based detergents (sodium lauryl ether sulphate (SLES), sodium laureth sulphate (SLES), sodium lauryl sulphate (SLS), sodium coco sulphate (SCS)). These sulphates are not acceptable in natural products as there are proved irritants
- **Certifications** – There are many good organisations that certify companies systems as being environmentally responsible (eg Eco Warranty, EnviroMark) and some that are dubious (eg GreenTick). Few however actually certify a finished formula (eg Environmental Choice) however these still permit the sulphate detergents and other non-natural acceptable ingredients.

Natural/ Plant Based / Botanical Claims

- **Definition** - These are formulations generally meet the Eco/Green claims above and promote a % of the formula contains ingredients of plant origin.
- **Formulations** – These formulations are similar to Eco/Green claims above.
- **Certifications** – No internationally recognized organisations certify this claim.

Natural with Organics Claims

- **Definition** - These are formulations generally meet the Eco/Green claims above and promote the use of organic ingredients, such as organic essential oils that may be less than 5% of the formula.
- **Formulations** – These formulations are similar to Natural/ Plant based claims above.
- **Certifications** – No internationally recognized organisations certify this claim.

(B) CERTIFIED/SUBSTANTIATED PRODUCTS

Organic Certified

- **Definition** - These formulations comply with an internationally recognized organic certification. They are generally safe to use when instructions are followed and biodegrade and do not create an environmental burden.
- **Formulations** – These formulations need to comply with the Organic Certifiers. This typically requires a minimum % of ingredients that are organic. They may incorporate ingredients that are not acceptable to Natural Certifying organizations such as the USNPA. The different Organic certifying organisations have different formulation standards. The formulations are permitted to contain ingredients not acceptable to USNPA.
- **Certifications** – There are acceptable organisations that certify a finished formulas such as BIOGRO, and consumers can rely on this to independently confirm the product is mainly organic.

Natural with Organic Certified

- **Definition** - These are formulations are similar to Natural/ Plant with Organic based claims above but are certified.
- **Formulations** – These formulations are similar to Natural/ Plant with Organic based claims above, but is more restrictive and contain a minimum % of the ingredients are organic as certified by an acceptable organization.
- **Certifications** – EcoCert has a formulation standard that certify this claim. This certificate is more restrictive than Ecocert Natural BUT still contain ingredients not acceptable to USNPA.

Natural Certified

- **Definition** - These formulations comply with an internationally recognized natural certification. They are generally safe to use when instructions are followed and biodegrade and do not create an environmental burden.
- **Formulations** – These formulations do not incorporate ingredients that are not acceptable to the Certifying organizations. The certifying organisations have different formulation standards.
- **Certifications** – There are few international acceptable organisations globally that certify a finished product formula. Once a product is certified consumers can rely on this to independently confirm the product meets a natural certification standard.

There are two main certifying organisations for Certifying Natural products:

- o **Europe** – EcoCert Organisation. This is the European certifying organization. Its formulation requirements are considerably less restrictive and less natural than USNPA, eg: EcoCert permits sulphate detergents and a significant other synthetic ingredients such as cationic surfactants that are prohibited by the USNPA.
- o **USA** – US Natural Products Assn (USNPA). The original independent certifying organizational globally and we believe from our research that it has the hardest

certifying requirements and the most restrictive controls on acceptable natural ingredients, eg: do not permits sulphate detergents.

Complaint 3.

Second untrue or misleading statement: “recyclable packaging”

All of the Living Green products claim that their packaging is recyclable. That is not true. When I went back to the supermarket I saw that the toilet cleaner and dishwashing products were wrapped in shrink-wrap plastic. The lids too were made of wood and plastic. Neither the plastic wrappers nor the lids can be recycled, at least by the usual rubbish and recycling collections.

Living Green is advertised as “Recyclable”.

Can you explain what this claim is based on?

We do not make claim on any packaging or marketing material that **all** our components are recyclable.

On the website front page there was a recyclable logo - which we have removed as it was not specific enough to which parts of the product are recyclable. Where we do have the logo is on the bottles, just as all our other competitors who make recyclable bottles do.

However for the purpose of this response, and transparency we have put in writing the recyclabilities for each component

1. Response regarding Shrink Wrap

Our shrink wrap sleeves are made from PETG which is recyclable in New Zealand, as shown below.

Polyethylene Terephthalate Glycol-Modified (PETG) hits something of a middle ground between acrylic and polycarbonate and therefore it is probably best to look at it in relation to the two, as well as independently. Like acrylic, PETG is 100% recyclable and can be used to produce or manufacture a wide range of goods and nowadays it is widely used to produce shrink sleeves. PETG is a thermoplastic, which means that it can be shaped and reshaped over and over again by simply heating it up. It's important to note that this process causes absolutely no degradation to the material itself, allowing it to be recycled and repurposed indefinitely. The recycling advantages of using PETG shrink sleeves in New Zealand is that it can be recycled in every district council of New Zealand with 8000 Tonnes of PET recovered in NZ 2004, making it the third most common plastic reclaimed that year. We have also made it very clear to our customers how to recycle this wrapper by providing perforation tear lines We make it very clear on our packaging that we ask people to easily remove it from the bottle and recycle it correctly in the appropriate bin– we have even included easy to tear perforation lines and directions on the labels themselves to make this process easier for the consumer as seen in the screenshot below:



<https://www.cutplasticsheeting.co.uk/blog/hints-and-tips/the-benefits-of-petg/>

<https://static.eriksgroup.com/nl-be/datasheets/transparante%20kunststoffen/eriks%20-%20petg%20datasheet.pdf>

<http://www.earthodyssey.com/symbols.html>

https://www.sks-science.com/petg_help.php

<http://www.recycle.co.nz/symbols.php>

<http://sppes.pl/pdf/proceedingsHSSLW2012.pdf>

<https://www.passionlabels.com/shrink-sleeve-labels/shrink-label-material.html>

https://www.kpfilms.com/en/News/Documents/Comparative_Analysis_of_Polymer_Roll-fed_Shrink-label_Substrates.pdf

<https://imsinc.ca/en/2013/03/21/sleeves-but-what-are-pvc-ops-petg-and-pla/>

<https://thelabellink.com/benefits-shrink-sleeve-labels/>

<http://www.gilbrethusa.com/benefits-of-shrink-sleeve-packaging.html>

<https://www.consolidatedlabel.com/label-videos/benefits-shrink-sleeves/>

<https://www.hammerpackaging.com/advantages-using-shrink-sleeve-labels>

<https://www.labelvalue.com/blog/custom-label-information/shrink-sleeve-printing-and-information.html>

<https://www.resourcelabel.com/shrink-sleeves>

2. Use of HDPE Bottles.

Our Bottles are made from HDPE which is recyclable in New Zealand.

HDPE Numerical Code 2: Plastic Composition - High-Density Polyethylene (HDPE). HDPE is recyclable and accepted in every council district of NZ. 9,000 tonnes of HDPE was recovered in NZ 2004, making it the second most common plastic reclaimed.

<http://www.recycle.co.nz/symbols.php>

<http://www.reclaim.co.nz/productitems.php?id=anytime4908294936a39>

<https://plasticpackaging.co.nz/news/identifying-recyclable-plastics-in-nz/>

<http://ourauckland.aucklandcouncil.govt.nz/articles/news/2017/05/an-insider-s-guide-to-plastic-numbers/>

3. Dissolvable wrappers

The Auto dish wrappers are fully biodegradable in New Zealand. Each of our dishwasher tablets are individually wrapped in disposable wrappers that dissolve in water in your automatic dishwashers

4. Plastic Bag in the Auto Dishwashing Tablets

The Plastic Bags are made from LDPE which is recyclable in New Zealand.

The plastic bag inside our auto dishwashing tablets is grade 4 recyclable low density polyethylene – LDPE is one of the most commonly recycled types of plastic in New Zealand. We have to use a plastic bag to provide airtight packaging for our product because in high humidity the wrapping will dissolve in the box

5. Laundry Boxes

The Laundry Boxes are made from Cardboard which is recyclable in New Zealand.

Our laundry powder box is made from NZ PEFC board produced from sustainably managed locally grown forests, and is completely recyclable in New Zealand.

6. Laundry Boxes Bag

The Laundry Box Bag are made from Brown Paper which is recyclable in New Zealand.

Our laundry powder bags are supplied from a local New Zealand supplier.

7. Adhesive Labels.

Our adhesive labels are made from Polypropylene Plastic (PP) which is recyclable in New Zealand.

Polypropylene labels are fully recyclable and don't need to be removed for recycling, by using a clear back we are also reducing the amount of printing ink and dyes required.

8. Triggers

When separated from the bamboo component. Our Triggers are made from Polypropylene Plastic (PP) which is recyclable in New Zealand. We are very proud of these triggers as they contain no metal parts,

9. Caps

When separated from the bamboo component. Our Screw on Dishwashing Liquid and Laundry Plastic caps are made from Polypropylene Plastic (PP) which is recyclable in New Zealand.

Our Child resistant caps on the Auto dishwashing Powder bottle is made of HDPE, from a local NZ manufacturer, which is recyclable in New Zealand.

10. Bamboo outers on caps and Triggers

All bamboo components are made from sustainably sourced bamboo, which is biodegradable.

Some facts about the sustainability of bamboo are:

- It is grown without pesticides or chemical fertilisers
- It requires no irrigation
- It rarely needs replanting
- It grows rapidly and can be harvested in 3-5 years
- It produces 35% more oxygen than an equivalent stand of trees
- It sequesters carbon dioxide and is carbon neutral
- It is a critical element in the balance of oxygen and carbon dioxide in the atmosphere
- It is an excellent soil erosion inhibitor
- It grows in a wide range of environments
- It's production into fibres has lower environmental impact than other forms of fibre, especially synthetic ones."

<https://www.dell.com/learn/nz/en/nzcorp1/corp-comm/bamboo-packaging>

<https://econation.co.nz/bamboo/>

<https://gobamboo.co.nz/>

<https://wellington.govt.nz/services/environment-and-waste/rubbish-and-recycling/minimise-waste-at-events> - Accept wooden or bamboo cutlery.

<https://www.newshub.co.nz/home/new-zealand/2018/08/a-complete-guide-to-what-you-can-and-can-t-recycle-in-new-zealand.html>



Plastics Recycling Guide

Material Type Acronym	Plastic Identification Code	Full Polymer Name(s)	Examples of Common Products
PET		Polyethylene Terephthalate	Soft-drink and water bottles, food packaging such as salad domes and biscuit trays
HDPE		High Density Polyethylene	Milk bottles, ice-cream containers, detergent bottles, and shopping bags
PVC		Polyvinyl Chloride Unplasticised: PVC-U Plasticised: PVC-P	Cosmetic containers, pipes, films, wire coatings, and garden hoses
LDPE		Low Density Polyethylene	Film for protection of pallets during transportation, squeezable bottles, rubbish bags, plastic food wrap
PP		Polypropylene	Lunch boxes, microwave containers, straws, packaging film, and dairy food containers
PS		Polystyrene	Plastic cutlery, CD cases, stationery parts, toy parts and plastic 'glassware'
EPS		Expanded Polystyrene	Protective packaging for fragile goods, insulation, clamshell food take-away containers and cups
Other		Acronyms normally specified underneath the identified code e.g. ABS (Acrylonitrile butadiene styrene) or SAN (Sanitoprene)	Car parts, appliance parts, computers, electronics, water cooler bottles, and other packaging

Definitions of plastic material types adapted from the Plastics Identification Code and copied from Plastics New Zealand (2005), *Research Project Report: Sustainable end-of-life options for plastics in New Zealand*. Retrieved from <http://www.plastics.org.nz/documents/sustainable-end-of-life-options-for-plastics-i-4.pdf>