

Cricket Protein Inquiry

This report is about whether the use of insects as a form of protein will meet New Zealand's future needs for protein consumption. This is because people are trying to find different sources protein for human consumption that is grown/ produced in ways that is more ethical to the environment. To further explore this idea, I will be basing my inquiry around two questions.

1. Is there a generational difference of opinion about eating insects?
2. What would be the affect this will have on New Zealand businesses and society?

To answer the first question, we made a survey and gave it out to different age groups ranging from primary children, high school students and adults. In addition to opinion based questions the survey also identify age, ethnicity and gender. This enabled us to group into gender and age groups. With the results on whether people would eat insects, it was found that the older the people were the more willing they were to eat insects, it then went students and primary children were least willing to eat insects. When the question was asked: would you eat them whole, this time the children were the most willing to do this followed by the students and then the adult's least willing to do this. When the question was asked: would you eat them in a powdered form, the adults were most willing to do this followed by the students and then the kids. With this information I can say that there is a generational difference between generations as adults are more willing to eat insects followed by students and then children. People were more willing to eat powdered insects over whole possibly as in New Zealand we don't usually eat them and see insects as 'creepy crawlies'. Also from doing this survey I think that elderly people will be the most willing to eat insects as they have seen hardship in their time, as when they were younger they were taught and learned to be resourceful. I think that the children in the newer generations will be less willing to consume insects as they have not seen hardship and they have been given food like packaged food from the shop such as unhealthy snacks that they would prefer to eat.

The effect on farming insects if insects commercially in New Zealand for protein would affect businesses and society. Insects may be farmed and produced for human consumption or even animal consumption. If insects were to be produced and sold, there would be businesses made in order to produce, sell and market the product. This could possibly be a good thing because there will a GST of 15% on the product as there is a GST on products. This means that there may be more money going to the government which is used for schools, roads, hospitals etc. These are businesses ranging from food, pharmaceutical, farming and even animal feed providing businesses. This is because if insects were produced for protein, it can be used for human consumption as a food source, nutritional supplements, protein bars/protein products can be produced because of the protein content in the insects. Since insects may be used as a food source, insect protein could also be produced to be supplementary feed for animals. This could possibly be a replacement for palm kernel (PK), as PK and insects have similar nutrients. If producing insects for animal food this has effects on the environment and businesses. This is because if insects replaced food such as palm kernel this would reduce the importation of palm kernel therefore; there is less palm kernel trees forested. This would be a long term effect over time because New Zealand imports a lot of palm kernel.

Other ideas in the long term could be that other businesses close down as insects could be used for human consumption and or the production of nutritional supplements (e.g. protein powder, supplement pills) which gives the businesses more competition in the short term which would mean their income would decrease. The businesses may close down in the long term because the way insects are farmed and produced is a more ethical and sustainable way of producing products as they don't take much to be fed and release very little carbon emissions. People may prefer insect products as people care and worry about the environment as they

value it as people in New Zealand see themselves as the guardians of the land therefore they want what is best for the New Zealand environment so they do what they can to help.

In the short term if insect products are sold, businesses will find that they have more competition between those that sell similar products such as snacking foods (nuts- which have protein) and protein products. Although that I believe that insects will not be produced and sold as a full on meal item because they are not palatable and filling as they are very small, they may be better sold as snacking food if they were to be produced for eating.

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The long term effects of producing insects for protein on society would be that it would be better for the environment. This is because if stock numbers were to reduce to make way for the food made out of insects, there would be less intensification, therefore less waste from the animals that runs- off into the water ways. In the long term you would see an improvement of this because since there is less runoff there would be less pollution to the water which means that more waterways could be used for recreational activities by people in New Zealand. This gives New Zealand a better name as also tourists can see that the water is safe which lives up to the name of New Zealand being clean and green.

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A short term aspect for people in New Zealand would be that if farming insects were to be farmed on a commercial scale, there would have to be factories made to farm them in. And to farm the insects, there needs to be people doing this. Also if insects end up being sold, they will be a new product but as my survey showed, people are willing to adapt to new ways of getting their protein intake and I think they will adapt to quickly. If people do this, they will find that insects are not at all bad because they don't actually taste that bad from personal experience.

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I think that it is the thought of eating insects that is the main reason that people would be reluctant to eat insects. This was identified in my survey in that the older generations were more likely to consider it. The environmental influences would be the main reason to eat insects but it may take some time to convince people that insect protein is healthy for themselves and the planet.

If insects were to be produced for human consumption for protein, I think that stock numbers will not be reduced. I believe that the demand for meat will continue. I do believe though if it is looked into and researched, that insects could be fed to animals as a replacement for palm kernel. If this idea is portrayed and continued, businesses that sell animal feed may suffer from this as to produce insects is better for the environment compared to other products. However, farming businesses will continue and businesses that sell protein products may have competition depending on the demand for the products. If insects were put on the shelves for sale for snacking consumptions, there would be mostly a market demand within the adults as they are more open minded. But this is good because since adults are willing to try insects the it will be relatively easy to encourage younger generations to consume the new protein packed product.

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Insects are high in protein and as my inquiry shows, with some education around the benefits of using insects as a form protein and a palatable way of presenting it as food, people will use insects as a source of protein in the near future.

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