

**Winery Workers in Virginia
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Interviewer: Kim D. Stryker
Interviewee: Tremain Hatch of the Virginia Tech Fruit Lab
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Transcribed By Emily Zinger

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(00:07:43-00:11:00) #Barboursville #ChateauMorrisette
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[00:00:01] (KS) Okay, so we're going to go ahead and record on this guy. Today is Monday, February 5, 2018 and I'm in Stephen City? Stephens City, Virginia, with Tremain Hatch and we're sitting in a conference room of the... what do we call this place? Of the AHS, who does AHS stand for?

[00:00:25] (TH) Alison H. Smith, I believe was a State Representative that was responsible for getting, for securing funding for this facility.

[00:00:32] (KS) I like that person.

[00:00:32] (TH) We often just call it the Fruit Lab or the A-Rec

[00:00:36] (KS) Right, well everyone said go see the Wine Lab and then I was googling Wine Lab and that didn't really come up with anything, so I was like, well, huh. Maybe there's another name for this thing. So okay, so we are here in the conference room and we're just going to talk a little bit about how you came to be in this field. I know from previous conversation that your family has a vineyard. So, unlike your two colleagues, who don't have a direct association with growing grapes, you do have that in your family. So, that's in Leesburg?

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[00:01:13] (TH) Correct

[00:01:15] (KS) So tell me a little bit about that. How long have they been doing that?

[00:01:17] (TS) We've been farming there since 1950. We planted wine grapes in 2002. That was my first introduction to growing grapes in Virginia.

[00:01:30] (KS) Okay, and what made your family decide to get into that?

[00:01:33] (TS) We were searching for cropping systems that would allow us to keep the farm. And we had been a dairy farm until the mid 80s. That industry fell apart and then we switched to beef cattle. And then in the 90s we started selling meat at Farmers Markets and realized that if we sold directly to consumers that made a lot more sense for a small farm like ours. And so Farmers Markets peaked our interest in the Virginia wine industry as we saw something that would fall on that line, something that we would produce on the farm and sell it directly to consumer. And that's sort of how we got into the Virginia wine industry and now we still raise cattle on the farm. We still raise sheep on the farm and now we have a lot of emphasis on growing grapes and making wine and selling everything directly off the farm.

[00:02:29] (KS) Okay and so you have a tasting room and everything on site? What's the name of it?

[00:02:32] (TF) Zephaniah, and I'll spell it. It's an odd one Z-E-P-H-A-N-I-A-H, Farm Vineyard.

[00:02:44] (KS) Okay, I'll have to come check it out. And so, when did you open to the public for wine? If you planted in 2002 I'm thinking a few years later?

[00:02:54] (TH) Mhm, we got our licenses in place to make wine and sell wine in the harvest of 2007. So we started selling wine in 2008. So we took our time. We grew grapes and sold grapes for a couple of years.

[00:03:13] (KS) Worked out some of the kinks

[00:03:14] (TH) Exactly

[00:03:17] (KS) And what did you do to find out that it was good for growing? Did you do any research or did you bring people, experts on to test the soil?

[00:03:28] (TH) Interesting, yes. My father brought out representatives from Virginia Tech and Virginia Department of Extension, and this would have been the late 90s, to look at the farm and look at its suitability. And now I'm in a role that, that's what I do. I go out to farms and help farmers grow grapes in Virginia. So it's sort of a neat full circle. I didn't have any exposure to those first visits. It would have been interesting to have been there and sort of seen what Tony said and everything.

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[00:04:01] (KS) Right, yeah, totally interesting. Let me see. So you were, I don't know your age

[00:04:06] (TH) I'm 34

[00:04:08] (KS) 34 alright. So you were about how old when your family was starting to do the harvest?

[00:04:14] (TH) I was in high school when we started planting. So like plenty of high schoolers I was not very much help on the farm. But I helped and went through the process.

[00:04:27] (KS) And so then you went off to college with the thought of doing something in agriculture?

[00:04:34] (TH) In the back of my mind I suppose, but it didn't really cross my mind until I was in school and came back home and thought, okay, there is something really special about the farm and being on it. So that, it wasn't the onset of college that I thought about growing grapes. It was a little bit later on.

[00:04:56] (KS) And did you go to Virginia Tech?

[00:04:47] (TH) I did not. I went to Guilford College in Greensboro, North Carolina and it was funny, I ran into some projects dealing with grapes. I was studying geology there was an emphasis in North Carolina to look at cropping systems that could help farmers that were getting out of tobacco, like grapes. And we did some mapping and looking at soils in reference to grapes and that brought me back to what we were doing on the farm.

[00:05:23] (KS) I've thought about that a lot for Virginia, especially down in southwestern Virginia where people had mining or tobacco jobs and are not getting much help in new types of work or opportunities and that there's been a notion going around in my head that when people say we can't get enough grapes in Virginia and everyone needs more grapes. If that was a suitable area and there would be investment, that could be a really nice way to create a support industry for the Northern Virginia monster wineries that can consume so much of it. There's not the audience down there so much as there is up here, so maybe just growing. Anyway, that's just one of the ideas I've had popping around in my head. So you studied geology project to turn tobacco farms into something more profitable. You're at Guilford college and when did you start thinking, okay I can start applying some of this to my own family's thing?

[00:06:41] (TH) My senior year it all sort of tied together and following that I worked in the industry for a couple of years and then I went to school here actually to do a Master's Degree, looking at growing grapes and working for Tony.

[00:07:01] (KS) So you were a student of Tony's?

[00:07:03] (TH) Mhm, a graduate student.

[00:07:07] (KS) So it was in the viticulture program?

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[00:07:09] (TH) It's in the Horticulture Department. So my degree is in horticulture, but I work specifically in wine grapes.

[00:07:30] (KS) So Master's in Horticulture, specializing in wine grapes, studied with Tony. And then when did you come to work here?

[00:07:43] (TH) I came to work here in 2010. So following in my Master's Degree I worked at a large winery in Central Virginia, Barboursville and then I got hired back here that following season.

[00:07:57] (KS) And what did you do at Barboursville?

[00:07:59] (TH) I wanted exposure to large wine production. I had seen small farm vineyard production through a couple jobs and also through my home farm, but I wanted to see it blown up on a larger scale and to see what management issues come into the mix when you've got hundreds of acres and teams of employees. They provided a really great platform for me to see that. So I worked both in the vineyard and in the winery and their goal was to expose me to as much as possible and I'm really thankful for that. I saw a lot and made some great friends.

[00:08:40] (KS) And did you doing any wine making as well?

[00:08:43] (TH) Correct

[00:08:44] (KS) So you were actually going in and messing with stuff?

[00:08:49] (TH) Exactly

[00:08:51] (KS) They're one of the few, to put it in context of the vast majority of Virginia wineries and vineyard, or just vineyards, are small production. Like family owned and operated, with not much turn out, but there are a few, and Barboursville is one of them, actually have distribution in stores and wine shops and stuff like that. Most of them just sell direct to customers. So it's actually pretty unusual to find a ton of people that sell widespread in Virginia. Barboursville is maybe one of a handful.

[00:09:37] (TH) Three or four

[00:09:38] (KS) Yeah, that's what I was thinking. I mean I know that some restaurants have relationships with specific wineries, like maybe RdV or something like that. They sell at a couple restaurants that he has a good relationship with, but not necessarily where you can buy it on any kind of wine shelf.

[00:09:54] (TH) Exactly, I think the grocery store is a good indicator and a lot of Virginia wines you could not find in a grocery store, but here even in Winchester you'll find usually

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[00:10:04] (KS) Sometimes you'll see Morrisette on some of the, especially if they have a Virginia section, so it would be Barboursville, Morrisette

[00:10:13] (TH) Trump and then Williamsburg Winery. And Chateau Morrisette as well sorry.

[00:10:25] (KS) Yeah, do they, does Williamsburg bring in a lot of grapes or, I mean, where do they grow all the grapes for Williamsburg Winery?

[00:10:32] (TH) They grow quite a few grapes there at their farm and winery and then I think they also purchase quite a few grapes from around the state.

[00:10:43] (KS) I wasn't familiar with them, but that makes sense. Back to your life in wine. Your specialization is in what aspect of viticulture?

[00:11:00] (TH) My training is in the field side, growing grapes, making wine, but through different experiences I have become quite familiar in the cellar. So I crossover. But I'm mostly applied production, from the vineyard to the winery.

[00:11:32] (KS) So it's getting it to the tanks, kind of your pre-tank period is more where you focus? Before it's been juiced. Would you say you work mostly with the growing period and the harvest period?

[00:11:47] (TH) Yeah that's a great way to put it.

[00:11:52] (KS) But you do have experience working in the cellar and doing the actual stuff, but that's not what you tend to focus on now

[00:11:57] (TH) Yeah especially through my work here at Virginia Tech. The majority of what I do is help new growers become familiar with the industry. In many cases they don't have a background in agriculture. So I help bring them up to speed.

[00:12:19] (KS) What do you find is some of the most common hiccups that you encounter with people?

[00:12:25] (TH) Not anticipating how much work it is. Not anticipating how much money things cost and now anticipating how lean the profitability of agriculture can be.

[00:12:43] (KS) Narrow margins. One thing I hear a lot is labor, as being a big issue. Do you find that as well?

[00:12:54] (TH) Absolutely

[00:12:55] (KS) That they have a really hard time finding consistent, or having enough work to keep a consistent staff on.

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[00:13:03] (TH) I think that's the best way to put it. Finding enough jobs to keep workers busy and occupied throughout the entire year is really challenging. As many workers as could be found can be brought on in May and June, but then what to do in August, November, some of the months when there's not as much need.

[00:13:24] (KS) But that doesn't, is that anything that you guys deal with at all? No

[00:13:30] (TH) Not directly, what we might look at is ways to best use canopy management labor, so timing, so on and so forth. But we don't get on to connecting people with laborers or anything like that.

[00:13:44] (KS) Right, you're more focused on, once you have somebody there, what are they supposed to be doing, in the vines, and how to do it well, how to do it more efficiently, more effectively, that sort of thing. So what are some of the things, I know that your colleagues were talking about, is it twice a year that you have a big meeting with incoming wine makers or wine growers where you try to sort of dissuade them of the notion that this is something that they want to do and if they still want to do it then that's okay?

[00:14:25] (TH) In some years we'll have up to four of those meetings, but we have at least one per year and it's sort of a one day survey course. I'm trying to inform new growers what areas they don't know enough about. They all come with mixed experiences and mixed expertise and we try to do a survey course so at least they can key in on the areas where they need to bring themselves up to speed. After one of these new grower workshops nobody would recommend that they're ready to go, that they've graduated and they're ready to move on to a vineyard, but at least they are familiar enough with

[00:14:58] (KS) You've shaken their confidence to the core at that point

[00:15:00] (TH) Exactly, what areas they really need to learn some more about before they jump off into the industry.

[00:15:08] (KS) Tell me about some of the people that get into Virginia wine, or maybe the thing that you can say is that none of them are the same?

[00:15:16] (TH) Correct, everybody's unique, everybody's situation is unique and you see everything. From professional farmers who are just looking at it as a new cropping system to folks that have never had experience with agriculture on the farm that think it's a lovely notion. And the interesting thing is that there's probably the same success rate across the board. Some people we think, in the back of our minds, these people may not be going so well, and they end up doing great.

[00:15:43] (KS) If I was trying to find a trend or a commonality, if that was the point of my research I would be out of a job, because there's no commonality across any of these people, other than that they have a real passion and dedication to what they're doing. What are some of the specialized tools or training that you use in your work, for what you do here?

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[00:16:23] (TH) I think the most important component is knowing vines quite well and some of the more common varieties grown in the state and being able to interpret a location, specifically on a farm and how that will influence how a vine will grow. For example, if it's a part of a farm that would be more prone to frost, trying to be able to identify that and then recommending to that grower that planting chardonnay right in that location is not a great move. So trying to help interpret information that's fairly widely available, so the grower can take that information and use it wisely.

[00:17:10] (KS) But I could see a scenario where you have a piece of land and you have a soil scientist come out and you have a bunch of local people say, oh yeah, that's great, cause there's great minerality in the soil, maybe it was used for peaches before or something, so people know it's good growing land. And then they test the soil and the soil seems good and it's got a nice slope, but maybe you don't realize that it's got a, like a heavy fog sits in one part of the valley and you don't want grapes there. So kind of figuring out the particularities of that one space. How to maximize the good and limit the bad.

[00:18:00] (TH) Exactly

[00:18:01] (KS) Because there's a lot of, I think maybe you might look at it and say, why didn't you take the vines all the way over there to the next hill, but maybe there is an actual good, I guess maybe as an outsider you would think, not knowing anything about it, well don't you want to just put grape vines everywhere? So what are some of those issues that come up with site location?

[00:18:27] (TH) Usually it deals with topography. So the elevation from one location from, say close to a stream, relative to another location on top of a hill. That's one of the easy examples. And then the other thing that I help growers with is when things happen that they don't anticipate. So they might see something funny on their vines and they're not sure what it is. Or their vines don't grow next growing season and they want to know why are my vines dead? And trying to tease out what happened in those situations.

[00:19:05] (KS) That's the CSI part of your job

[00:19:07] (TH) Exactly

[00:19:14] (KS) So, in those cases, is that something that you determine on your own or do you reach out to your colleagues and say, I suspect that there's a pathogen out here or I suspect that they butchered their vines while they were pruning and allowed all these insects in, is it a mechanical issue or, bring in the team?

[00:19:39] (TH) Exactly and in some cases it's easy and something that I've seen before and I'm familiar with it. In some cases it leaves me scratching my head. Unfortunately there's a lot of ways to kill a grape vine and teasing out exactly what happened sometimes remains a mystery. But sometimes I can look at the landforms and take what I know about the previous winter and say, okay this was probably cold injury and then we could cut apart the vine and look at the buds and look at the wood and determine if it actually was cold injury that killed that grape vine.

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[00:20:17] (KS) And then from that, what kind of information would you give to the growers? Would you say maybe this variety isn't happy here?

[00:20:28] (TH) Correct

[00:20:29] (KS) Your plant's dead, so the next steps are, A, you go and plant the same damn thing, but that's probably going to die as well.

[00:20:37] (TH) And that's the limit of what I should do through Virginia Tech. I could tell them as much as I can about why it happened, but as for how they should proceed, that's up to their interpretation. Cold injury's a great example. So they might have a vineyard that's really battered. Say a third of the vines are dead. How that grower chooses to proceed is really complicated, because they could say, okay, I don't want to make the same mistake twice, so I'll replant the missing vines with a more cold-hardy variety. But then for the next 20 or 30 years they've got a management zone that has a couple different varieties and it becomes quite complicated. Or, should they replant the same variety and say, well, I made a mistake, but hopefully the next 20 to 30 years will be warmer. So there's a lot of gambling in that sense, of how to proceed.

[00:21:36] (KS) Would you go so far as to say, okay you had Chardonnay here, Chardonnay doesn't like to get its feet wet, or whatever the issues are with it, here's some options

[00:21:52] (TH) Sure

[00:21:53] (KS) Here are some other plants that might do well there. I don't know if you have any interest in growing them, but that's the alternative.

[00:21:59] (TH) Exactly. And the other thing I can do too is put them in touch with growers that I know have dealt with similar situations. So they can talk with other people in the industry about how they chose to proceed and whether it worked or not.

[00:22:17] (KS) Right, which seems to be a big thing, especially in Virginia. I don't know, I'm not an expert on how people grow wine in New York, or California, or Washington, but the theme I keep hearing and coming back to in these interviews is how collaborative people are here.

[00:22:35] (TH) Surely. Well, I think it helps that it's a newer cropping system for Virginia. So, nobody will learn how to grow grape vines from their grandparents. Everybody is working it out together and learning what works and what doesn't work. Unfortunately grapes vines aren't really a responsive system, because it's a 20 year, 30 year cropping system, it's hard to justify pulling out of a block of vines if it's not failing, but it's not the right fit for that location.

[00:23:11] (KS) Right, you might let that drag along for a while, just because of the investment that's in that acre or whatever. It's like, we'll grow it into something, we'll figure it out

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[00:23:22] (TH) Exactly.

[00:23:25] (KS) I definitely have talked to some people who were like, God I don't know why I planted X on that hill and I can't wait until I can actually, what's the lifespan of a vine usually?

[00:23:38] (TH) It's hard to answer that

[00:23:40] (KS) Do they vary a lot?

[00:23:41] (TH) The plant material is becoming a lot cleaner, so there's less bacteria or virus in the plant material we're putting into the ground, but I think 20 to 30 years is a good, a great target for this part of the world.

[00:23:56] (KS) So yeah, that's a long time to stick with something that you're not crazy about. That would stink. I mean, a lot of things you can rip out and do a new thing. People remodel their kitchens faster than that.

[00:24:12] (TH) Sure and it's difficult, because there's a lot of new people coming into grape growing, a lot of really important decisions are made when they're designing a vineyard, when they have very little experience with growing grapes.

[00:24:29] (KS) That's a very good point. Big decisions made with the least amount of experience. And there's very few people, even though we are blessed with an unusually large amount of people who were blessed with a large amount of fortune in their original enterprise, whatever it was, and then decide to have a winery or a vineyard as a project, a folly, a whatever, and can afford to buy whatever land they want, buy experts, so even though they're newbies they can buy their way into experience a little more than someone who doesn't have that buffer. So you see, for example, I'm thinking of Green Hill in Middleburg, it's got a lot of money, it seems, and was able to bring in a very skilled wine maker and get the best of everything and he, from what I've tasted has made some very excellent wines very quickly. They haven't been around very long. So I think you can definitely see that way, but for the majority of people these are small, family run, independent things, so they maybe have some money, but they don't have all the money. And they're trying to figure it out for themselves. I don't know why I'm talking so much, probably because I'm doing three interviews in a day. But, so what are some of the tools that you, how much time are you in the office on the computer working on stuff, versus time out in the field.

[00:26:24] (TH) I'm limited to about one day a week in the vineyard, visiting other farms. And that's just because I really enjoy visiting producers and being the traveling doctor, but in a way it's not the best use of my time. I can help more people if I send out a newsletter to a thousand people, than if I spend the day with one person.

[00:26:56] (KS) But it's good that you try to do both, because you could be just putting newsletters out into the ether, but probably meeting you in person lends some more credibility to your newsletter, some substance. So someone will say, oh I know that guy, he seems okay, I might actually pay attention to this newsletter.

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[00:27:17] (TH) Sure, and it's tough to communicate what's going on in a vineyard, because many farmers, I don't want to say isolated, but they have their own model of how growing grapes works. And so it's sometimes difficult to tell them something and really make it make sense as far as plant physiology or something like that.

[00:27:49] (KS) Do you find part of that is a folklore kind of a thing? People learn from hearing, maybe they trained under somebody, so that's the way. No matter what science says, no matter anything else, do you find that sometimes people are resistant just because the way that they learned is slightly different?

[00:28:19] (TH) Absolutely, and it's very difficult to compare apples to apples in a sense. A lot of people look into their vineyard and they can't compare that precisely to another vineyard across the state or next door even, just because so many factors are different, like vine spacing or the variety, how they measure they're crop yield. So it's difficult to have everybody speaking in the same language and in the same terms.

[00:28:57] (KS) But at the same time Tony was saying that actually people are very cooperative and the state is very supportive of the work that y'all are doing and the community seems to be very receptive and appreciative of input.

[00:29:17] (TH) Surely, and because we're growing grapes in a challenging environment there's almost no hesitation for people to take constructive criticism and make their farms better. Nobody says, well I've been doing this for 20 years and I'll continue doing it for this amount of time. Everybody takes that in stride and it helps make their farm a little bit better.

[00:29:43] (KS) That's got to be nice.

[00:29:44] (TH) Surely, because in some other cropping systems you may run into that.

[00:29:50] (KS) Right, so you have an audience that's actually like, ears pricked up for, ahh, how do I do this, what can I do differently? Help. And they actually want to hear what you have to say. And so you said you're out of the office on farm visits about one day a week and then the rest of the time you're here physically in this office and you communicate directly with people through newsletters. What else do you do?

[00:30:20] (TH) Email and phone take up a good chunk of my time and something that sort of predates my time here, but it's hard for me to imagine doing what I do without email and digital photographs, because it's so easy for people to snap a photograph of what they see in the field and then share that versus trying to describe that over the phone.

[00:30:46] (KS) Yeah, people's descriptions can be quite different and there can be a lot of difference in that, but a digital photo, even my mom can text a digital photo to me, so we're living in amazing times. So that helps kind of diagnose what's going on. And, so is that the work that you're primarily concerned with? Sort of like a help desk?

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[00:31:18] (TH) Exactly, and that's about half my time. The other obligation I have is applied research projects.

[00:31:26] (KS) What kind of thing would that be?

[00:38:29] (TH) I like very applied projects, for example comparing two training programs on grape vines. Where I would prune them in different ways and then measure response over a couple of years. And interpret that information and give it back to the industry. Say, okay, I ran this comparison and here are the pros and the cons of these two systems and here is what you might anticipate if you used this on your farm. Kind of providing content that I can then send out to the industry.

[00:32:00] (KS) So you're kind of creating your own content from the experiments that you're doing and then translating that into efficacy or what's useful. Do you have to get funding for those things separately or is that part of your job description?

[00:32:18] (TH) That's part of my job description and I'm in a position where I work for Tony's department, so he usually secures funding and proposals for the projects that I run.

[00:32:30] (KS) Oh okay, I wasn't sure how it works. I know at Virginia Tech do you also have funding from USDA or State Ag? How does it work? Is it just like a tapestry of funding?

[00:32:46] (TH) It's a tapestry. And it changes over time. So for the first five years that I was working here half of my funding came from a federal grant, from a USDA specialty crops grant. And after that grant had run its course, now it's state and university funding.

[00:33:05] (KS) But you could us, I suppose the argument could be made to justify the state funding by saying, look what we did with the federal funding. You should come in and follow this up because look at all the good things that came out of what we did.

[00:33:20] (TH) Surely

[00:33:22] (KS) And you also attend, I'm assuming you attend some of these meetings, like the Virginia Vineyards Association meeting at the end of February, that I'll be going to as well. What other kinds of meetings and things, the actual vineyard visits as well?

[00:33:40] (TH) Correct, so many time it's individual vineyard visits, when it's just one producer that I'm visiting with independently. And then we'll have about a dozen field meetings over the year and many of those will be for a local group who will say, we're all going to be at vineyard X from noon to four in the afternoon and we'll do a vineyard walkthrough as a group and talk about what we see and we'll also have some content that we'll deliver. Talking about estimating crop or a new pruning system or new varieties that people are talking about.

[00:34:25] (KS) Do you ever get into stuff like testing sugar contents and stuff, or is that more on the wine making side?

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[00:34:30] (TH) That's on the wine making side and so often we'll collaborate and we'll have a pre-harvest workshop and I'll go and work with the folks in food science and I'll talk about how to sample in the vineyard to assess the variability in the vineyard and then they'll go through the physical processes in the vineyard.

[00:34:58] (KS) It is such an interesting thing because there is so much that happens post-picking and pre-picking and for a lot of these people in the business they're doing both. They have to learn how to do all of the things.

[00:35:15] (TH) Correct. And in a sense it's much easier to know how to do both than to have this mystery vineyard or mystery cellar. But that does happen quite a bit. A lot of fruit is grown by independent grape growers and sold to commercial vineyards and it's tough, if you're not in the vineyard very frequently or you're not in the winery very frequently to decide what to do if there's a hurricane coming through or if, you know, how to make those decisions.

[00:35:44] (KS) So how many would you guess in Virginia are just growing grapes for somebody else?

[00:35:51] (TH) Not a large amount. There's probably ten commercial, independent grape growers. By commercial I mean they're...

[00:36:08] (KS) Reselling them?

[00:36:09] (TH) They're, it's a full time occupation of a family or a group of ten people or something. There are many vineyards where it's sort of a backyard with less than five or ten acres of grapes. It's relatively small when it's gets to 20 or say 50 acres of grapes.

[00:36:28] (KS) We don't have any part of Virginia in particular that's like the Central Valley in California where they're just growing tons and tons and tons of grapes and then shipping them out everywhere willy nilly.

[00:36:40] (TH) No, no

[00:36:42] (KS) So it's a bit boutique-y even just the commercial grape growing process is also a niche boutique.

[00:36:53] (TH) Sure, and it's a small enough industry that there's not a commodity or spot market for grapes. It's all handshake deals and people know of everyone's reputations. It's not that large of an industry that there's any mystery to it.

[00:37:07] (KS) So in those situations, do they tend to grow for the same winemaker over and over? I know that there's several vineyards that share a winemaker, they have the same winemaker who consults at several vineyards. Is that a relationship between the winery and the grower? Or the winemaker? Or both?

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[00:37:35] (TH) It's usually all parties would be involved. But by and large from what I see and what we recommend and what's reported back to us, it's a lot easier if it's a multi-year agreement. Whether it's two years, five years, or twenty years, we see examples of all of them. But because so many logistical things can come up, the more years people go through the process of buying and selling grapes the easier that becomes. They sort of have an understanding you know, understand each other and the site that the grapes are grown a little better.

[00:38:15] (KS) It's a good symbiotic relationship right there of, we know these guys like this. They're not going to go off and just start growing whatever. They're going to be more in line with whatever their usual customers are doing.

[00:38:30] (TH) Surely, and I'd say that it's such a small industry that grower reputation means a lot. A lot of new growers say, okay, I'm going to plant these grapes and I'm going to grow good quality grapes and I'm going to be able to sell them for this price, which may be a challenge. If they don't have a reputation or if they have not been successful in growing grapes in the past why would a winery want to work with them.

[00:39:00] (KS) Or even if they're good, but they're just an unknown quantity. It's just a hard thing to get into. I wonder if people tend to develop a relationship with a vineyard. Maybe they work with a vineyard, like you were at Barboursville, and then shoot off and decide that they're going to do their thing and grow for somebody. So you'd have a relationship already established there.

[00:39:30] (TH) You see a lot of young people now that have grown up working at different wineries who go on to be a winemaker or a general manager at a vineyard or develop their own winery. And also you see folks that come in from another, as a second career, without that experience. And so you see a smattering of different.

[00:39:54] (KS) It's really all kinds isn't it. So your training in your degree program, was it, in line with what you ended up doing? You know there's a lot of people, you know I majored in English or whatever and I'm doing this other thing, but does it really follow along pretty well with what you ended up doing?

[00:40:19] (TH) It did. And then I've noticed through my work here that many of the questions that I've, we've couldn't answer came down to small business management, economics, so I've just finished an MBA. I wanted some insight on how to look at those questions. Not be to able to answer those questions, but just to look at them, with the accounting and so on and so forth.

[00:40:47] (KS) Well that's definitely going above and beyond. But I'm sure that also helps with your family business. Is the plan eventually that you would take over the family operation?

[00:41:03] (TH) In some form, yes.

[00:41:04] (KS) And there are multiple siblings?

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[00:41:06] (TH) Yeah, multiple siblings and families and so there's a lot of potential there as well. And I think that that's the great thing about the wine industry. Without farming and monstrous amount of acreage, you can make a livelihood, which is pretty rare in agriculture today.

[00:41:26] (KS) I think that's why it's so natural for me to pursue this line of research after pick-your-own orchards, because it's so similar in the bounty that you can reap off of the limited amount of land. And often land that would be unsuitable for other types of farming. And then the direct to customer sales, the business model of it itself is extremely cost effective way of family farming. They can actually charge almost grocery store prices and not have to pay for the labor of the picking, or the transportation, or the stock pricing. Wine, there's a whole lot more, because, what do you call it in the industry, it's value added food product and boy is there a lot of value added there. If you're just selling wine grape juice that wouldn't be very tasty, but there's so much work that has to go into creating this finished product. It still makes me scratch my head that it's doing as well as it is. You know, what do you think is the success of this, in your opinion, from what you've seen, both from your own family's experience and from talking to the wine world at large here in Virginia?

[00:42:59] (TH) I'd say that the constraints of wine quality are set in the vineyard, so you can't make amazing wine from sub-par grapes. And then beyond that, being able to market that product. Wine sorta, there's not clear definitions of quality and people's perceptions of quality, so the tasting room can have a huge influence on the perception of wine. That all plays into the industry as well.

[00:43:38] (KS) That's a really good point. I don't know that anyone else has really pointed that out even in tasting rooms, when I've been interviewing people in tasting rooms. But yes, there is a syndrome that happens when you love the wine in the tasting room and then you go home and you taste it at home and you go, it doesn't taste that good. Why did I buy a case of this? Partly it's having the wine in your system when you're making purchases perhaps.

[00:44:06] (TH) Sure, and a lot of people are a little unsure about what they even perceive in wine and that can be influenced tremendously. I remember my first job in the industry I worked in a winery and occasionally I'd work in the tasting room and if you just mention something like, oh we were working on this wine today, or this is our favorite wine, it immediately translates into people's interest being piqued in that wine.

[00:44:34] (KS) Right, or when they say it's reserve or we only have a few bottles of this, but it's so good. That's definitely some common techniques that I've seen on the tasting room floors. And it does, it does have that effect of, you're like, "wow, we should try it." So you grew up in Virginia?

[00:44:56] (TH) I did

[00:44:57] (KS) On the farm?

[00:44:58] (TH) Mhm

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[00:45:00] (KS) So how many brothers and sisters are there in the Hatch family?

[00:45:05] (TH) I've got two sisters and then my dad is one of five, so there are many owners of our farm.

[00:45:10] (KS) So it's sort of like the Green family, Hartland Orchard, in Markham?

[00:45:15] (TH) From what I understand yeah

[00:45:18] (KS) They have nine or something. They have a lot of the sibling relations who have all or part or none of something to do with the farm. I needed a picture chart to figure out who's related and why do they do this? Who has the Christmas trees? It's just a whole maze. But, in your family how do you deal with that? Because one of the issues is that some people won't want to keep it in agriculture. Is there common ethos in your family of keeping it in agriculture?

[00:46:00] (TH) Yes and no. Because especially as some of my uncles and aunts are in retirement age it can be desirable to just think of selling it for lots of money. But my, two of the five, my dad and my uncle, are heavily involved in the farm and I think the best relationship we've seen between them now is what's happened for the past twenty years, where my dad manages the vineyard and the tasting room and my uncle manages the livestock on the farm. And so it's a good setup that they're not

[00:46:37] (KS) In each other's business too much.

[00:46:39] (TH) Exactly, you know with siblings it's tough because there's not a hierarchy. There's not a boss and an employee. Everyone's on equal footing. So it's good to have one's own space. So right now, as far as the wine making for the farm, it's a three person team, which is a really neat way to do it. But, working with family you can run into some friction.

[00:47:07] (KS) What supports has your family been able to take advantage of as far as the extension agents that, which you are, but for your farm, how much do you find that you guys rely on for the cattle, or some other aspect of the farm, that you rely and get support from state agencies?

[00:47:33] (TH) That's a great question. Especially a lot of legacy information. So information at Virginia Tech or Virginia State University has developed over the past fifty years. That's used every day on the farm. Cutting edge information, that's usually by way of facilitation, so like the Virginia Vineyards Association. It's hard to point at one particular thing that we take and we use on the farm, but if you look at it collectively over the past twenty years that we've been attending their sessions there's so much information that we've gleaned and gathered.

[00:48:08] (KS) And I suppose with the animals it would be things like treatments for parasites or disease or hoof ailments.

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[00:48:15] (TH) And it's hard to separate, because, for example I went to Virginia Tech and work for Virginia Tech now. My cousin went through the veterinary program and she's a large animal vet, so it's hard to decide what information comes directly from us and what information is from Virginia Tech.

[00:48:36] (KS) Right, because you're probably more informed than the average family on some of these things. So what's the hardest part about your work. You've talked about that you really enjoy getting out and meeting people and making an impact for them. What are some of the challenges that you find?

[00:48:57] (TH) When there's not clear answers or clear routes forward. For example, we used to have a lot of very cold temperatures during the winters back in the 90s. And then from about 97 through 2013 we really didn't see very cold temperatures during the wintertime, so I got with many people also in the industry started planting more cold-tender varieties, and then the winter of 13-14 and 14-15 we saw a lot of injuries to grape vines across the state. So that's a challenge where we think we're doing the right thing.

[00:49:39] (KS) Is this a blip or a trend?

[00:49:42] (TH) Correct, and there's just no, Merlot's a great example. Merlot makes wonderful wine in Virginia. It ripens perfectly for our growing season, but it's not very cold hearty. So it's a fairly fatal flaw with that variety.

[00:50:00] (KS) The last couple winters have been hard on the Merlot. Has there ever been a time, for you, where you were like oh. Maybe that would be one of the ones, when you planted a lot of Merlot because you thought the mild winters were coming and then it was like, no slap back it's actually going to be freezing and here's what I'm going to do to your nice plants.

[00:50:32] (TH) Exactly

[00:50:34] (KS) So did they die out, your Merlot after that?

[00:50:39] (TH) It's funny you know, about a third of the vineyard. And so, deciding how to move forward we have two very cold tender varieties planted on our farm, Merlot and Vermentino, and so we've taken both approaches. We've replanted Merlot and with the Vermentino we've replanted the vines that died with a more durable variety called Menal Blanc. And so we'll tell you in ten years what it looks like

[00:51:03] (KS) Just don't lose those tags on those vines. Unless you're going to be like, what is this thing again? It's funny, not as many people have mentioned problems with the Merlot, but I do know that the last couple winters, because of my friends that have fruit trees, they had a lot of damage to plums and apricots and things that are a little more tender, that go split trunk cold. Not a fun thing to have happen. So what other hats do you wear in your life? Are you also married? You look like you're married. Do you have children?

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[00:51:43] (TH) I do. I've got a young daughter. She will be two in March. So that's been a lot of fun.

[00:51:50] (KS) That's a relatively new development.

[00:51:53] (TH) It is and so also it ties back to family. She was the first grandchild in my immediate family. Now there's three, so things change.

[00:52:04] (KS) They have a habit of multiplying don't they?

[00:52:06] (TH) Exactly, so it's also changed our thinking about the farm. It makes it very tangible. You know, there could be another generation to farm here. And also, I think we've got a unique past that on our particular farm it was a dairy operation. So my grandparents in 1950 though, okay dairy's the thing to do right now. And now we think it's grapes. But who knows another fifty years from now what will make sense on the farm. And that's sort of fun to think about.

[00:52:43] (KS) Had this growth and change over time. When you go out in the field is there any special tools, gear that you take with you, mud boots?

[00:52:57] (TH) Yeah, boots, pruners. Now, tick repellent. There's been a lot of Lyme's disease in our industry because a lot of people are outside in taller grass. So that's something I'm a little nervous about.

[00:53:11] (KS) And you've somehow avoided it up to now?

[00:53:13] (TH) I've been fortunate, very fortunate. But many of my colleagues and friends and family have gone through Lyme's disease. It's something that I don't take to the field with me, but daily forecasts, it's really nice being in proximity to Washington DC because there are great forecasts and great interpretations of forecasts, which is a great tool. We always grumble that we wish the forecasts were better, but we're in pretty good situations now. At least within three days. It really helps out.

[00:53:47] (KS) The level of accuracy is quite good. So, boots, tick repellent, pruners, cell phone I'm assuming?

[00:53:57] (TH) Yeah, cellphone, camera.

[00:53:58] (KS) You still have wacky reception throughout this region right? Like when you called me I couldn't call you back. It just dropped off and died. So I was like, ugh god Virginia, when are you going to get your cell towers figured out? But

[00:54:13] (TH) And that's one of the fun challenges I have, where I go to a lot of farm addresses and I meet people at farm address and the direction still end up with, well what landmark are we going to meet by? Because you can't just say this field X.

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[00:54:30] (KS) Totally. I've been wandering the roads myself lately and it's actually been a lot of fun to go to new, you always pass a road and wonder where it goes and there's probably a vineyard at the end of it nowadays.

[00:54:45] (TH) Well things I wish were accessible and easier to use on a mobile phone would be a Spanish translator.

[00:54:46] (KS) So a lot of the actual workers in the vineyards are Spanish speaking?

[00:55:03] (TH) Correct, and that can be a challenge because a lot of the managers are English speaking and a lot of the vineyard workers are Spanish speaking. So we've run a couple of programs with two language tracks where having a translator present at the meeting. And I think that's a great way to proceed, because vineyard workers are usually not appreciated for how mindful and how conscientious and what hard workers they are, but they also see so much of the vineyard. They are looking at the vines closely multiple times per growing season and if they can scout and interpret what they see, so many eyes per acre

[00:55:47] (KS) That can be such a big help. Because I think from what I've heard thus far, like I said there's the labor issue. If it's a very small operation and they don't feel that they can give them work all year round, there's not a whole lot of people who are in a position where they can go and find other work for three or four months a year and then come back and work for you, so you don't have that continuous knowledge. So I think some people feel like they don't bother with the training as much. Do you find that? Because they think, oh I don't know if they're going to be here next year, I don't know if I'm going to have work for them. So they might just be like, oh you just drive the tractor and mow between the rows and you just do these things, but I'll do all the pruning, or I'll do all the whatever

[00:56:38] (TH) Exactly

[00:56:39] (KS) That's tough

[00:56:41] (TH) It is and those little things make all the difference. So we say, usually in jest, that when we prune a vineyard it's thousands and thousands and thousands of cuts, so there's a decision made in every single one of those cuts and if the worker making those decisions even has a little bit of information to work with it can have a dramatic influence on the productivity of the vineyard, the quality of the vineyard, and so on.

[00:57:09] (KS) Very good point. But it does come down to a dollars and cents thing. I think Jim was saying, Jim Law, that he was able to provide year round work because he has a) had a really long relationship with his workers, but also I think because he empowers them to take on a lot and I think maybe for some people it's a bit of a fear and control kind of a thing. They don't want to take the chance that something is miscommunicated or that the person doesn't really get what you're saying.

[00:57:48] (TH) Sure, and I think language barriers, exactly

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[00:57:54] (KS) Because I've definitely heard that from orchardists as well, who won't let their hired hands spray anything, because they're like, well on the peach trees they might spray this, but if they aren't careful with what they're doing and they spray the blueberries and they haven't cleaned it thoroughly, that will kill the blueberries. And I get it, the nerve wracking-ness of it, but you just think, oh my god how do they do all of this?

[00:58:28] (TH) But there's so much information there. Like, I've got a couple key contact people that I call when I need to find something out about the industry and a couple of those individuals are labor contractors and so they see more vineyards and they're more in tune with what they're seeing than a lot of vineyard managers and owners and so on.

[00:58:51] (KS) Yeah, I'm just thinking, the point about the amount of time they lay eyes and hands on the vines and how that can be such a good tool. I don't know what you do about it, because our labor situation is challenged by many issues that don't have anything to do with your work, but I think, probably in the growth of the industry, if it wants to expand, or if people want to do something more like a Barboursville level, they've got to figure that out to make it sustainable. What do you think is changing about Virginia wine? Or what's going on now that is different from twenty years ago? Well twenty years ago you couldn't drink, so you don't know.

[00:59:53] (TH) I think a huge theme within a lot of different cultures of agriculture has been interest in farms, interest in authenticity of products and that's probably twenty years old now at this point, but that's been a major player in changes in the Virginia wine industry. And now, you know, you find more questions in the tasting room asking, well do you grow these grapes? So consumers are mindful that not all grapes sold in Virginia tasting rooms are grown at that farm, or made at that winery. So it's great to see people seeking that out and it's interesting too, there's always so much critical acclaim for big red wine, so on and so forth, but they're not always the biggest seller in the tasting room. So the wines that get the most prestige, may not be the bread and butter of the operation, which is interesting to see and experience in this industry.

[01:01:05] (KS) The tasting room favorites. Now I think definitely someone I was talking to was talking about city wines versus country wines and making a distinction that the more rural or remote the vineyard, that their tasting room traffic is going to have a preference for the sweeter, more fruit forward wine, than closer in they're going to be looking for a dryer, more European tasting wine or something like that. I just thought that was interesting. And that their products have to reflect who's coming into the tasting room, who's buying. Some of them have adjusted to make sure that they have something always on hand that's going to appeal to the local demographic, whatever region, and then maybe something for themselves, for competition they're trying to develop other types of wine, but primarily they know that this is their bread and butter, maybe it's a Riesling, or an apple wine or something like that, that has a popular appeal for their college campus or whatever it is. I thought that was also an interesting observation about the industry. There's definitely sort of a snobbery factor happening lately where it's trying to make these very elite wines.

[01:02:38] (TH) And that's a great thing that I wanted to mention with challenges to the industry is people are fixated on a couple key varieties, where there's better varieties that grow and make better wine in this environment, but there's a little bit of snobbery against them. Some of the

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hybrid varieties, people poo poo them, even though it's greener production, it's less input as far as the production, but they just don't have the name.

[01:03:12] (KS) Cache. The big ones obviously are cab and chardonnay. That's across America, the ones that everyone knows. If you don't know anything else, those are the types of wines you're going to know. So it's hard to fight that appeal of those when people are going to come and ask for those by name when the other ones might not have as much name recognition. But, one of the things that you pointed to is that the consumer, particularly in Northern Virginia, is more informed.

[01:03:57] (TH) And interested in learning as part of the experience they have when they go to the tasting room. Why a variety does well there. One doesn't want to be bombarded with production and technical information, but novel information that shows that a farm's unique that can be fun, tasting room attendees can have a great experience with that.

[01:04:27] (KS) Definitely. You came here and you worked under Tony and you worked in his department. Is there any time limit on this job? Or is this a job that as long as you're doing well you can continue in this job?

[01:04:46] (TH) It's soft funded, so it's renewals of grants and some of those come from the university, some of those come from the industry, the wine board. I don't think there's a limit on this job, but it's where I think I can do the most good and the other hat that I wear is my family business. There might be room for me or need for me and that all plays into it.

[01:05:17] (KS) Do you find it helps your authenticity or legitimacy to have that in your family? So you can say, I'm not just the scientist with your nose a book, but you do this too? Like, I've had to figure those things out too?

[01:05:34] (TH) I think so, especially for communicating results to what we find and also designing new projects. I think it helps in many ways.

[01:05:43] (KS) Do they ever suggest things? Do they ever get suggestions from growers who say, could you try and figure out why this is happening?

[01:05:55] Surely, directly and indirectly. We're always open to what challenges growers have and why they might need better information, something more to work on. So the training project that I finished up a couple years ago, that really was born out of the industry. People were converting training systems and planting new vineyards and we wanted to know how these training systems differed and so it just made sense to develop a project to look at them more closely.

[01:06:24] (KS) And what were they called, those two training systems?

[01:06:28] (TH) One's called head training cane pruning and the other is cordon training spur pruning.

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[01:06:52] (KS) I think someone was showing me something about this. Could you briefly describe the differences between the two?

[01:07:00] (TH) Sure, so head training cane pruning minimizes the amount of wood pruning that is kept on the vine. Whereas, cordon training spur pruning has a lot more perennial wood that is kept year after year after year.

[01:07:19] (KS) So old wood versus new wood. So you're cutting back with the head training. You're taking fresh shoots and you're limiting cutting back each time on the old growth?

[01:07:33] (TH) You've seen some of the grape vines. So with cordon training on the fruit wire you have horizontal turns essentially. Perennial wood retained for ten years. With cane pruning it's only new wood on that horizontal wire. So a new grain is laid down every year.

[01:07:54] (KS) So with a trellis system is it basically like green wood coming out or the old, gnarly stuff at the bottom. And then new shoots coming from that. Okay.

[01:08:07] (TH) Exactly. Both develop a vine that looks very, very similar, but it's just different approaches of pruning to get to that.

[01:08:13] (KS) And so what's the advantage of one or the other that you found?

[01:08:19] (TH) As with anything there's pros and cons with both of them. With cane pruning there's a little bit less work needed in early spring with shoot thinning, because fewer shoots are developed. It's just less work needed to thin those shoots. But there's a penalty for that. It takes more time when the vines are pruned to employ cane pruning, because those canes need to be tied down. Where with cord on spur you can develop many more shoots and so if you want to use a divided cane system like Ballerina, cordon training system would be a better way to get there, because you have a little bit more control and you can develop more shoots.

[01:09:00] (KS) So if you had cordon and it had all the wood going along the cable and it's shooting stuff up you don't have to secure anything, you don't have to tie anything down, because it's already tied down and then those shoots that are coming up you can select which shoots, so there's not crowding. Okay. I think I have kind of an idea of how that works. And, do you also have more vulnerability with the head training cane pruning, because it's more tender? Like the actual material is more tender so it's more susceptible to say a late hard freeze came in or something?

[01:09:42] (TH) Exactly, so because you've got fewer shoots on the grape vine if you were to be frosted out there's a greater chance you'd lose your crop with cane pruning versus spur pruning.

[01:09:55] (KS) Would that individual vine, let's say you got a hard freeze, would that one be toast that year and then maybe come back the next year?

[01:10:04] (TH) Exactly. Grape vines are pretty cool. All the buds are tertiary buds, so there's three chances for the growing season. So one could be frosted twice and still have a fully canopy

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on the grape vine. The amount of crop on the successive buds is much less. The primary buds there's a full crop and on secondary buds there's much, probably less than half of a full crop.

[01:10:29] (KS) One last question. I'm sorry, I know you have, oh it's after 4:30. I know you have to get on the road.

[01:10:32] (TH) It's alright.

[01:10:33] (KS) You're sure? Alright. I meant to ask the other guys and it kept popping out of my head. So when I was in Italy I went to Montepulciano and I went to a vineyard and we did a tasting and talk about your big reds. And they're all about, in this sort of sado-masochistic way, sort of stressing the vine is the one thing that they really kept emphasizing. We need the vine to be stressed. They sounded like they were almost killing their vines to get the kind of, is that something that we talk about at all here in Virginia? Is this something that people are pro or against?

[01:11:21] (TH) Sure, and so it's probably the best way to say that in Virginia we're trying to limit luxury consumption. So a lot of crops luxury consumption is there's more of whatever resource is available, and so the plant takes that up. Whether it's nutrients in the soil or water it takes up more than it needs and then usually develops more vegetative growth. That's a challenge in Virginia because we get more rainfall during the growing season than grape vines need to function during that growing season. So they put on lots of vegetative growth because they've got more water than they need. We can't control rainfall, but we can control the cycle the rainfall falls on. We can be precise with leaner soils and more slope to evacuate the water away from the grape vine.

[01:12:16] (KS) Leaner soils refers to less nutrients.

[01:12:21] (TH) Less nutrients, less water holding capacity. If you think of a soil like a sponge, it's a thinner sponge.

[01:12:43] (KS) Not in the same way that they stress the vines there. What I always wondered there, when they were talking about it, is do their vines just die a lot?

[01:12:56] (TH) You don't want to stress a vine. And the point where you limit it's ability to proceed with photosynthesis that's not a great thing. People talk about water deficits. Providing a moderate amount of water deficit with a vine doesn't put any vegetative growth on, that's really nice. Putting too much water deficit on, when a vine droops and stops proceeding with photosynthesis, that's not a good thing because then there's no sugar production. So you want moderated stress instead of full out vines about to die.

[01:13:29] (KS) Maybe they were just Italian and were making it much more dramatic than it needed to be.

[01:13:34] (TH) Well it sort of goes back to the tasting room experience.

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[01:13:43] (KS) And I think part of that was the narrative justifying the price of these types of wines. Like look what we have to do. We have to almost kill these vines to make a wine that's good enough for you, so you should pay whatever it costs.

[01:13:56] (TH) You see the same thing with yields. Everybody brags about low yields, but for very little reason. There's no production reason to limit yields below a certain threshold. People do.

[01:14:10] (KS) So it's really only like the sugar content wouldn't go down because you had more grape on a vine?

[01:14:16] (TH) No, if you had an enormous crop on the vine the sugar level wouldn't go down, it would just take a longer time to get to that sugar level, because there's more fruit to fill with sugar.

[01:14:28] (KS) But in most cases you wouldn't get that much anyway, so having a bountiful harvest is not necessarily a bad thing.

[01:14:36] (TH) No, and in many cases it's better to have more crop to have less.

[01:14:40] (KS) Especially if there's damage and you can only take part of it.

[01:14:44] (TH) Or going by that same model, if you have too little fruit the sugar will accumulate too early and then the sugar level will be ripe before the fruit is really mature and so there's pros and cons to every approach.

[01:15:04] (KS) And then the big issue that Tony was mentioning is that we have those late season hurricanes that sometimes come through, so a big dump of water would reduce the sugar. Like it's ripe, is great, it's perfect, but then a hurricane comes through before you can harvest and the damage that's being done is physical damage to the plants, but also too much water in the fruit?

[01:15:32] (TH) It's mostly physical damage. There is some dilution, but that takes a lot of water and a lot of rain fall. More fruit when it's really ripe is really tender, just being bombarded with a big rainfall can be really hard on the fruit. And the fruit staying wet for 24 hours, 48 hours, that's really tough on really ripe fruit.

[01:15:56] (KS) We did have a few years back in the peach orchard a similar, a hail storm came in right when they were so perfect and then the ground is littered with bruised fruit. It's probably fine. It's fine for pies and jams, but nobody wants to pick it up.

[01:16:12] (TH) And the clock sort of sets when that happens. You've got 24 hours before it just goes to mush.

[01:16:27] (KS) Is there anything that you wanted to add? About your job?

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[01:16:34] (TH) No, I think it's a wonderful industry. And I continue to be really excited and inspired by the folks in the industry. I'm really happy to be a part of it.

[01:16:44] (KS) It's been very satisfying being able to talk to everybody. Because I think people are overwhelmingly positive about it and excited. They want to learn more they want to connect with people. If anything I think they thing I hear most is that they wish they could clone themselves or have more time so they could actually go visit other vineyards and taste more or learn more.

END