
1. The Hemp Federation Ireland conference run in conjunction with the National Organic Training Skillnet on March 12th 2020

1.1. Chris Allen Executive Director speaks of who controls the cannabis conversation in Ireland. Can be grown for fibre seed or oil or dual purpose crop Prohibition

02:36 for both industrial products and for
02:39 horticultural purposes
02:40 they specifically state that okay
02:44 so they shouldn't be included in in the
02:47 misuse of drugs
02:55 prohibition also brought with it the
02:57 exclusion of hemp
02:59 from human diets
03:54 slow uh compared to the rest of Europe
03:58 okay there's been absolutely no research
04:00 on hemp in Ireland for more than 20
04:02 years
04:16 upper market value of 115 billion
04:19 euros by 2028 for this industry
04:53 in 1964 Israeli researcher called
04:57 Rafael Michelan he was studying the
06:32 is that the plant-based cannabinoids
06:36 can you feed and upregulate
06:40 the endocannabinoid system inside of the
06:42 human body
06:43 okay and that's why people feel
06:46 better when they take full spectrum CBD
06:50 it's not that they're being cured of
06:51 anything in particular
06:52 it's that the function of the
06:55 phytocannabinoid of the endocannabinoid
06:57 system is to upregulate your homeostasis
08:32 corporate farmer food drinks tobacco etc
08:34 and they're dictating the way in which
08:37 the market gets constructed
08:19 experiencing
08:20 exponential growth okay so
08:42 okay so they're (corporations) are determining the way in
08:44 which this industry gets developed into
08:46 the future
09:07 what did they call that the proposition
09:10 64.
09:11 so this was to kind of get their
09:13 cannabis industry
09:15 going okay so it was introduced in 2016
09:18 in conjunction with the legislative

9:20 legalisation of cannabis in California
09:23 would be the gold standard in
09:25 environmental policy
09:26 okay and it would provide encouragement
09:29 for
09:30 small-scale farmers practising
09:32 ecologically sound and sustainable
09:34 farming methods
09:36 with funding for conservation habitat
09:38 protection enforcement
09:40 uh of environmental law the whole thing
09:44 you know American dream environmental
09:47 protections
09:48 in practice what actually happened was
09:50 that before the legislation ever went
09:52 into effect
09:53 the important environmental provisions
09:55 were all overridden
09:57 by the state okay and this effectively
10:00 disabled the environmental safeguards
10:02 and it encouraged corporate growth okay
10:06 is uh from Dr Tony Saval who is
10:10 a a scholar in
10:13 Humboldt state university
10:18 cannabis lobby spent more than a million
10:20 dollars lobbying holiday
10:22 policymakers to push for legislation
10:25 limiting the profitability of
10:26 smes okay and how they they did that
10:31 is that they introduced really really
10:34 really expensive
10:35 and difficult to fulfill licensing
10:38 procedures
10:46 okay in 1997 the European union
10:49 introduced what they call a novel food
10:51 catalog
10:52 okay and anything that wasn't a
10:55 traditionally eaten food
10:57 in the European union prior to may
11:00 of 1997 was going to be considered a
11:03 novel food
11:06 special regulation
11:08 in order to get it okay or to be able to
11:10 sell it
11:52 but it's novel today okay
11:55 and you need special authorization to
11:58 get it
12:29 that the FSAI recommended and
12:33 it's around three million
12:39 means
12:40 is that nobody except a corporation
12:43 could possibly afford that money nobody

13:34 uh actually they're all too old we want
13:37 you to give
13:38 us uh examples from during the time when
13:41 the plant was banned
13:43 in the 20th century okay that's
13:46 basically what they say
13:48 it's outrageous okay so
14:01 2016 the industry in Ireland
14:05 and you have to remember that we do have
14:07 a very old industry here
14:08 okay but the CBD wave that kind of
14:12 you know real interest in that and it's
14:14 really good money and uh
14:16 really good food, people getting turned
14:19 on to hell that was really driving
14:20 forward the industry okay
14:22 uh 2016 the FSAI had
14:26 two people asked them about CBD food
14:30 supplements
14:31 okay and I know both of them
14:36 but then it
14:39 trickles along nicely until around
14:42 2018. okay and then at that point
14:47 um we start seeing shops
14:50 being raided by police or products being
14:53 taken off
14:54 uh um
14:58 suppliers and and shops and etc etc etc
15:00 so a very
15:02 a criminalisation of of the industry
15:07 then you have um
15:11 following on from that you had you know
15:13 some of the raids were like you can
15:15 carry out like
15:16 drug raids those you know people's front
15:18 doors being
15:20 battered down by guards and I don't know
15:23 what else
15:24 so all this time okay
15:27 it's actually perfectly fine to grow
15:30 hemp in Ireland
15:32 the FSAI say to say to us that
15:35 you can grow hemp with a 0.2
15:39 THC and it's perfectly fine to
15:42 have that sold in Ireland as a product
15:45 including
15:46 for food okay that was that was the
15:48 instruction
15:50 now three weeks ago
15:53 we woke up one when uh Thursday morning
15:58 and that was all gone gone
16:01 the information was gone from the FSAI
16:04 website
16:05 and our businesses were completely and

16:08 utterly devalued
16:10 um and how that happened was this the
16:12 FSAI said to us
16:14 here's the regulation for your industry
16:17 that we want you to
16:18 to keep up with and we said fine
16:22 and you know the people in this
16:24 organisation this organisation itself
16:27 have been pushing pushing pushing to try
16:30 and get the state to work with us
16:31 to put in place you know a proper stable
16:34 regulatory framework to protect
16:36 our supply chains and protect our
16:37 markets okay they haven't
16:40 so far done that but so what they did
17:14 they introduced a completely new
17:16 reference value that is one microgram
17:18 per kilogram of body weight and now Kate
17:28 uh but so the FSAI did this without
17:32 once consulting anybody in the industry
17:42 was asking them about the methodologies
17:44 that we're going to be applying
17:45 to the testing of our products what kind
17:47 of equipment they would be using in
17:49 those tests
17:50 and they wrote back to me and they gave
17:52 me all of the information i needed but
17:54 they never
17:55 ever ever mentioned anything about
17:58 a new reference value that they were
18:00 going to be applying to
18:01 our products so what actually happened
18:04 was that our products are all
18:06 compliant with the only advice that this
18:09 industry has ever been given by FSAI
18:12 however FSAI uh did a high-level media
18:15 campaign campaign that withdrew our
18:17 products
18:18 from the market really high quality
18:19 products did a high-level media campaign
18:22 and never once mentioned
18:23 to people that actually our products
18:25 were all compliant
18:27 they never told people that they changed
18:30 the goal
18:31 inside of their report and so
18:34 it just had such a negative detrimental
18:38 impact
19:18 in Ireland i ask for a fully integrated
19:22 development plan for this industry so
19:24 that we can capture not just the
19:25 economic benefits and there are loads of
19:27 them
19:27 but that we assess how we can also get

19:29 the other ones
19:30 the human food nutrition potentials the
19:33 environmental potentials
19:35 the you know agricultural system
19:38 development potentials and look at
19:42 providing a new system a new economic
19:44 system
19:45 to you know account for these benefits
19:48 not just for profits
19:50 okay so so is to encourage you know
19:53 rural Ireland and farming communities
19:56 and
19:56 doing it because it all has to be
19:58 embedded at local level

**1.2. Jace Callaway CEO Fiona Finland speaks at the
Hemp Federation Ireland Conference [https://
www.youtube.com/watch?v=HK75Ui7DKnM](https://www.youtube.com/watch?v=HK75Ui7DKnM)**

00:38 you have to understand the french have a
00:40 sewn up fibre market
00:42 where they make speciality paper you're
00:44 not going to compete with that
00:50 if you had the products if you had the 00:52 market
00:53 the Chinese would serve it cheaper
00:56 faster better than you people eat every
01:00 day
01:07 I recommend that you go into food
01:53 there's over 2 800 scientific articles
01:56 on cannabidiol
01:57 alone not one of them shows harm
02:00 the authorities are scrambling
02:02 desperately looking for something
02:04 harmful to say about CBD and they come
02:06 up empty-handed
06:23 there's vitamin minerals in the seed
08:54 high amount of omega-6 high amount of
08:57 omega-3
09:22 these are the only
09:23 two clinical studies on hempstead
09:45 we had healthy people
09:49 we didn't expect them to get any
09:51 healthier
09:52 we compared him to the oil black seed
10:54 not only safe but really healthy we
10:57 found that the fatty
11:06 and we were surprised to find the HDL/LDL
11:09 ratio improved
11:35 but we did the second clinic with hemp
11:38 seed oil
11:39 and this was a patient
11:46 this is eczema and we found out
1:50 that eating him oil clears up

11:54 excellent in about two weeks 10 days to
11:57 14 days
11:58 becomes very clear and uh
14:19 we had
14:20 in decreased
14:23 reporting of skin dryness decreases
14:28 in the skin itchiness and decreased use
14:31 of medication after the hemp seed oil
14:40 it just changes in a very small
14:44 population
14:45 that's that's highly unusual
15:34 typically the western diet is heavy and
15:37 omega-6
15:38 losses so you see off to the left
15:41 there's this pg-1
15:42 pg2 these are inflammatory
15:45 prostaglandins
16:54 the nutrition of hems first off
16:58 that excellent source
17:01 vegetable nutrition there's nothing else
17:03 like it in the vegetable world
17:06 the pro both completely easily digested
17:14 and also hemp seed oil is a functional
17:18 food
18:08 and if you want to lower your
18:09 cholesterol the LDL
18:12 attempts
18:16 and then just spread it on your bread
18:30 especially bird seed
18:34 animal food versus cow
18:37 chicken will make omega-3 eggs
18:41 and whole hemp seed oil sediment
18:44 or seed cake this is a very important
18:48 market
18:56 that nuts iron name metallic Allister's
19:00 cough
19:00 mixture could be really handy you look
19:03 there the ingredients cannabis
19:05 indica iphc i don't know what's fixing
19:09 the cough is it
19:10 chloroform or the alcohol
19:21 but um it's important to know that this
19:24 was
19:24 a medicine and the medicine worked quite
19:28 well
19:57 perfectly legal for human consumption
19:59 but what do the authorities say about
20:01 feeding to animals
20:11 European commission 2017
20:15 on page 77 of this commission
20:18 regulation you'll see listings for hemp
20:22 seed
20:27 right there with poppy seeds and poppy
20:29 meal of course

20:30 these are perfectly acceptable things
20:32 for animal feed
20:34 it's in the law we don't have to ask for
20:36 permission
21:19 the extra lime oil for paints and
21:22 varnishes
21:23 other speciality coatings you can make
21:26 inks out of it because it's a drying oil
21:29 and because it's a drying oil that means
21:31 it oxidizes rather quickly that's why
21:34 it's not so good for soaps or cosmetics
21:37 because they begin to smell like paint
21:39 rather quickly and hemp seed oil is not
21:42 appropriate as an iod
21:44 so this is oil is too valuable to burn
21:47 energy just don't even think about it
21:50 you shouldn't be burning agricultural
21:52 products
21:53 especially a healthy food
21:57 for animals with humanity

1.3. Kate Mullaney speaks at the Hemp Federation Ireland Conference https://www.youtube.com/watch?v=_Cgyxpbz-bM

00:39 this man he's horase plunkett
00:42 he is um the founder his
00:45 pr um his uh what he call it his um
00:50 legacy to the uh to Ireland to the Irish
00:52 farming industry is
00:54 um the cooperative movement and
01:22 dairy industry setting up if you know
01:24 what i mean the dairy cooperative
01:25 movement
01:26 and the hemp industry was wiped out okay
01:29 if you if you imagine the amount of
01:32 investment in that hundred plus years
01:34 that has gone into the dairy industry
01:36 that was limited
01:40 by for the hemp industry by um the
01:43 prohibition basically of hemp
01:52 actors that didn't want to see hemp
01:55 progress um so
02:23 from the last okay maybe
02:27 10 or 10 15 20 years here's been very
02:30 little
02:30 investment even in that time so it'
02:32 been the prohibition has been lifted
02:34 to some degree um the amount of
02:37 investment into the industry is
02:39 is relatively small compared to let's
02:42 say
02:42 the last hundred years in the dairy

02:45 industry
02:46 did that make sense so um there is a
02:50 huge potential I
02:52 understand sean is being a little bit
02:54 sort of holding back a little bit on the
02:55 uh the potential
02:57 and that's understandable um but
03:00 nonetheless there is a huge
03:02 worldwide potential for hemp um
03:05 for hemp in it's all in all its shapes
03:08 and forms
03:09 the hemp federation's focus though is
03:12 industrial hemp
03:13 so there is so this confusion i suppose
03:16 um is where there's a crossover between
03:19 hemp and cannabis
03:20 okay we are very adamant in the hemp
03:23 federation and
03:23 the whole in the industry
03:26 the people we're representing the hemp
03:28 federation are hemp growers okay it's
03:31 there isn't, there's a different lobby
03:33 for the cannabis industry
03:35 and a different um emerging industry
03:39 and what we need to do is protect the
03:42 hemp industry because it doesn't have
03:44 the same voice it doesn't have the same
03:47 bump behind it right now it's a smaller
03:50 industry whereas the cannabis industry
03:52 has massive pharmaceutical
03:54 backing behind it
03:58 so the industrial hemp um is the
04:01 feedstock for
04:02 numerous different industrial
04:06 processes right the food the feed
04:09 the fibre the fuel and the pharma I
04:11 don't want to completely eliminate them
04:13 from the talk
04:14 um but they they they're all so hemp
04:17 becomes the food stock for all of those
04:19 industries um
04:21 you know which give the opportunity for
04:23 multiple possibilities right
04:39 food feed fibre fuel and pharma has
04:42 multiple industries
04:50 um biological equivalent of crude oil
04:54 so anywhere when you are where you
04:56 imagine um 04:58 crude oil has been used or oil has
been
05:00 used you know the petrochemical industry
05:19 um the problems for farmers are also the
05:23 solutions
05:42 of farming the cost to a small and
05:45 medium

05:49 than the industrial farming the you know
05:52 the corporate farm
05:53 corporate farm model um so
05:58 um what am i trying to say um so while
06:01 there's a shrinking market
06:03 and there's growing costs okay
06:06 for the smaller farmers and what's
06:08 happening is the industrial
06:09 corporate farms are actually really
06:12 taking over and taking control of the
06:13 food production
06:16 because the smaller farms can no longer
06:18 compete it's getting harder and harder
06:19 to compete
06:20 so we're having to be faced with um
06:23 food that's coming from you know very
06:25 far away
06:26 and the the idea we all have to be
06:29 traceable
06:30 so every product that's on the
06:33 supermarket shelves
06:34 is every food product is traceable
06:38 okay and that trace ability creates a
06:40 huge amount of paperwork for every
06:42 single farmer
6:43 but that cost is spread out over a
06:45 massive quantity of products
06:47 when you're a massive industrial
06:49 corporate
06:51 food production but if you're a small
06:52 medium farmer that cost is much greater
06:54 to you
06:55 um so what we need to do is balance that
06:58 level that that playing field so that um
07:02 right the problem is this shrinking
07:05 market and rising cost so we need to
07:07 change that around so those problems
07:09 become our solution so that okay we've
07:12 got trace ability right
07:14 we all agree we need the trace ability so
07:40 for there may be more people per product
07:43 let's say
07:44 employed in a smaller industry than
07:45 there would be in a larger industry so
07:48 that becomes a benefit to the person in
07:51 the shop making a decision on what to
07:53 buy they can see clearly
07:55 on a certification or some kind of a
07:58 traceability so the traceability goes
08:00 further than just where
08:02 this product came from it becomes
08:06 as
08:10 a traffic light system or a
08:13 certification system where people can

08:15 earn points
08:17 um relating to how economically
08:20 or how environmentally friendly their
08:22 product has been
08:23 produced so it kind of stacks it up a
08:26 little bit against
08:27 the mass of big corporations and gives
08:29 brownie points let's say
08:36 growing cost becomes
08:38 a good thing for the smaller producers
08:41 food has become food production has
08:43 become incredibly scientific so we're
08:45 again drilling into the food value
08:48 right um the poly so it's no longer a
08:52 cup of coffee it's the polyphenols we're
08:54 looking for
08:54 are no longer a glass of wine again the
08:56 polyphenols or the mushrooms
08:58 are now valued for their um tri terpenes
09:01 i think they're called
09:02 um so but that that also again
09:06 with certainly with hemp you've got the
09:08 the cannabinoids it's a very valuable
09:10 commodity
09:11 um so i so hemp can come in here
09:14 on the scientific level um the
09:16 scientific food production level
09:19 um the younger demographic okay are
09:22 choosing
09:23 making different food choices so hemp
09:29 actually the biggest demograph of
09:33 people buying um non-animal protein for
09:37 instance
09:38 is actually meat eaters themselves
09:41 they're choosing to
09:42 you know maybe two one or two days a
09:44 week to choose something different
09:48 so the protein within the hemp or in the
09:50 hemp
09:51 products is a tremendous source of
09:54 protein
10:07 and it's time to take advantage of the
10:09 global hemp trend
10:23 important to separate um
10:27 sorry the hemp industry from the
10:28 cannabis industry
10:30 because it is a different completely
10:32 completely and utterly different
10:34 industry
10:35 um but the hemp industry again is a
10:38 massively
10:39 growing internationally traded commodity
11:00 two weeks ago hemp is practically
11:05 prohibited in this country you can you

11:06 can grow it all right and you can grow	14:30 we can see that in our prisons
11:08 it	14:33 it has put previously unknown
11:08 for fibre but for food it's pretty much	14:38 harmful contaminated drugs on the
11:11 prohibited	14:42 streets
11:12 and because the amount of	14:45 it has escalated thefts muggings and
11:16 THC that's allowed in food is so	14:49 burglaries it has diverted scarce
11:19 tiny now um it's	14:53 law enforcement resources where are our
11:23 you can always say almost say it's	14:57 guardi
11:24 prohibitive so so for any farmer who's	14:58 and what are they doing it has
11:26 looking to come into this industry	15:01 overcrowded and
11:28 right now with a CBD product or a food	15:02 obstructed the courts and prisons just
11:30 product they have to be	15:05 spend a half an hour in the courts and
11:32 incredibly careful they have to know	15:07 you'll see that very clearly
11:33 what they're doing and it's and actually	15:10it has evolved and this is important
11:35 it's very very limiting	15:12 actually evolved
12:01 the fact that this is the first	15:13 local gangs into international
12:02 industry-led uh conference actually	15:16 enterprises
12:05 because there is no	15:17 with intricate power structures
12:06 government agenda here today there's no	15:21 that reach into every corner of society
12:08 pharmaceutical agenda here today	15:24 controlling vast swathes of territory
12:21 so again so the damage caused	15:28 with significant social and military
12:24 by prohibition right in one sense i am	15:31 resources
12:27 talking about	15:32 at their disposal these
12:28 the broader you know available drugs	15:35 are the impacts of prohibition okay
12:32 but unfortunately currently	15:41 if prohibition of hemp continues
12:35 hemp is, it isn't on one hand falling	15:47 it will limit the growth of the Irish
12:39 into it, but it is in terms of	15:50 hemp
12:41 the food safety authority and the	15:51 industry by restricting access to state
12:44 guardi	15:54 supports banking insurance and
12:44 and many of the actors that are in well	15:57 investment
12:47 they're not actually in the industry	15:58 i mean we're actually already there
12:49 they're outside the industry	16:00 that's where we are
12:50 um so so the reality is the damage	16:02 we have been stymied
13:26 won't say single-handedly	16:06 we've had road blocks for the past 20
13:28 but darn i just said it uh triggered the	16:09 years it's been
13:31 worst	16:09 a constant battle to um
13:31 crime crime wave crime wave	16:13 get past all the sanctions that have
13:35 in history without question of doubt	16:15 been uh against the industry
13:38 it has created a black market with	16:16 the licensing system alone is um
13:41 massive incentives to hook both adults	16:20 a pro a prohibition actually for farmer
13:44 and	16:24 a prohibitive
13:44 children alike	16:25 um barrier yeah to
13:56 dangerous substance substances available	16:28 farmers to come into the industry okay
13:59 in schools	16:31 so if if prohibition of hemp continues
14:00 and communities and prisons this is	16:35 it will exclude Irish farmers from a
14:03 prohibition now remember	16:38 rapidly growing global
14:06 it has raised gang warfare to a level	16:39 hemp food sector
14:09 never seen before and we're all familiar	16:39 hemp food sector okay so the whole world
14:13 with what's going on in the drug	16:43 is going to take
14:17 world it has an impact	16:44 advantage of what's going on if we
14:20 it has removed many important human	16:48 if the food safety authority and the
14:23 rights and civil liberties of the	16:50 guard the
14:26 individuals	16:51 insist on prohibiting
14:27 that prohibition claims to represent	16:55 the micro amounts of THC

17:00 that are in hemp foods
17:03 in this country and this is an i
17:06 just so up till two weeks ago we were
17:10 in a kind of gray area now we're even in
17:13 a more
17:14 gray area actually to be honest with you
17:16 this is a cup of coffee
17:18 this is a regular cup of coffee you know
17:19 what you'd just make for yourself at
17:21 home
17:22 i don't know if you can see the
17:23 difference this is what this is what
17:26 this is what the government is now
17:27 telling us is a cup of coffee
17:29 in in terms of uh what's
17:32 um safe for us
17:35 to have so this the safe THC in food now
17:39 is as weak
17:41 are insignificant actually and um
17:45 it's not it's not that i'm looking for a
17:48 high from my food it's that i'm looking
17:50 for the benefits
17:51 the uh the health benefits from um
17:54 hemp the bio availability of hemp
17:58 um is tremendous has tremendous benefits
18:00 to
18:01 uh the hemp industry so this is 50 times
18:05 weaker this is what they're telling us
18:07 now 50 times
18:10 which is quite significant um a jump
18:14 when they didn't even ask anybody in the
18:16 industry what was their advice what was
18:18 what
18:18 what would they consider safe it was
18:21 just whack
18:22 straight into what what the food safety
18:23 authority decided
18:25 and without any real um
18:30 science and making kind of you know uh
18:33 questionable
18:34 claims and actually we could question
8:37 the science behind
18:38 their uh, I call it prohibition actually
18:41 because
18:42 we're at um 1.1
18:46 of a milligram of
18:50 THC
20:09 micrograms okay so the difference
20:11 between a gram
20:13 and a microgram is one million a factor
20:16 of one
20:17 million right so there's one million
20:20 micrograms
20:22 in that gram a speck of dust

20:35 the the FSAI has given us permission to
20:38 put
20:38 a hundred micrograms okay
20:42 100 of those little specks of dust
20:45 are now um available for us
20:49 in our hemp foods right traces it's tiny
20:52 it is it's insignificant
20:55 i'm sorry where am i um
21:01 so oh that's going along by toughness
21:08 of a milligram hundred micrograms per
21:10 watt
21:11 per day per body per day per individual
21:14 per day yeah per person per day
21:26 continue with the prohibition
21:28 um
21:32 we're going to support and 21.33the flawed
21:35 government policy
21:36 which takes its lead from corporate
21:38 facing actors
21:39 new too and i might add poorly disposed
21:42 to the hemp industry
21:45 and we will be responsible for the loss
21:48 of a significant
21:49 positive impact on the regeneration and
21:52 the socioeconomic
21:53 integration of a collapsing of the
21:56 collapsing rural communities so hemp has
21:59 a huge potential here
22:02 um with the right um
22:06 uh information the right support behind
22:08 it and it will also be so if we continue
22:10 with the prohibition we'll be
22:12 responsible for
22:13 the loss of the economic supports to
22:15 encourage small
22:16 high-quality producers of value-added
22:19 finished products
22:20 for internal and export markets across
22:24 the supply chain
22:25 that will be lost and
22:26 be responsible for
22:27 the catastrophic
22:28 environmental damage caused by
22:31 unsustainable
22:33 corporate facing agri industries
22:36 so we continue on on an unsustainable
22:38 path
22:39 down a path that's already leading us
22:41 into a crisis
22:42 and prolong the human deficiency
22:44 actually and this is
22:45 interesting of cannabinoids
22:49 from the recommended daily
22:52 intake uh allowance uh the required list

22:56 for minerals and vitamins so actually
22:57 cannabinoids should be on
22:59 that list currently they are not
23:03 also so just to give you an idea of
23:06 where i'm coming from with the whole
23:07 idea of prohibition um
23:09 there's many pro here's many
23:13 substances that could easily given
23:16 the same criteria the same scientific
23:20 you know and studies let's say the same
23:23 scrutiny yeah exactly and they might
23:27 end up finding themselves banned as well
23:29 so like caffeine i mean
23:32 caffeine i'll just go into them really
23:33 quickly because i know i'm being told
23:34 i've
23:35 minutes left caffeine alcohol
23:39 or tobacco
23:43 sugar um nutmeg
23:47 myristasin as a leucitogenic oddly
23:49 enough and poppy seeds we all know poppy
23:51 seeds
23:52 10 micrograms is considered safe of the
23:55 codeine of morphine that's in poppy
23:57 seeds 10
23:5 that's 10 times what's considered safe
23:59 THC
24:01 and we're allowed cheese contains
24:05 um tryptophan which makes you feel
24:08 relaxed and calm i didn't have my cheese
24:11 this morning
24:12 red meat also contains tryptophan so i
24:15 mean
24:16 it's the vocabulary around um these
24:19 these are in the foods these are we eat
24:22 these foods to
24:25 to feel a positive to feel the positive
24:27 effect not only from the nutrition
24:36 contains an
24:36 anandamide uh and tryptophan actually
24:40 um ananda means bliss
24:43 that's what ananda means it's the amide
24:46 is protein so it's the bliss protein
24:48 and in cocoa
24:52 a broad beans have a substance or a
24:54 molecule called el dopa
24:56 which is used a psychoactive used in the
25:00 treatment of parkinson's disease
25:02 so these are these i mean this is a tiny
25:04 list compared to what's actually out
25:06 there
25:06 in our foods what we are and this is
25:08 where i'm saying the
25:09 the science of food is changing right

25:13 um and so what was the problem for us
25:16 now actually we can highlight
25:18 where the the language around THC the
25:21 language our attempt to rank for
25:22 cannabis is very provocative let's say
25:25 when we just we talk about uh caffeine
25:28 or sugar
25:28 it's a mood enhancer when we talk about
25:30 um cannabis
25:31 our THC it's a toxin you know it's so
25:34 you know we have to be equal
25:35 uh just equal the language
25:41 these companies i know it's probably not
25:43 terribly clear but you have no
25:45 problem recognising who they are these
25:48 are the corporate
25:49 facing industries i'm talking about food
25:52 producers
25:53 um none of these companies have any
25:55 qualms about using
25:57 caffeine sugar whatever i mean actually
26:00 if you want to know how addictive sugar
26:02 is try giving it up
26:04 try giving sugar up and you'll know very
26:06 clearly
26:07 how addictive it actually is and yet
26:10 it's
26:11 okay there's sugar tax on certain foods
26:14 but it's
26:14 accepted there is no language around
26:17 sugar that makes
26:18 it in syndry let's say
26:22 so to future proof the hemp industry um
26:26 we need to actually disentangle
26:28 ourselves from
26:29 the history of prohibition from the
26:31 historic language
26:33 around hemp around THC
26:36 and we need to challenge the claims that
26:39 the
26:40 FSAI the FSAI
26:42 are making and create a sensible
26:45 legislation so if
26:46 if they had have come before they wrote
26:48 the report if they had to come to the
26:50 industry
26:50 they would have got a much more balanced
26:52 view actually
26:54 the um international and international
26:57 narcotics control board
27:01 they well first of all they say hemp
27:02 isn't isn't on the list it doesn't
27:05 fall under and the control of drugs act
27:09 and it's misleading to put it under

27:11 there but
27:12 these corporate actors
27:16 purposely mislead governments
27:20 uh government agencies um
27:23 so that they can bring in their own
27:26 agenda
27:26 actually is the truth of what's going on
27:31 we need to we need the opportunity to
27:33 really reduce
27:35 reduce the to uh
27:39 release rather the um the deal that hemp
27:41 actually is
27:42 it's really important it has a huge
27:44 value um
27:48 industry needs
27:50 upwards ny small industry to get
27:52 started needs upwards of a thousand
27:53 acres
27:54 okay so that's where we're at
27:58 there i don't think there may be one or
28:00 two industries in the country that are
28:02 close to a thousand acres but you know
28:04 to get the to get enough product behind
28:06 you to go to market
28:07 you've got you're talking about a
28:08 thousand it doesn't matter what your
28:09 product is it doesn't matter at all
28:11 you're going to need
28:12 uh you know to really hit the world
28:14 market you're going to need a thousand
28:16 acres at least
28:18 hemp can out pay i'm not going to i'm not
28:20 going to put a figure
28:21 figure on it sean it can out pay any
28:24 other agricultural crop
28:25 no question if we are allowed the value
28:29 that's there
28:30 okay and the global abundance program
28:33 which marcus will talk about
28:35 is another way of future proofing the
28:37 industry it's a very interesting um i
28:39 don't think he's
28:40 going to touch on it for much but he'll
28:41 give you a little bit more information
28:42 about this global abundance
28:44 program and the regenerative farming
28:45 that what shawn has talked about
28:47 Ireland will be will sorry will Ireland
28:50 be
28:51 first to market or will we just lag
28:52 behind and
28:54 lose miss an opportunity that and in
28:57 order to do
28:58 to take up the opportunity we have to be

28:59 prepared to put a little bit of effort
29:01 in it's not like sean said it isn't
29:02 going to happen overnight
29:03 it's going to take a couple of years we
29:06 need to
29:07 get the experience become
29:10 hemp farmers so that doesn't happen
29:12 overnight for sure

Favours criminals to have prohibition or they have no business, they will lobby government to keep illegal

1.4. Anita Hemmila speaks at the Hemp Federation Ireland Conference on the reintroduction of hemp in Finland and elsewhere <https://www.youtube.com/watch?v=iRXjLMoyJCc> Most of the transcript was not included as the majority of the presentation is a history of hemp in Finland and not relevant to the research question

09:42 really focusing on the fibre
09:44 which seems to be the case with all the
09:46 people that start
09:47 uh start with him during modern times
09:50 that they focus on the fibre aspect
09:58 in the police or the police will not
10:01 perhaps
10:02 drug content so although we were using
10:05 these trends variety
10:08 which are very low in THC as the most
10:13 probably more already nevertheless uh
10:17 by bringing this issue up in the in the
10:20 newspaper
10:21 you know it becomes sort of a bigger
10:24 thing that what really was in the end
12:30 and the police however the situation is
12:34 not yet clear for the authorities
12:36 in this hankasami case the police were
12:39 afraid of possible side effects
12:41 and unauthorized visits to the hemp
12:44 field
12:45 says the crime commission commissioner
12:48 paulie huskin
12:49 the central police discusses the
12:51 principles concerning comparable future
12:54 cases today
12:55 advanta representation from the ministry
12:58 of agriculture
12:59 and forestry is also so
13:03 as you can see from this article the
13:06 emphasis is very much
13:07 on the legality or the possible

13:11 illegality of what we were doing
13:14 and that's why the hemp field was cut
13:17 down
4:02 emphasis
14:03 of the police needing guidelines for
14:05 help hemp cultivation
15:23 and that's why we had unwanted disciples
15:26 there
15:26 were some youngsters that came to
15:30 get some plants when they were still
15:31 growing there so
15:33 that is the side effects the unpleasant
15:35 side effects that the police

**1.5. Professor Peter Thorne Climatologist NUI
Maynooth speaks at the Hemp Federation Ireland
Conference, expanding agriculture practices to
reduce our national carbon footprint**
<https://www.youtube.com/watch?v=7EaqpU0U-Lw&t=1342s>

21:34 and in a joined up way which land has to
21:36 be part of the solution but land can't
21:39 do it all
21:42 we have options the good news is several
21:46 of those options
21:47 do not increase the competition for land
21:51 so we can enact a solution that does not
21:53 compete with other solutions
21:55 or other uses of the land
22:00 but land use contributes about one
22:02 quarter of current global
22:04 greenhouse gas emissions
22:07 at the same time land ecosystems
22:1 particularly undisturbed ecosystems
22:13 can take up huge amounts of carbon
22:18 some of the mitigation options include
22:20 things like improving the peatlands
22:25 but there are barriers there are always
22:27 barriers to implementing adaptation and
22:29 mitigation options there are always
22:31 entrenched
22:32 interests so gross emissions from
22:35 agriculture forestry and other land use
22:37 make up about a third of the total
22:39 greenhouse
22:40 global emissions
22:43 but land accounts for 61% of our human
22:47 methane emissions that's
22:50 ruminants and rice primarily ruminants
22:57 and fifty percent of the nitrogen
22:59 applied to agricultural land as
23:01 fertilisers is not taken up by the crop

23:04 and results in n2o emissions and then to
23:06 n2o us another greenhouse
23:08 gas so you need to be very smart in your
23:11 application of fertiliser if you don't
23:13 want to leave a greenhouse gas footprint
23:15 on the
23:16 on the atmosphere
23:20 grazing lands are responsible
23:23 for more than one-third of the total
23:25 anthropogenic
23:27 n2o emissions and one-half of
23:29 agriculture
23:31 emissions so
23:34 ruminants really are the bad boys here
23:36 there is no getting away from that
23:38 scientifically there is no way of
23:40 sugarcoating that message
23:42 scientifically it is ruminants that have
23:46 the greatest intensity
23:48 greenhouse gas intensity of any
23:51 agricultural production
23:54 about a quarter of the mitigation
23:56 pledged under the Paris agreements is
23:58 likely to come from land-based
24:00 mitigation so from the agricultural
24:02 sector
24:06 the largest potential is for reducing
24:09 emissions
24:09 through reduced deforestation or forest
24:13 degradation
24:15 a shift to plant-based diets and reduce
24:19 food and agricultural waste now the ipcc
24:22 can't tell people to go vegetarian
24:25 but it is saying that if you want to
24:28 reduce the greenhouse gas emissions
24:30 you do need to become more vegetable
24:34 based in your diets
24:37 response options the mitigate global
24:42 warming will also affect the climate
24:43 locally and regionally
24:45 so if you change the land use if you
24:47 change the irrigation you will change
24:50 the surface characteristics and that
24:53 will affect the climate
24:58 locally
25:00 strong land-based mitigation
25:04 scenarios include emissions reduction in
25:07 other sectors
25:09 and limiting to one and a half or two
25:13 degrees would require conversion of
25:15 large
25:15 swathes of land for afforestation
25:19 reforestation and bioenergy crops
25:24 so we need to requisition the land that

25:26 is currently grazed
25:28 for example and reforest it
25:32 and use it to burn bio energy to
25:35 to grow bioenergy crops
25:39 the good news is the land that we are
25:40 already using could feed the world in a
25:42 changing climate and provide biomass for
25:44 renewable energy
25:46 but there's always a but it would
25:48 require early and far-reaching action
25:51 across several fronts the land
25:54 degradation adversely affects people's
25:57 livelihoods
25:58 and occurs over about a quarter of the
26:00 earth's ice-free land areas
26:03 and it may not feel like it but there
26:05 are almost certainly is land degradation
26:08 going on in Ireland
26:10 there are soils today which are
26:12 impoverished
26:13 compacted less productive
26:17 that you get into this vicious cycle of
26:19 applying more and more fertiliser
26:21 and pesticide to keep the land as
26:24 productive as it once was
26:28 so land use changes and unsustainable
26:31 land
26:31 management are direct human causes of
26:34 degradation
26:36 and agriculture is dominant in that
26:38 degradation
26:41 climate change exacerbates those
26:43 underlying issues
26:45 fundamentally
26:50 so land degradation is the driver of
26:52 climate change
26:55 a degraded land holds less carbon it
26:58 actually releases carbon
27:00 so when you impoverish the land your
27:02 land changes from perhaps say
27:05 net sink to a net source
27:08 so you exacerbate the problem and in
27:11 some cases land
27:12 degradation can be either avoided
27:14 reduced or reversed by
27:16 implementing sustainable land management
27:18 restoration and rehabilitation practices
27:23 lack of action to address land
27:25 degradation on the other hand
27:29 will increase emissions and reduce
27:32 carbon sinks inconsistent with
27:36 the emission reductions required to
27:38 limit global warming to one and a half
27:39 to two degrees

27:40 so if we continue business as usual if
27:42 we continue the over production over
27:45 exploitation degradation of land
27:47 fundamentally
27:49 it will become much much harder to meet
27:51 one and a half
27:52 two or any other climate target the more
27:55 we degrade and overuse the land the more
27:57 the land turns into a net carbon
28:00 source and the harder it gets to
28:02 maintain
28:03 the climate where we want it to be
28:09 what do we need to do to move this
28:11 forwards well we need a mix of policies
28:15 we need regulation we need land use
28:18 zoning
28:19 land sparing and land sharing approaches
28:22 and that's where
28:23 for example the re-imagined cap could
28:26 come in
28:27 if we do cap well the common agriculture
28:30 policy well and tier one and tier two
28:32m well
28:33 we could imagine a payment structure
28:36 that actually rewarded
28:38 doing the right thing in the right place
28:42 sightings of renewable energy needs to
28:46 be
28:47 consistent with local livelihoods and
28:50 needs we need to include
28:54 costs of environmental effects
28:56 fundamentally
28:58 we need to worry about land tenure
29:03 we also need to worry about voluntary
29:06 changes by citizens
29:07 not the farmers themselves necessarily
29:10 but citizens
29:13 are they going to change diet standards
29:16 certification collective action is
29:19 is movement going to occur from the
29:20 citizens
29:23 persuasive this is where again where the
29:26 cap can come in payments for ecosystem
29:29 services if part of the cap payment
29:32 is hedgerow maintenance which maintains
29:35 the healthy ecosystem
29:37 all the better
29:42 early warning systems and risk
29:45 risk sharing mechanisms
29:48 so they're talking about a broad kind of
29:54 parchment that you have to fill in there
29:58 are many things that have to happen
30:00 to get movement in this land use
30:04 so there is limits to adaptation and

30:09 land-based carbon sinks there are limits
30:11 to what we can do this
30:13 is all about that land can do part of
30:15 the problem but can't do it all
30:18 we can't take everything on land
30:22 and land management we have to do other
30:25 things
30:26 coordinated action to tackle climate
30:28 change can simultaneously improve the
30:30 land
30:31 food security and nutrition and help to
30:33 end hunger
30:36 so one of the crazy things is that
30:39 uh currently nearly a billion people are
30:43 currently under now
30:44 undernourished while two billion adults
30:48 are either
30:48 overweight or obese it's not that we
30:51 don't
30:52 have enough food it's that we don't
30:54 distribute that food equitably across
30:56 society
30:59 but the food system is under pressure
31:02 from non-climate stressors
31:05 and from climate change
31:09 climate change is already affecting food
31:11 security
31:13 through increasing temperatures changing
31:15 precipitation patterns
31:17 and extreme events and it's going to get
31:20 worse
31:22 and distribution of pests and diseases
31:25 will change affecting production
31:27 negatively in many regions
31:33 so food and emissions
31:36 25 to 30 globally of emissions down to a
31:40 food
31:40 production
31:45 we can do better supply side practices
31:47 can help mitigate climate change by
31:49 reducing crop and livestock emissions
31:51 absorbing carbon in soils and biomass
31:53 and decreasing emissions intensity
31:58 consumers can do their best in terms of
32:00 their diet
32:03 and we can all do a bit better on
32:05 reducing the massive amount of loss and
32:07 waste that occurs
32:08 in the system and politics
32:12 policies markets institutions and
32:15 governance and meet needed to make that
32:17 change
32:18 but as i said better land management can
32:20 play its part in tackling climate change

32:22 but it can't do it all
32:24 what are the options land challenges and
32:28 response options vary based upon region
32:31 and context which means Ireland's
32:33 response options are different to
32:36 brazil's
32:37 but equally donegal's might be different
32:40 from wexfords
32:42 so there is a need to recognize
32:44 differentiated opportunities
32:46 and options
32:50 some options a plus a win-win
32:56 most options can be applied without
32:58 competing for the available land
33:02 but some options could greatly increase
33:08 competition
33:10 bioenergy and BECCS which is bioenergy
33:18 are scale dependent but they have a
33:19 large mitigation potential so if we can
33:22 grow
33:22 instead of burning coal at money point
33:25 we could grow
33:26 a sustainable crop and burn that at
33:29 money point
33:30 and furthermore capture that carbon as
33:32 it's
33:33 that carbon from that burning process
33:36 and
33:37 store it deep in the ground then we
33:40 could remove carbon from the system
33:44 mono culture bio energy crops they
33:47 can result in land competition and have
33:50 adverse effects for
33:52 food land degradation biodiversity and
33:54 water scarcity
33:57 which is that the potential for
33:59 mitigating climate can only be realised
34:01 if agricultural emissions are included
34:03 in mainstream climate policy
34:06 we cannot continue what has been the
34:08 case at the national level
34:10 of agriculture constantly bleeding
34:13 special case
34:14 agriculture needs to be in the
34:16 mainstream of our climate policy if it
34:19 is to be effective
34:23 acting early will avert or minimise
34:26 risks reduce
34:27 losses and generate returns on
34:32 investment
34:34 measuring progress towards goals is
34:36 important to decision making
34:37 adaptive governance and policy success
34:41 and we need a flexible adaptive

34:44 iterative approach
34:46 so those are the two special reports
34:49 what the heck does this mean for us
34:51 nationally in our national context
34:58 well our agriculture sector for a
35:01 developed nation we have a huge
35:03 proportion of our emissions
35:05 in agriculture the norm in a developed
35:08 nation
35:09 is that we have five to ten that they
35:11 have five to ten percent of their
35:13 emissions profile is agriculture we have
35:16 a
35:16 third so we have a huge
35:19 challenge and everybody recognises that
35:22 agriculture is the hardest nut to crack
35:25 but if we're going to get to net zero
35:27 we're going to have to crack it
35:29 and the challenge is going to be for
35:31 Ireland how to do that
35:35 why is it such a problem well our
35:36 predominant farming is of ruminants
35:39 cattle and sheep that emit methane which
35:41 is a powerful greenhouse gas
35:45 it's also a short-lived greenhouse gas
35:47 it has 9 to 11 year half-life and you
35:49 will have heard in the news
35:51 this it doesn't matter because it's
35:53 short-lived
35:54 and it doesn't matter because it it
35:57 gets removed quickly and therefore we
36:00 shouldn't be beaten over the head for it
36:03 well there's a couple of problems with
36:05 that
36:07 one is that methane's primary means of
36:10 removal there's oxidation
36:12 in the troposphere and that oxidation is
36:14 the water vapor and carbon dioxide
36:18 so you swap one very powerful
36:20 short-lived greenhouse gas
36:22 three much less powerful but very very
36:25 much
36:25 longer-lived greenhouse gas
36:29 so actually if we wanted to keep
36:31 Ireland's
36:33 total agriculture sector contribution
36:36 stable we would need to reduce the
36:39 national herd emissions two percent
36:42 year-on-year
36:43 because that two percent is the effect
36:46 of the CO₂
36:47 oxidation escape pathway of methane
36:51 so we can't keep the herd the same we
36:53 can't keep the herd emissions the same

36:55 we're actually
36:56 incrementally adding to our greenhouse
36:58 gas burden
36:59 but the bigger issue here is think about
37:03 natural island without human
37:04 interference there would be a
37:06 vanishing small number of ruminants on
37:09 the land
37:11 so our natural methane emissions from
37:14 ruminants would be as close as damage
37:16 zero so they're elevated
37:21 due to our influence saying well now
37:23 we've elevated them we can't do anything
37:25 doesn't seem to me to be a fair and just
37:29 way to think about a transition when we
37:31 have a finite amount of carbon that we
37:34 can
37:34 emit if we're to keep globally between
37:37 one and a half or two degrees
37:39 it isn't an argument that to me makes
37:41 any sense
37:46 what can we do well we can diversify
37:49 and in here this is a bar chart the
37:53 length of the bars
37:54 is the total carbon intensity
37:57 of different food types and basically
38:00 the top four bars
38:01 here are various types of cows and cows
38:05 and sheep
38:06 and everything else is everything else
38:09 so fundamentally whatever we diversify
38:12 away from that isn't cattle
38:15 and sheep we will reduce our
38:18 impact upon the environment why else
38:21 would we
38:22 diversify well it would increase our
38:26 national resilience if we produce more
38:28 of what we consume
38:30 we can grow broccoli and yet we import
38:33 it from south east Spain
38:34 why it doesn't make any sense
38:39 it would also reduce our dependency upon
38:41 a single market
38:43 we are fundamentally dependent upon the
38:46 price point of beef
38:48 as has been very well been shown and
38:52 dairy products if the market full bottom
38:54 falls out of that market
38:57 there's nowhere to go because the sector
38:59 is uniquely dependent upon that one
39:02 source of income that one market
39:07 it would reduce the risk profile of the
39:09 sector to out
39:10 outbreaks of pests and diseases and i

39:12 know when I've said this on national
39:14 media I've been
39:15 pilloried for it but hopefully covid 19
39:18 is a wake-up call to people that new
39:22 pests and diseases
39:23 new virulent forms of disease
39:27 can and will come up they come up to
39:28 humans they come up to
39:31 cattle and other animals why
39:35 run the risk when you can diversify the
39:38 sector
39:40 you should also address the biodiversity
39:42 challenges that we have
39:45 and it can also be diversified into
39:49 other things
39:50 all those roofs on the on the milking
39:53 sheds
39:55 they could capture that sun if we got
39:58 our energy market right
39:59 you could export it onto the grid and
40:02 you could have a base
40:04 um income that had nothing to do with
40:06 agricultural production at all but
40:08 actually was about
40:10 how you use the land to produce energy
40:12 in addition
40:14 what does it need it needs incentives it
40:16 needs cap reform and national policy to
40:18 be lined up we need to stop
40:21 supporting fundamentally
40:24 the development of specialisation in
40:27 beef
40:28 and dairy and we need to promote
40:31 diversification
40:32 we fundamentally need the right choices
40:35 in the right place
40:36 which means we need a national land use
40:38 plan that is non-prescriptive
40:41 so we need to understand what we have
40:43 where in terms of land
40:45 and what is possible to grow where what
40:48 use of the land is possible to put where
40:51 and we need to avoid silly things like
40:53 putting planting forests on peat bogs
40:55 peat bogs are really our friends
40:57 in two ways they are a multi-centennial
41:01 sink of
41:01 carbon and they are also great at
41:04 regulating water flows
41:07 the Shannon would not have flooded like
41:09 it has in this last month
41:11 if we had retained our up our raised
41:14 peat bogs over the midlands
41:16 they would have soaked it up they would

41:18 be releasing it over the entire
41:20 summer season we've denuded them
41:23 and they're not there any longer so we
41:26 need appropriate and profitable options
41:29 to the particular context of each farm
41:32 not every farm will be able to grow a
41:35 given crop
41:37 but we need to give each farm a range of
41:39 options that are actually sensible and
41:41 that are
41:42 not prescriptive but are avoiding them
41:45 making the wrong choices
41:47 we need community buy-in and we need it
41:49 to be a just transition
41:51 if someone spent a hundred thousand
41:54 euros on a new milking parlor
41:57 we can't just say hard luck you're no
41:58 longer allowed to grow
42:00 you're no longer allowed to produce
42:02 dairy you've got to do something else
42:04 without any recompense at all we have to
42:07 have a just transition for the sector
42:09 the sector absolutely needs to diversify
42:13 in many different ways so that we are
42:15 not dependent upon a single market a
42:17 single product
42:18 patchwork quilt island sounds very nice
42:20 to me
42:22 it's robust it's diverse
42:26 it supports the robust and diverse rural
42:28 economy so
42:30 that's all I had to say on climate and
42:32 well i think we should be going

**1.6. Ed Hanbridge speaks at the Hemp Federation
Ireland Conference on Why join the Co Op**
https://www.youtube.com/watch?v=z3br2_wv4sU

00:20 now uh the co-op is going on the seven
00:23 pillars
00:24 and it's sort of the different aspects
00:26 of it let you have
00:27 your personal well-being being the likes
00:29 of your CBD
00:31 the food then is your seed and the oils
00:34 the carbon then is the carbon that the
00:38 hemp will sequester and we know that
00:41 it's a good bit
00:42 the rural generation uh that's really a
00:45 big one for the co-op because
00:47 um we want to get
00:51 people back working to the land sort of

00:53 producing locally
00:55 processing locally and selling locally
00:57 and that's sort of
00:59 the idea that we have animal welfare is
01:02 sort of feed bedding things like that
01:06 and bioeconomy there is the
01:10 um the likes of your bio refineries now
01:13 that
01:13 are coming in they've done the test with
01:15 the grass and we're hoping to get tests
01:17 done then with the with the likes of the
01:18 hemp and things like that and get the
01:20 oils and
01:20 the different aspects of it and it's
01:23 just construction then
01:24 building uh we know that that's the big
01:26 one um
01:28 so that's that's really where we're
01:30 looking at that you have to start
01:32 processing
01:32 get your build materials out there and
01:35 um
01:36 build build an industry is basically it
01:42 uh so the hubs is basically
01:45 uh going to be broken down that you will
01:47 have
01:48 the the co-op being a sort of an
01:51 umbrella and under that then
01:53 you have you'll have regional ones and
01:55 even county because the more of these
01:57 hubs that we have the better
01:59 and the more people that are producing
02:02 locally
02:02 um that's really what we want to see
02:06 in Ireland get people back working
02:09 locally not having to go to Dublin and
02:12 be in a car park for
02:13 two hours every day so um
02:17 they're the the members then that were
02:20 hoping to get into the co-op then are
02:23 farmers of course because we need to to
02:25 grow it
02:26 but more so you want the processors
02:29 and we need to to build these markets
02:31 and the marketing of the whole thing
02:33 is uh vital to the whole thing that we
02:35 need the processors
02:37 to to start developing products
02:40 to start the marketing
02:43 and that sort of thing and so if you're
02:47 researching we want those people uh
02:50 retailers the same
02:51 we need everyone across the board so
02:53 like

02:54 anyone's name could be up on this uh
02:57 board really
02:58 because there's so many uh aspects to
03:00 the
03:01 hemp that's it's just there's no end to
03:03 the amount of people that's needed
03:06 um ah jenny
03:09 so the benefits really to the co-op
03:13 and why you would want to join is
03:16 the support that you'll get and i have
03:19 noticed that i
03:20 i've got a lot of support from them that
03:23 when i started growing
03:24 that there wasn't these conferences
03:26 going on
03:27 and there wasn't anywhere really to get
03:29 your information apart from the internet
03:31 and the internet can light you
03:33 that's uh you don't want to believe
03:36 everything that you read that you really
03:37 have to get out there and start
03:39 learning by doing or that's what we did
03:40 i did anyway to
03:43 to try and progress to things so but
03:46 with that it did you
03:49 i did build up networks and got to know
03:51 an awful lot of people and
03:53 even here today like it's it's through
03:56 that network and
03:57 and that you get information and
04:00 education so like that is a big key to
04:03 the whole thing is the
04:04 the educational side of it and when
04:06 you're in the co-op
04:08 um you do get that that you you have
04:10 that sort of
04:11 inclusion that people will
04:15 talk to you they'll give you their
04:16 information and it's
04:19 vital going down going forward because
04:22 um
04:23 you need that information you need to
04:24 know what mistakes have been made
04:27 was um what's the best way of doing
04:30 different things
04:31 so it's all um
04:34 it's about that networking and the more
04:37 people that's in it
04:38 the more information is gathered and the
04:40 more that
04:41 information then can be used for people
04:44 coming afterwards
04:46 uh the price of things is is a big thing
04:49 as well that

04:50 you'd be hoping with the co-op you will
04:52 have a more buying power for a start
04:55 that say for the likes of sowing season
04:58 isn't too far away now
04:59 that you'll have buying power there for
05:01 buying your seed
05:02 even the machinery that's needed um
05:06 i don't know if the co-op is actually
05:08 going to buy the machinery but it will
05:10 be able to promote any of the people
05:13 that have machinery in the co-op
05:15 and that you're known and it's it's
05:17 really all about advertising as well
05:19 that
05:20 once you the the marketing side of
05:21 things is
05:23 vital that marketing once you start you
05:26 can't stop because people do forget easy
05:29 so you need to start that marketing
05:32 and then you'll have that brand then
05:34 behind you that
05:36 if you have supplied the co-op and they
05:37 have products on the shelf or
05:39 they'll they'll advertise your products
05:42 to
05:42 the other members it's advertising
05:45 and it's a
05:46 way of getting your product out there
05:48 and that's what
05:49 um i'm finding with the the hemp trade
05:52 that the whole hemp enterprise at the
05:54 minute
05:55 that the hype of things is
05:58 quite high but it can be hard enough to
06:02 get out there and start selling
06:03 that when you're in the field doing what
06:06 has to be done
06:07 you might not necessarily be out on the
06:09 road selling
06:10 and with a co-op then there'll be more
06:12 people involved there'll be
06:14 there will be sales people not all of
06:16 them will be farmers
06:18 and it's about having everyone sort of
06:20 working together
06:21 to get the products out there and get
06:22 them sold
06:24 and and then those members will have
06:26 benefits such as getting cheaper
06:28 products then through the co-op
06:29 so that's another advantage
06:35 people have different reasons for
06:36 joining the co-op
06:39 most people it's it's financial it's to

06:42 make more money
06:44 but you have to have a common goal most
06:46 people
06:47 that are going to join a co-op will have
06:48 that common goal and it is to see the
06:50 hemp
06:51 flourish it's to get to
06:54 see an industry development from this
06:57 plant
06:57 because we all know that this plant is a
06:59 good one and um
07:03 but you can also uh
07:07 you will get different uh benefits like
07:09 the access to different things through
07:11 your co-op
07:12 and that might be a benefit of joining
07:14 your co-op
07:15 that's you'll get first choice on the
07:18 products
07:19 to be sold or you'll get your seed
07:22 you'll get the first
07:23 dibs on seed different things like that
07:26 um
07:27 the refunding then is is just that
07:30 same thing that you can get the
07:32 discounts on seed when you buy it in
07:34 bulk
07:36 and um but the dividend i suppose is the
07:40 main one that you will join the
07:41 co-opts as a collective you should
07:43 make more money
07:45 and that's what a lot of things boiled
07:48 out at the end of the day
07:49 is actually making money profit is is
07:52 not a dirty word or anything so it's
07:54 it's about making money and then
07:57 people that just want to be involved in
08:00 the whole thing that they see the hemp
08:01 as
08:02 the the future and they want to be
08:05 sustainable environmentally friendly and
08:07 there is
08:08 that side of it then as well
08:12 um so
08:16 a cooperative in general i suppose is
08:18 looking to be profitable
08:20 and that will make the social side of
08:24 things like the
08:25 once it's profitable it'll be creating
08:26 new jobs
08:28 so if we can have more jobs than locally
08:30 that's what we want to see
08:32 and by that then your your the whole
08:35 local economy will do better

08:37 and um when it's sustainable
08:41 uh i mean there's no reason why we can't
08:44 do it so if it's sustainable
08:45 the the whole rural side of things will
08:48 get better and
08:49 um i like being out in the country i'm
08:52 not a fan of being in the cities having
08:54 to go to work that way
08:55 so i'd like to see the local people
08:58 doing
08:59 uh doing better out the whole industry
09:02 and it's to be self-sufficient then as
09:05 well that when you have the co-op it'll
09:07 be
09:08 um everyone will be working together
09:11 so that's really what has about has been
09:13 included in it
09:15 and um
09:19 yeah it's it's for our young people
09:21 then as well coming
09:23 behind us like i have three kids and i'd
09:26 like to see them
09:27 get a job locally not have to go to
09:29 Australia or
09:31 New Zealand wherever so that's another
09:34 side of it that
09:35 i want to see the younger people
09:38 look at him now not as a as a taboo but
09:41 as something that they're going to use
09:42 in their daily lives

1.6.1. VIDEO KATE CARMODY CHAIRPERSON OF HEMP COOPERATIVE IRELAND

09:49 through the co-op i've had a better
09:50 chance of success and
09:52 i've found some markets through the
09:56 co-op
09:57 and i've been getting that help and
09:59 trying to
10:01 find your way through all the
10:02 legislation that there is at the minute
10:04 is tricky
10:04 so when you have more people working on
10:07 it it's easier to
10:09 get through the problem and
10:13 that's this is just a video i was going
10:16 to show
10:21 you don't know me where the hell is
10:23 producing hemp
10:25 improving their soil health and widening
10:29 their product range they grouped
10:31 together

10:32 from this cooperative included
10:35 architects and processors
10:37 of this very interesting culture and are
10:40 now producing more and more hem
10:43 for various purposes
11:02 i first came across him when i was here
11:05 in Finland
11:06 as part of a European project about
11:09 traditional food
11:11 as a biochemist i just fell in love with
11:14 the flash when i realised how much it
11:16 was doing
11:17 and what also interested me as an
11:19 environmentalist
11:21 is the fact that it has stopped the good
11:23 plan for saving the planet
11:27 i grew two atheists and one of my
11:30 journalist friends i didn't like to do
11:32 an article about it
11:34 when the newspaper article appeared we
11:36 had a lot of temperatures
11:38 and then Jim Lima arrived with
11:41 and said would i be interested in
11:44 getting together a group of people
11:46 to grow him it all started from there
11:52 we were amateurs at drawing hemp when we
11:54 were after amateurs are
11:55 setting up cooperatives but we've
11:57 learned that we're getting there

1.6.2. VIDEO EDWARD HANBRIDGE FARMER AND BOARD MEMBER OF HEMP COOPERATIVE IRELAND

12:00 i suppose i was one of the only farmers
12:02 that had
12:03 uh experience in growing them i started
12:06 looking at him
12:07 back in 2015.

VIDEO Jack O' Connor board member and Hemp Coopera- tive Ireland

12:07 we have a lot of
12:09 underutilised land
12:11 in our area once upon a time dairy
12:14 farming
12:14 and beef farming was very productive the
12:17 beef just aren't making any money
12:18 anymore so we
12:19 had to look at the alternatives recently
12:22 hemp has come onto the radar
12:24 and we've looked around what i'm saying

12:26 we started the community
12:28 in this rural park where we have serious
12:31 issues with depopulation
12:32 and children moving to the orbit areas
12:36 can hemp is a great solution for farmers
12:40 what we're doing is promoting them as a
12:43 rotational crop
12:44 they get a valid crop which will more
12:47 than compensate for the
12:49 loss of animals it benefits the
12:53 environment to such a huge extent way
12:56 more than trees
12:57 trees

1.6.3. VIDEO GLYNN EVANS MICROBIOLOGIST AND FARMER

12:57 I put hemp in order to
13:00 reduce the co2 impact that I was having
13:03 hemp will take in approximately 10 tons
13:05 to 15 tons of co2 per acre depending on
13:07 the variety that you put in
13:09 that's a huge reduction in co2 per acre
13:12 so it's going to be a benefit to
13:16 not only us but my kids

1.6.4. VIDEO LAURA JAYNE FOLEY FARMER AND BOARD MEMBER OF HEMP COOPERATIVE IRELAND

13:20 we live across the waterfront here in a
13:22 place called loophead
13:24 and um very similar conditions to Kate
13:27 Carmody
13:28 she's growing hemp and it's going really
13:30 really well for her so once we knew we
13:32 could grow well in west coast
13:34 just continue to be researching it and
13:35 it looks like a
13:37 great practical and lots and lots of
13:40 uses
13:40 you know here's a plant that can help you
13:43 live a natural quality of life because
13:45 it can be your medicine
13:47 it can feed your animals it can cloth
13:50 you
13:51 it can house you what what do you want
13:54 I believe the future for hamp island
13:57 is enormous
13:58 provides opportunities for farmers for
14:01 workers our
14:02 processors let your imagination run wide
14:05 and it's not from smoking

14:10 chemicals a solution for all of Europe
14:13 if we change
14:14 the legislation in Europe a lot of
14:17 countries
14:18 are very negative about him because they
14:21 associate it with
14:22 marijuana so there's a big education
14:25 project to be done
14:27 so when we started researching going
14:29 ahead about two years ago we
14:30 contacted the headquarters immediately
14:33 it was a great support
14:34 because it was an opportunity to teach
14:37m each other what we were doing and learn
14:38 from each other
14:39 but also as the group has got larger and
14:41 larger it
14:42 gives us an opportunity to speak to our
14:45 government and about the regulatory
14:46 requirements and so it gives us a kind
14:49 of i suppose power numbers
14:51 we're all talking we're all
14:52 communicating with each other which
14:53 means then that we know
14:55 which method works best which method
14:57 didn't work
14:58 it's only collective that more the more
15:01 people that are in it the more
15:02 information we're going to get
15:03 it's not economically viable to do this
15:06 on your own so the co-op
15:07 offers that in licensing and in
15:10 marketing
15:11 and in advice and agronomy
15:11 we have a
15:14 good knowledge base that we have a bit
15:17 of experience now between the different
15:19 members
15:20 and it's it's all going to be very
15:22 beneficial going forward
15:24 knowledge has been the big issue for the
15:26 moment and learning
15:27 in the next two years funding
15:31 and the processing is going to become
15:34 the
15:34 bigger issue because we will know better
15:36 work we want to do
15:38 in terms of processing and then
15:40 obviously the marketing of the product
15:42 has to be done in tandem with that
15:46 in the hemp cooperative two places the
15:49 members are farmers
15:51 but we have builders we have chemists
15:53 doctors

15:54 architects social activists people
15:58 who want solutions to the problem in
16:01 society

1.6.5. VIDEO DECLAN DARCY HEMPCRETE BUILDER AND BOARD MEMBER OF HEMP COOPERATIVE IRELAND

16:03 I first got involved with him as I'm a
16:06 carpenter by trade and a customer asked
16:08 me to build a hempcrete
16:10 extension to their house so I've done
16:13 some research
16:14 and discovered a wonderful building
16:16 material this is just
16:17 a simple mixture the shiv mixed with
16:20 live on water
16:22 and it packed into these wooden
16:26 cranes and it's just like you would with
16:30 a concrete wall
16:31 but you just pack it down so it becomes
16:34 a solid block
16:36 like this so this material will
16:39 create a good quality installation
16:42 that's a good one
16:43 you know for the installation for the
16:44 help of the people living in these
16:45 buildings
16:46 but for the help of the building itself
16:48 as well this is the blocks
16:50 we showed people how to make you could
16:52 imagine
16:53 an industry near an island producing
16:56 hemp creek blasts for people
16:58 when i discovered him i discovered
17:00 something passionate about it
17:02 you know finally i find something that
17:04 walks the top
17:06 the hemp cooperative was actually
17:08 registered in may
17:10 2018 and then several of us
17:13 registered it you know it all started
17:15 taking off
17:16 so we've gathered a lot of members most
17:19 of our members
17:20 are young farmers they want to farm they
17:23 don't want to be driven away from the
17:25 city
17:26 the young people are looking to do
17:28 something different
17:30 and see this as a very exciting crop
17:33 that offers lots of opportunities we do
17:36 it organically

17:37 and so it's regenerative farming and
17:40 young people
17:40 are interested in farming for nature
17:44 I think we need to
17:46 reinvent the paradigm of rural islands
17:49 and just make it an exciting and vibrant
17:52 place again
17:53 and to me hemp will do that
17:57 industrial hemp is a significant game
17:59 changer
18:00 in terms of not depopulating border
18:04 i would call it a flagship project
18:08 for the whole European union

2. Teagasc Farm Options Webinar

Took place on Tuesday, 19 January, host, Barry Caslin, Energy Rural Development Specialist, Teagasc was joined by Liam Donohue, Technological University Dublin (Hemp Insulation); Alan Jackson, farmer grower and Killian McGrath, Remedy Health to discuss the opportunities for Industrial Hemp in Irish Agriculture.<https://www.youtube.com/watch?v=aeoY8I4ioUo&t=54s>

00:08 webinar today's topic is an industrial
00:11 hemp and its uses within Irish
00:13 agriculture
00:14 now cannabis sativa or hemp it's one of
00:16 the oldest plants
00:17 cultivated by man with archaeological
00:19 evidence
00:20 shown that the plant was cultivated as
00:22 far back as 8000 bc
00:25 hemp can be found in all corners of the
00:26 globe from china
00:28 to the Americas although it's not native
00:30 to Ireland it has been growing here for
00:32 over 1 000 years
00:34 it's a very multifaceted crop and you're
00:36 probably wondering about all the
00:37 different uses that can be made of this
00:39 crop
00:39 it can be used for seeds it's fibres
00:43 its shivs its leaf and its root and
00:46 depending on the method of harvesting an
00:47 individual plant
00:48 can provide raw material for several
00:50 induces
00:52 which can provide farmers with several
00:53 income streams from the same plant
00:56 the fibre is used today for paper pulp
00:58 insulation
00:59 and building material and there's a

01:01 composite material in the automotive
01:03 industry
01:04 the shivs which is the woody inner core
01:06 of the stem of the hemp
01:07 that can be used for animal bedding and
01:09 construction and hemp seed and the hemp
01:11 seed oil they have high nutritional
01:13 value
01:14 and in more recent times CBD or
01:16 cannabidiol
01:18 has really had this major surge of
01:20 interest and has created a massive
01:21 frenzy
01:23 around this crop in the last number of
01:25 years
01:26 so just to discuss the crop and the
01:28 whole area of
01:29 industrial hemp and the opportunities
01:31 that may exist in the future
01:33 i'm joined by an expert panel of a
01:34 growing practitioner alan jackson
01:37 an industry specialist killian mcgrath
01:39 from remedy health
01:40 i remember Ireland and a senior engineer
01:43 and academic from technical university
01:45 dublin liam dunham
01:46 so you're all very welcome this evening
01:48 and are all very welcome this morning
01:50 and thanks for joining us so you can all
01:53 turn on your microphones there now at
01:54 the moment
01:55 and uh what we're going to do is we're
01:57 going to have a
01:58 a short talk from each of the uh
02:01 panellists
02:03 starting up with Liam Donahoe Liam is a
02:05 building energy engineer with more than
02:07 17 years experience in application of
02:10 building physics principles
02:11 sales product design business
02:13 development management
02:14 mode ling design and specification of
02:16 building envelope
02:18 and certification of low energy
02:19 buildings he's worked at all levels of
02:21 the industry
02:22 from fibre insulation BER assessment
02:25 uh consulting a heat pump technician
02:28 and he's lecturing at the technical
02:29 university of dublin since 2017
02:33 in the area of renewable energy he's
02:35 also doing a phd on
02:36 dynamic energy performance of low carbon
02:38 insulation

02:39 hemp create so we start with you if you
02:42 want to share your screen with us there
02:44 now

2.1. Liam Donahoe

03:40 i'm a lecturer in the technological
03:43 university in dublin
03:44 and also a person with a good background
03:47 in
03:48 hemp and i suppose diversification of
03:52 farm business um to make alternative use
03:55 of products and particularly waste
03:56 products
03:57 today i'm going to talk about the
03:59 process to get the
04:01 hemp products that can be grown in
04:03 Ireland or anywhere else
04:05 certified for use as building materials
04:08 and so just a little bit of stuff i
04:11 suppose about myself first of all
04:14 this will indulge me there
04:21 and now
04:25 i'm trying to get my old slideshow to
04:27 work here
04:42 now uh i'll just close this for a second
04:45 and uh reopen it and i'll
04:48 talk in the meantime
04:56 okay that's more like it and so
05:00 my background as i said is in energy
05:02 consultancy that's my
05:04 main day job at the moment and i would
05:07 work a lot with
05:08 other engineers architects and
05:10 homeowners to specify materials and
05:12 do you value calculations and help
05:14 people get grants and also
05:16 help produce a low energy design to meet
05:19 the building regulations
05:21 i'm also involved in a few industry
05:23 groups as you can see there
05:25 in the hemp world as well and as Barry
05:28 said i'm doing
05:29 a um a phd at the moment in hemp creek
05:33 um so what i'm looking at there is just
05:35 a house that my
05:36 father grew up in believe it or not and
05:38 a couple of years ago
05:40 i went to have a look at it and i saw
05:41 there was an earth built house
05:43 and it's probably 150 years old there's
05:46 a few bits of it um under the weather
05:50 it's

05:50 used as agricultural shed at the moment
05:52 uh but
05:53 it's as dry as a bone inside
05:57 um 150 years later so
06:00 um really what we're doing here as
06:03 as Barry said is we're we're talking
06:05 about a material
06:06 and a process which is already uh
06:09 if you like vernacular and known to us
06:11 and
06:12 and we're updating it in the context of
06:15 today's world
06:16 and with modern standards of
06:18 certification
06:19 so um words that would be thrown around
06:22 in sort of worlds that i work in are
6:25 things like building energy rating and
06:27 major renovation
06:28 and now what we're talking about is
06:31 aligning that
06:32 with the movements that are happening in
06:36 the world
06:36 of farming as well uh the farm to fork
06:39 strategy
06:40 and the new green deal and hemp has a
06:43 particularly
06:44 valuable role to play in this area and
06:47 given
06:48 that um it has very low what we call
06:51 embodied energy so an embodied energy
06:53 just describes the amount of energy
06:55 that's
06:55 uh required to produce something and
06:58 bring it to the
06:59 to the to the gate and all right and
07:02 obviously
07:03 if uh heaven has grown in a field um
07:06 it is fairly low input uh there is some
07:10 processing that has to be done
07:11 but it's very low input compared to
07:13 processing of plastics
07:15 and and also it has this ability that
07:18 will store carbon uh within the lifetime
07:21 of the building
07:22 so um we think that hemp is very much
07:25 aligned
07:26 to the broader movement that's happening
07:28 in in the world
07:29 and in Europe specifically and where
07:32 we're trying to reduce emissions uh by
07:35 insulating buildings
07:36 so we think that hemp has a great role
07:39 to play here
07:40 so in my talk i'm going to talk mostly

07:42 about
07:43 legislation and standards and i'm going
07:45 to talk about the materials and then i'm
07:47 going to just
07:48 show you sort of what the developments
07:49 are out there in
07:51 Europe uh as we speak all right
07:54 so this slide just sort of sets out the
07:57 the main kind of
07:58 references and if you like for
08:01 someone who wants to use hempcrete as a
08:04 material
08:04 or hemp fibre insulation so those are
08:07 technical guidance documents they'd be
08:09 produced by the department of housing
08:11 and every
08:12 so often they're updated uh basically
08:15 for the last
08:16 15 years now uh every time they've been
08:18 updated
08:19 and what the upshot of it is is that you
08:21 have to put in
08:22 more and more insulation into your
08:24 buildings both new buildings and also
08:26 now
08:26 in renovations and then on the right
08:30 hand side there what we're looking at
08:31 is a man using a spray gun and that
08:34 spray
08:35 material is a method of applying hemp
08:38 create
08:38 and it's particularly good for something
08:41 like
08:41 an old building a historical building
08:44 where you just want to apply a thin
08:45 layer
08:46 now all materials within the EU have to
08:49 meet also what's called the construction
08:51 products directive
08:52 which is a basic set of guidelines um
08:55 around
08:56 the usability of materials that they're
08:58 fit for the purpose an
09:00 the basic standard of tests and then if
09:02 we drill down
09:04 more specifically into that and we would
09:06 be looking there to
09:08 the left and the environmental design
09:10 guide from sibzi
09:12 and to establish the the u-value
09:15 calculations
09:16 for a building material and that's what
09:19 links in then to the
09:21 part i's now um what we're looking at

09:24 here is
09:25 uh you know how would you go about
09:27 building a hemphouse today
09:29 in all right so on the left hand side
09:31 there you can see
09:32 little girl is just uh playing with the
09:35 the hemp flowers and so on
09:37 and that's processed into uh the inner
09:40 core as Barry said of that plant is then
09:42 processed into a hemp shiv and
09:46 that product that you're seeing there is
09:48 a well established
09:49 french product uh which has a particular
09:51 material specification
09:53 so all of this work has already been
09:55 done actually
09:56 for hemphshiv um it's it's we're not
09:58 reinventing the wheel it's it's already
10:00 at a very advanced
10:02 stage in a couple of countries and on
10:05 the right hand side what you're seeing
10:06 is actually a passive house in county
10:08 longford
10:09 uh built from hemp so you can see that
10:12 this is
10:12 really a reality and that a person could
10:15 grow their own hemp
10:17 it and build their own house with it
10:19 like it's not it's not a pipeline or any
10:22 type of agricultural building but in
10:24 order to do that
10:25um we do need processing we need to be
10:28 able to
10:29 decorticate the fibre which basically
10:31 means to strip the shiv
10:33 and the core apart the fibre then can be
10:35 used for insulation or textiles
10:37 and the inner part can be chopped up and
10:40 turned into
10:41 shiv we need to keep them dry and there
10:44 is a sort of a general rule as well
10:46 for the length of the shivs and and
10:48 there's a standard as it said
10:49 specification that has been produced in
10:52 France
10:52 for that now uh
10:55 let's say that you have your fibre and
10:58 chips made
10:59 what do you do so obviously you have to
11:01 go back to my previous slide there
11:03 and start to do some material tests you
11:06 know write it broadly
11:07 you need to certify the thermal
11:09 conductivity of the formulation
11:12 so the formulation is taking those shivs
11:15 and adding a binder of some sort it's
11:17 usually a lime binder line based binder
11:20 but in fact i've been doing a lot of
11:22 different experiments on different kinds
11:24 of binders and you can use
11:25 all kinds of things you can use ggbs and
11:28 and you can use clay even
11:32 you know so you just get different
11:33 material properties every time but there
11:36 there are again a couple of companies
11:37 who have gone
11:39 quite far with this and um broadly
11:42 speaking they will use a binder with a
11:43 good bit of lime maybe two different
11:45 kinds of lime and and possibly
11:47 sometimes even a bit of concrete
11:49 cement i should say in it
11:50 but you don't have to do that um but
11:53 what you do have to do if you
11:54 if you want to get your your building
11:56 certified is
11:57 you have to test the material to a test
11:59 standard which is called the en12667
12:03 and so generally for hempcreate you get
12:05 a fairly good
12:06 lambda value for it and and the same for
12:09 the fibre insulation
12:11 and so what you'd broadly expect is that
12:14 if you had say a rigid foam product
12:16 and you had 100 mil would say of
12:18 kingspan or something
12:19 you would get you'd have to use a 300
12:23 250 300 millimeter hemp wall uh
12:26 to get the equivalent insulation so you
12:29 then would get those tests done
12:30 in an accredited lab and and uh
12:34 you know you know i'm having a little
12:36 joke there uh
12:37 you know what i'm saying is that
12:39 actually all of these
12:40 things have been well tested now at this
12:42 stage so
12:44 um it's it's a bit of a cod really that
12:46 you'd have to jump through these hoops
12:47 but
12:48 at the moment if you want to get your
12:49 house uh
12:51 and you want to get it insured and if
12:53 you want to meet billing regulations you
12:54 want to get financed in the bank
12:56you need a BER cert right you need
12:58 someone like me to come in and actually
12:59 give you a BER or search

13:01 and to be your assessor will need to see
13:04 accredited test data
13:05 so and i've actually managed to get the
13:08 SEAI in
13:08 in recent months to um accept
13:12 some of the French and Belgian uh data
13:14 that is there
13:15 uh but an Irish person probably using
13:18 their own hemp would have to um
13:20 to do at least some of those tests and
13:22 all right
13:23 and and you'd also to meet construction
13:25 products directive
13:26 um you have to do some basic fire
13:29 testing and strength testing
13:31 as well uh if you want to use a lot of
13:34 us
13:35 okay uh so let's say you're not going to
13:37 do that uh you're not going to become
13:39 a hemp tycoon um there but you're going
13:42 to buy materials
13:43 so and build your house so you know
13:46 again i'm trying to establish here that
13:48 there's many companies that have already
13:50 uh gone down this road and have produced
13:53 uh
13:53 several products and systems several
13:56 different types so there's
13:57 there's t radical there who have a
13:59 binder and hemp formulations it's a bag
14:01 of hemp
14:02 and a bag of lime that you put together
14:03 and you mix there's isohemp who've made
14:05 blocks
14:06 uh structural blocks as well and lintels
14:09 now
14:0 uh there's a company as well in in Italy
14:12 there who are who are doing something
14:13 similar to iso hemp
14:15 there's a block system in France called
14:17 Gatti Chandra which
14:18 use an infill of concrete for the
14:20 structural element and
14:22 there are even modular systems and which
14:24 is kind of the way
14:25 the building industry is going now where
14:27 the house arrives on the site and
14:29 you make it up and and i suppose what
14:32 i'm saying is that
14:33 up to now the building industry has been
14:35 very much geared to producers with
14:37 deep pockets and not the small companies
14:39 but
14:40 that's how the vast majority of end

14:42 products are currently built
14:44 so i need to just uh wrap up here and
14:47 you can see this is a reality the seven
14:50 million investment there recently for
14:51 Isohemp
14:52 in Belgium and we need to share the
14:54 information uh
14:56 all over the world how to standardise
14:58 the materials and
14:59 get it as generic as concrete and
15:02 and we'll this is what success will look
15:05 like it'll be a boring table of numbers
15:07 like that that a bar assessor can use
15:10 and
15:11 then on the right hand side there it'll
15:13 evolve from
15:14 uh mostly one-off projects which we've
15:16 seen already
15:17 to a a housing estate that looks like
15:21 any other housing estate
15:48 uh how is hempcrete
15:52 hemp creek accepted within our national
15:54 building regulations or are there any
15:56 gray areas there
15:58 um no there's no there's no gray area
16:01 really uh barry as such um
16:05 in fact it's very black and white if if
16:08 the material
16:09 formulation has been tested to meet that
16:11 standard
16:12 that i put up on the screen you can use
16:14 it so
16:16 what i've what i've had to do is
16:18 actually get some of the
16:20 test standards that are available are in
16:21 French i had to had to persuade the SEAI
16:24 that i didn't need to hire a translator
16:27 to to refer to them
16:29 but other than that no there's uh you
16:31 know you go on a process
16:33 where you just go to laboratory and get
16:35 your material tested and produce a
16:36 figure for it
16:37 so it's it's not really that difficult
16:39 but um
16:41 so is there is there agreement approval
16:42 for it Irish agreement approval for it
16:44 um well nobody in Ireland has gone
16:47 through the process
16:48 of certifying a product for Irish
16:51 agreement however the the nature of the
16:54 the way the system works is that if you
16:56 have that EU standard
16:58 if it's an accredited laboratory in

17:00 France or Belgium it's recognised in
17:02 Ireland
17:02 as well so uh the the Irish agreement
17:05 standard is more uh kind of a marketing
17:08 thing that people do because they want
17:09 to
17:10 spend a bit money to sell more products
17:11 in in the Irish market and lean if it's
17:13 if it's fire retardant so it's fire
17:15 resistant
17:16 if it's as has those excellent u-values
17:19 that you mentioned there as well
17:20 why is are more houses not using it are
17:23 engineers not familiar with this
17:24 are are architects not familiar with it
17:26 are they the issues
17:28 yeah i i think the the the lack of local
17:31 supply is probably the biggest
17:33 issue Barry so um you know as you you're
17:36 we've
17:36 spoken about before it's it's to get
17:39 decortication done
17:40 at the local level uh that'll bring the
17:43 price down most of the materials that
17:44 you could use at the moment are imported
17:47 but you know we're we're growing hemp
17:49 now in
17:50 greater numbers in Ireland so as soon as
17:52 uh people
17:53 see that it's readily available they
17:55 will use it
17:56 okay questions after that Liam thanks
17:59 very much for that i'm going to go over
18:00 to our next speaker there now who's Alan
18:02 Jackson
18:02 so Allen works as a senior chartered
18:04 energy engineer with temporary energy
18:06 agency for three days a week
18:08 he also owns and runs a 120 acre organic
18:10 farm
18:11 for the past 12 years he supplies
18:13 organic barley to Waterford distillery
18:15 and organic oats to Flavons he also
18:18 supplies organic hemp seeds to Linwoods
18:20 but he's also developing his own brand
18:22 of dehulled
18:23 hemp seed lacquer organic hemp so Alan a
18:55 with him so um yeah the first year i
18:58 grew up i tried to go for the flower
19:00 and it didn't really work out for me
19:04 and i go i go to why i didn't and
19:07 i've never been going for seed and it is
19:10 it is
19:10 like any product with farming you want

19:13 to try and add value to us to actually
19:14 to get a profit traumas
19:18 okay so um
19:23 sorry now okay so as daddy said
19:27 um i converted over to organic farming
19:29 in 2009
19:31 um and i provide i produce um
19:34 organic barley for water for distillery
19:36 oats for flavins and b for good herdsmen
19:39 and now i'm looking at
19:41 hemp parts and that's the whole temp
19:44 uh from the from the hemp seeds so just
19:47 a couple of steps i suppose with anyone
19:49 growing hemp the first thing you need is
19:51 markets if you growers and you don't
19:53 have a market you really have nothing
19:55 and the hp rates you even grow this you
19:58 need a license in the HPRa
20:00 and part of that you do need a letter
20:03 saying what your end use is going to be
20:05 now again that is a letter from maybe
20:09 from you
20:10 but it's not a contract so you'd like to
20:12 have a contract in place before you
20:14 start growing this or at least have a
20:15 good idea of an outlet for us
20:18 so then we look at soil preparation
20:20 sewing harvesting
20:22 drying cleaning and there's also other
20:24 steps like bagging labeling depending on
20:26 where it's going to end up
20:28 so there is a lot of work a lot of work
20:30 with us
20:32 so this is a picture um of um
20:36 of my uh hemp here this is actually two
20:38 years ago and you can see kind of the
20:40 the taller plants
20:41 um are the male plants and they will
20:44 pollinate female plants
20:46 and they're the taller ones kind of
20:47 yellow over there that's uh the pollen
20:49 will come out of those pods
20:50 and um fertilise it the females
20:53 at the very bottom of the screen you can
20:55 see one major problem that i have
20:58 is red shank so um
21:03 so uh let me see so basically uh your
21:06 stores
21:06 in um April time the end of April time
21:09 you harvested in September
21:10 so it's not very frost tolerant you
21:13 definitely want to source
21:14 after um the first frost the
21:18 seeding range then 11 to 14 kilos

21:21 i like to sort as around maybe 14 kilos	23:04 although you may not need to put a lot
21:24 because the thicker it is for me	23:05 of nutrients on it it will take whatever
21:25 the less chance i'm going to have weeds	23:07 nutrients are there from your crop
21:28 um	23:10 and and leave it to pieces for for the
21:29 and the earlier you sew earlier your	23:12 next one
21:30 harvest is saying it doesn't it doesn't	23:13 so going um i thought because of the
21:32 like frost	23:16 fine seeds and you need
21:33 and last year when a lot of us told us	23:18 basically you need to try and plough it
21:36 was towards the end of April	23:20 and sort um
21:38 and um there was frost and it did set it	23:21 quickly afterwards the reason for that
21:41 back a little bit okay the varieties	23:23 is again weed suppression
21:44 there's different varieties of hemp	23:24 if you plough us and maybe tillers and
21:46 grow like as Liam was talking there	23:26 maybe leave us for a week or two before
21:48 about some was used for construction	23:28 your stores
21:51 they're really tall fibre varieties that	23:29 weeds are going to start germinating so
21:53 grow 10 12 feet high	23:30 you need to have the
21:55 so the variety that i'm going for the	23:32 seed in as quickly as you can so it can
21:56 seed is called Fiona	23:35 compete with weeds
21:58 now any seeds that um or any hemp that	23:36 with weeds so do not sort into a dry
22:01 you grow	23:38 seed bed
22:02 has last year had to be under 0.2	23:40 you can see here on the picture below
22:04 percent THC	23:42 that seed bed is very dry
22:06 and that's not the narcotic component of	23:44 um so as you can see there's just a
22:08 the hemp state	23:47 grass harrow i
22:09 so that's been increased to 0.3 percent	23:48 was throwing this with and and it worked
22:12 um	23:50 fine rollers afterwards especially
22:13 for this year so it needs once you start	23:52 that's keeping the moisture
22:15 work	23:54 that's why i was saying don't sow into
22:16 you have to watch the weather forecast	23:56 dry soil so this is two years ago
22:17 you do need a lot of rain	23:58 i sold 20 acres of it and
22:19 especially for the first couple of weeks	24:02 the red shank just got ahead of us and
22:20 after sowing this if you don't get rain	24:03 destroyed us um i then resold
22:22 after sowing us	24:06 uh four acres of that field in late July
22:23 your crop will definitely and be reduced	24:10 and as i say it was for the flower and
22:27 and it will definitely struggle so this	24:11 it did actually very well
22:29 year	24:13 um but you can just see what can happen
22:30 at the end of April there was some wet	24:15 and that's that'll happen if you do have
22:33 weather forecast a lot of	24:18 a seed bed that has weeds in it if you
22:34 soldiers it was dry then for the next	24:22 don't get a good start
22:37 three or four weeks	24:24 again this is a drought if we remember
22:38 and um the crop really struggled to get	24:26 back a number of years ago there was a
22:41 off the ground	24:27 drought there for maybe six weeks
22:43 and the nutrients requirements i suppose	24:29 didn't rain and the hemp just struggled 24:32
22:44 depends what you're taking from the	harvesting again as i said that the
22:46 field	24:34 seeds actually the plant harvests a
22:46 Theagas like figures there 80 to 120	24:36 different
22:48 kilos of nitrogen	24:37 er er the seed and the head of the plant
22:50 um hemp i suppose will grow fairly well	24:40 um ripens at different rates so you do
22:54 but it you know people say it doesn't	24:44 get
22:56 need that much nutrients but if the crop	24:44 um you know see some green seeds as well
22:58 does grow vigorously it doesn't need	24:48 there's some as well as some
22:59 nitrogen	24:49 ripe seeds in it so it is difficult to
23:01 it will scavenge the ground for	24:51 combine um especially in September
23:02 nutrition so are they	24:54 like is our weather actually suited for

24:55 hemp and	26:38 actually it should be kilos
24:58 if you get a good September it is we	26:39 400 kilos if you get 400 kilos a hemp
24:59 often don't so	26:42 the next
25:01 um i've heard of a lot of combines	26:42 column is if you get 250 kilos a hemp
25:03 blocking	26:45 per acre
25:04 and maybe coming in two or three times	26:46 um the barley then is two tonne per acre
25:06 to try and uh cut a crop	26:47 and oats two and a half ton
25:08 and having to leave this for a better	26:49 per acre so you can see the feed uh
25:10 day so it is difficult	26:54 the seed costs um of hemp are expensive
25:12 to the combine you don't use a	26:58 and the rest plough too so all that's
25:16 rosary combine because the hemp stalks	27:01 the same for the the barley notes
25:19 will just twist around	27:03 drying is is expensive and six years per
25:20 the rotor and and destroy it	27:05 ton is what people were
25:24 so straw walkers are the combines that	27:07 were paying this year from um from one
25:26 you should use	27:10 or two different sources
25:28 as uh it's high in moisture so it needs	27:11 and transport as well depending if
25:30 it needs to be on	27:13 you're just bagging this and
25:31 air or heat within the first three or	27:15 transporting half a ton on the palace
25:33 four hours if you leave it till the next	27:17 um it depends on what way your transport
25:35 day	27:19 is cleaning us
25:35 it's going to be extremely hot and then	27:20 again and these are per acre um it's
25:37 there might be a taint house of us or	27:23 very difficult to clean
25:38 whatever you are	27:25 i have a seed cleaner and i had to run
25:39 you're producing the quality of us so	27:26 it through two twice and three times
25:42 and that's the thing that's the	27:29 it's
25:43 difference if you're growing um oats or	27:29 a very dirty crop because you saw that
25:45 barley	27:30 sample there where it was coming out of
25:46 you have it you combine this when it's	27:32 the harvester so it is very difficult to
25:47 dry it's in the shed it goes into	27:34 clean
25:49 an arctic and it's gone for this you	27:35 um so you can see and the yields as well
25:52 really have to look after us	27:39 uh 400 kilos per acre actually i got 400
25:53 a grain drying trailer is ideal there's	27:42 400 kilos this year which is extremely
25:55 not many of them around	27:44 good
25:57 batch dryers people have used them	27:45 but i know people sold a lot of us and
25:58 successfully and but	27:49 they got around 100 kilos so at 100
26:00 they also block and also	27:51 kilos
26:04 make sure that just low heat i see some	27:52 is an organic price to 2400 you're not
26:07 seeds it comes through me because i do	27:54 going to make you're going to lose one
26:08 that cleaning of the seeds	27:56 the others
26:10 it kind of looks a little bit scorched	27:56 and a lot of it is weather dependent
26:12 so you just have to be very careful	28:00 um so pros and cons um
26:13 in terms of of dryness looking at the	28:03 you know it's the same with anything for
26:17 finance again this is looking at	28:05 selling wheat barley also whatever
26:18 um or an organic crop and	28:07 you're selling off the farm if you want
26:22 now i suppose one thing i i just say	28:08 to add value to it
26:23 about these figures is that	28:10 you have to sell it as a foods and
26:26 these are for one year and you do have	28:11 there's a lot of uh rules and
26:28 to look at	28:13 regulations around us
26:29 um a little over maybe five years	28:14 it's good for crop rotation carbon
26:31 because	28:16 sequestration and
26:32 you do need the crop rotations to go	28:19 if if you plug if you apply the stocks
26:33 back into grass and so	28:21 back in you'll be with the
26:35 that first one of our yields it	28:22 sequester some carbon for you cons
26:36 shouldn't be a euro sign there that's	28:25 weather dependent

28:26 and you need a lot of equipment for it
28:29 and you really need your own equipment
28:30 so you can do this when it needs to be
28:31 done
28:32 um final tip i suppose get a contract
28:35 with the end user so you're
28:36 supposed to not left to this i suppose
28:38 you need a backup plan as well if
28:39 something goes wrong with your seed what
28:40 you do with it
28:41 we barley notes you can sell it you know
28:43 you can give it to cattle or whatever
28:44 with this
28:45 um you can feed us but there's not much
28:47 of a market out there
28:48 that's just a picture of a seed cleaner
28:51 um
28:52 um and basically at the minute what i'm
28:55 doing is i'm trying to
28:57 um set up a food
29:01 market so basically what i'm trying to
29:02 do is to produce um
29:04 Irish organic hemp seeds and sell us
29:07 both as um hemp seeds and foster bots at
29:11 that's on the way as well to sell this
29:12 hen partially huddled hemp seed

2.2. Alan Jackson,

29:24 you're doing is you're really trying to
29:25 take the
29:26 whole supply chain into your own hand to
29:28 a large degree which isn't
29:29 supposed for the faint-hearted you're
29:31 trying to grow the crop as well as
29:33 clean it and market it as well and you
29:35 know that's
29:36 i suppose that's really where you have
29:37 to go with it because the markets are
29:39 not very established and so it's
29:41 important that we make those points
29:42 that there's not very very strong
29:44 markets for hemp in Ireland but you're
29:46 trying to create those markets
29:47 uh at the moment you mentioned there
29:49 that um
29:50 the sea price for the hemp is 161 euro
29:53 per acre
29:54 compared to barley which is coming in at
29:55 around 43 euro per acre
29:58 um is there do you see an opportunity in
30:01 the future whereby maybe
30:02 barley or by hemp seed prices could come

30:04 down if we start producing the hemp seed
30:06 within the country
30:08 yeah like i suppose we it could now the
30:10 thing is i suppose the people who like
30:12 for knowledge the people who owned us
30:14 have to get their royalties on us
30:16 and so look there is a possibility and
30:19 there's a possibility of breeding our
30:21 own varieties and breeders coming
30:22 on board and again it'll all have to
30:25 pass through
30:25 the department of agriculture as well um
30:28 to to
30:29 to get approval because as far as i know
30:31 at the minute you can't actually keep
30:33 your own seed
30:34 to show you always have to buy in and
30:37 buy nc
30:38 certified seeds okay alan we leave it at

2.3. Killian Mc Grath

31:04 so Killian is uh he started working with
31:07 the Irish organic hemp farmers in early
31:09 2017
31:10 he's an extensive understanding of how
31:12 CBD is produced and is passionate about
31:14 marketing 100
31:15 Irish natural cannabidiol oils balm skin
31:18 care and pet care products
31:20 from growing harvesting and extracting
31:22 CBD from the hemp plant
31:24 Killian oversees everything from seed to
31:26 the end product he's also actually
31:28 takes the product there from Alan who
31:30 you just heard as well
31:31 Killian is also a member of the Irish
31:33 hemp cooperative
31:34 i suppose i just forgot to mention that
31:36 at the start the Irish hemp cooperative
31:37 is a 31:38 body which uh brings together farmer
31:41 growers and
31:42 tries to help market the hemp uh pages
31:45 here in Ireland
31:46 so Liam Allen and uh Killian are members
31:49 of the Irish hemp cooperative
32:08 is to go through with the people that
32:10 are interested in getting involved
32:11 in the hemp industry where the
32:13 opportunity lies for you
32:16 one of the largest things in the hemp
32:17 industry is that it's such a diverse
32:19 plant you can make so many different

32:20 products from it
32:22 um and it's getting those products to uh
32:29 uh uh that isn't
32:32 uh so much part on uh you want to
32:36 uh i suppose really uh create uh
32:39 um a finished product so that you're
32:42 getting the full
32:43 value um and that's what we have done
32:45 here uh
32:46 in your uh with farmers back in 2017
32:49 and we're doing an awful lot of research
32:50 and development uh on hemp
32:52 hemp oil the sediment what can we do
32:54 with the sediment what can we do
32:56 with the cake which should be our waste
32:59 and now we create products from
33:01 every part of the seed that we mill here
33:04 in this plant
33:05 uh we don't have any waste whatsoever
33:08 our aim originally was always to
33:10 uh provide the Irish consumer with the
33:11 highest quality uh
33:13 CBD islands planted grown harvest
33:15 processed and packaged here in Ireland
33:16 so it's a pure Irish product grown by
33:18 Irish farmers
33:19 uh processed by Irish processors and
33:22 the finished product uh completed here
33:24 by uh Irish manufacturing companies
33:27 um so from that end you know there is
33:30 huge opportunity there for
33:32 uh um you know not even just for farmers
33:35 to grow
33:36 it because you know like Alan said you
33:39 have to have
33:40 the equipment you have to have to wear
33:43 it all
33:45 and you have to have the weather you
33:47 know what i mean so
33:48 you know for small indigenous farmers
33:50 are you better off buying the raw
33:51 material
33:52 from the likes of Alan like what i do
33:55 and then i make my products from that
33:58 here you can see that uh in in December
34:00 2019 we opened up our facility in y'all
34:03 it's a manufacturing facility uh where
34:05 we make uh
34:07 i think about 60 different products
34:08 today ranging from human products
34:11 uh um uh all the way through to equine
34:14 products and also a pet range
34:17 there are six different zones inside in
34:20 the

34:21 clean room area factory
34:25 uh where we do different we say jobs in
34:28 zone one and two
34:29 uh it's where we store the seed in the
34:30 oil in zones four and five we produce
34:32 the bands
34:33 oils and creams um
34:37 then in zone six uh we grind down we say
34:39 the meal cake
34:40 and produce our powders um so you know
34:43 we actually have absolutely no waste
34:46 from this plant uh from the seed from
34:49 this plant that we
34:50 manufacture here in in all as you can
34:52 see here again these are just the bags
34:53 that we get in
34:55 uh um uh into our facility here from the
34:58 likes of Allen
35:00 Ed Handbridge you also have Glenn Evans
35:02 uh Liam Linum
35:04 uh we have about ten different farmers
35:06 that actually
35:07 grow for us uh this year i think we
35:11 brought in about
35:11 40 ton maybe 45 ton sorry
35:15 we're still waiting for some of the uh
35:17 seed bags to come in
35:19 uh from uh we say some of the lads as
35:22 uh Alan uh this morning just loaded an
35:25 artic load
35:26 of seed for us we're expecting that to
35:28 arrive here within the next
35:29 hour or so um
35:32 so like uh again you know i suppose
35:35 you're down to
35:36 your product uh um like we do extensive
35:39 testing
35:40 uh we do turpentine analysis uh
35:44 cannabinoid profile analysis
35:46 that we tested for pesticides uh we
35:49 tested for heavy metals
35:51 uh we test for trace minerals
35:53 microbiological analysis
35:55 you know so we know what we have in the
35:57 products that we are producing that we
35:58 are pushing out into the into the
36:00 um into the wider community um and again
36:03 it's very important
36:05 uh that you know what's in your product
36:07 okay
36:09 um when the results come back from the
36:11 seed
36:12 we begin the milling process the seed
36:14 enters the milling machine

36:16 the press says removes the oil and the
36:18 sediment
36:19 uh the immediate cake then comes out in
36:21 the form of a nut
36:23 which we further break down then and we
36:24 turn that into our powders
36:26 um again uh what we're
36:29 doing here is we are making use of every
36:32 piece of the plant
36:33 okay our main goal here was to
36:36 uh produce the highest quality product
36:40 and dried down the prices of CBD on the
36:44 Irish market
36:46 uh one of the biggest problems we had
36:47 was you know there was a lot of
36:48 fraudulent product on the market
36:50 people claiming that there was extra
36:51 amount of milligrams insideness
36:54 and it wasn't you know it was just a
36:55 nice fancy label
36:57 so you know the whole idea of what we're
36:58 trying to do is to try and create a
37:00 market
37:01 and to create a market people have to
37:02 trust your product so you have to make a
37:04 very high quality product
37:07 um and that's what we that's what that's
37:09 what we do here in Europe
37:11 um so our powder range uh
37:14 ranges in strength from nine thousand
37:16 milligrams all the way up to thirty
37:17 thousand milligrams
37:19 and comes in an array of flavors natural
37:21 mac and cacao spirulina wheatgrass
37:25 turmeric and black pepper and again
37:28 these are just
37:28 uh different it's the same powder just
37:31 different blends
37:32 again creating a whole new range of
37:35 products
37:36 we do massage oils uh different ranges
37:3 again different flavors
37:41 and we do pet products
37:44 again different strengths we do a range
37:47 called paws
37:51 again for small pets uh big paws for
37:54 bigger pets
37:55 and working paws for we say working dogs
37:59 and again all different strengths and
38:01 side and bottle sizes
38:04 now one of our most exciting products
38:05 that we have here is
38:07 the equine industry so we have created
38:12 a powder uh

38:15 again from the nut for the equine
38:17 industry
38:18 and we are getting fabulous results uh
38:20 on that from
38:22 the people that are using it in the
38:23 equine industry at the moment
38:25 okay again here you see
38:28 we have different products you have
38:30 recovery age gamete
38:32 you have jointed uh you have quick fix
38:36 and you have riderate again it's not
38:38 just for the horses it's for humans as
38:39 well 38:41 so i suppose uh here again we do white
38:43 labelling this is a products
38:45 range of products that we make for CBD
38:48 phenomenal
38:49 uh which are a private label
38:52 then we also do a lot of r and d here in the
38:55 facility at the moment
38:57 uh we're working on face creams uh with
39:00 CBD inside and um
39:03 and then we have i suppose i suppose our
39:06 view for the future is to actually build
39:08 a larger facility than we have here and
39:10 create a wider range of products again
39:12 for the export market and i suppose that
39:15 gives you a good rundown on on what
39:16 we're
39:17 what we're about and what we're trying
39:18 to do here back to you there again Barry
39:21 thanks very much Killian that was a
39:22 great overview and you're given you're
39:24 describing something that's
39:26 essentially an outlet our market for
39:28 Irish uh
39:29 CBD products um can you just
39:32 maybe give us another we have a lot of
39:34 questions that are coming in and you
39:35 know if we'll be able to get to the mall
39:36 as he Alan is answering quite a few of
39:38 them Alan is answering some of them
39:39 there as well
39:40 but maybe just kidding just to ask you
9:42 you obviously have to extract CBD
9:44 is it your are you allowed to extract it
9:46 from the flower head or are you
9:47 extracting it
39:48 from the seed itself and can you just
39:50 describe maybe the process how you
39:52 extract
39:52 CBD and what's left over well i suppose
39:55 here in the facility in y'all we just
39:57 work with the seed
39:58 we don't work with the with the bud you

40:00 know what i mean
40:02 for us that's a lot cleaner uh there is
40:04 a little bit of controversy between you
40:06 know
40:07 using the bud and using the seed so we
40:09 just stick to using the seed
40:11 we brought in a milling machine from
40:13 Germany uh that has
40:15 double press heads um you know so we
40:18 extract our oil through that it's a slow
40:20 enough process you know we're
40:22 you're looking at 24 hours of milling to
40:23 process a ton you know what i mean so
40:25 we're going to have to get in another
40:26 two or three of those machines this year
40:28 uh so we can process it at a faster rate
40:31 if i could just ask Liam and Alan to
40:33 plan their cameras there again please
40:35 and we'll go back to the questions a lot
40:37 of questions coming in there
40:39 are there extraction rules around CBD
40:41 there uh Killian
40:44 there is yes and there are certain
40:46 methods that are after
40:47 they're after banning uh there is uh
40:51 co2 extraction is quite frowned on uh
40:54 ethanol extraction is heavily frowned on
40:57 because now you're adding in
40:58 chemicals into this perfect plant that's
41:01 so natural and
41:02 organic and so like from our side we
41:05 find that the cold pressing
41:07 uh kind of fits the bill with whatever
41:09 in that you know the criteria
41:11 and the quality of product that we can
41:12 get from it by cold pressing
41:14 okay guys i'm going to go through as
41:17 many of these questions as we can as
41:19 possible and
41:20 they relate to all the panellists here
41:22 because we only have 20 minutes to get
41:24 through them
41:24 so first one here i think it's mainly in
41:26 well maybe Alan as well are there
41:28 decorticators or processors for those
41:30 who grow hemp
41:31 for fibre here in Ireland
41:35 Liam that's what that goes back to um to
41:37 what you were talking about there is the
41:39 use of
41:40 um you know the the shivs the herds
41:44 uh so you're essentially using the
41:45 fibres so you obviously have to maybe
41:47 just describe that process of

41:48 decartification because
41:50 that might make sense to everybody so
41:52 you have your
41:53 hemp straw that's left over maybe after
41:55 the combine so you extract the seed you
41:57 have the straw left over and you have to
41:58 utilize that straw
41:59 but it has to be retted for a while to
42:01 allow the fibres to separate
42:02 and then it goes to a decortification
42:04 process can you describe that
42:06 is it is that process available in
42:08 Ireland uh yeah
42:09 no problem very so um so i i always say
42:13 to people like that process
42:14 is a bit like winning hay so you need to
42:16 kind of know
42:17 how to do it to do it successfully if
42:20 you do it in the field
42:21 and so at the moment there are a couple
42:24 of people that have
42:25 a small scale decarticators there are
42:28 and they
42:29 they do a few jobs for for people in the
42:31 locality there's a man in Galway who has
42:33 one and
42:34 Nile o'Neill has uh some kind of a
42:36 system as well down in Kilkenny there
42:38 and i know that uh farmers who supply
42:42 Celtic wind up in Dundalk and that area
42:45 and they have some sort of a contract
42:47 with um
42:48 with Yorkshire uh who actually used the
42:52 fibre to make
42:53 um mattress covers or comforters or
42:55 something like that so
42:56 so there are a few people doing it and
42:58 there are a few people processing it
43:01 but it does need a bit of an investment
43:03 to do it at scale and
43:04 the question is what's the right type of
43:07 investment so
43:08 for example the the company i showed you
43:10 there Gatti chamber in France
43:12 uh that's like a sort of a co-op uh
43:15 there are uh you know about 20 000
43:18 hectares there
43:19 uh being grown within a 50 mile radius
43:23 of that plant and so that would be the
43:26 ideal scenario Barry that
43:28 um that there would be you know groups
43:30 of 10
43:31 15 20 farmers uh growing maybe 40 to 50
43:34 acres

43:35 and then it would all be uh processed in
43:38 in
43:38 in somewhere that is thank you and y
ou
43:41 guys have those structures together 43:42 because
you're all part of the Irish
43:44 hemp cooperative
43:44 is that maybe the was the foundation
43:47 body whereby you can
43:48 coordinate yourselves collectively to
43:50 develop and decartification process and
43:52 how much would that cost what type of an
43:54 investment because you mentioned the
43:55 mobile decartificators
43:57 yeah then you have the permanent fixed
43:58 structures as you mentioned in France
44:00 what's the difference in price um well i
44:03 think the mobile
44:04 systems are coming in at about 250 to
44:07 300 000
44:08 if memory serves me right um and then
44:11 you could go up to
44:12 a couple of million for a more
44:14 sophisticated system like the
44:16 Laroche system which which then you
44:18 would produce several products from
44:20 all right so it depends kind of how many
44:23 end users you want out of it Barry um
44:25 but a very basic system to do
44:27 decortication you can even buy
44:29 secondhand equipment to do that and
44:31 somebody asked on the chat there uh
44:33 could you could you do that could you
44:35 build your own house
44:36 and and you could all right the the
44:38 issue is if you want to get finance or
44:40 you want to get it certified
44:42 uh then you'd need these material tests
44:44 as well
so the HPRA just to 44:56 reiterate that that's the health
product
44:58 regulatory authority
44:59 they issued the license to Alan to
45:01 Killian for growing their hemp and
45:04 they're under the department of health
45:06 so
45:08 could you answer that maybe Alan what
45:10 are the security requirements
45:11 uh likely to be with HPRA aid if you
45:14 don't live beside the crop itself
45:16 yeah i don't think it should be much of
45:18 an issue i suppose the best thing
45:19 is to contact the HPRA sending the
45:21 license and see what you think

45:23 i suppose over the last number of years
45:25 um you know
45:26 people are growing this is more people
45:28 know more about us that no no it's not
45:30 cannabis um
45:32 so i'd say you won't have too much
45:35 problem
45:35 they don't like you going beside the
45:37 main definitely a main road
45:39 they say any roads was i think some
45:40 people have been able to grow us
45:42 close to um more by roads but um
45:45 as long as it's not near a school or um
45:48 you know in a town
45:49 there should be no problem okay Alan
45:53 there's
45:54 currently about 20 or about 70 different
45:56 varieties of industrial hemp which
45:57 farmers can legally grow
45:59 in Ireland with the THC content of less
46:01 than 0.2 percent
46:02 and you mentioned that 2.2 percent delta
46:04 9 THC or tetrahydrocannabinol
46:08 but since the 31st of October 2020 the
46:10 European parliament has voted in favor
46:12 of increasing
46:14 our the authorized THC level for
46:16 industrial on the field
46:18 from 0.2 to 0.3 percent does this mean
46:21 that there'll be more varieties
46:23 available or is that already available
46:24 in Ireland at the moment
46:27 yeah so it means that there will be more
46:28 varieties available and now
46:30 in terms of i suppose people that are
46:32 making CBD out of us they may be able to
46:34 get
46:34 a higher CBD content because there's a
46:37 strong correlation between the THC
46:39 content and the CBD content
46:41 in terms of i suppose what i'm doing and
46:45 um one thing i'll be looking at is
46:47 yields i suppose of the seed
46:49 so if it's will the 0.3 strengths
46:51 actually give me a higher
46:52 yield per acre now that's something i'd
46:56 have to study and look up
46:57 but so far i think a lot of people like
47:00 the Finola
47:01 and the taste of it the look of us so um
47:04 it's something i'm going to have to
47:04 research
47:05 to see if there is a more suitable and
47:08 higher yielding

47:09 seed variety out there for me and has
47:11 this legislation been transposed into
47:13 Irish law yet
47:15 i've been increasing to from 0.2 to 0.3
47:18 THC in the field
47:19 for the seed i don't actually know that
47:22 i have to talk maybe maybe Liam or one
47:23 of the other guys
47:24 right now uh no Barry as
47:27 as far as i understand it's not impo
47:30 it's not
47:30 been introduced in Irish law and there's
47:33 a
47:34 the issue is of course when the when the
47:36 product has been transported at the
47:38 moment
47:39 and the hemp coopers actually now
47:41 launched a lobbying campaign to change
47:43 the law in that respect
47:44 so um you know obviously we really
47:47 appreciate the support of anybody out
47:49 there
47:49 to talk to the local qualifications i i
47:52 suppose the main message here is there
47:54 are about 70 varieties that you can grow
47:56 Alan has identified Fianola has been a
47:57 suitable variety so you can legally grow
47:59 it and you can get your hemp license as
48:01 you can all over Europe
48:02 and but you are restricted to varieties
48:05 with less than 0.2 percent THC in
48:06 Ireland at the moment
48:08 and there's even an opportunity that
48:09 this could change sorry Killian you want
48:10 to come in there yeah yeah
48:12 just even outside of that uh Barry we've
48:14 done an awful lot of testing on the
48:16 different varieties Finola
48:17 vanilla fedora we have
48:21 uh um new variety now again uh just a
48:24 small bag of it again for testing but
48:26 uh during our testing what we actually
48:28 found out was that the Finola seed
48:30 has higher qualities attributed
48:33 after when we process it afterwards
48:37 we have higher vitamin values we have
48:39 higher omega values
48:42 the turpentines are a lot higher
48:45 you know you have a higher CBD count so
48:48 for us as a processor the Finola seed
48:50 is is the best the better of the lot at
48:52 the moment of what we have worked with
48:54 so far
48:55 okay Finola yes we have in all and out

48:58 this year we've done a little bit of it
48:59 so we'll do some testing on that
49:00 and again we know we'll be more uh
49:02 knowledgeable for next year
49:04 to see is there a better quality oil
49:06 coming on the market or a better quality
49:08 seed that will give us a better quality
49:09 aisle which then in turn will give us a
49:10 better quality finished product
49:13 uh there's a question there thanks
49:14 Killian there was a question there Alan
49:16 on the price of him hearts
49:20 yeah that's look i'm i'm looking into
49:22 that in a minute and i saw that and i'll
49:23 give him a text afterwards and if anyone
49:26 else wants to know
49:27 they can send me an email there and i'll
49:29 get back to them
49:30 okay so that's him hearts can you tell
49:32 us what hem parts are
49:35 basically what it is you're just so when
49:37 you see the hemp seeds and you saw a few
49:39 photographs over there
49:40 you're basically just taking off the
49:41 outer shell and inside
49:43 then is a is a white seed
49:47 that's kind of a nutty flavor and that's
49:48 very high in uh
49:50 in protein and very high in the
49:52 different omegas as well so it's very
49:54 very healthy
49:55 a lot of vegans like it as well because
49:57 again they have problems trying to take
49:59 in
50:00 um a lot of protein and this is uh one
50:02 of the solutions
50:04 something you sprinkle on your cereals
50:05 in the morning is it exactly on your on
50:07 your porridge
50:08 okay uh question for Liam Liam if you're
50:12 using in self-building
50:13 is that a legitimate use for the license
50:17 for your oh yeah i mean as far as i know
50:21 now
50:21 Alan can clarify this but as part of
50:23 the license application you have to put
50:25 down what you're
50:26 using the who who you're going to give
50:28 the product to
50:29 if you make a product from it and if
50:32 you're
50:33 if you're using it for for building uh
50:35 for your own purpose that's a legitimate
50:37 use you probably just put it down as

50:39 research
50:40 or something like that for certain
50:41 development but um yeah that shouldn't
50:43 be an issue at all
50:45 uh question there uh other than the the
50:48 high protein content what else
50:50 is it good for uh based on the hard
50:52 graph that's
50:53 involved in getting there a question
50:55 from identical there maybe
50:56 that's for uh Alan or from maybe an eve
51:00 you can
51:00 answer that well i suppose again you're
51:04 you're you're back to your
51:05 your finished products like we make lots
51:06 of uh different products here from
51:10 you know bands that you know give you a
51:12 good relief
51:13 joint pain so it can be used like the
51:15 product can be used for so many
51:17 different things creams
51:20 you know again for skin issues um
51:23 you know there are so many different
51:25 uses for this
51:26 uh uh versatile product yeah
51:30 and of course everything everything that
51:31 Liam was talking about there from the
51:32 use of the shivs and the herds
51:34 in the building a construction industry
51:35 as well absolutely
51:37 another question did you find it
51:38 difficult to find a contract with an end
51:40 user
51:42 so Alan i suppose that maybe that goes
51:44 in terms of your situation you're
51:45 applying for a license
51:46 you have to demonstrate to the HPRA that
51:49 what your end user is going to be
51:51 and where it's going to be did you find
51:52 it difficult to get any contracts there
51:54 um well look i suppose i was able to get
51:56 a letter from um i think it was from
51:58 Lynwood's last year to say that
52:00 they take it so um the whole thing
52:03 people have to be very careful of is it
52:06 is
52:06 quite easy to get a letter um from
52:09 somebody to say that
52:10 they'll take us but that's not a
52:12 contract
52:13 some people you might get a letter from
52:15 just so they say right you can grow it
52:17 now
52:18 but at the end of the day you have to

52:19 make sure that you have your market
52:21 sorted before you grow us
52:23 because if you don't and it comes and
52:24 you harvest this and you've got nowhere
52:26 to go with your product
52:27 if it's the leaf the or the flour or the
52:29 seed or whatever it is
52:31 then you're in trouble also i suppose
52:33 you really want to see exactly what
52:35 specification
52:37 that the requirements are to meet the
52:39 specification in terms of
52:40 what moisture content will it need to be
52:42 what colour it'll need to be
52:43 what screenings are allowed in us so
52:46 there is a last i think that needs to be
52:48 done
52:48 it's in this infancy here so um a lot of
52:51 these things need to be tightened up
52:52 tractability etc etc everything needs
52:54 to be kind of tightened up
52:56 um in relation to that um so yeah but
52:58 look it's trying to get
53:00 trying to get it's easy enough to get uh
53:02 someone to give you a letter
53:04 to say that they take it that's another
53:06 thing actually
53:07 getting a contract with the price okay
53:10 Alan thanks for that
53:11 question for you has any one of you
53:13 received state funding to help develop
53:15 the process of hemp cultivation or
53:16 processing
53:18 no yes sorry volume
53:22 yeah i was going to probably say the
53:24 same thing members of the hemp
53:25 cooperative have
53:27 um applied and successfully got funding
53:29 for for various aspects Barry
53:32 okay so wherever that funding come from
53:34 is the department of
53:35 uh trade and enterprise or department of
53:37uh leader funding or where is it coming
53:39 from
53:41 yeah so um i might take this very um
53:44 so basically i applied for a few
53:46 different things first of all um
53:48 there was grants going for a website
53:51 there recently
53:52 and um i applied i think with enterprise
53:54 Ireland
53:55 i went through all the hoops and even
53:57 got my letter of offer
53:58 got a phone call the next day saying you

54:01 have to rescind us because
54:02 you've mentioned the word hemp so um
54:05 i wasn't able to get funding from them
54:07 in the end for anything so i went to
54:09 leader and
54:10 i got um a grant for that seed cleaner
54:14 you saw
54:14 um i also got a grant for a little a
54:16 small little garden shed that i can do
54:18 some processing in
54:19 and also um uh
54:24 juicer if i wanted a cold breast if i
54:26 wanted this so
54:27 i did give them too later thanks for the
54:29 Helen a question for remedy helter
54:31 that's for you Killian
54:32 can you speak to about the testing of
54:34 the soil when it comes to CBD oil
54:37 do you see soil grown product holding a
54:39 high level of toxins
54:42 uh well no because we test far we test
54:44 the soil
54:45 and we also test a product for those
54:47 toxins we test them for heavy metals
54:49 uh we test them for anaplexations we
54:51 test them for
54:56 fairly confident
54:57 across the board it's more so what the
55:00 i suppose the plant will take out of the
55:02 field
55:03 that you need to prepare for next year
55:05 but by leaving the roots back in the
55:06 side like the route is full of goodness
55:08 as well
55:08 well then you're leaving back in the
55:10 field as well yeah
55:14 Alan and you know Ed Handbridge who you
55:15 mentioned earlier on there are organic
55:17 growers and they
55:18 is it only organic material you take or
55:20 do you take it from conventional sources
55:22 as well
55:22 really organic yeah we do a lot of stuff
55:24 in the equine industry as well we can
55:26 use conventional and that but
55:27 for the for the human side it's all
55:29 organic okay
55:32 question here have you any information
55:34 on decartification please can farmers
55:35 decartificate after retting in the field
55:38 i think we've covered that already Liam
55:40 and Alan so we will skip out for that
55:43 um to Killian i imported 10 hemp oil
55:46 with 90

55:47 rapeseed oil for the equine industry and
55:49 it went very well with amazing results
55:50 for customers including giving it to
55:52 highly
55:52 strong stallions other horses dogs with
55:55 stiffness
55:56 currently i sell hemp shivs as animal
55:58 bedding
55:59 and is a great resort uh result also
56:02 can't get the oil anymore from
56:03 Latvia does that make any sense to you
56:06 it's no problem he can make contact with
56:08 us here and y'all and we can
56:09 make it for him producer farmer we can
56:10 put him on one of the equine products
56:12 that we make here already
56:13 okay it'll be exactly the same thing
56:16 okay
56:16 uh question here Killian in relation to
56:18 your production in the market how has it
56:20 grown for you each year as someone
56:23 thinking of getting into growing him to
56:24 diversify farmland to use
56:26 are there opportunities for um
56:29 recurrency contracts
56:31 obviously weather dependent for the
56:33 growers sorry i suppose that's a general
56:35 question
56:36 about the opportunity i suppose you're
56:39 back to what Alan
56:40 Allen Jackson was saying there you know
56:43 you know if you have
56:44 professional growers and they want to
56:46 use it as a rotational crop
56:47 it's perfect but if you have a farmer
56:50 that
56:50 is you know milking cows and he wants to
56:52 do 10 acres of hemp
56:54 uh and there's nobody around them doing
56:56 another 10 acres of him and there's no
56:58 uh um he doesn't have his own equipment
57:01 well it's going to be very difficult
57:03 you know what i mean so they should
57:04 steer away from that if they want to get
57:05 involved in him
57:06 they make contact with the likes of Alan
57:08 Jackson or myself or somebody else
57:10 that's growing
57:10 and you buy the actual raw material and
57:12 you take it to the next level where the
57:14 real money is in it
57:15 okay there's a question there if there's
57:17 no cannabinoids in the seed
57:19 how do they make CBD oil who says

57:22 there's no cannabinoids in the seed
57:23 well that's a question that came in so i
57:25 don't know there has to be kind of i
57:27 think he kind of up to
57:28 two 0.2 percent gac so i think that was
57:30 answered already
57:31 um does any of you want to make any
57:33 other comment on that it's just that
57:34 there is
57:35 you can have up to 92 tac within the
57:38 seed
57:39 that that you're using yeah like
57:42 you know we do full uh CBD or cannabis
57:45 dial testing on the actual seed so you
57:48 have CBD you have cbc
57:50 you have cbg you have
57:53 c b d a and c b g a you know yeah i i i
57:57 suppose just to go back on that point
57:59 there about the point two percent CBD
58:01 you're allowed to have it
58:02 within the c up to 9.2 percent CBD and
58:04 this may be a question for
58:05 phd Liam as well but there is
58:09 the the hemp derived food products can't
58:12 have any trace amount
58:13 of of uh of THC isn't that correct
58:18 uh yes that is correct but again the
58:21 movement on that again you know what i
58:22 mean you know it's a very gray area
58:24 because you know what is a trace
58:26 like it still comes from the hemp plant
58:29 okay so it's like the dna uh it still
58:32 has the dna and it still will have
58:34 many skewed traces uh like we've done
58:37 the testing on it here
58:38 uh um we've done it with uh ghg
58:41 analytics down Watford
58:42 and you know the 0.2 of one percent was
58:46 the allowed amount
58:47 at the allowed amount we are testing and
58:50 we can't get it at
58:51 a hundred times below that we still
58:53 can't get a trace of it
58:54 okay i know there's a bit of an issue in
58:57 the law in relation to that and we won't
58:58 go into the details of it here now but
59:00 maybe if anybody wants to make contact
59:02 with the hemp cooperative afterwards you
59:03 can
59:04 discuss that issue with them and all
59:07 three of you are involved in that
59:09 is there a market for hemp which is not
59:10 produced organically
59:12 question here

59:15 yes i believe there is um you know that
59:18 there is there is a bigger wider market
59:20 out there than just the food industry
59:22 you have
59:23 uh um you have uh uh from our side
59:26 you have the equine industry you have
59:28 the pet industry uh
59:30 you have the animal feed industry yeah
59:32 yeah and support
59:34 the construction industry as well of
59:35 course i have to we're nearly at the end
59:37 of our time guys i really have to
59:39 uh question for Killian where your
59:42 startup costs high
59:44 i suppose they were because you know we
59:46 started back in 2000 and
59:48 i suppose that's true was we know it was
59:49 2016 we really started looking into
59:52 CBD and it was more so because we were
59:54 testing products that were on the market
59:56 and we were realising that you know a
59:58 lot of people were just being fooled
59:59 because 60:00 there was absolutely no CBD inside a
lot
60:02 of these products
60:03 uh so that was what gave us the
60:04 initiative to turn around and say okay
60:06 let's
60:06 you know grow an Irish product and
60:08 produce a fully
60:09 uh intuit uh
60:13 uh product uh here in Ireland uh and
60:16 stand over that product
60:17 uh by having the test results to back it
60:19 up okay folks
60:21 we really have so many questions coming
60:22 in i can't get to them all unfortunately
60:24 and uh
60:25 but we will get back to everybody who
60:26 sent in a question and i will send out
60:28 the questions to each of you as
60:29 panelists and maybe we can
60:30 get back to everyone individually that
60:32 way one quick question for you Alan
60:33 because a lot of queries are coming
60:35 about the soil type
60:36 that's required for him and we look on a
60:38 pt
60:39 pt land my impression is it wouldn't go
60:41 on pt land that well it would be
60:43 challenged especially with
60:44 in terms of weed control but i'll let
60:46 you answer it from a i suppose a
60:48 practitioner's

60:48 perspective yeah i suppose look it's the
60:50 same thing and i'd say the biggest
60:53 you try to bring a combine harvester
60:55 into the piece you saw it in September
60:56 you could be in big trouble too
60:58 so um that's one of the major problems
61:01 and the better the soil the better it'll
61:02 grow

3. FSAI Breakfast Bite event on 'the legal position of cannabis based food products like CBD oils in the EU & Ireland' on Thursday 24 June 2021, . The presentation was provided by Dr Pat O'Mahony, Chief Specialist, Food Science & Technology, https://www.FSAI.ie/faq/CBD_oils, <https://www.youtube.com/watch?v=dSHL4ug4zJI>

3.1. Dr Pat O'Mahony

02:40 the CBD and the hemp issue has been
02:43 discussed at European level and even
02:45 worldwide for the last six or seven
02:47 years so
03:08 have to go back and forth between THC
03:11 and food law and CBD etc for those of
03:14 for you who are not too familiar with the
03:16 food safety authority we're a consumer
03:18 protection body so we're a government
03:19 agency
03:21 our role is to look after the consumer
03:23 basically
03:24 and implement food law we don't have a
03:27 policy remiss that's the job of
03:29 our policy makers in the department of
03:30 health and agriculture
03:32 um and of course we're also a part of
03:35 Ireland as part of the eu still and i
03:36 make this point later
03:38 because uh our nearest neighbours in the
03:40 uk are not part of the UK and therefore
03:42 they have
03:43 deviated so much in how they deal with
03:46 certain aspects of food well including
03:48 CBD issues and
03:51 so with dash i'm going to turn off my
03:53 camera and i might just start the
03:55 presentation
03:56 as such
04:05 okay so uh we're on slide number one

04:08 here now so
04:09 the first thing i want to make people
04:11 aware of and this
04:12 just comes out of necessity a lot of the
04:14 time we get
04:15 interactions with the food industry
04:17 people say i've seen this product and i
04:19 want to sell it i want to buy it and
04:21 sell it
04:21 onto my own brand or whatever well in
04:23 Ireland if you're a food business you
04:25 have to be registered with the
04:26 environmental health service
04:28 of the HSE that's a first a prerequisite
04:30 you can't
04:31 it can't be a food business otherwise uh
04:34 in Ireland also and i think this also
04:36 goes for
04:36 many member states if not all of them
04:39 supplements
04:40 must be notified to the food safety
04:42 authority before they're placed on the
04:43 market
04:44 now it's important to remember this is
04:46 not an authorisation
04:47 this is a notification as such and when
04:49 we get those notifications in
04:51 and we do get somewhere between two and
04:53 four thousand a year
04:54 we do check the labels we check that
04:56 they're not novel foods etc etc
04:58 so there is a bit of work
04:59 we do have an online system if you go to
05:01 the FSAI website you'll see an online
05:03 system where you can
05:04 notify your your supplements and
05:07 something which i'll touch on
05:09 again a few times novel foods must be
05:11 authorised before being placed on the EU
05:13 market
05:14 and we it's come to our attention on
05:17 more than one occasion that people are
05:19 putting foods on the market
05:20 especially in the CBD area that
05:23 shouldn't be on the market because their
05:24 novel foods
05:25 but i'll touch on that in more detail
05:27 later
05:28 you also need to be very wary of what
05:30 you put on
05:32 in terms of nutrition or health claims
05:33 there is specific legislation on this
05:36 and again you can't make claims in terms
05:39 of nutrition or health

05:40 without them being authorised at the EU
05:42 level this can make life awkward for
05:44 companies who are not aware of it but uh
05:46 this this is a good heads up now the
05:49 next two lines are a bit of laziness in
05:51 my part but
05:52 it gets the message across a food is not
05:54 a medicine and a medicine is not a food
05:56 so if it's a food in Ireland the food
05:58 safety authority
05:59 with our official agencies in the HSE
06:01 and others
06:03 will be looking after and controlling it
06:05 if it's a medicine
06:07 our colleagues in the medicine side the
06:08 health products regulatory authority
06:10 will be looking after it
06:12 uh you're never yet a food will never be
06:14 a medicine and a medicine will never be
06:16 a food
06:16 so we sit with the HPRA on a regular
06:20 basis so we
06:21 are in contact very regularly especially
06:23 in the area of supplements
06:25 where either claims are made or a
06:27 supplement is on the market that has
06:28 medicinal
06:29 characteristics and if it's a medicine
06:31 then the HPRA look after
06:33 if it's a food FSAI looks after it and
06:36 one final point uh and this might look
06:38 a bit facetious but it's a fact the UK
06:42 has and probably will deviate somewhat
06:44 from EU
06:45 food law as time goes on the UK is now
06:48 no longer a member of the EU
06:50 they are our nearest neighbour and
06:51 therefore we have to be cognisant of
06:53 what's going on in that market
06:55 all the while knowing that as an EU
06:58 member we have to implement
6:59 and enforce EU law and there will be and
07:02 there are already
07:03 some deviations if you want to find out
07:07 more about CBD and CBD products in
07:10 Ireland we have
07:12 an FAQ frequently asked questions on our
07:14 website
07:15 we haven't updated this in a while
07:17 because we haven't seen any nature but
07:19 uh if there are
07:20 questions that we feel are not addressed
07:22 and if anybody
07:23 in this audience wants to ask those

07:25 questions then we can always
07:27 update that
07:32 okay so um i'm not an expert on the
07:35 cannabis plant kind of a sativa there
07:37 are other
07:38 uh varieties cannabis indica etc but i
07:40 think for the most part
07:42 when we talk about hemp and products
07:44 it's cannabis sativa
07:45 uh so a few basic facts and and most of
07:48 you in the industry or
07:50 i suppose in the CBD sphere will know
07:52 this already
07:53 there's more than a hundred cannabinoids
07:55 that have been identified
07:56 the two major ones are THC or
07:59 tetrahydrocannabinol
08:01 and CBD but you know there's a hundred
08:03 plus more
08:04 and i think the research is ongoing
08:06 fairly
08:07 vigorously into these because they may
08:09 have properties that may be useful
08:11 in some form or other THC is
08:14 already well known it's a psychotropic
08:17 psychoactive as well i'm not
08:18 pretty sure are those terms
08:20 interchangeable as such but uh
08:22 psychotropic means it's mind altering so
08:25 uh if you are into recreational cannabis
08:27 this is the actual
08:29 component in the cannabis plant that
08:30 gives you the high
08:32 cannabidiol is one of the many other
08:34 cannabinoids in there and
08:36 while it is psychoactive in other words
08:38 it does have a receptor in the brain
08:40 and apparently it does have certain uh
08:42 characteristics that make it interact
08:44 with the brain
08:45 it's not psychotropic so it's not um
08:47 illegal as such
08:48 THC is a controlled substance in Ireland
08:52 and to be in possession or in control of
08:54 it uh one has to have a ministerial
08:55 license
08:56 i'll explain those later on something
08:59 that is always coming back to us uh
09:02 despite how many times we have to
09:04 as well as reiterate it the point two
09:06 percent tht
09:08 tolerance uh tolerance which applies to
09:10 the plants for
09:11 for cultivation and for import does not

09:14 apply to food
09:15 uh i'll mention that again lately but
09:17 this information is put out there
09:18 whether
09:19 by accident or mischievously i'm not
09:21 really sure which but
09:23 to be sure that as far as we're aware
09:25 there is nothing in food law that allows
09:26 for a tolerance of THC so the point two
09:29 percent
09:30 which is often quoted uh does not apply
09:32 to food
09:33 and something that i'm sure some of you
09:35 know already but cannabinoids may be
09:37 found in other plants
09:38 uh and i suppose maybe down the road it
09:40 might be a way of
09:42 avoiding the uh the issues that surround
09:44 cannabis and THC etc
09:46 we're also aware of synthetic
09:48 cannabinoids and for example
09:50 in the EU novel food system there are i
09:52 think three or four
09:54 synthetic CBD products um undergoing
09:57 assessment
09:58 for authorisation as novel foods
10:02 so just to give a bit of background on
10:04 the hemp
10:05 food products in the Irish market um
10:08 to be honest i've been dealing with
10:10 novel foods for 21 years now and
10:13 hemp and CBD was not an issue until
10:16 probably 2016 when we initially started
10:19 seeing interest
10:21 uh it has been discussed uh in food
10:24 terms among
10:25 EU member states and the commission
10:27 since about 2016
10:28 and for a number of years it was being
10:31 discussed
10:32 by a few member states and we didn't
10:34 really know what the issue was because
10:35 we didn't realise that the product was
10:37 going to become so popular
10:40 it probably does coincide with medicinal
10:42 interest
10:43 and that's fine but uh medicine is not a
10:46 food as such so
10:47 we have to keep those separate in around
10:51 2016 and 2017 we didn't notice
10:54 um complaints from industry
10:57 about industry and that was uh it's not
11:00 new as such
11:01 uh but we noticed the volume of
11:03 complaints uh
11:04 meant that there was something fishy
11:06 about all this now it is
11:08 a lucrative business uh these products
11:10 are not cheap um
11:11 but we had industry coming in to
11:13 complain about their competitors for
11:15 various reasons
11:17 uh there was some complaints by
11:18 consumers but not that many um to be
11:20 honest it was mainly uh industry
11:22 complaining about
11:23 competitors there was also some
11:25 international reports about
11:27 hemp products not containing the
11:28 declared amount of THC
11:30 or containing too much THC uh and if i
11:33 remember rightly one
11:34 program was by the bbc uh trust me i'm a
11:37 doctor of the name but if you
11:39 if you search on youtube i think you'll
11:41 probably still find that
11:43 so for for a number of years we knew
11:45 there was an issue with the market
11:47 which was growing rapidly we knew but we
11:50 couldn't really do a whole lot about it
11:51 because we didn't have an accredited lab
11:53 and our colleagues in the public and the
11:55 slav in dublin
11:56 which i'll shorten to depot they got
12:00 accreditation in august 2019 since that
12:03 they've done several
12:04 proficiency tests and a report was
12:08 published just last week of a ring trial
12:10 in which they participated so as far as
12:12 we're concerned
12:13 uh the public on this lab in dublin is
12:15 accredited and also has
12:16 successfully um completed proficiency
12:20 tests and ring trials so
12:22 the reason i highlight this is because a
12:24 lot of the time when we
12:25 get a new supplement that's been
12:27 notified and it's a CBD product
12:28 and we ask for a lab search just to show
12:32 that there's no THC
12:33 and that there's the right amount of CBD
12:37 more often than not get uh lab starts
12:40 from unaccredited labs and this is a
12:41 complex test
12:43 uh and if you don't have a assert from
12:46 an accredited lab then i'm afraid
12:47 it's not gonna be of much use so in 2019
12:52 once the dublin public analyst lab was

12:54 accredited we decided to do a survey of
12:56 the Irish market
12:57 more or less to confirm what we already
12:59 knew that it had got some way out of
13:01 control
13:02 uh products were being put on the market
13:04 without uh authorisation as such
13:06 uh and in some cases as we found out uh
13:09 some of them were dangerous
13:11 we published the results of that survey
13:13 last year
13:14 2020 early in the year just before
13:16 Covid hit
13:18 and these are the the bones of the
13:20 results so most of their products were
13:22 found to contain THC at some level
13:25 but almost half of them contained a
13:27 certain level of THC that have taken
13:29 at the maximum permitted dose would
13:32 exceed the acute reference dose
13:34 of one microgram per kilogram body
13:35 weight now short of going out and
13:37 weighing everybody
13:38 individually we put a level of 100
13:41 kilogram for a person as a standard
13:43 this is a generous level if you do
13:45 toxicology studies or anything like that
13:47 you pick a standard
13:48 i think of 70 kilos but we wanted to
13:50 make sure we avoided any arguments that
13:52 uh we were a bit too conservative
13:54 so 40 of those products were delivering
13:57 or could deliver
13:58 an amount of THC that according to the
14:01 European food safety authority
14:03 uh the safety could not be guaranteed
14:04 those products were removed from the
14:06 market
14:06 uh immediately uh and of all the powers
14:09 that the FSAI has
14:11 if we identify a safety issue we can act
14:14 pretty much immediately and then answer
14:16 questions later
14:18 34 of the samples were considered novel
14:21 foods i would
14:22 give more detail about novel foods and
14:24 what they are but basically those
14:25 products should not have been on the
14:27 market
14:28 um there has been considerable
14:29 discussion at EU level about what is a
14:31 novel food and what is not a novel food
14:33 in these terms so that argument is well
14:36 and truly

14:37 worn out at the stage uh another
14:39 surprising issue but i suppose
14:41 considering the complaints we were
14:42 getting initially
14:44 41 of the products contain CBD levels
14:47 which differ from the declared content
14:49 by greater than 50
14:51 now when you look at the results i'll
14:52 show you later the word fraud will
14:54 probably come into your mind
14:57 39 of the food supplements had not been
14:59 notified to FSAI so again
15:01 they shouldn't have been on the market
15:02 at all and 50
15:04 of the products we've we found were
15:06 making fairly spurious and in some cases
15:08 ridiculous strains lactose free
15:09 gluten-free
15:10 non-gmo THC free and and more because
15:13 they're
15:14 they're as well a lot of these products
15:16 are aimed at people with certain issues
15:18 whether they be psychological or
15:20 physical issues and they're trying to
15:22 blossom up these are marketing gimmicks
15:25 and we certainly don't tolerate that
15:26 kind of stuff there is legislation
15:29 out there to prohibit the use of
15:31 misleading claims
15:33 so putting these results in a more
15:35 succinct format and i suppose in a
15:37 context
15:38 i'll take the THC results first uh these
15:41 are some of the products that were taken
15:42 off the market
15:43 and on the left-hand column you'll see
15:45 the amount of THC
15:47 in milligrams of intake per day that
15:49 were over the
15:50 0.1 milli milligram threshold which we
15:54 set for ourselves with 100 kilo person
15:56 and as you can see the most of them are
15:58 well and well in excess of the 0.1
16:00 you know like one milligram there are
16:03 two there in yellow
16:04 which i will discuss in the next slide
16:07 and thereafter
16:08 but if you look over at the columns uh
16:10 all of these products and i think of all
16:12 the 38 products we surveyed
16:14 none of them had no issues there was
16:16 either they weren't notified of
16:18 supplements
16:18 they were novel foods or they had

16:20 spurious claims or the level of CBD and
16:23 there
16:24 was problematic that it was inaccurate
16:28 in terms of those two products that had
16:30 the almost 2.5 milligrams
16:33 of THC per day this is an extract from a
16:36 publication by the German
16:38 federal institute for risk assessment in
16:40 2008 now
16:42 for those of you who don't know the bfr
16:44 they're a very highly
16:45 respected reputable risk assessment body
16:48 in Germany and when they say something
16:50 is is dangerous then you can take it
16:52 that it is dangerous
16:54 so when they were looking at the
16:56 exposure rates uh to THC
16:58 in Germany uh they reckon that at
17:01 greater than 2.5 milligrams per person
17:04 per day
17:05 the occurrence of pharmacological
17:06 pharmacological effects must be expected
17:09 as psychomotor effects may also be
17:11 expected in this dose range consumption
17:13 of hemp containing foods may also result
17:16 in restrictions in a person's ability to
17:18 drive or operate a dangerous piece of
17:21 machinery
17:22 what this says to anybody who really
17:24 reads this is that the products that we
17:26 highlighted in the last slide that were
17:27 up
17:27 at around 2.5 milligrams uh people were
17:30 taking that product should not be
17:32 driving should not be operating
17:33 machinery
17:34 uh and even more so as i'll explain
17:36 later on
17:38 just to skip quickly through to the
17:40 national legislation in Ireland we have
17:42 the misuse of drugs act
17:44 of 1970s as amended
17:47 uh as per that act THC is a controlled
17:50 substance there is no threshold
17:52 and therefore uh to have control or
17:54 possession of that substance
17:56 uh is a breach of of that act
17:59 unless you have a ministerial license
18:02 it's not part of food law and therefore
18:03 it's not within the FSAI
18:05 arena to act on the basis of that uh now
18:08 what it does mean is that if you take a
18:09 product with THC energy even at low
18:11 levels you are

18:12 putting yourself in risk at risk of
18:15 being uh
18:15 failing a drug test at a road safety uh
18:18 checkpoint
18:19 uh professionals like airline pilot
18:21 pilots uh
18:22 bus drivers etc could be tested positive
18:26 and therefore risk their professional
18:27 careers and of course if you're an elite
18:30 or a professional athlete you also put
18:31 yourself in danger of failing a drug
18:34 test
18:35 and if you don't believe that from us
18:37 you can look at the sport Ireland
18:39 website and at the very bottom there it
18:42 does explain that CBD
18:44 products pose a risk to athletes and
18:46 athletes use
18:47 CBD products at their own risk now it
18:50 might not surprise you just to note that
18:51 there are certain
18:53 athletes shall we say in professional
18:54 circles that are promoting these
18:56 products
18:57 even though anyone who takes it and is
18:59 in the professional
19:00 level does risk being banned for certain
19:03 periods of time or whatever
19:05 that's not a food safety issue that's a
19:07 different issue but it's worth
19:08 highlighting i think
19:11 now moving on to the CBD aspects of the
19:13 survey we found
19:15 a lot of problems again and they're all
19:16 put in context here
19:18 i suppose the big thing uh that did
19:20 surprise us that when we looked
19:22 using a credited lab and an accredited
19:24 method we found that
19:26 products ranged in levels of CBD
19:29 compared to the declared amount
19:31 all the ways from zero up to 180 percent
19:35 now there is an old saying in Ireland
19:37 that if there's good and a little
19:38 there's good in the lush well
19:39 at the moment there is no safe upper
19:41 limit established for CBD
19:44 uh and so we we weren't able to take any
19:46 action on the basis of
19:47 you know over uh excessive amounts of
19:50 CBD that might
19:52 change in the future when FSAI do come up
19:54 with an upper safe level limit but at
19:56 the moment we don't have dash

19:58 what does stand out here is that there
19:59 are products on the market that have
20:00 pretty much
20:01 zero or very low levels of CBD in them
20:04 even though they declare
20:05 certain milligrams um now
20:08 as well as that if you look across the
20:10 the columns you'll see that
20:11 all these products have different issues
20:13 as well they're novel foods
20:15 uh they're not notified as supplements
20:17 and they have all these spurious claims
20:19 on there so i'm going to talk about
20:22 novel foods because i know
20:23 even though we've been at it for a long
20:25 time and it's it's second
20:27 nature to us a lot of people won't be
20:29 aware of what a novel food is
20:31 another food is actually you'll find it
20:33 in canada australia new zealand
20:34 and europe as well so basically a food
20:37 or a food ingredient
20:38 that has not been used for human
20:40 consumption to a significant degree in
20:42 the eu prior to may 15
20:44 1997 is another food and it must be
20:47 authorized before being placed on the
20:49 market
20:50 we have another food working group uh in
20:53 brussels
20:54 and ourselves myself christina and
20:57 colleagues from all over
20:59 the other member states sit there and we
21:00 trash out
21:02 details like is this a novel food is
21:04 that a novel food
21:05 and we more or less all the time agree
21:07 not all the time but most of the time
21:09 agree
21:09 not all the time now the one thing i
21:12 have in big
21:12 red letters here as you can see a novel
21:15 food cannot be placed on the eu market
21:17 until authorized and present in the
21:19 union list of novel foods
21:21 the reason i put that in such bold
21:24 letters here is because
21:26 i think people in Ireland and probably
21:28 other member states as well are being
21:29 told
21:30 by suppliers of these products i have
21:32 another food application in
21:34 and therefore i'm allowed to put that on
21:35 the market if you read article 6.2 of

21:38 the novel food regulation
21:40 it will tell you that you cannot place a
21:41 novel food on the market
21:43 unless it's authorized and in the union
21:45 list so
21:46 we're fairly sure that people are being
21:48 cunned and and duped
21:50 by suppliers who just want to make money
21:51 and they're we're coming along then as a
21:54 regulatory authority and taking these
21:56 products off the market and the people
21:57 who
21:58 buy them are important are at a loss
22:00 financial loss
22:02 if you want to know all the details
22:03 about the European
22:05 novel food regulation the commission
22:07 website at the bottom is a very useful
22:09 source and i think there's nothing in
22:11 there that can't be answered on that
22:13 website
22:14 i'm not dealing with THC in terms of
22:16 novel food because THC is not a food
22:19 as i'll explain later as part of the
22:22 novel food
22:23 uh way back in the early 2000s
22:26 member states on the commission set up
22:27 what we call the novel food catalog
22:29 and the reason for this was we were
22:31 getting lots of questions
22:32 and then after a year or two the same
22:34 questions would come back and
22:36 of course people change in the
22:37 commission and people change in the
22:39 member states and in some cases uh
22:41 different answers were being given out
22:43 for the same products
22:44 so we decided to set up the novel food
22:46 catalogue it's a non-binding
22:48 non-legal i suppose just a source of
22:52 information on the discussions a record
22:54 of the discussions we've had at that
22:56 level
22:57 if something is deemed a novel food in
22:58 here it can be reversed
23:00 to a nut novel food if somebody can come
23:02 up with evidence of a history
23:03 consumption
23:04 before 1997. now the unfortunate thing
23:07 is 1997 is 24 years ago at this stage
23:10 last century so
23:11 it's becoming more difficult uh the
23:13 further away we get from it but still
23:15 that's the

23:16 the policy makers decision 1997 is
23:19 the actual time from which this
23:21 regulation
23:23 takes effect now when it comes to
23:25 cannabis
23:26 uh you know i've looked through the
23:27 records and there was a mention in 2002
23:30 but in 2009 we did discuss it
23:33 and we were able to decide at that stage
23:36 member states and the commission
23:38 that cannabis is probably not our novel
23:40 food and that's written there in
23:41 the red lines without prejudice to other
23:44 legal requirements concerning the
23:45 consumption of hemp
23:47 cannabis sativa and hemp products
23:50 regulation
23:51 25897 which was the original novel food
23:53 regulation
23:54 is not applicable to most food and food
23:56 ingredients from this plant
23:58 now at the moment that is a different
24:02 interpretation to what many other member
24:04 states would think so we in Ireland
24:06 believe that hemp and hemp products that
24:09 are used as foods are not novel foods
24:11 unless you want to start refining and
24:14 concentrating and purifying
24:16 other member states don't believe that
24:18 so i think all other
24:19 most other member states consider any
24:22 product from the cannabis plant
24:24 as either a medicine a narcotic or a
24:27 novel food
24:28 as far as i'm aware in Ireland is
24:29 probably one of the few
24:31 member states that allow some products
24:32 on the market but it's not all products
24:34 and i
24:35 want to explain the novel food catalog
24:39 now
24:39 and the website forex below has been
24:41 refined some watch
24:42 and the only part of the cannabis plant
24:45 where there's unanimous
24:46 agreement that is not a novel food is
24:48 the hemp seed
24:49 hemp seed oil hemp seed flour etc now if
24:53 you start
24:54 processing those products and refining
24:56 them
24:57 and extracting and whatnot other
24:59 components then you can
25:00 make yourself you can make that product

25:02 a double food
25:04 i have highlighted the point two percent
25:06 there again um
25:07 we removed that from our faq because
25:10 people kept
25:11 misinterpreting it as meaning it's
25:13 applicable to food it's not applicable
25:15 to food even though it's on the
25:17 it's very well spilled out there now in
25:19 the novel food catalog
25:20 it applies only to the cultivation and
25:22 the import of plants
25:25 when you grow the cannabinoids on the
25:27 novel food catalog it's fairly clear
25:29 what i just mentioned that
25:30 if you have an extract of cannabis the
25:33 derived products containing
25:35 cannabinoids are considered novel foods
25:37 because the history of consumption has
25:39 not been demonstrated now we've had two
25:41 working groups at least
25:43 where we had the industry present and
25:44 they were asked to present their
25:46 evidence
25:47 for a history consumption they failed to
25:49 convince any member states or the
25:50 commission
25:51 and so novel foods hemp products that
25:54 have been purified concentrated etc are
25:57 novel foods and until evidence to the
25:59 contrary
26:00 uh comes to us and is evaluated
26:03 and that's the way it stands so this
26:06 this novel foods status applies to the
26:08 extracts themselves
26:10 purified CBD in other words and any
26:13 products to which they're added so
26:14 we're aware of products like hemp seed
26:16 oil
26:18 that obviously have CBD concentrated CBD
26:21 added to it that becomes a novel food
26:23 hemp seed oil obviously in itself is not
26:25 another food
26:27 so when you add concentrated CBD or you
26:30 know another food as such
26:31 it too becomes another food uh also in
26:34 here it explains that other plants
26:36 do actually contain cannabinoids so if
26:38 and when
26:39 the industry decides to go that route
26:42 they will also be considered novel foods
26:43 and
26:43 have to be authorised again it qualifies
26:46 in here that's synthetically obtained

26:48 cannabinoids are novel
26:50 and require authorisation as well
26:54 so i'm going to go a bit outside now
26:57 again um
26:58 and go to general food well um
27:01 in general food law article 2 defines
27:03 food which
27:04 most in most European food law uh there
27:06 is definitions
27:07 uh provided just to make sure everyone
27:10 knows what they're talking about
27:11 but in general food law they also talk
27:13 about what is not a food or what is not
27:15 included
27:17 under the definition of a food this
27:19 includes animal feed
27:20 live animals plants prior to harvesting
27:23 medicinal products
27:24 cosmetics tobacco and pointing down there
27:27 that have highlighted
27:28 narcotic or psychotropic substances
27:30 within the meaning of
27:31 the united nations single convention on
27:33 narcotic drugs
27:35 1961 and the u.n convention on
27:38 psychotropic substances
27:39 1971. so just to clear up matters fairly
27:42 quickly
27:43 THC is listed in the
27:46 1971 u.n convention on psychotropic
27:49 substances therefore THC
27:51 is not a food it can't be considered a
27:52 food now initially when i
27:55 read that i was of the opinion it can't
27:56 be in food but of course
27:58 it's a contaminant and there are many
28:00 contaminants in food so it's not
28:01 specifically
28:02 prohibited in food it's just that it's a
28:04 contaminant in this case there is no
28:06 upper
28:06 limit allowed so it's just one of these
28:09 anomalies but i think there is
28:11 there are moves at EU level to address
28:14 that
28:15 what i'm going to do next is talk about
28:17 what it means for cannabis
28:19 in terms of the 1961 u.n convention
28:23 and in that convention it says cannabis
28:26 means the flowering are flowering cups of
28:28 the cannabis plant
28:29 and there's other texts in there as well
28:32 what this means and i can
28:33 apply this directly to some products we

28:35 see on the market
28:36 CBDt for example in some cases
28:40 these whole flowers are buds of the hemp
28:43 plant
28:43 cannabis plant because of the urine
28:46 convention because of general food law
28:48 these are illegal because they're
28:49 narcotic it doesn't matter if there's
28:51 little or no CBD or THC in there 28:54 it's a fairly
black and white
28:55 interpretation of what is food law
28:58 and i think this hopefully will clear up
29:00 that
29:01 uh aspect of it because there are some
29:02 of these products being sold as food
29:04 when that's not
29:05 uh legally possible
29:08 now there was a European court of
29:10 justice ruling
29:12 late last year in 2020 and it did
29:14 clarify a number of matters
29:16 it was a ruling on a vaping product that
29:19 was sold in one member state
29:21 and prohibited in another member states
29:24 so it had no impact on food or such
29:27 there's no mention of food in the actual
29:29 ruling
29:30 but what it did clarify and it helped us
29:32 in the Irish situation
29:33 the Irish context it says in there
29:36 just because it comes from the flower
29:39 CBD is not
29:40 a narcotic growth so in other words if
29:42 one extracts the oil from the whole
29:44 plant including the flower
29:47 one could interpret that use of the
29:49 flower is the narcotic drug and
29:50 therefore shouldn't be allowed
29:52 you get the core court rule that just
29:53 because it's from the flower
29:55 or includes the flower um it doesn't
29:58 make it a drug so
29:59 that that cleared it up for us really
30:01 and hopefully uh for other people as
30:03 well
30:04 the ruling also made a few other
30:06 interesting statements
30:07 contrary to the arguments sometimes put
30:10 forward by establishments offering
30:12 cannabiod
30:13 based products for sale the authorised
30:16 delta 9 THC content of 0.2
30:19 applies to the cannabis plant and not to
30:22 the finished product

30:23 resulting from it now we can show you
30:26 you know
30:26 lots of bits of legislation etc uh where
30:28 we can
30:29 demonstrate that the point two percent
30:31 only applies to the plant
30:33 this is a ruling from the European court
30:35 of justice and it puts it in fairly
30:36 black and white
30:37 the point two percent uh THC only
30:40 applies to
30:41 it does not apply to food it only
30:43 applies to cultivation and
30:44 import another interesting point they
30:47 clarify it should be noted that
30:48 CBD is found mainly in the leaves and
30:51 flowers of the plant
30:52 and not in the fibres and seeds now i
30:55 can show you many
30:56 peer-reviewed scientific publications
30:58 that will tell you that
31:00 hemp seeds do not produce or contain
31:02 cannabinoids including CBD
31:04 rtac it can be certain levels of those
31:07 cannabinoids
31:08 in seeds and seed derived products
31:10 purely from contamination
31:12 by surrounding plant material but at the
31:14 end of the day hemp seed
31:15 and hemp seed oil can only contain low
31:17 levels of CBD
31:19 and it's probably from contamination
31:21 from surrounding plant material
31:24 this is a problem because we see many
31:26 products on the market
31:28 made from hemp seed hemp seed oil for
31:30 example and they have glorious amounts
31:32 of CBD in there
31:34 that's a problem somewhere along the
31:35 line CBD is being added in there
31:38 probably the concentration and if that's
31:40 the case then that product is a novel
31:41 food
31:42 and should be authorised so just to
31:45 finish i think it would be
31:46 remiss of me to um not mention
31:49 the problem that's come to light in
31:51 recent months and to be honest this is
31:53 not
31:53 really an issue for the audience here
31:56 because i think we're dealing with
31:57 people who are not
31:58 drug traffickers or not drug dealers but
32:01 i thought it was worthwhile mentioning

32:02 because uh it is an issue in Ireland
32:05 since as well as far as where we're
32:06 early this year but it may have been
32:08 going on before this
32:10 and this is the problem of uh drug
32:12 trafficking basically through the the
32:14 the avenue of sweets and children's
32:16 products
32:17 and there have been a number of
32:18 casualties in Ireland thankfully as yet
32:21 nobody has died
32:22 but uh any chance we guess would you
32:24 urge people to be aware
32:26 if you have younger siblings if you have
32:28 nephews nieces sons or daughters
32:30 apparently these are rampant in schools
32:32 and of course it's all
32:34 fun and games until somebody gets hurt
32:36 or dies
32:37 there's serious amounts of THC in these
32:39 products
32:40 and we're not yet sure how they're being
32:43 produced or where they're coming from
32:45 uh but it's something we're alerting
32:46 people as often as we can
32:48 so um it also doesn't help the hemp
32:50 industry in Ireland or other places
32:52 because
32:52 already hemp and cannabis products which
32:56 are used as foods have that association
32:58 with uh i suppose
32:59 recreational marijuana and stuff and
33:02 it's not helpful and this
33:03 doesn't actually help that case so i
33:05 think everyone will
33:06 agree that we need to get that
33:09 problem sorted for all our benefits at
33:12 the moment
33:13 we are working on that problem but also
33:14 with the CBD uh
33:16 issue and we have an issue in the
33:17 country uh with our colleagues in the
33:20 HSE the environmental health officers
33:22 uh the HPRA which is the the medicines
33:24 regulatory authority
33:26 uh the state laboratory are now on board
33:29 in terms of testing as
33:30 are we are also consulting with forensic
33:33 science Ireland
33:34 and then of course we do work with our
33:36 colleagues in the police force in
33:37 Germany and customs as well
33:39 because a lot of the products that are
33:41 on the market are coming in through our

33:42 ports
33:43 and um you know all working together
33:47 we will be able to start this problem
33:48 and one final thing i suppose
33:50 people there have been complaints that
33:53 uh
33:53 in in one respect the FSAI don't take uh
33:56 action on a product where they find THC
33:59 unless there's a safety issue and that's
34:01 that's how we operate
34:02 but the guardi can go in and take a
34:04 product off the shelf and if there's any
34:06 level
34:06 any trace of THC in there they can
34:09 prosecute under the misuse of project
34:11 so that's just a fact of life and the
34:13 legislation will have to change somehow
34:15 if that's going to change but um you
34:17 know it's
34:18 a concern and a complaint we hear a lot
34:20 but these
34:21 are things outside of our arena at the
34:23 moment
34:24 so with that i think i've gone over my
34:27 time a little and
34:28 back to you emma and we'll try and
34:30 answer any questions
34:32 you have
34:35 great thanks very much part for a super
34:37 talk on the legal position of
34:39 cannabis-based foods
34:40 lots of really important information in
34:42 there so we've some really good
34:44 questions coming in here now and i'll
34:46 pick out a few we've actually lots of
34:47 questions
34:48 if we don't get to answer your question
34:50 please email info
34:51 FSAI dot ie and we'll get back to you so
34:54 the first one pat and for testing hemp
34:58 based products what are the licenses
35:00 required for food testing labs
35:05 we don't talk in terms of licensing
35:07 anybody can set up a lab as far as i'm
35:08 aware but
35:10 if we're seeing new products coming on
35:11 the market
35:13 and because of our experience with some
35:15 labs that are not accredited
35:16 uh whose results vary considerably with
35:19 the results we get from the accredited
35:21 public analyst lab in dublin and so and
35:24 hopefully the state lab as well
35:26 uh if you're to have any chance of you

35:28 know validating your product
35:30 uh based on results the results need to
35:32 come from an accredited lab
35:35 okay great thanks pat and on to the next
35:39 question
35:40 um adults can easily get cannabis
35:42 edibles in Ireland
35:43 would it not be in the public's interest
35:45 for the FSAI to call for the regulation
35:47 of these products to better protect
35:48 consumers
35:49 and prevent kids accessing them so
35:51 easily
35:53 uh the cannabis edibles i'll take it
35:55 they mean the THC sweets
35:57 that's already regulated these products
35:59 are illegal uh the amount of THC in
36:01 there
36:02 is not our business except for the fact
36:04 that they're in foods
36:05 and that's where we become involved i
36:07 mean the guardi and the customs
36:09 are on a daily workload
36:12 with drugs all around the place this is
36:13 just another avenue of drug trafficking
36:15 and drug dealing and the only reason
36:17 we're involved is because
36:18 they're coming in through food so
36:20 they're illegal already we don't need
36:21 any more legislation um
36:23 we're concerned because of the safety
36:24 aspects especially with unwitting
36:26 children who
36:27 just like sweets so it's already
36:30 regulated from
36:32 okay thanks pat on to the third question
36:35 does the FSAI expect companies to comply
36:38 with any THC maximum
36:40 limit at all or would the 0.2 plant
36:42 level be the only thing
36:44 checked again i
36:47 i mustn't have made it clear enough that
36:49 0.2 has nothing to do with food
36:51 there is no tolerance level in European
36:53 or Irish food law
36:54 for THC it's a contaminant and as yet
36:57 there is no
36:58 established upper limit so what we do as
37:01 a food safety authority we look at the
37:02 safety aspects
37:04 we we use the European food safety
37:06 authority
37:07 acute reference dose and we calculate
37:09 that

37:10 if you're ingesting or if you're allowed
37:13 with the maximum permitted dose if
37:14 you're going to exceed that
37:16 then we perceive that as a safety threat
37:17 and we remove those products from the
37:19 market
37:19 so the 0.2 doesn't work in any facet of
37:23 food law
37:25 okay thanks for clarifying that pat and
37:27 on to the next one can you advise how
37:29 the FSAI is going to address the number
37:32 of unregistered products
37:34 60 as per your presentation on Irish
37:36 shell
37:37 yeah and there is there is a serious
37:39 problem uh on the Irish market at the
37:41 moment which we are
37:42 working behind the scenes favoritely to
37:44 get uh all our ducks in a row as such
37:47 uh unfortunately when we publish the
37:49 results of that report in 2020
7:51 Covid came along uh it's sidelined us
37:54 out of our offices and we're still
37:55 out of there as you can see it sidelined
37:58 a lot of the official agencies
38:00 including the HSE who would be the
38:01 front line officers
38:03 now again with the cyber attack on the
38:05 HSE
38:06 uh in recent times that really hasn't
38:08 helped us either
38:09 uh and some people consider that's just
38:11 an excuse but that's just the facts in
38:13 life
38:13 things are more difficult when you're
38:15 working remotely but having said that
38:18 we have been working behind the scenes
38:20 we have identified
38:21 a number of products and we're talking
38:23 more than 30 that shouldn't be on the
38:25 Irish market they're coming from outside
38:26 of Ireland
38:27 and these are not the THC sweets now
38:29 these are CBD products
38:30 that are unauthorised novel foods we've
38:34 had a few discussions with some in the
38:35 industry
38:36 uh we didn't get a very positive
38:37 response pretty much we were told
38:40 there's
38:40 money to be made here and we're not uh
38:42 we're not complying because others will
38:44 make money while we're not on the market
38:46 that's not acceptable in our books so

38:48 we're working with the
38:49 HSE at the moment we have a list put
38:52 together
38:52 and we're working on the the legalities
38:55 of how we shall proceed so
38:57 we're also working with colleagues at
39:00 the border posts
39:01 so that any products coming in that
39:02 shouldn't be on the market will be
39:03 stopped
39:04 there as well so we are working and
39:06 hopefully in the coming months
39:08 we'll see some of these products being
39:09 removed
39:12 that's great thanks for explaining that
39:13 pat and the next one
39:16 could you please give more details into
39:18 what ingredient from hemp the FSAI
39:20 doesn't consider a novel food
39:24 well i suppose as the novel food
39:26 catalog from 2009 states
39:28 any food or ingredient from the hemp
39:31 plant
39:32 is probably not novel now hemp can only
39:35 be cultivated
39:36 if it has a certain level of THC 0.2
39:39 so we don't believe that any of the
39:41 products from a hemp plant that's
39:43 legally cultivated will
39:45 pose a safety threat in terms of THC
39:48 the problem arises when you start trying
39:51 to extract
39:52 desirable components like CBD purifying
39:55 concentrating etc etc so if you just
39:58 for example use cold press and squeeze
40:00 the oil out of the plant material
40:02 whether it's the
40:02 seeds or the the whole plant we don't
40:05 consider that novel
40:06 other member states do and we
40:09 acknowledge that
40:10 and we it's their prerogative uh we
40:12 don't
40:14 okay thanks for going into detail on
40:16 that pot and we just have time for a
40:18 couple more questions
40:20 um before we run over so and i'll just
40:23 do two more
40:24 so the next one cannabis was used for
40:26 thousands of years
40:27 by humans and only because of
40:29 prohibition is the novel food applicable
40:31 cannabis was used in the EU illegally
40:33 long before in 1997

40:35 so should it not qualify for the
40:36 exemption
40:39 i suppose the only answer i can give to
40:41 that is i sat in two meetings of the
40:43 novel food working group in brussels all
40:46 twenty
40:47 eight member states were there at this
40:49 age the industry was represented the
40:52 European industry the UK industry
40:54 uh and they failed on two occasions to
40:56 convince
40:57 the commission and the member states
40:58 that there was a history of
41:00 food consumption of hemp products in the
41:03 European union before 97 so
41:06 i think that argument has been trashed
41:08 out and
41:09 if somebody has more evidence then
41:11 that's fine they can come forward with
41:12 it and it might change the whole lot
41:14 the real issue for us is the
41:16 concentrates are the
41:17 derived products we're not too
41:19 interested in the actual whole plant
41:21 extracts or the plant itself
41:23 other member states have issues there so
41:25 i suppose you would have to
41:26 address that question to those member
41:28 states who prohibit any form of the hemp
41:30 plant as a food in their jurisdictions
41:34 great thanks pat and finally on to the
41:37 last question
41:38 so CBDt is not legal
41:42 i suppose that might be a little bit of
41:44 a stretch CBDt
41:45 that includes only the flowers or the
41:48 buds
41:48 is not legal because it's a narcotic i
41:51 do see
41:52 uh on a few occasions other CBD teas
41:55 that are just
41:55 leaf material now whether they contain
41:57 flowers or not
41:58 you know it really is probably too much
42:01 work to go and try and look at that but
42:03 when we see sachets or jars containing
42:05 the buds
42:06 the flowers and nothing else that's
42:09 black and white illegal as far as we're
42:11 concerned and it's not that there's a
42:12 safety issue
42:13 it's just a legal issue they're they're
42:15 defined in the
42:16 1961 u.n convention and that is linked

42:19 to general food law which defines what
42:22 is not a food