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hemp, hampered, house, brett, build, material, tribe, lime, wall, construction, questions, projects, mushrooms, presentation, grow, insulation, traditional, rts, fiber, binder



00:00

That is okay. Well,



00:02

I'll mute myself. I'm gonna make myself be later.



00:05

Thank you. Bye.



00:06

Bye.



00:10

Hi there our keys. Is is David gonna be on tonight?



00:13

It shouldn't be



00:16

Brett and Jimmy to hop on.



00:18

Okay.



02:00

We're just having some troubles over with getting Brett on so another couple minutes and we'll have them on ready to go.



02:07

Okay, excellent. If everybody could just hold tight and we appreciate your patience for



03:25

apologies, everyone, I'm back.



03:32

Thanks. Okay, we'll



03:39

just wait a couple more minutes for more, more people to hop on. And then we'll get started. Today's presentation.



03:51

Can you guys see those hempcrete blocks on the grill? There we go. Okay, sweet. Rule two is well, RTS. Awesome.



05:00

Whoa, whoa.



05:18

Oh.



05:47

Alright, I think what's bad time to get started with tonight's presentation. If everyone do me a favor, mute your mics before we start begin building. Additionally, if we can hold our questions or comments until media until the times near the end, that'd be preferable. And we'll get to all of those questions and comments and all that, at the end.



06:20

tonight's presentation is all about hempcrete, and all that the tribe is doing around and the byproducts that are coming off of our hemp farm products back in 2014, in the early part of the summer, sorry, I'm just gonna go ahead and mute that phone number. Okay, awesome. So back in 2020, we kind of came upon the decision that we wanted to be able to utilize all the pieces of our hemp crop as much as possible. So from the hemp flour to the grain that came off of it to any of the fiber, as well as to the roots as well. As, as some of you may know, hemp is, is a crop that crosses over so many different industries and so many different product types. And so we really tried to look at how we can vertically integrate, and really make more of a circular system to how we're producing hemp on the reservation. And one of the ideas that were stirred about was going into and looking at the use of hempcrete. And with hempcrete, you know, we want to if we looked at the idea of if we can put it into buildings, or if we can use it to build flowerpots, or what what's possible, you know, with our hemp crop. And from that we started conversations with a few different companies originally, who were going to help assist us, we're going to come in as as registered hempcrete construction consultants, and help us with building. And as with some things go and projects, you find that there's snags along the way, they'll sometimes we I've still found so far with most snags, there's always a an opportunity that comes out of it. And the opportunity that we found was that the snag that we hit was that they weren't no longer going to be able to help us out with our hempcrete projects that we wanted to get into. And so that stirred into us looking at getting our own certifications so that we would be certified to do construction with hempcrete. And that is when we brought in Brett doval, a the manager, one of the managers for the hemp farm team, and an all around amazing individual. And so Brett, if you'd like to introduce yourself now think it's good time.



08:52

Hi, everyone. I'm Brett. I've been working for the tribe for just about a year now. I've had some background in construction and not a whole lot of background in the farming industry. But I'm learning quickly. I'm glad to you know, be a part of everything that's going on right now. A lot of cool adventures along the way.



09:17

Absolutely.



09:19

And also my apologies for not introducing myself prior. My name is RTS venet. I am working with the tribe on a number of matters regarding agriculture, in love agricultural endeavors, I have been the consultant for them on all their hemp projects. And that was how I was brought into this project here. So I was reading one of the comments. And so I think for now I'll get into today's presentation and we can kind of walk you through all of the information about what is hempcrete and how the drivers and I got into it.



10:00

Hey, are T's before we get started, there are a couple members that's having trouble with volume. So if we can get that straightened out before we start the presentation.



10:10

Yeah, absolutely.



10:13

I think Amy, I think Amy's the one that is having trouble. In the bottom at the bottom of your screen. There should be a little mic. And then a little camera, if you could click on well, that shouldn't be it because she's muted.



10:32

She can't she's not able to hear. So it's her. It's her. It's a system that's in her phone, her

laptop, divine music.



10:43

He leaves are you helping her with with that?



10:47

I'm trying. Okay,



10:48

thank you. And if we can't get something going, guys, what we can do is grab her address, and we can we can send out you know, the presentation to her. Nobody has any troubles with that. Let's go ahead and get started. We can follow up and send her the presentation. Hopefully they'll get something going here



11:28

fairly quick. Okay.



11:33

All right. Awesome. Well, we'll move forward with the presentation. And again, for anyone else who's on the call right now. If you're wanting to watch this later on, this will be available on the members only tab on the tribes website.



12:06

Rebel tactical technical difficulties here. Awesome. All right, here we go. So as we were saying earlier, we the tribe got into hempcrete. Because we noticed that we all have a very large amount of a byproduct from our hemp flower production, which is all the stocks and all the everything that goes into it. And so we decided we wanted to look at some different avenues for how we can utilize these byproducts in a sustainable and regenerative and regenerative way. So with a cross collaboration between show j the tribe and Iowa farms, we developed and started working towards a new program where we could take this hemp and we can look at using it to build a house. And this is the house

that would be we haven't decided exactly yet as to where it will go. But we are figuring those pieces out right now. So what is hempcrete ham crate is pretty simple. It's three simple ingredients, we have lime, ham, herd, and water. And with just those three, those three things together, we get hempcrete insulation. I say him pre installation here because hempcrete is not a structural component to any house. primarily what it's used for is its high R value when you're using it in place or in lieu of traditional insulation or drywall or different types of walls. So with that, you know hampered has is is the inner kind of woody core that you will find inside of any sort of hemp stock. Traditionally when people were doing hampered or production or hemp production for this purpose, they're using the fiber type varieties which are the very very long very tall skinny, hemp plants that are usually around 10 feet tall and are almost all purely this nice woody core and on the outside we have our best fiber. With him Creek it's preferable to more have more hampered than have fiber because him herd is more more porous and so allows the lime and the water binder to go into the hampered itself and to form a more continuous union across the entire block. And Brett Feel free to add in anytime.



15:03

We'll do,



15:04

though with him, pre, we have a lot of different ways in different ways to put it into a building. So we can use it as a cast in place, which is what Brett and I are currently trained on. So that would be this top left corner picture. This is where we're actually stuffing it into a cavity, and manually molding it into whatever the wall or space will look like. The second sort of application is a sprain. Typically, you'd see this used with it having machinery called the E reasi. And this is like spray and foam insulation that you might traditionally see. But instead of spraying foam, this is all hempcrete, those changed a little bit, the type of hempcrete that we're using has to be a little bit more watery, in order for it to go through the entire machines. But it does increase our output or the speed at which we can do applications and build walls. Our third one, which is the bottom left corner, are pre engineered blocks. This is something that we are looking into, due to the ability for it to scale quite easily. And so this is basically just making molds and then putting our hempcrete inside of these molds. And then letting those kind of cure and set until the because they come very, very hard. And then using those as you would any sort of brick sort of construction. or fourth fourth application is Hempel and this is primarily more just the actual the bass fibers that I was talking about that are that make up the stock of hemp, this has also a really incredible R value, it can be used as a complete one

to one transfer from traditional insulation to just using hemp oil. Instead, the benefits to doing that is you're no longer having to use something that has caustic chemicals into it, you know that using something that's all completely 100% natural, which is what hempcrete is, is everything about it is as natural as it goes. And is a type of construction that's been utilized in the world, for hundreds and hundreds and hundreds of years, dating back to ancient China, where this was this sort of construction was originally used. With him, we have a couple different types of construction you typically see. And then it kind of laid these out here with our different framing options. So this is for what you would do using with cast in place or with the sprain. So the option A that's our single sided hempcrete wall. And as you see on the left and the right side of this picture, you have your very top it has exterior and interior. So this is us really just putting a layer of hempcrete onto one side of your framing that you would have for your house. The benefits to this is it's much easier, there's a lot less materials that are used in the construction process, were you able to use traditional siding and interior walls like dry walls. But one of the cons behind it is that it has lower R value because we're not using as much hempcrete as we would with option B. Another con is it does have a more traditional look to it. So you're still getting putting on drywall, you still probably begin to be putting on some siding. And so you don't get the kind of artistic and natural appeal that you might get with option B.



18:47

That RTS, yeah, option option A you you have a win win, it's done all your siding and everything can still be traditional, you still need to change the interior of your house. Because you only have those two by fours exposed on the outside, you do not have them exposed on the inside. So your inside would still have to be either a clay, a clay, interior design, or it would have to be a plaster still on the inside.



19:29

Right. That's all



19:32

awesome. Thank you. And then with option B, we have our double sided hempcrete walls. This has this has hempcrete on both sides, right it's double sided. And the benefits to this is we're getting a completely full thing hempcrete so we have a really, really high R value, really it's somewhere around 30 to 35 for the rvot value for a 12 inch wall. And that's does have a little bit of variance in terms of how hard you compact your wall, as well as to the material itself. And so how much of the hampered and the size of the hamper you're really

looking for hampered, which is about probably a quarter inch to an inch to live in a little bit smaller, but you don't really want any fines. So this is like a small particulates, and you want to really have as little fiber as possible. But you can always still have a little bit of each of those, without complicating things to things too much. Another pro in my eyes is that it has the really, really natural appeal to it. And it's very non traditional. You see you don't you all you see is hempcrete. And so you as Brad said, you'd be using like a clay base or a plaster base over top of your hempcrete if you would like like it's actually not a necessity when you're doing the devastating hempcrete wall to put on anything else on the outside or on the inside, is mold resistant, it's water resistant, it can wick moisture, it can help modulate temperature within your room within your house. And so there's not a lot more that goes into it. It's also more fire resistant, because we have hempcrete completely surrounding all the wood frame of the the wall or the house itself. Whereas with option A, some of the actual naming is more exposed to where fire could occur. Some of the cons with option B is that there's a lot more labor and there's a lot more materials. Because we're doing it on both sides, we need to build this almost like this false framing on the outside, that we're will actually be packing our hemp into, you can kind of see that in option, I mean in the top left hand corner, so that you can see these multiple layers, or different colorations of the hemp. And that's where they've gone from one step to the next where they're packing in more and more hemp. Another con associated with that is it's harder to access all your plumbing, and it's the all those things are encased into your hem. So if you ever want to get into those areas, or get into that, you literally have to basically just ship it all out with the back of a hammer, or what have you, and destroy that part of your wallet. And then if you want to build that all back up, it's also quite difficult because you have to rewet your hemp which is created, which isn't always possible. And so there's a lot of challenges. So it to it. So you have to do a lot more planning, when you're doing the double sided hempcrete wall versus just the single sided. What do you think, right?



22:51

Yeah, with that as well. It's if you plan everything out prior to building the house, a lot of the cons coming in from access to plumbing and electrical afterwards will be alleviated. There's a small bit of planning that has to go into it due to the fact that everything is encased in hempcrete afterwards. So if you're your electrical, instead of sitting on the side of your two by four for your framed in house is now sitting slightly in front of that two by four. So your plugs and outlets are all flush with your wall afterwards. Everything when it's done in a hempcrete house is also encased in not only in the hempcrete but in to being of some kind to help keep all that all your electrical, all your plumbing in place and keep it from being affected by the hempcrete as well. You probably never have to worry about mice rodents ever chewing on your electrical ever because they don't they don't like hempcrete they won't chew on your hempcrete you're not going to have pests, even with

hemp will pass don't like to be in it. It's not like fiberglass where you can still end up with mice living in it and tearing it apart. That doesn't happen with hempcrete. They don't like it. They won't eat it. It's not a food source for and it keeps it really packed in tight in there. So they don't want to live in it or move into it at all either.



24:46

Yeah, it's also if you're using hemp oil instead of traditional insulation, it's really dense, and it's really hard to pull apart. So it's harder for like rodents to build and make a nest out of it.



24:56

Yes



25:00

I have I have some hemp wool here. It's, it's very much like, like regular fiberglass insulation, it's a little tougher, it's a little more sturdy,



25:14

but it's



25:17

it doesn't rip very easy. It's not itchy, you rub it on your face



25:27

feels good.



25:30

It's the best infomercial I've ever seen. So now I'll go into talking a little bit about some of the different properties of hempcrete itself. So with hempcrete, as I stated earlier, it is not a structural component of your actual house. So you have to still use the traditional stick

frame construction, it does have low compressive strength. But there's different things that you can add into it to make it stronger, different types of lime binders that you can use to make it stronger, you can play around with the size of your hampered itself just to try to add a visual strength into it. So you make it a little bit your hampered a little bit smaller. It means you minimize the amount of gaps between your hampered to another visa hampered. And so your binder really can make this as as montanus as possible. It's also very surprising with the way it is about a seventh of the weight of concrete. And so there's a lot it's a lot easier to move around. Then when you're doing like concrete construction, when it is fully cured. The actual blocks themselves can float on water, which is also just pretty amazing. So yeah, know, and also to talk a little bit when I say cured when you're making hempcrete because you're using a lime binder. Usually it takes around one to two months for your hemp to finally reach it's kind of final state. So it's going through this process where the lime is is breaking down and amalgamating all the different hemp herds together. And so through that entire process as it's going through this chemical reaction, it takes a really long time for it to fully occur. So that's what we mean when we're saying something's being cured or not. And as I say, again, earlier, the exact weight of your entire hempcrete will change dependent upon how much lime using, how much water you're using, how much hampered you're using what the size of the hampered is, so there's a lot of variables there. And that is something that we're playing with right now is what what are all these variables and where can we kind of push and pull with the type of hemp that we're using right



27:56

now?



27:58

for durability, it can withstand a huge amount of salt freeze thaw biodeterioration it can withstand mold, it can withstand pests. It came with stateway and fires as well. And so Brett, I think this is an awesome time for us to give a little presentation on the actual the ability for him crean to withstand fire.



28:24

Also, I've been waiting for this portion. Okay.



28:33

You play a boat.



28:36

Yes, I do have a video of a flame thrower. But this



28:53

so as you see you're not getting a lot of extra flames into this he's he's putting the torch directly on to the hempcrete and you see a little bit of these these embers warming on to it, but nothing's really sustaining and so plenty of those interested in hempcrete as is a use for material in the house it is as tm certified so this is a non flammable product. And one of the incredible things about this is also pretty cool. So because it can't catch on fire, Brad could probably touch it right now and uh won't burn him.



29:38

And there you go.



29:42

It's warm to me.



29:48

So yeah, this is just one of these these really incredible properties about hempcrete. And, you know, it may not mean that everything in your house doesn't catch on fire, but it At least your house doesn't. So, you know, that's that's one of the considerations there. That I think is it's pretty amazing, right? Do you have any thoughts on that, um,



30:12

basically what you said RTS when it comes right down to it. It would be absolutely hellacious fire in order to burn down your walls. But we're on an insurance standpoint, that that's a huge point, you lose a house, there's a huge amount that the insurance company is going to have to pay out to you right away, just have your house rebuilt. That's not

including any of the materials or any of the possessions you had in your house.



30:43

So



30:44

yes, you may have lost a lot of what you had in your house. But this, this is not going to add to that feel to the fire, your house, all the walls will still be standing, you will probably have to put on a new roof. But when it comes to an insurance standpoint, they'd much rather write a check for material possessions before they write a check for your whole



31:05

house. Right. And it also means that you have a lot less risk, the fire is going to spread, because as you saw, the fire did not spread and it won't spread on him. It would take a hellacious fire, it was a great word to actually catch. So if you had, say, a small fire happened in one of your rooms, you can know that safely, that that's not going to pass on to the next room to the next room. And that's how you get a house fire. So from a safety standpoint, hempcrete really is a preferable material to use. And I'll go to the rest of the presentation now. So again, so yeah, this says is our 2580s a little bit for us for the hempcrete that we're using, it does have a higher R value than that. But for some other people's hempcrete, they've seen it go a little bit lower. It's you know, as we said, it's it's a very highly, highly breathable, breathable, it has a single membrane monolithic structure. So this is meaning that the entire house, if it's made of hempcrete, is able to pull heat and moisture from one area to the next. Because it's not multiple pieces of material going from one place to the next. Some other benefits of us using this is that it's a byproduct for my hand flower production. So we're using one less thing and we're having to buy one less thing to do construction. Because it is a natural material. When you build with hempcrete, you can know that you were sequestering carbon, because all the hemp that grew for that sequestered a huge amount of carbon into the soil, which again ties back to the regenerative mission and vision for the tribe. When you're looking at hempcrete, for construction material, and you're starting to understand some of the agronomic sides, and the impact that has, you really looking at have is so much more preferable than looking at growing a forest of wood. You can grow, you know, an acre of hemp in three months. And what that can give you is, you know, almost equal to five acres of trees that would take, you know, five to 10 years to produce. So we know that we can produce this at scale, we can make a huge amount of it. And by doing this the entire time we're just adding more carbon to the

soils and putting that all back into the ecosystem. Another benefit of growing with hempcrete is that it is hemp when you're growing it as for a fiber is very very tightly packed. So that means you're not having to put up with a lot of weeds and that also means we're having to use little to no herbicides. hemp is as we stated earlier is naturally less resistant to mold pests. It's also when you're doing it for production you guys need to use fewer chemicals for your federal fertilizers. It doesn't have any of the same pesticides or herbicides uses that you'd see with cotton and doesn't have a lot of the same caustic chemicals the if you use when making concrete. So with all of that stated from the field to the construction site, the people who were having to work with this plant in this material aren't having to worry about all the hazardous effects from this. With that said though, you deal Sue do still want to wear gloves because you are working with lime and lime is a caustic material and can burn you.



34:55

So back taking it back a little bit when we originally talked With these hempcrete consultants, the idea that was pitched to us was this tiny home. As we came to learn this tiny home was designed by hemp a texture. And texture is the company that certified both Brett and I to be able to do hempcrete construction, the data is all that we know about it so far. And we've gone on to learn much, much more, the house is quite tiny. And so this was we really wanted to do something that was smaller that we had already template a template to build from, we already have all the blueprints for that going into this was as inexpensive as possible. We have a lot of projects going on with the tribe right now. And so we don't want to bring on so many things that our plates too full, and we're stretched too thin. So we decided a tiny home is really kind of the best project for us to pursue with the easiest outcome. To build this, it's going to take around 8000 pounds of hemp, and 8000 pounds of lime, and around probably around 1000 pounds of water. So the water really isn't that big of a deal. We are have pretty much all the hemp that we need for this house. We also and then so the only material we really do have to buy in order to make this house is the mixing machines and the lime itself. And we are working with a company called lime strong, who will be helping us supply of the lime binder that we'll be using to build these houses. So when we're talking about building a house with hempcrete, from the hemp that we have our own selves, we're looking at a house that is so much less expensive to produce than any other traditional house. If we are having to buy the hemp, this wood, they these houses would be just a tad bit more expensive than if you just build with a traditional stick and frame and traditional insulation.



36:59

With that as well. When we were in Idaho, hemp a texter we got to see idea of a small little house that he had built. I don't remember how long ago he said. But it was it was out in the middle of nowhere. And this house has no heat to it. It has really nothing running to it. It's just a cool hangout spot, probably preferably called the man cave. However, this this house when we walked in it, I would say the temperature was what RTS maybe 20 degrees at most that day. But the The house was warm inside, it was comfortably warm with no heat, all the only kind of heat you were getting through that house was through the window that the sun was shining in. It was a very comfortably warm house.



38:01

Yeah, it was incredible. It's like in the 70s inside the actual house itself, you know, well outside, you know, it's below freezing. And this also goes to show why doing hempcrete these sort of natural material buildings is so important is because we're having to use less and less inputs. So if we have a house that doesn't need to have so much heat input, that means we're if you're using, you know gas to eat your house, you're using even less of that. So it's less expensive on your electric bill, on your on your gas bill. It's it's less expensive when you're using the hemp from our standpoint, from a building, for building the entire house itself. You know, and then if you tag on, you know, some different solar components, then you can pretty much make your entire house off grid, which is kind of which is the projection that we're trying to go with a lot of these different projects is how do I how do we increase the sovereignty of the tribe? How do we how do we build our own houses? How do we what sort of materials do we need to produce on the reservation so we can do these houses so we can think about these concepts so we can bring on you know solar energy so that we can power communities so that the tribal members that are living on the reservation have to less and less and less consider all these other different costs of living. And also limiting the amount of chemicals and things that you're exposed to in a traditional house. You know, I'm from here and from here in Oregon, and in Oregon, we have so much so many problems with mold in our houses. Whereas, you know, if I had a halfway house, it's something I really just never have to consider because of how mold resistant that is. And then and then if you think about all that goes into your insulation, the time in a traditional house, and how dangerous the chemicals are that are used in that You know, that's again, something that you don't even have to consider anymore, you know that everything you're going into is natural to, which to me is one of the strongest points in benefit for why using hempcrete for a building material. Makes sense.



40:22

So with all that said, I wanted to open it up to everyone to see if you had any questions or

comments or concerns. We'd love to talk a little bit more about hempcrete about what the tribe is doing with him, and to get the conversation going. And also, here's this really great picture of Brett while he was building his first hemp wall.



41:04

Anyone have any questions and anything at all? We are available to answer anything? Yeah. Yeah. First of all, go to Deanne. She raised her



41:27

hand.



41:30

I just unmuted myself.



41:32

So you can hear me.



41:34

We can Oh, well, I



41:35

have two questions. One is how large is the typical brick if you're actually using individual bricks? And is there any odor that they have? Or the combination of they have limestone gives off? Awesome questions.



41:49

So I can say, for a block, you want to make it so it's easy to live? Pretty much. That's that's about it. But there's no specific size. I would say that we want it to be about a 12 inch width. So that's kind of your minimum province, by province by province and have the highest level



42:12

possible.



42:16

Brett, we weren't on the order.



42:19

As for over, I haven't been able to smell anything. unnatural. Doesn't smell good, I guess just a temporary. When it burns, it does have kind of a woody smell to it almost like a campfire. But other than that actual hempcrete itself. You can't you wouldn't know it was a history ball. No more.



42:49

Great. Thank you. This is great, guys. Appreciate it.



42:54

You're welcome. Thank you. Good.



42:59

I was wondering



43:01

how we get the word out to those sustainable builders out there. I live in the Kansas City area, and there are several builders that are really working towards sustainable housing. How do we get the word out? What kind of literature do you have that you can pass on? And I'm, I'm going to unmute myself now.



43:24

I mean, yeah, mute myself. Sorry.



43:27

Okay, that's a really good question. For the time being as where we are right now, we're not spreading the word, I'm trying to have this as a sellable product. We're not at a place right now. Yet where we could develop a business out of temporary, we first want to our goal is this summer to be building these houses, and then to do a lot of the training and work with the community then, and kind of getting getting our legs to us, right. And so then once we are able to show that like we have a really solid plan, we got a good a good view of people who should do him pre construction, we've done training with a number of people so that they have the same sort of completion as us as well. And that that stage will tell us all right, this is you know, more of a viable business, this is something that we can get into. And then the next stage would be to look at, alright, how many sustainable builders are there in our general area? We haven't ever connections to builders that are in Colorado, who would be able to source from us. You know, in talking with the company in limestone, which is a really great supplier of the lime binder that we're using. There are very little to none have heard suppliers in the United States. So that is a really big market and opening but if we want to really get into it with a with a look at why or what's what's the total cost infrastructure that really get into hempcrete construction, right? what's what's everything we will get into that, because that means we have to bag up or hampered and printing Go through all those steps. So with all that said, For the moment, we're gonna just get it on the read. And we're building what we can. And then once we know, it makes sense to kind of put out into the world, then we'll have love all the marketing materials, we'll be doing a whole campaign around it. So at that time, I will send you a message and say Karen Columbo.



45:27

I also jump in add to this is that, you know, our primary focus here is to be efficient. We understand our needs and applications for like federal housing, HUD housing, we have under projects that could use building materials on our reservation. Also, the other factors is that we're looking at this about job development, right skills training, these are really important. And so as our teacher had mentioned earlier that they are post certified template texture builders now. So that's kind of the first step in the first phase. So I believe over the summertime you will see that have different applications from some of it like being pots or just pottery for planting, some sinus stuff, and then also some housing stuff in the future. But cost wise right now we do a party said we are just not ready to go into a business mode yet. We really want to kind of self serve our community first.



46:32

Anyone else have any other questions?



46:39

RTS has a question about kitchenettes inside did you answer that question? I'm sorry, I missed it.



46:46

Um, I did not see that question. kitchenette.



46:52

So they had, essentially, their small kitchens in these units. Essentially, these are kid units there are they will have his bathroom, and that's doing a good kitchenette. So it's all self contained living within the unit. Everything is enclosed in one to one. So think of a more like a studio, a studio apartment, a studio house, right? Yeah, that's that's the basic idea. I mean, you have three houses, you guys can build a full on, you know, mansion with hempcrete if you had enough material, you know, and if you knew what you're doing, so there's no limitation what you can do with hempcrete. Is this that for our initial phase, we are doing smaller type homes more for education, workforce development, and also application use that we foresee. Yeah, yeah. And then just answer a question about how many we're doing this summer. Artists once you get to depends on material, the artist who I asked that question,



47:50

yeah, we'll be doing two to two to three houses this summer. And then and then this is going to consistently evolve. So every time we have a hemp crop, we can build a house. Right? Which is kind of I think is pretty incredible. And then we're also building up a another supplier for him. I have a processor down in Manhattan, Kansas. And he has bags upon tags on pounds of time, tons of hemper. But he doesn't have any useful and so he said that every time he has these tags, we'll be shipping them with blood for free. We're getting more and more suppliers like this. More people were doing this. A lot of people don't have any use for the talks and everyone that's in pain, Kansas, Nebraska, Missouri. improv and they don't have they have nothing to do with don't want to talk. We want them we want to take them we want to possess them and we want to have them and so

far we reached out to and community they've been extremely supportive. And already the triangle with some of their own



49:07

one way to look at this hampered and all this employs from people growing areas him crops. One man's trash is another man's treasure. is these hemp stocks and me this hamper that we're getting from all these other grows. A lot of these farmers as Artie said they don't know what to do with it. A lot of it ends up sitting around in piles getting rained on animals come Hill village through it, you know, throwing that out there as Hey, we will come and pick up your herd and not charge you anything for it.



49:45

They're there to give that away all day. They don't know what you're going to do with it anyway.



49:53

to them. It's an eyesore to us. It's green gold, white gold investment.



50:00

Are there any other questions? Is there anything else that you'd like to add on about this?



50:25

Um,



50:26

not that I could really think that we pretty much covered everything.



50:30

I will say



50:31

I guess I can say this. For him free house, we want to build your house on the pimpri, it would be prudent to also look forward to making sure you use another vapor permeable barrier as a plaster over clay barrier for your next few



50:54

walls.



50:56

That the main focus of hempcrete is to one add insulation value and to make a more healthy environment for you and your family inside your home. In order to do this, if you were to put drywall up on the inside of your hempcrete house, you you're taking away from that vapor permeability that you have with him. It needs to be confined with another vapor permeable barrier. There are natural classes there that do this, play this as well in their their lives, like drywall options out there that's used as well, if you wanted a more traditional interior to your house. Yeah. So that that's something to think about to Michigan, looking forward to hempcrete house, you want to make sure you get all the benefits out of it that you're going to get out of it.



51:57

Awesome, thank you for having that. Well, if there's anyone doesn't have any other questions regarding temporary, I won't share the next little upgrade in temporary came out as a as an outcome for trying to figure out what we can do with the byproduct from our home grows and what we can do with deferred and fibre. So in continuing to look at what other products What are things to do with camford, we can join this project with our mushroom production project. And in the coming weeks, we will begin using hemmingford as a reading or substrate for growing mushrooms on. So we're really excited about that. The basics of it is you take hampered you mix it on a one to one ratio with like hardwood fuel pellets. That's the sort of thing you put into your smoker or into your your heater at your home if you use that. And then you inoculate that with mushrooms and you can grow it grow things like oyster mushrooms, chestnut mushrooms, for our purposes, we will be using oyster mushrooms and those will all be getting started in about two weeks. So this is you know, there's some people who've already started using hemp heard as a medium for mushroom production, but there's not many. So this is gonna be really exciting for us to be able to get into this and to show another way that we can utilize the byproducts of our

hemp grow so that we really are using as much as possible. And then we can take all those mushrooms, we can sell those to the community, we can give them away, we can use them as medicine for producing things like Reishi, or Chaga, or Lion's Mane or things like that, you know, this is these are all the incredible things that are possible. And then you can you can dry your mushrooms you can make them in the capsules and you eat those with your hemp fiber led with your hemp and CBD oil. So it's really exciting all that it's been spurred, I would say out of the hemp project initially, which really just started with what does it look like for us to produce him and now we're talking about was look like for produce hemp to grow mushrooms to build houses. You know, that's that's the the, the wow factor that I think of when i when i every time I think about hemp is it just it crosses so many industries and there's so many things that you can do with it. And it's so incredibly exciting to see that I would try really spearheading this side of the industry and for a lot of the tribes in the Midwest to be looking at the Iowa tribe for what they're doing in the hemp industry. So I give them a whole completely round of applause for the work that the tribe has done regarding HAMP and sustainability and regenerative agriculture and looking at new ways of doing or old tricks.



55:06

Everybody



55:18

Well, if no one has any other questions, I think we will end the presentation for the night. If you do have anything come up if later tonight you're sitting in a bed and you're wondering something about hempcrete or hemp anything in general, you can always call us. My phone number is 541-225-8316. I am two hours behind. So that means you got two extra hours as a call me in response to your day, you can also always email us at enquiry@ios.org or at my own personal email address, which is the.net@ios.org or you can call Brett or Jimmy or if you see him while they're driving down the road. Just throw up a hand up. I'm sure they'll stop. So thank you all for participating and joining this webinar and learning all about hempcrete and what the tribe is doing.



56:25

Thank you, everyone.



56:36

Thank you, Brett for joining.



56:38

I appreciate it.



56:40

No problem. I love to be here.



56:42

You guys. Both jobs.



56:45

Thank you.



56:51

I'm just grabbing all the comments. At one point,



56:57

I think we've had



57:01

I was we had 29 at one point it was the most good job awesome.