



Evoke Ag Notes

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Overview

- ▶ Firstly thanks to FAN for covering the admission costs of attending this great event. For someone like me with a long-standing interest in practical ag tech and the future of food, it was a real treat. There was much discussion on social media prior about the attendance costs of attendance and it was reflected in the attendees with government departments and big agribusiness probably over-represented vs grass roots producers.
- ▶ I attended many sessions (summarised below) with the highlight being Michael Chan (US) speaking on the future of food and probably the low-light being a presentation by Platinum Sponsor Elders on the uptake of technology in livestock industries (probably in essence why there is a problem with the uptake of technology in livestock industries).
- ▶ Startup companies represented included FAN member Hive Haven as well as a good contingent from New Zealand. A move away from drones for in-paddock uses to ground based robotic platforms was also evident. A notable exhibit was a bee identification system (drone based) that enables better planning of “hive drops” (a term I hadn’t ever heard of). Pollination rates however are highly variable and the placement of bee hives can make or break a crop. Perhaps the only ag tech sector more highly represented than automated tractors was bee related technology.



Plenary Session 1

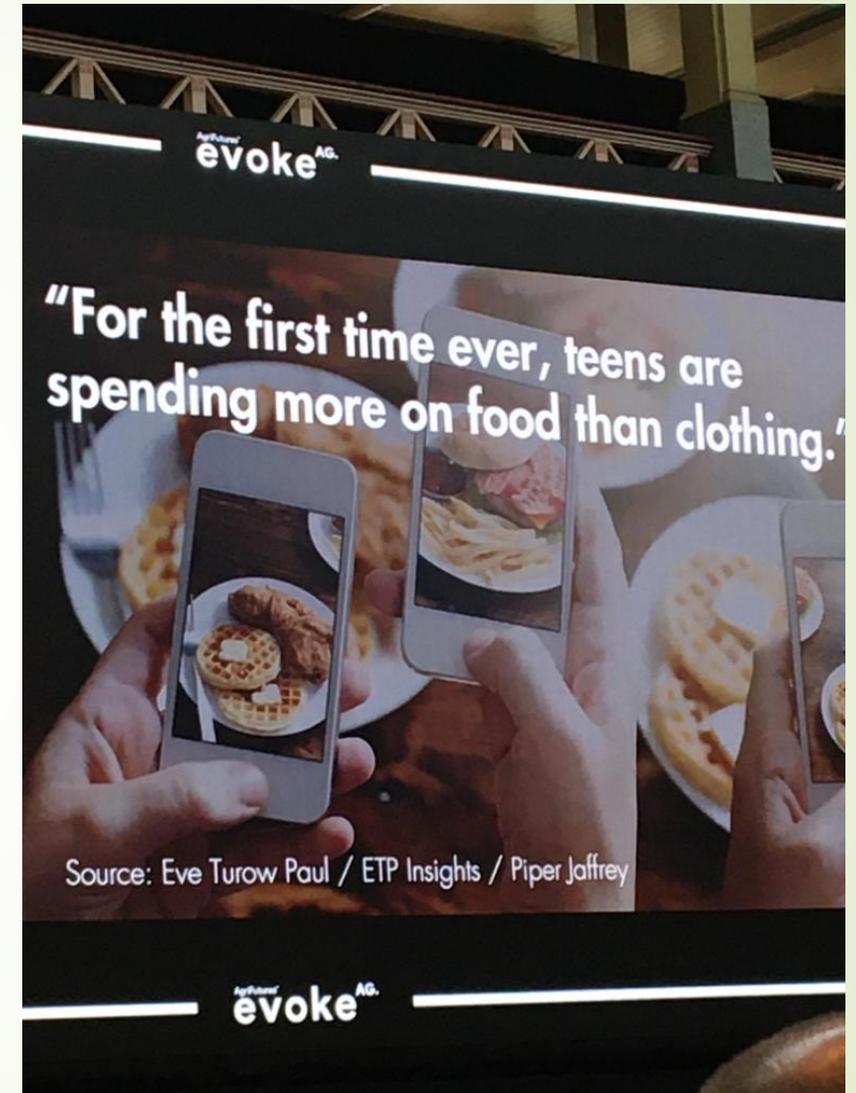
- ▶ **Plenary Session 1:** After some quite inspiring introductions from the likes of Callum Daily (Qld) the main speakers were primarily sponsors. Most uninspiring was Elders Mark Allison. One interesting thing out of his discussion was in Australia our actual Farm Gate production value was about 58 Billion and there is a \$100 Billion target by 2030 HOWEVER recent weather events have now downgraded that to \$86 Billion as being a reasonable target. Food and Farming however (which I assume includes value add and retail businesses) was worth \$800 Billion. In other words, farmers (primary producers) get about 10% of the real value of what's finally sold to consumers. (my deduction not his). Elders really is interested in Startups only in the fields of Animal Nutrition, Soil Moisture, Pest Management and Genetics. The rest of the discussion was about the importance of Foreign Investment and that input costs were increasing more quickly than farm gate prices. No real gamechangers in anything he said.
- ▶ John Hartnett followed from Silicon Valley. Runs a Agrifood Accelerator called Thrive. He was one of the inventors of the Smartphone but has not moved to agriculture. Silicon valley is investing currently about \$130B per annum (funding). Artificial intelligence as an example attracts about \$5B but Agrifood industry attracted \$17B. He pointed to 50% of the world's population is now Millennials Gen Z and a recent Ag Tech Summit run by Forbes had a reach of 2 BILLION people. One of his slides I posted showed the Ag Tech companies in 2020 being Bayer, BASF, John Deere, Nutrien and the likes but he thinks these will be totally eclipsed by the likes of Amazon, Google, Beyond Meat and Indigo.
- ▶ RCS had a quick session touching on their interpretation of Regenerative Agriculture.



Plenary Session 2

- ▶ **Plenary Session 2:** This was the highlight with Mike Lee speaking mike@alphafoodlabs.com. A post I put on social media about this session (at the time of writing this) had been shared about 50 times and attracted over 8000 views. What he has to say is extremely important and is so close to our ethos it was scary. An extract follows if you haven't seen it. Of all the speakers, this guy was the highlight...
- ▶ **Mike Lee's (USA) Evoke talk has re-enforced our food system beliefs to the letter. Have a look at his slides.** 75% of the world's food now comes from only 12 Plant & 5 Animal species. "Since WW2 the food industry has essentially traded ecological biodiversity for more of less types of food produced industrially with little or no consideration for the environment or for dietary health". The over producing, under nourishing system (in his view- and ours) is dying (literally). Consumers are now changing with 50% of the market (0-25's) spending more money on food than on clothes - for the first time ever. They are eating in "tribes" not as one homogenous mass so there's space for everyone and everything - but in niches. What's emerging is entirely different to the current system- and disruption will result! For those of us not happy to buy what's given to us as "food" in the supermarkets (in the name of convenience); How do we change the rules to scale sustainability or (even better) regeneration- Mike says by TASTE and STORY. "Flavour First" - where is taste or flavour on our payment specs sheet from the abattoir or the supermarket or pack house? It's #1 or #3 in how consumers actually make buying decisions on (depends on the country surveyed) BUT IT'S IGNORED BY THE PRODUCTION INDUSTRY! In our region Chefs & foodies do (and need to) take the lead on this but in many places they don't. Regeneratively trained farmers know how to look after land but many of the "tools" are cover crops or animals that are lower value than the few commercial crops or animals that are bought through the industrial system. The chefs can find high value uses for these products. Selling products based on flavour seems to be the secret to this- Mike gave plenty of examples. Secondly - Consumers crave transparency which is the exact opposite to the current centralised supermarket model. This is where the future is. Catering to a tribe and having a story. Start with chefs, but focus on the system not the products and tell that story. Now really seeing the benefit in living where we live and having people like MARTIN & Matt Golinski in our region. Now we need to do our bit! #evokeag

Like many subsequent speakers, transparency and traceability were highlighted and one slide said "the process has become the product" meaning people want a bit more than a generic thing without a story- they want to be involved.



▶ **A Panel Session** I attended next had a CSIRO speaker quoting Singapore now having a Self Sufficiency Policy (even though they import 90% of their food). Does the Sunshine Coast have one???? Singapore is aiming to be 30% Self Sufficient by 2030.

▶ **Interestingly the panel session on investment into Ag Tech** (talking a lot about NZ which is ahead of Australia) mentioned repetitively the importance of commercialisation. (This has been my point and the reason for setting up a “route to market” at our shop). There is a movement in NZ into concentrating on Post Farmgate Systems rather than on-farm innovations but everyone agrees, no matter what sector, the downfall is Commercialisation with all Ag and Food Tech.

▶ **One of the startup talks** I saw (and my favourite) was Bee Innovative. This industry is massive with 75% of the World’s crops depending on bees, “pollinated agriculture” is worth \$577Billion/Annum! David Lyall david@beeinnovative.com.au has invented drone based technology like a radar for bees (called a BeeDar funnily enough) to record bee activity in crops and orchards which helps bee keepers and farmers come up with the most economical “hive plan”. I’d never heard of a “hive plan” or of paying beekeepers to put bees in paddocks but I attended the talk with a friend who is a large orchardist who spends upwards of \$200K on bees for 3 months of polination and they have no “hive plan” and get very inconsistent pollinations. I think this guy is onto something and his startup was fantastic.

▶ There were other interesting startups (some would be keen to attend a future Agvention Field day) but some like Zetifi and Goahana were concentrated more on network issues. I have contacts for all these however feel Telstra may eventually come in with its IOT network and squish all these small players- so its hard to pick a winner.



Break-out Sessions

On Day 1 I attended the Alternative Proteins Session.

- ▶ This one had a far different outcome than what I thought would be a “cow bashing” session with the speakers all saying that what is driving the “alternative proteins” market is more about lower supply of meat per person in the market than more people actually turning off meat and substituting.

- ▶ There was actually acknowledgement that Plants & Animals are Symbiotic and required in a regenerative system (amazing how much coverage Regenerative Ag got). One of the speakers said that the role of farmers was to grow food and sequester carbon, so in almost every farming system ruminants are needed. His comment was – if we didn't have ruminants, we'd have to invent them.

- ▶ Regarding the “noisy” vegan movement the panel members (all makers of meat substitute products I think) said that “Consumers are driven by what consumers do and Humans are programmed to enjoy the taste of meat”. In other words, any alternative, if servicing a market that required it for health or other reason, still had to taste essentially like meat. Finally they did a vegan show of hands and of the 300 attendees in the packed room, just talking about the alternative proteins of the future, there wasn't one any. There were a few vegos.



➤ Break out sessions cont

➤ **It was difficult to get around all the sessions but the Cyclical Economy/Food Waste session (what I caught of it) was interesting.**

➤ Woolworths (another sponsor) talked about the need for the plastic packaging as a trade-off for quicker wasting foods. Other speakers however were a little more enlightening – One great idea that came from the panel was that Governments are actually the biggest procurer of food in Australia. These procurements are not done with food waste minimisation (or common sense) in mind. EG Contractors to Prisons have the same size and shape specifications as high value uses in catering. Even though much of the prison food could easily be substituted with out of spec product (as an example). There was a little bit on packaging including the mention of a Danish technology using Potato waste (starch) to make bags for packaging. Woolworths got most of the air time however talking about the 113 Million tonnes of “imperfect fruit and veg” they sold last year (someone asked why they thought it was “imperfect” – hitting the nail on the head probably). (Not a big fan of supermarkets after this event).

➤ I met Sarah Nolet who is American and seems to be the brains behind the Farmers to Founders workshops which seems to be the main funds channel for AgriFutures now. Our shop and FAN hosted one of their “best” events she said so she shouted some beer and pizza at a F2F function and said they are keen to do more in our area

Day 2

Technology in Livestock Production:

This session was hosted by Elders (major sponsor) and really was the worst delivery of the conference. It highlighted however the problems in the livestock industry getting adoption of new technology. Relying on people like Elders to deliver ideas and help with adoption is the only way to access 80,000 livestock producers spread across our geographic areas (distribution) but they are just living a decade behind. It was a really terrible session and this was reflected in the opinions of everyone in attendance. Elders are setting up a technology farm (original idea) and are hoping to run field days on site to show ag innovation.

Renewable Fuels:

A discussion about Biofuels was very good focusing on the big users of fuel like Airlines & the shipping industry. Virgin's Andrew Sellick spoke really well about their \$1B / Yr Fuel Bill and their focus on finding biofuel sources to meet targets of keeping emissions at 2020 levels. They had a Regional Focus for their fuel policy, they were improving efficiencies by 1.5%/yr and buying expensive offsets but the future had to be first in transition biofuels and much later in technologies like Hydrogen.

Shipping was a similar story contributing to 2.5% of the world's greenhouse gas emissions and setting hefty targets like 40% increase in fleet efficiency by 2030 (this flows into better load management and logistics management) and 50% reduction in emissions by 2050. In reality she said that it is a very slow moving industry with ship lifetimes often 30-40 years so wholesale changes were incredibly slow. Buying a new ship today would actually mean it was still in operation at 2050. Container ship can use 300t of fuel (one grade above bitumen) PER DAY. Again Hydrogen seemed to be a good long term solution but currently there was only one hydrogen ship in the world. Drop-in solutions are preferred in the interrum as no engine changes are needed.

There are 6 approved pathways to making biofuels (for "drop-in solutions") with another 14 in approvals now. Mac Irvine attended representing the Clean Energy Finance Corporation which is a govt backed "Green Energy Bank". They are investing \$25-30B in this sector to produce an industry that will create 250,000 jobs and give Australia Fuel Security. Hydrogen, End of Life Tyres, waste and fuel crops were all mentioned. I think shipping alone needs 20 Billion Litres – its something we need to get onto!

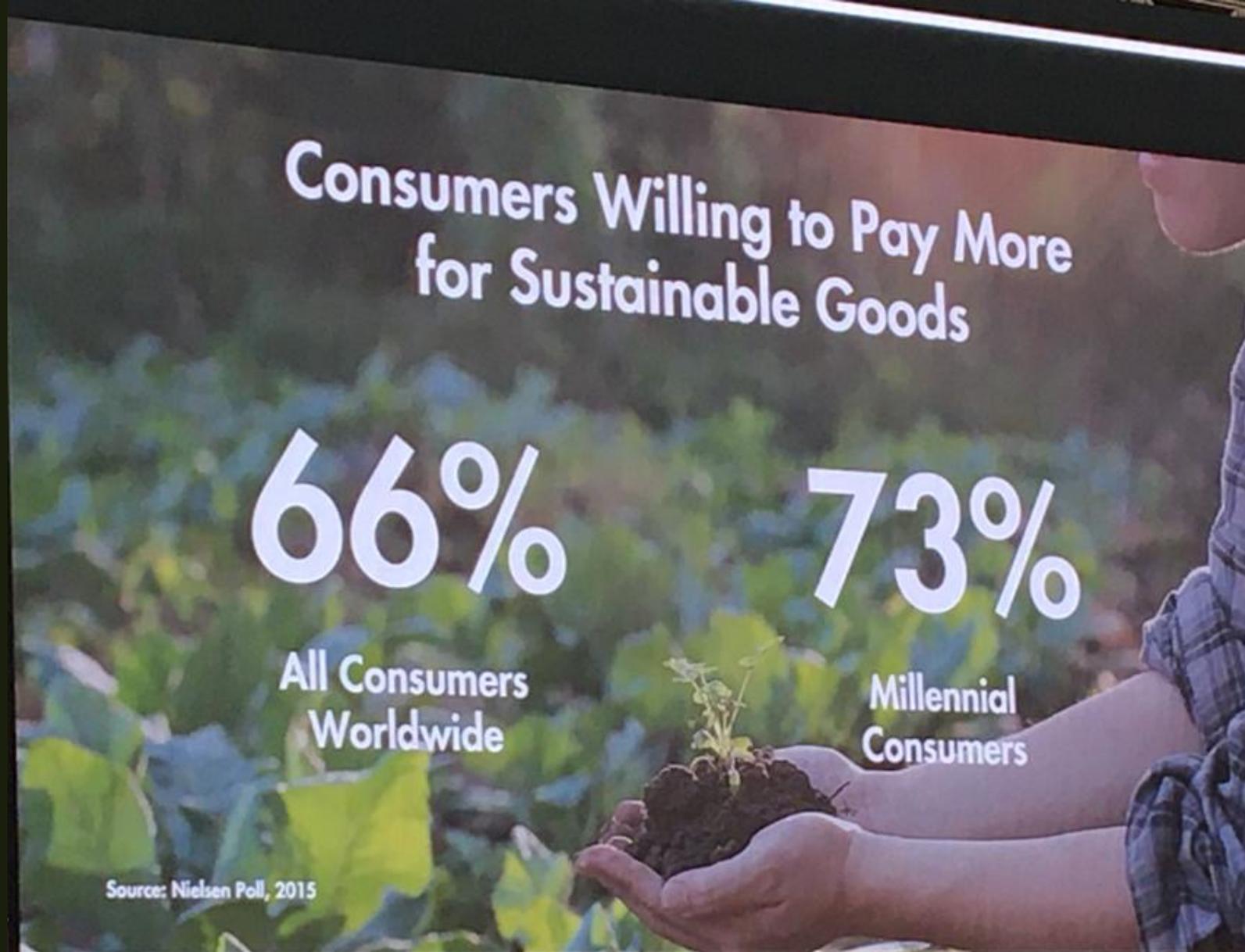
▶ **Another Session I attended was on Traceability:**

▶ I have a background in this so the technology side wasn't anything too new but the drivers were. More than ever before there was emphasis (from EX CSI cop Cameron Scolding- Source Certain) that "out of sight, out of mind" was no longer acceptable. Providence Matters and Authenticity Matters.

▶ Other speakers were Dave Harris from AA co who pushed the Value of Reputation but mainly talked about out of date livestock id tech and Munro Farmers from Australia Post who does 3.2 Billion transfer points for packages annually. His talk was actually interesting and he mentioned their Farmhouse fresh food postage system which hasn't been promoted yet but may open the way for lots more direct supply business to open up. This could be something of interest to FAN's members?



- ▶ **The final panel session (I think) was again on connecting consumers to food and farmers.**
- ▶ Again Mike Lee Spoke and was the stand out. It was interesting having him on a panel with Woolworths (who after the session cornered him and asked if he would “work with them”).
- ▶ Packaging issues and the concept of “mass customisation” by corporates to compete with “small batch” producers. Mike Lee (after everyone else talked about sustainability) talked about regeneration rather than sustainability with a classic line- “If someone said how’s your marriage and you said “sustainable”- that doesn’t sound too great!”



Final Note

- ▶ I believe (if it hasn't already happened) FAN should lead the region in developing a food & energy security strategy. All the elements are within the organisation to come up with a cradle to grave approach to having a self sustaining (if not regenerative) food system within the catchment of FAN.
- ▶ More than most, there is a large and growing population in our region interested in better food/health outcomes (same thing), there is much underutilised land (both private and public) and there is knowledge (not well disseminated) from production through to processing and distribution. There are logistics assets in place and much food leaves the region, and much is imported back in. There are elements necessary to develop a circular economy and probably the required resources for energy self-sufficiency. There are educational assets but little linkage between these and on-farm technology advancements. Green hydrogen generated from waste or renewables could be powering our fishing industry, food miles could be the lowest in the country and ag-tech could bring regenerative agriculture to the forefront not only feeding our urban population but also offsetting their emissions. On this, at Evoke, Charles Sturt University was promoting their Agrisciences Research and Business Park (I know an excellent site for that in the Mary Valley!). Bundaberg has a similar initiative with very low rent & rates and free energy to ag-tech businesses.
- ▶ Growing up in Western Qld. and travelling throughout the country this year, and after attending such events as Evoke; it is glaringly obvious that the region in which FAN operates has vastly more opportunities than probably the rest of Australia (possibly the world). All that is needed is vision, a strategy and lots of energy to come up with something remarkable and engage everyone.

