

Kia ora, gday and welcome to the History of Aotearoa New Zealand. Episode 48: How to Plant a Garden. This podcast is supported by our amazing Patrons, such as Cristina. If you want to support HANZ go to patreon.com/historyaotearoa. Last time, we started looking at Māori horticulture, talking about what Māori brought with them in terms of food to Aotearoa and the challenges they faced once here, along with the innovations they came up with to overcome those challenges. This episode we will talk a bit more about the gardens specifically, how they were set up along with the planting and harvesting methods used in them.

As we mentioned last time, gardens were the way that Māori who arrived in Aotearoa grew their cultivated produce. This method even persisting through the early European period with calls for its return in a form today. Gardens were often near the village or pā but not always as some could be quite some distance away or scattered around a bit. This was mostly due to either trying to hide or defend the crops they contained along with where the best soil was to grow. Their location would be kept a secret to ensure any rivals wouldn't be able to find them, even rivals within the hapū!

However, before we could even get to the stage of having a garden, more often than not the area would be covered in bush. Trees, ferns, grasses, bushes and all manner of other plants that although are very nice, aren't really conducive to growing tubers. Cutting it all down was an option but this was usually too labour intensive and just not really an efficient use of time or manpower. Instead it was much better just to light the whole bloody thing on fire and let that do the work for you, in a process called swiddening. It wasn't really until the introduction of metal tools by Europeans that cutting down bush was really a viable option. Even then, burning was still useful as it provided that nice ashen fertiliser for the soil that helped in growing crops. As a bit of a side note, Māori didn't use animal manure as a fertiliser like other parts of the world, probably because there weren't really any large mammals to provide the type of manure needed. The other alternative would have been bird poop but any one who has been shat on by a seagull will know, that is less than ideal. What's funny is that when Europeans brought this shit to Aotearoa, which they considered to be far superior than the methods Māori were already using, Māori were horrified! Nowadays it's considered pretty normal that peeing on your lemon tree or pooping in the bush is good for the earth, we buy bags of fertiliser made of poop from the local Mitre 10 all the time. But when you think about it, we put animal excrement, faeces, onto our food, the stuff we put in our mouths, to make it grow better. When you think of it like that, it's hard not to see where Māori were coming from!

Another fertiliser that was also used was in fact the only large mammal in New Zealand at the time. That's right, people, specifically their bones. The natural assumption is to think that they ground up their bones into a meal and spread that across the garden. This is real life though, not Minecraft, so that isn't exactly how it worked. It was actually more spiritual rather than practical, though as you should be aware by now, Māori viewed these as one in the same like many cultures across the world. It was about using a person's mana and wairua inherent in their bones to help crops grow. This wouldn't be done lightly as it was a task heavily layered in tapu so it was normally only reserved for when the crops were failing, thought to be a result of angering the gods. The way this would work is a person would be selected to go the local burial place, often a cave or something similar and retrieve the bones of some important person or people. They would then be taken to the field in question and a kūmara held to the skull of the one who had been laid to rest the longest with a karakia. One such karakia recorded translated to "Eat thou of the food cultivated by your many fold left by you in this world". After this the bones would be left in the field for some time before eventually being taken back to their original resting place. During this time, it doesn't seem like they were buried, rather left in the open. Outside of this circumstance, skulls or toi moko may have been used during planting, being put on stakes at each corner of the garden. Phallus like objects are said

to have been used for ceremonial purposes as well to represent fertilisation. Best also writes of a belief held by those in the Bay of Plenty, that kumara would leave and return to its original home beyond the sea if its mauri wasn't preserved. So when it was first introduced to Aotearoa, the man who did so, Taukata, was killed and his blood spread on the door frame. His skull was then used in many ceremonies from then on, even having tubers placed in his eye sockets sometimes. Now whether this was Best or Māori acknowledging that they came from Hawaiki, I find it interesting that this belief may indicate that Māori were aware kumara came from somewhere else, its original home, that is South America. It's hardly definitive evidence, but an interesting thought. Speaking of Best, he of course has to take it all just that little step further. He compares this whole practice to that of a similar one in Egypt and India, where he says human bones were buried in fields for a similar purpose. Given I don't know a whole lot about either of these places, I decided to ask Dominic from the History of Egypt Podcast if this was the case. The short answer is no, it's just Best doing what he does... best, that being exaggeration or just not doing his due diligence. Best also uses this practice as an indicator that human sacrifice was prevalent among Māori. I would like to stress that this isn't the case as far as I can tell. Things like cannibalism and human sacrifice were rare and only done when the opportunity presented itself, which wasn't very often.

Lets move away from fertiliser and talk more about the gardens themselves. As we talked a bit about last time, boundaries would be marked out by long piles of stones, basically low stone walls. Sometimes these walls would be put near each other with a small gap between them making a path for a person to walk through without trampling crops on the way. These paths were often found surrounding each plot that belonged to a particular family or group with this system being pretty universal across the country, even as far south as Banks Peninsula. The full gardens themselves could vary widely in size but to give you an idea, plots of land in the Auckland area were often made into gardens about 80-300m long and 25-65m wide. These would then have internal subdivisions and each larger plot would occasionally have a smaller one that was 10-20m long. So they could get rather large, particularly in the more northern areas where horticulture was more favourable and thus a higher population could be supported with it. This entire length would be surrounded by a stone wall so it is likely that the way they were kept straight during construction was laying out cords of flax as a guide. Again, we see this a lot across the country, such as at Palliser Bay where some stone walls were 200m long. Additionally at the Palliser site we see that all the gardens were rectangular so the walls only met at right angles. That's not really important, I just thought it was neat. Best also describes raupō being used for walls as well. The reeds would be densely packed together to the point where "a mouse could scarcely creep through". These were mainly used to keep out pūkeko and must have been fairly successful. Though, pūkeko is a bit of an anomaly with New Zealand ground dwelling birds in that it can fly, so why it didn't just cruise over the walls, I'm not really sure. Māori did have way around this though, when fences weren't employed, older men would go out and scare the pūkeko off by calling out to the personification of the pūkeko, Hine-wairua-kokako, telling her to bugger off. There were also walls made of manuka to reduce the amount of wind in areas where that was an issue. Apparently fences had a load of different names with Best listing four of them and adding "there are seven other names for these screens and breakwinds, but the present writer is nothing if not merciful". As you might expect, once Europeans came over and brought along all their different techniques for building fences, Māori gardens were bounded by what you might recognise as more modern fences. Though, not electric ones, they wouldn't be invented in Hamilton, Waikato for a wee while yet. This change wasn't necessarily because European techniques were better, just that they were better at responding to a new problem that Māori fences had never needed to face and thus it had not been factored into their construction. That is to say, pigs. On the other end of the spectrum, the famous site at Wairau Bar

contains no evidence of gardening. Which makes sense, if you remember Wairau is the earliest site of human habitation that we know of in New Zealand and during the time people would have been living there, the primary diet was things like moa and large marine mammals rather than cultivated food. However, we do see other sites dating to roughly the same period, such as the Palliser Bay site, that do have gardening. So it was potentially down to things like climate and feasibility of horticulture as well.

Right, now we have a bit of land that we have cleared, put up some fences, divvied up the land and now it's time to actually plant something. Well, not quite. First the soil would need to be tilled with a type of hoe made of wood. For any of you reading the transcripts on historyaotearoa.com, it's worth noting that the English word hoe, meaning a farming implement, is spelled the same as the Māori hoe, meaning canoe paddle though they are pronounced slightly differently. Tilling of the soil was something that Māori did quite diligently according to an account by George William Anderson that was retold by Best. Anderson writes that Māori gardens were tilled pretty damned good "owing to the necessity they were under of cultivating or running the risk of starving." I don't normally do this but I'm gonna run that by you one more time, "owing to the necessity they were under of cultivating or running the risk of starving" Now, this initially struck me as a pretty strange thing to say. What he is essentially saying is that Māori were putting lots of effort into growing food because otherwise they might die of starvation. Like, of course that's why they were putting effort into tilling the soil, any one puts effort into farming cause they'll starve! That's the point!! What made this funnier for me is that Elsdon Best, a man writing in the early 20th century and someone I almost never agree with, in the next line says that this is "a peculiar remark." Even Elsdon thought this was a dumbass thing to say! To go on even more of a tangent, Anderson wrote a book on Cook's three voyages, where this quote comes from, but his name doesn't exactly appear on the manifest as being part of the crew on any of them. So it stands to reason that he got his information second or third hand. Except, after a bit of digging, I found out it is most likely that Anderson is a pseudonym for the publisher Alexander Hogg, who was on Cook's first voyage as a purser, basically an ocean accountant. Too bad this poor attempt to veil his name didn't stop us from finding him and calling out his galaxy brain thinking.

Anyway, lets not get too side tracked and talk a bit about the tools that Māori were using. As we said before, the hoes they used were made of wood, as were pretty much all the tools they used for horticulture. Things like spades and shovels were the primary tools used along with trowels, called ketu and the timo, a forked branch that was made into a flat blade that kinda looked like an adze or pickaxe. The tool landscape obviously changed as Europeans brought their own tools but we will get to that in a later episode. The soil that Māori were planting in didn't tend to be too heavy or difficult to work with and they also didn't do any intense plowing like their European counterparts, so there wasn't really a need for tools to be made of anything tougher than wood. Instead they would just loosen the earth to prepare it for planting. Although there were lots of variation in the shovels and spades they used I won't talk about them all. Instead I will put some pictures up on the website to show you what they looked like. What I will mention briefly is the ko, a nearly 2m long rod with a slightly pointed end. This was the tool that was used for the actual lifting of soil for planting. Like a lot of spades that Māori used, it had a quite cool feature in that there was a stick attached horizontally near the bottom which would act as a foot rest. During the tilling and planting, which was a very organised affair, tools could be decorated with feathers or sometimes have crescents carved into them.

The crescents are significant because they represent marama, the moon, who in turn is associated with Rongo, the god of peace. More importantly for us though is that he is also the atua of kumara

and all cultivated foods. There is a bit to unpack there and the link from crescent on the tools to Rongo may not be obvious so lets just work our way through it. Hopefully it's pretty clear where the symbol of the crescent comes from in terms of representing the moon, it's one of the phases and a common symbol for it across the globe. The link between marama and Rongo makes a bit more sense when you know that the Māori calendar was a lunar one and the planting and harvesting seasons were heavily dictated by its phases. We see this association across the Pacific. Additionally, the reason Rongo is the god of peace as well as cultivated food is that farming and growing crops was something you really did in peace time. You know, swords into plowshares kinda thing. Those of you who may be a bit more up with the Māori pantheon may be aware that Rongo goes by a few names, Rongo-ma-tāne is the one I have used in the past however he also goes by Rongo-marae-roa and Rongo-hīrea. For the purposes of this episode I will be just referring to him as Rongo for simplicity. Rongo is sometimes depicted as being the father and generally the bloke behind kumara, however sometimes he is distanced from that role a bit more and instead is linked with female fertility as well as land fertility. In particular in the form of Pani-tinaku, the woman who birthed the kumara. Depending on who you ask, she may or may not be Rongo's wife, Rongo having seeded the kumara inside her. Pani-tinaku's name also means 'to germinate' or 'to increase' so again, ideas of planting, fertilisation and the like. There are other versions of the korero across the Pacific that replace the kumara with taro and Rongo with Māui, which seems to happen in a few different places in a few different ways so there seems to be a link between the two figures either as the same person or being associated with similar cultural ideas. For example Pani may have been Māui's foster mother or his auntie on his father's side.

These gods weren't just abstract beings in the ether though. Māori often made stone carvings depicting Rongo and Pani in the gardens after planting so that they would oversee them and protect the crops. These carvings were called taumata atua, roughly translating to resting places or abiding places of the gods. Though if you go reading about them you may hear them referred to as 'kumara gods', which even Best says is a "highly objectionable name". He seems to be doing pretty well this episode... Oh no wait, he then goes to say that Māori only saw these carvings as symbols, a visible representation of a being that was immaterial. Which personally I highly doubt given Māori thought the gods, spirits and their ancestors permeated and influenced every aspect of their lives through things like tapu. Lets also not forget that as a Pākehā he probably worshipped a dead god who is both divine and human at the same time whilst also being a spirit and an omnipotent man in the sky but also three people at once, which he may or may not have given thanks to by eating the god's body and drinking his blood depending on his denomination. I'm not trying to say which religious views are correct, HANZ is a strictly 'everything can be explained by science' podcast for the sake of reducing bias but I just want to point out maybe don't go throwing stones in a glass house. Just when you thought Best was taking one step forward and another back, he does a big ol' back flip by describing similarities between Pani and rice, particularly in its South Indian context. Basically what he says is that the origin story of kumara is that Pani gives birth to him in water and rice is grown in water. He also says Pani's name is similar to the South Indian word for rice, pari. So because of these two things Māori made the same connection as South Indians which means something? He doesn't really elaborate on it much more but given what we have seen from him and other European writers in the past, I think the implication is clear. So I didn't follow the thread further cause I am nearly 100% sure it's bollocks anyway. One final thing about Best and these carvings is that he notes one he saw was "marked by prominent organs". That is to say, it had a BIG OL DONGER. Jokes aside, locals were quick to clarify that this wasn't meant to be rude or comical but was "symbolising natural functions". Again, probably in reference to Rongo or Pani and fertility of the land.

I briefly mentioned before that planting was something that quite organised and I don't just mean in the sense that crops were planted in rows. The planting season had strict tapu around it and as such there was a right and a wrong way to do things. For starters, planting was a communal affair, pretty much everyone joined in regardless of social class or standing. So from taurekareka to Rangatira, everyone was expected to chip in. Well, actually I do tell a slight lie there, since the task was such a tapu one it is unlikely that slaves were involved directly in the process. However they were likely contributing in other areas than the straight digging and putting the tubers in the ground bit, which is what some older literature would suggest. On planting days, no fires would be lit and everyone would fast until the work was done. Though, when I say everyone, it is unclear whether that means the people doing the work as well as the people back in the village or just former. In any case, this was likely because of the tapu nature of the task and noa nature of food. Some writers may say that restrictions like this were done so to make the people uncomfortable and work faster to get the job done, which is a possibility however to me it smells a little of Victorian ideas of production, given they were exploiting the working class inside out and backwards in England. It just seems like the way a European might interpret the situation given their cultural background. I would like to stress that is speculation on my part. Anyway, when planting was to commence, the rangatira or some other important person like a tohunga would stick a branch in the ground of the east side of the field, which would now be known as the whakaupoko, the head of the field. During the actual planting itself it was a huge offence for any non-authorized people to approach the field and it wasn't uncommon for someone to be executed for such an offence. The idea being that any breaking of tapu may anger the gods and cause the crop to fail or to rot in the storehouses, which is bad for obvious reasons. Best mentions that indicators would be placed along the path around the garden to show where you should and should not go, however he doesn't say what these actually were. Once ready to commence planting the group would work in a diagonal line to ensure the proper alignment of the crops, with some regions using rods or cords to help achieve the correct lining and spacing. The process consisted of three groups of people. Diggers would go first and dig a hole, followed by the mound formers who would, funnily enough, form the mounds the kumara would grow in. Finally the planters would come along with the seed tubers themselves and plant them in the mound with one tuber per mound. The whole thing wasn't just willy nilly though, it had to be done precisely and was set to a rhythm of the group chanting. This would be led by one of the diggers, probably one of the most experienced. In fact, digging was a bit of a complicated process and if a person didn't know what they were doing they would likely be sent to the planting group instead. Best does go into how the whole digging process works but it's pretty detailed and a bit too in the weeds so I won't go into it here. This whole planting ritual is called a tewha, in saying that though Best says the tewha was the chant itself. As you would expect, the tapu needed to be lifted when the work was done and this was usually done by way of ceremony. In one case it involved passing a cooked kumara around the group from their right to left hand before burying it as an offering to Rongo.

Next time, we talk about how Māori cared for their plants as they grew. In particular we focus on weeds, not the cannabis kind that New Zealand will be holding a referendum in a couple of weeks to potentially make legal but the kind that you find in your garden that you immediately pull up. On that note, remember to vote and have your say this election!

If you want to send me feedback, ask a question, suggest a topic or just have a chinwag you can find my email and social media on historyaotearoa.com. This podcast is a one man band, if you enjoy listening to me talk history, you can support us through Patreon, buy merch or give us a review, it means a lot and helps spread the story of Aotearoa New Zealand. As always, haere tū atu, hoki tū mai. See you next time!!

