Honey and olive oil consistently rate as some of the top fraudulent food products. How do companies commit honey fraud? And why is it so difficult to regulate food products? Executive Director of the Resnik Center for Food law and policy and professor at the UCLA School of Law, Michael Roberts joins us to explain the complexities of governing food, and why he always checks the labels before buying olive oil.

Michael Roberts, Dr. Wendy Slusser, Michael Roberts

Thank you, Wendy. And it's good to be here with you and talking about, I think our favorite topic. Exactly. Honey came to my attention because of our broader work at the Center on food fraud. And the reason why food fraud has been such great interest to us is that as you look at the development of Law in relation to food, really over centuries of time, the very first laws on food, were on fraud. And in the in our modern food and industrial system. It's interesting because this very, very old problem of fraud is now a new problem. And it's even more complicated because we trade food around the world. And much of the food that susceptible to fraud is imported into this country and other countries as well. And oftentimes their specialty goods, although all kinds of foods are susceptible to fraud. So it was the fraud in the historic context. Well, if you go all the way back to Rome, for example, you'll see a great deal of fraud around wine, and even Honey, how do you make fraud with wine, you dilute wine, you add foreign substances to it. And you add colorants, you disguise the wine into a product that's less than what is purported to be, there was a great deal of fraud, historically, with wine and even
today, you'll hear reports occasionally on wine fraud. In fact, there's an ancient recipe that I use in one of my classes to show out of the book of officious who was the purported author of a very old cookbook in Rome, where there was an actual recipe on how to commit honey fraud by adding, you know, two parts of the bad stuff to one part, honey, in other words, it's always an attempt to dilute the quality and the authenticity of the product. And so over the course of history, we've seen everything from olive oil to milk to bread, bread was constantly loaded with lead in the Middle Ages. And it led to bakers having to put their initials on loaves of bread to identify the original source of the bread. So in case that you took the bread home, you opened it up, you discovered it was full of lead, you knew who the source was the very first example of traceability, which is a modern tool that's been used to try to clean up fraud and other issues related to food. So wait, there was a piece of letting it in the middle of it? Yeah, they could see it? Well, you could say it depends on how well it was incorporated into the bread. The idea was to make the loaf heavier, right, so you could get more money. And what's interesting is the big fraud case that really sort of broke open this issue in modern times, was in China over a decade ago, when you had melamine added to infant formula into pet food. Right. And again, the concept was the same thing that we've seen back in the Middle Ages and even back into the days of Rome, is that you have a foreign substances added to a product to make it heavier in a deceptive way. It was intentional, and it was all designed to make more money. Right. And that was to imitate the milk or substitute the way and the casein that was in the milk. Exactly. And it allowed the manufacturers to make more money, while the unfortunate consequences consequence of making the product dangerous. There were six infants have died in China as a result and hundreds who are hospitalized and pets around the world were killed. Wow. So I've always said the two things you don't want to fool around with in life as one hurting pets and hurting children. In this case, the fraud resulted in just in doing just that. So it really sort of woke up the world. And I don't mean to overstate that to the problem of food fraud.

Dr. Wendy Slusser 05:03
And that was only 10 years ago? 15? Hard to believe before that we were not as aware.

Michael Roberts 05:13
Yeah. And the folks that are aware, who have always been aware are the honest purveyors of food, the producers who try to do things the right way, because they're the ones who actually get hurt economically in a competitive sense. So in the case of honey, for example, the folks that are hurt are obviously consumers because the honey that many consumers are buying off store shelves today is adulterated. It's it doesn't mean it's unsafe. In many cases, it's perfectly safe. But it's not an authentic honey product that one will expect when buying honey in a store is had sugars or syrups. Other adulterants added that's cheaper than this honey, honey cheapens the honey product. So where are those honey is coming from? A lot of it comes from Asia. And it's routed in different ways. So for example, we're pretty good about keeping honey from China from being imported into the US. But there's easy routes around us prohibition, you can send a honey to another Asian country, for example, and put a label on it. And then it finds its way into the US.

Dr. Wendy Slusser 06:23
So you need to make sure you know where your honey is sourced?
Yes. And that's not easy, because oftentimes the people that you're buying it from will not know the answer to that question. So honey is in great demand these days, it's a very popular product, and yet the price continues to drop. Even though we haven't seen production levels go up necessarily, why is the price dropping? That's because the market is being flooded by adulterated honey, that, in turn is putting in tremendous pressure on honey producers in the US and may even force them out of business eventually. And so it's a great concern magic. No, they cannot compete against the cheap, imported honey. So the consequences are that honey producers in the US will disappear and honey may become like maple syrup has become over the years, where the only way you're gonna get authentic maple syrup is to pay an arm and a leg for it in the grocery store. But there's another unintended consequence of honey producers going out of business that we normally don't think about. And that's that many of these honey producers are also pollinators. They manage the pollination of honeybees, in orchards and in farms. And this is a great source of an input for our food supply that we desperately need. And it is their tree trees need to be pollen. Or they flowers, trees, everything well California alone. The trees orchards are heavily dependent on honeybees. So all of the orchards, apples, oranges, pistachios, they vary from degree degree to each from each type of fruit and how much they need pollination. But it's not just orchards as flowers, the whole ecosystem really is dependent upon upon pollination, we've known about the disappearance of the honeybee for some time now, and we're puzzled by it. We don't know whether it's a result of certain kinds of pesticides, or various inputs into farming or agriculture. And this is something that a lot of scientists are evaluating in. And as a result, some pesticides are not being used anymore in order to save the bee, which is the most effective pollinator out there. But we haven't been paying as much attention to the manager of the honeybee. The pollinator bee, which is the honey producer, so many honey bee operators will make their money through the production of honey as well as pollination.

They get paid by these orchard owners?

Yes, and so they lose a good chunk of their income, they're not going to be able to provide pollination as well. So the economic pressure is what we're talking about here as a result of this adulteration. And what's so interesting about this is that well, Whole Foods has actually run demonstrations in their stores, where they've removed all the food products that are dependent upon pollination all across the country, just in a couple of select stores ism as a way of illustrating the importance of pollination that's very dramatic. And you have much of your produce department is vacant, as a result, a lot of your dairy and a lot of your your your process goods because many of them are dependent upon food ingredients that in turn are dependent upon plants, pollination, and so it's an ecosystem problem. And what's even more interesting I found in my research, when looking at honey, is that Walmart a couple of years ago filed a patent for a robot honeybee pollinator bee, not a honey bee, but a pollinator robot bee that could be used in times of need. So again, they're hedging against a not very bright
future that the that we may be in desperate need of pollinators. The irony of this is that here, you know, retailers really are the are in an excellent position to help solve this problem. Yeah. And so it's a matter of the left hand not knowing necessarily what the what's going on with the right hand. So the position in our white paper that you refer to, is that this is really a Food Systems Thinking problem. And so the value of the white paper with respect to the plight of honey producer due to fraudulent honey, is it allows us to use a single product to look at food systems thinking in a broader context. And to think about how we need to think more broadly, when we think on these issues, I was actually very grateful that the European Parliament has figured this out. A couple of years ago, the Parliament passed a or not, it's not a law or rule, but a statement that essentially calls out the need to address honey fraud in order to ensure that we have adequate pollination, they saw the connection. So it's not that big of a leap. But what is gets in the way, quite frankly, is the legal system is unable to address issues cleanly, and in a way that engages in food systems thinking, our government agencies, you know, they're they're limited by constraints on what they can evaluate. So we don't really have a way of evaluating unintended consequences oftentimes in our food system, because we don't have, we haven't equipped the government to do that.

Dr. Wendy Slusser 11:49
So what agency would be moderating food fraud?

Michael Roberts 11:54
Well, it would be the Food and Drug Administration, the FDA, but the the, the agency, or the government department that actually isn't is interested in food fraud, in terms of its impact on producers would be the Department of Agriculture. So here, you have two very different agencies who don't, you know, they're very separate and apart from each other, the USDA has looked at honey fraud as a issue, but they don't have the authority to go in and do anything about it. But frankly, it's the FDA and the FDA doesn't have the jurisdiction, or the authority to look at what's going on in terms of the economic effect on farmers, or producers. It's kind of a catch 22, if you will, that set up because we have a fragmented regulatory approach to food.

Dr. Wendy Slusser 12:41
Now, just moving back a step. Also, I'm just imagining Who are these honey bee operators? I mean, they're are they sort of a homegrown kind of business or they're bigger?

Michael Roberts 12:55
The honey producers who produce honey are usually small, and they're independent, are like the fruit and vegetable grower? Yeah, yeah, they're very small. They've learned to organize themselves simply out of survival. There is an American Honey Producers Association, but they don't have the political weight behind them. Because there's not a large sort of monolithic approach to the production of honey by these producers. Stow away be part of the problem, too. Yeah, it is part of the problem. Politics certainly weighs into this, they have petition and have asked the FDA numerous times for what we would call a standard for honey, let me
explain what I mean by that just a minute. Many of the food products out there in the market have a certain standard in order to call them a particular name. So for example, the dairy industry, which was plagued by fraud in the early part of the 20th century, came up with numerous standards to identify what certain products would mean everything from butter to you name it cottage cheese, yogurts, they have standards, they're like recipes. I mean, in order to call your product, a name, you have to meet that standard honey and olive oil, which have both suffered greatly due to fraud, have been asking the FDA for a number of years for a standard. A standard is a benchmark, for example, think with me for just a minute. If I were to say that the honey you're selling to me is adulterated. You would in terms of perhaps say to me, Well, I'm still going to call it honey, because there's no definition of honey is that's like the word natural. There's no definition of the word natural flavoring. We don't define what it means, then we're sort of have our hands tied behind our backs, try to fight this battle can just put that everywhere. Yeah. And so the only recourse, quite frankly, is is litigation. And there may come a time when lawyers step in and sue fraudsters in this area with respect to honey. But though that is a problematic exercise, because in the first place, it's you have to hire experts to be able to evaluate the honey. Secondly, a lot of these players are international. And so the prospects of bringing a lawsuit and those conditions is not all that bright.

Dr. Wendy Slusser 15:23
Are people making fraudulent honey here in the United States?

Michael Roberts 15:29
Likely, but if it is happening, and I don't know that it is if it's at a much lower level than it is happening abroad.

Dr. Wendy Slusser 15:36
So if you bought honey, for instance, I'm being practical. If you bought honey that says, made in the US, you could feel confident?

Michael Roberts 15:44
Probably more confident, if you know that it's made in the USA, if that's a statement you can rely on. I buy all my honey locally, farmers market, and there is a taste difference. I grew up on a small farm where we had our own honeybees, right. And I know what the honey tastes like. And there is a taste difference. But what's interesting about this is if you think about it in terms of legal governance, there are two laboratories in Germany that can test honey and tell you if it's fraudulent or not.

Dr. Wendy Slusser 16:16
Those are the only two labs?
There's other labs that are also developing this expertise. But these two labs are very good. So if you have honey and you send it to them, let's say you want to see if it's authentic or not, oh, let's say they come back and say it's fraudulent. But the problem is, Wendy, is if they say that it's fraudulent, what happens to that honey, there's not a government agency, that's going to step in and say you have to destroy this honey. In fact, you don't even need to report it to the government, the honey gets recirculated back into the market at some point and blend it again. So that's why law is important. Of course, you can have the great science and you can determine the honey is fraudulent. But unless you have some legal mechanism that says you have to report it, you can't put it out on the market, here's a standard, we know how to measure it, we have benchmarks, and that we're willing to enforce without all of those components, then you're going to run into a problem you can't solve. And that's what's happening unfortunately, with honey. That's why with the white paper, our goal was to try to communicate to the audience which would be retailers and prop policymakers that, hey, this problem is not just about fraudulent honey and how its impact on honey producers. This has broader consequences than all the ecosystem and all of us. So it's it's a broader issue. And not all food fraud has unintended consequences that match that of honey. So this is a bit of a one off, but it's important to know that, again, the answers to these problems, it requires food systems thinking right interdisciplinary ways of looking at food, from law, science, policy, nutrition, environmentalist, and the list goes on. And that's why the Food Studies program that we're involved in, is so important, because I think we have to learn to think about these things broader than just our individual silos.

That's right. And that Food Studies program, you were intricately involved with developing the colloquium, which is focused just on that, right, looking at the food system from all the different disciplines, English law, public health, health, history, geography, economics. I mean, you you have actually defined this as an economically motivated adulteration. Is that correct?

That's correct. And that's not us defining it as such. That's a definition that's been used for many years, because it is adulteration. But it's economically motivated. It's different than say adulteration that affects food safety, which usually is unintended, right. This is intended adulteration for a purpose, which is to make money. Unfortunately, even if it's intentional, typically, governments will not address it unless it has a food safety component. So I've been to the FDA many times with other products as well, I've had the conversation. This is fraud. And the first question that is asked is, is there a safety issue? If there is, then the FDA is certainly going to jump on this right away? If there isn't, then you're not as much of a priority even though they won't necessarily say that. So it's, so that's why I say it really is requires us to think more carefully about the way we govern food and regulate food. And a lot of what we have today is by historical accident, it's the way we've set up our agencies, and we've assigned jurisdiction and resources and whatnot, but it doesn't work so well, in all cases.
Dr. Wendy Slusser 19:46
Well, so as an example, could somebody take sort of the most common honeys that are out there, go to this German company or lab and have them test it and then write an article. In terms of a legal aspect, if people expose this kind of benevolence, would that be a problem for the writer of the article?

Michael Roberts 20:10
I don't know that it'd be a problem for the writer. The question is what's going to motivate the laboratory to do that? Secondly, you could pay for it.

Dr. Wendy Slusser 20:20
Like if you paid for it?

Michael Roberts 20:22
Yeah, yeah, you certainly could.

Dr. Wendy Slusser 20:24
Has anyone done that?

Michael Roberts 20:26
There have been studies, lots of studies looking at honey fraud. And these are done usually at universities and food science departments, or folks that are just interested in, in authenticity of food. But who's listening? You know, reports are usually issued in academic journals. A lot of this is developed in a way to help make the testing better, and to know what was the best approach to test, one of the problems we run into is that, oftentimes you get a really good test. And then the cheaters is like a, it's like a fingerprint analysis, you have to have certain components that match the level of authenticity. But once you figure that out, as a, as a cheater, you figure you can figure out a different way to cheat, right? So one of the realistic problems with a standard, for example, is once you have a standard that's written into law, that standard may be outdated in a year or two. The standards are very expensive, and very difficult to get a consensus over. So it's a challenge to try to figure out how to make standards in a way that are nimble and adaptable standards fell out of favor many years ago, when we started coming up with new food products. And in the way the law is written with standards, this you have to have a hold the public hearing. And you can imagine all of the different stakeholders coming in and weighing in. It took peanut butter, for example, decades to finally come up with a standard that may seem a little odd to, and it does to me. But because there was so much vested interest, and the number of the level of peanuts needed to be in a peanut butter jar, and so much money at stake, that it created a lot of contention. And it was Al Gore, actually, when he was vice president in the Clinton administration, who showcased how long it took a can of beans to come up with a standard of of identity, years and years and years and a
lot of money at stake. That finally the FDA sort of backed off and said, Look, we're out of the business of making standards. Oh, making the standards now, no one is not new standards. And that's why standards have fallen out of favor, because they're difficult. They're time consuming. They're expensive. So we have to figure out a way to make a more nimble approach to standards making. And there's lesson smart friends that are thinking about that. But it's going to take it's again, this is a legal governance issue. But it's interesting that the FDA right now is evaluating standards of identity. But in a very narrow context, the FDA is looking at standards of standards of identity limited to quite frankly, to meet and to dairy. And can you think why that might be the case, because plant based substitutes are now competing against the meat industry. And dairy substitute products are competing against the dairy. So now suddenly, these entrenched industry so very interested in standards of identity, and the FDA has announced that it's going to look at standards of identity as a way to regulate the use of the name meat, or the use of a milk to combat beyond burger Impossible Burger and to combat almond milk and other types of dairy substitutes. And so it's not really aimed, though, and from what I understand, it will not be addressing things like olive oil and honey and other products that have been really, you know, killed by fraud.

Dr. Wendy Slusser 23:55
So you've mentioned olive oil. And I remember in your class you talked about that. Want to elaborate a little bit on olive oil?

Michael Roberts 24:03
And well, olive oil is the same as honey. It's been heavily adulterated and for a whole host of reasons. One is that Spain over grew olive trees years ago, and they had a bounteous crop, and you ended up with this kind of a perfect storm where you had all of that were rotting. And in order to use the product, you would oftentimes blend it with authentic product, but dilute it in the process and you ended up with a cheaper version of, of olive oil. Without a standard. We don't know what extra virgin olive oil is, by law in many cases. And so a lot of the olive oil you'll see in a store that's labeled is extra virgin olive oil is really just an what we call pumice, which is a blend of bad olive oils. And what's fascinating to me is I've been reading for example, cooking magazines on recommendations of olive oil, and some of the olive oil I see as being recomended I know as adulterated. In class, we have fun with olive oil because we have an olive oil tasting demonstration. I always have three levels of olive oil, really bad olive oil, medium grade olive oil and then a superior brand.

Dr. Wendy Slusser 25:14
Now how do you know they're superior?

Michael Roberts 25:16
Well, because I go to the specialty stores or sometimes when I go to Italy, I will find really authentic oil.
**Dr. Wendy Slusser**  25:22

How do you know it’s authentic?

**Michael Roberts**  25:23

Well, because it’s trust. I mean, I know there’s some plants and there’s some places in Italy where I can buy authentic olive oil. There's a couple stores here in Southern California and they get it from the source, you talk to them, you feel a sense of comfort. I mean, I don't personally test it at a laboratory. But I have trust in my sources. And you can actually tell the difference taste wise to but the really battle of oil, which you find in in grocery stores, it has the same label on it. But there isn’t, you can tell what frankly, as if you turn the olive oil bottle around and you look at the small print language, countries of origin. If it's coming from more than one country, I wouldn't buy the olive oil. That's it good. And oftentimes, there's six to eight different countries. And they're blending all these different olive oils that come from all over the world. And you're not going to get a quality olive oil or in terms of authenticity. But the point is, is that we don't, most of us don't really know what authentic olive oil tastes like. And some of us don't like it when we taste it. Because we're so accustomed with your right. Oftentimes, they vote for the most adulterated olive oil, because they're used to it hasn't sort of that smooth, buttery, and authentic oil can also taste like that, too. But in this case, it would create a sort of monolithic approach to the taste of olive oil, where we like something that we’re accustomed to, but it’s not authentic. Now, that raises the question as to whether consumers care. But seems to me if you're gonna label it as the extra virgin olive oil, and you're gonna pretend that it's authentic, that it really ought to be.

**Dr. Wendy Slusser**  26:55

Right, but I mean, I think that gets to the fact if what things, how they appear can influence how you taste. It is also a way of manipulating people's preferences.

**Michael Roberts**  27:09

Tom Mueller, who wrote a book on olive oil, half a dozen years ago, spelled it out in very detailed writing on who the cheaters were and how they were cheating. And he came out to California, and we both spoke at a conference together at UC Davis. And afterwards at dinner, he told me, he says, I am so amazed that I spelled it out, I actually put the companies and I think in the back, you may even put their addresses in the book. He spelled it out for government authorities to actually chase the fraudsters, and it just never happened. Now in recent years, Italy has become much, much more interested in the authenticity of its olive oil. One of the reasons is it's concerned about its brand being diluted. The Italian brand stands for Quality. So we're so I spoke in Rome, some years ago, it was the start of a task force that was set up in Italy to deal with olive oil fraud. And they've done a pretty good job, quite frankly. And they're they're trying to protect brands are trying to protect their image. So for example, they have an agreement with Alibaba in China, that helps identify a certification system that will help protect the authentic olive oil, and create a special class or category for it so that consumers can recognize the authenticity. One of the biggest problems I have with food fraud, though we haven't addressed this is that we can create authentic food, and we just price it
accordingly, like we do with maple syrup. But in my mind, folks that don't have a lot of money, and who want to have authentic food, it seems to me they should be entitled to it. I don't know, I'm not very comfortable creating a different class of authentic food, just for those who are able to afford it. Right. But it raises the additional question of again, do consumers care about us, right? We know for example, on fish, fish is one of the greatest examples of fraud today. The New York Attorney General's office just wrote a report on this. And much of the sushi that we eat is a victim of fraud. But I'll ask me, Well, you might be thinking you're getting snapper and you might get tilapia and stuff. And but I asked my students, does this slow us down when we go to a sushi bar in Westwood? And I've asked the question many times to folks that the restaurants about their sourcing of their fish, and of course, one never knows. So I don't know. I mean, do we care? And that's an interesting question. Recently, we had a conference in Rome at the United Nations FAO Food and Agriculture Organization, a four day workshop on food fraud. I'm helping to advise in the legal department at the UN. On this very issue. It's the first time that the UN FAO is now involved in food fraud and it's because of a number of reasons. One is that countries are finally having enough complaints to raise this issue. Honest producers are feeling the economic impact. And it's also the media starting to pay more attention to it, you're hearing more and more reports of fraud. And it really, it damages the reputation of countries and their food regulatory agencies. Not only that, but so you have a couple of high profile cases recently, in the UK, consumers were eating horsemeat at restaurants, not knowing not knowing that of cow meat. And that raised a huge issue all over Europe, those sorts of things are undermining trust and confidence, that's for sure. So the retailers are also concerned about this, as well as other manufacturers are doing the right thing. And then governments. So the FAA has been looking at this issue, but I was I was stunned sit through a PowerPoint presentation on how fish is the subject of fraud, the intricacies that are involved in coloring, and taking fish, that is something very different than what it turns out to be and turn it into tuna, or something else, and using very interesting, sophisticated, scary tactics. And it comes out in the end where it's probably safe, but it's unimaginable, the manipulation that goes on. And so I, you know, as I say, in my class, when we deal with these issues, your Outlook depends on what you think about food. If you see food as a commodity, no different than this table that I'm where I'm sitting right now, then maybe you don't care about the authenticity of the wood, or where it comes from, or what it's made from or who made it. But is food different? If you think that food is something different. So value is something that you that means a lot to you and to your family and to your children, then we look at fraud differently. And we're concerned about it. So it always depends on what we think about food as the starting point.

Dr. Wendy Slusser 32:07

Right, and why you're eating. I mean, I was just thinking, so getting back to the honey story. FDA is asking, why have a standard if there's nothing unhealthy about the tainted honey, but perhaps you're taking the honey to be medicinal. Yeah. And so therefore, it is affecting your health.

Michael Roberts 32:28

You're absolutely right. There are nutritional issues that are raised by you think you're you're eating something for a purpose. Exactly. And you're not getting the value. And I think that that's a good selling point. But what sells the agency action even more if it presents a food safety issue, the definition of a food safety issue is much more narrow, usually doesn't include
nutrition issues. But if you have an ingredient, for example, that is the subject of fraud, and it creates an allergen problem, then you have a food safety issue, the FDA will step in and probably even recall. So it's a Yeah, it's a difficult issue to solve.

Dr. Wendy Slusser 33:07
Well, so just getting to sort of nitty gritty, practical side of things. Since I've heard you talk about the subject before I only buy California, olive oil. Is that Is that a good sort of way of knowing that you're getting a olive oil? And also, honey, I get back to honey, but I heard what you said we should, it's probably most secure. If you buy it from the farmer themselves.

Michael Roberts 33:37
I will say this. California olive oil has a good reputation. I would still turn the bottle over though and look at the country of origins. Because there is blending that goes on. Okay. And by law, they're required to list the countries from which the olive oil is derived. My rule of thumb is if it's coming from multiple countries, even if it is California olive oil, I'm not gonna buy it.

Dr. Wendy Slusser 34:01
Got it. So when you say California olive oil on your label, it just means you bottled it in California, it can mean that Oh, okay. Well, that's good to know.

Michael Roberts 34:10
It doesn't necessarily mean that it's all California. But for the most part, California olive oil and you know, they've worked very closely with folks at UC Davis at the Mondavi Center and other and they've been able to come up with a brand that has some integrity to it. But again, I would say the rule of thumb is turn the label over. And the interesting thing is that that's the smallest size font on the entire bottle.

Dr. Wendy Slusser 34:38
Not good for people like me.

Michael Roberts 34:40
I can't read it without my glasses on. And there's there's probably a reason.

Dr. Wendy Slusser 34:47
Exactly. So I hear what you're saying in terms of their issues about standards and setting standards and the expense of that but sounds like the FDA is going to be coming at least To
focus on standards for meat and dairy. But what do you think are some of the political issues of our food industry today in the United States?

**Michael Roberts 35:09**

Well, in fact, the standard illustrates this. The reason why the FDA is interested in it, as some would say, is because the industry is putting pressure on them, the meat industry, the dairy industry, who are threatened by substitute products. So the political influence of industry is one of the reasons why their politics is involved in the regulation of food. And that's not to be unexpected. I think any industry you regulate industry has its own self interest. And I don't know why we would expect them to think otherwise. So that's not that's not something. I think that's earth shattering to people to hear. But to what level? It is, is the question and how does, how does the agency ensure that that they still doing the right things for the right reasons. And the fact that we got a governance system that I think is so fragmented makes it difficult to really oversee agency governance. So for example, the GAO, the General Accounting Office for the government has, for years suggested we have a single food safety agency, in order to kind of reduce the level of efficiencies and conflicts between the FDA and the USDA. So for example, food safety over meat is regulated by the USDA. For everything else, regulated by the FDA product that has anything 2% or less of meat is regulated by the FDA. Well, that gets a little complicated when you deal with a can of soup, particles of meat, open face sandwiches, there's a lot of ridiculous results out there that are complicated. Take plant based meat products. They're regulated by the FDA or the USDA, they don't have meat, or they bring the FDA. But what about lab based meat, sell your meat that hasn't seen its day in the market yet? Well, that'd be regulated by the FDA or the USDA, most likely the USDA, since its origin is a is really a sell from animal. But it just shows you the complexities that are involved here. But there's over 15 agencies that have some level of jurisdiction involved in food safety. This is just one example of how complicated it can bear take nutrition, which I know is an issue that you're very interested in. The FDA has jurisdiction over certain things related to nutrition like labeling, and health claims. But the USDA has a nutrition office that administers benefits to snap programs. They're also very involved in developing the food plate, and dietary guidelines, education. And so there's a lot of this, the fragmentation of the way we govern food, I think affects the way that the ability for politics to help influence.

**Dr. Wendy Slusser 37:59**

And so that's why you feel it should be under one roof.

**Michael Roberts 38:02**

Well, I don't know that it should be. But I think it needs to be streamlined. And it needs to be more effectively administered. And a lot of countries grapple with this. I just finished writing a memo for the South Korean government on this issue. And their concern is should we How should we organize our food regulatory system. And so in some cases, having one agency has disadvantages as well. But there has to be a level of coordination. Again, getting back to that initial point that I made to enable folks to engage in food systems thinking, thinking about the consequences. EPA, for example, has jurisdiction over the regulation us in certain ways over
pesticides. So does the USDA, so does the FDA. So the coordination becomes really, really imperative. And it's not easy to do because as you know, the food system or food sector, I should say the supply chain is very complicated.

Dr. Wendy Slusser 38:56
Right, well do you think that there should be like we have a Surgeon General for health? Do you think we should have a Surgeon General for food?

Michael Roberts 39:05
I do. I think I'm always sensitive about having one person come in to try to change everything right.

Dr. Wendy Slusser 39:11
But to connect it would be a bit changer as a connector?

Michael Roberts 39:15
Or even an advisory committee that has experts from different fields that can come in and some was better and advice.

Dr. Wendy Slusser 39:22
Like the Steering Committee we have at the Healthy Campus Initiative.

Michael Roberts 39:26
Somebody who can come in and help connect dots and and because the connections between sustainability for example, which is a word that's that's hard to define, right? Usually think about it in terms of environmental issues, sustainability and attrition are growing.

Dr. Wendy Slusser 39:44
Totally, well Food security is critical and food Yeah, it's gonna be impacted by climate change.

Michael Roberts 39:49
The popularity of plant based substitutes are driven by, for example, in the category of meat by concerns about animals, the environment and nutrition? Yes. So all of a sudden you're crossing all kinds of boundaries and concepts and disciplines. And how do you tie all that together? Is a
all kinds of boundaries and disciplines. And how do you tie all that together? Is a very difficult question.

Dr. Wendy Slusser 40:11
Well, thinking about historically, you and I went to the Nixon library and looked up, you know, all the different work around nutrition, and then there was a committee then around nutrition.

Michael Roberts 40:22
Yes, there has to be a concerted interest and effort. And then at some level of the executive branch, there has to be enough interest there to help coordinate Yeah, make sure that values are expressed. I mean, when it comes to nutrition, we simply want to help people eat healthier, right. And yet, we've made it so complicated with rules and laws that that seem to counter some of the things that we're doing that are positive.

Dr. Wendy Slusser 40:54
I'm just wondering whether the Institute of Medicine should convene a group to discuss and make recommendations to Congress for such an effort, because that seems to be a very good step. I mean, that's what happened, right? With the WIC reauthorization, there was it institute of medicine group that wrote up what they would recommend. And it really transformed the landscape for the woman, infant and child nutrition program and increased breastfeeding rates as a consequence, and so forth. So because that could be funded by Foundation?

Michael Roberts 41:28
Yes, there is some talk about developing more efficient ways of governing food. And it's a that's a broad answer to your question. But I think it's an important point, because directionally, I think you're talking about the right thing. One of the problems we've seen is that we have so many issues confronting us all at once, right. So for example, we're concerned about sugar, rightfully so sugar sweetened beverages, especially salt. And the list goes on and on. So we're fighting battles or fighting battles, instead of fighting the war, right. And one of the exciting things that, for us as a center, the wrestling center is that we're now engaged with the FAO and a level that allows us to have interaction at a global level. Because a lot of these issues are not just limited to the US, most food companies are multinational. And so you'll see the same problems we're having here in the US are replicated around the world, in completely different political and legal systems. And I'm not suggesting that we, we create a supranational entity. But again, that spirit of coordination, cooperation, creating different models of governance, my conversations with folks at the FAO have been about how to create a more efficient way to help steer governments towards having better labeling, or addressing issues like food fraud. And there is some interest, I know that some countries like the Netherlands, for example, are looking at ways of having a more efficient regulatory system having a different food code. It's more rational, and it's oriented towards goals. And so yes, calling in an association, like the Institute of Medicine, would be helpful. But I also think at the same time, we need to be thinking about this on a global level. And I'm encouraged that the FAO under the leadership of Grazi Ana de Silva, who came and spoke here at the law school, several months ago, he's now
The most recent former director, General of the AFL. But he helped implement a new orientation towards nutrition. And that's the first for the FAO. And I think it's groundbreaking. And what is that? Well, it's the new orientation, again, so that I went to a conference back in July, where we had different panels, looking at nutrition and regulatory approaches in different countries. So you can borrow ideas from country to country, that's practice best practices. Exactly. And it's a great term to use best practices in the governance of food. And, and then I think the next next key is also get industry involved. So I'm working on a project right now in China. But we're looking to have industry help develop governance strategies to influence best practices. Again, you have to be careful, you want to make sure your objectives are are correct, and you align your best practices with those objectives. But the approach is all about identifying those goals. And getting there is a multi pronged effort. So I'm encouraged with what's going on at the FAO to sort of help guide this approach. But to be candid with you there's there's that the counterforces will be there. We have to recognize that food and just international governance becomes even more important, I think as we move towards the future, because we're trading more and more food all the time. We've truly live in a in a global environment where it becomes a bigger, more pronounced area of concern. But having said that, sometimes the most effective tools are done on a local level in a city, for example, you know, San Francisco's efforts for warning label was sugar taxes at Berkeley and other cities in Philadelphia and San Francisco, and a local level, a state level and national level and an international level.

Dr. Wendy Slusser 45:29
Well, I think you're looking globally is critical, especially when it comes to food, given the fact that the food system contributes so much to climate change. And so for us to make a difference. With climate change, we have to reduce food waste, and we have to increase the efficiencies of the food system and also how people and what people want to eat.

Michael Roberts 45:50
The FAO has reported that 18% of the greenhouse gas emissions are caused by livestock.

Dr. Wendy Slusser 45:57
That's right. So food overall is between 20 and 30%. They emerging countries in China and India, in particular, their demand for meat, ruminant meat is increasing.

Michael Roberts 46:09
And credit to China who in their last dietary guidelines, which again, are not law, but guidelines, calls for the reduction of meat consumption in China. Now, how they do that as the next question, yeah, and whether they can do it, I'm rather suspicious without some sort of concerted effort, but they recognize the implications, again, thinking in terms of food systems thinking, the implications of their consumers eating more red meat, on their environment, on
their diet, as well as food security and their health and their health. They don't have the capacity to grow that many animals. And so we're going to be importing, which creates a food security issue. So its health security environment.

**Dr. Wendy Slusser** 46:53

Their diabetes rates are equivalent to ours. I met with a group of people visiting here a year ago from China, and its diabetes prevalence is one out of two Americans over the age of 20 are pre diabetic or diabetic and only one out of 10 know it. And they I don't know about their knowledge about it, but they have similar numbers. And of course, their population is so much larger than ours. So the impact on their economy and the health of their aging populations can be huge.

**Michael Roberts** 47:23

As you know, I've been teaching food law in China for 15 years now. And it's been amazing to watch and see change there, not only in the government, but in consumers and my students and their attitude towards food and the regulation of food. It's really been startling, to say the least, to see how it's changed. Well, I'll give you an example. When I first started teaching, there was pre the melamine problem that I spoke about earlier, I had a small class 1520 students who was mildly interested in food issues that were more interested in listening to an English speaking American, teach a class after melamine are over 100 students, and they were angry, and they were frustrated, and they were concerned. They're not unlike consumers in the US, they're exactly like us. They're concerned about their children, they're concerned about health, they're concerned about the environment. And they don't know how to decipher all of the information that's out there about their food. So sounds very similar. It is very similar. But how the government responds is where it gets tricky, and how the law works. And China is still very focused on food safety, which is their top priority. But there are now signs that they're starting to become very concerned, for obvious reasons about nutrition. And, you know, I remind people that in this country in the US, we've had our very first National Food Act was in 1906. So we've had over 100 years to try to get it right. China's very first food Act was just, you know, a little over 20 years ago. So they've got to move fast. And it's a complicated country. The first time I came back from China. I've been to China 48 times. First time I came back from China, I consider myself an expert. Now, I realized that I know very little about. It's complicated.

**Dr. Wendy Slusser** 49:12

Yeah. Well, you know, I've always been fascinated by the fact that you've been involved in food law for probably longer than most people in this country. And more students are here in the United States are interested in this subject. If you were to want to go in that field, what does that look like for somebody after they leave because you obviously have trailblaze this road and you have a lot of experience. And so you're sought after to be FAO and China and of course, running your center here and being a faculty member here at UCLA. So what does it food law or food layer look like for a career?
Michael Roberts 49:57

It's a great question and one that I think about all the time. There's a lot of different options. Unfortunately, the pathway to say public service, for example, is not an easy one, the pathway is not well defined. I'm an academic primarily. And we're starting to see more academics getting involved in, they're interested in food law. And that's heartening. At the same time, our center started here at UCLA, the Harvard food lab started at the Harvard Law School. And it was an academic approach, again, to food law. There's also a clinic at Harvard that predated that food law lab. And we don't have a clinic at UCLA that represent live clients and create opportunities for public service in law.

Dr. Wendy Slusser 50:45

And what do they do? Like what are those clinics do?

Michael Roberts 50:47

They represent my clients, for example, food, food waste was a project that they've worked on, working with black farmers, working on issues related to school lunch programs, actually consulting and writing memos and interacting with school administrators and city helping them. Right. So we are putting together a publication that's been funded by UCOP. Looking at a guidebook on public service jobs for students interested in food law. Now, oftentimes, it's not just that a student goes out and works for a city as a food law lawyer, but they may work for the city as a lawyer, but they have issues that related to food, everything from farmers markets, to benefits to how to feed the homeless, food, trucks, sidewalk selling of food, and so forth, and so on. So it's trying to figure out a way to not only help lawyers become food law lawyers, but also to help public service lawyers recognize issues related to food that have important consequences. Now, there's other pathways, we have students that go out and work for associations or work in plaintiffs law firms. We also have students who go work for defense law firms, and that's, you know, we're not about to tell any student what they can and can't do. What I do tell my students in class is that I realized that not every one of you will become a food law lawyer, but I want you to become better food citizens. So when you have a career, and you're working with your, your school districts, and you're concerned about what your children are eating for school, lunch, and school breakfast, get involved, lawyers have great tools and have great influence. And get involved in your local food policy council, wherever you might live, get involved in your neighborhood associations. So use your law skills as a tool to make our food society a better place. And I think that may end up being our biggest accomplishment here at the law school. And, and yet, we may not know the results. And we will reflect on anecdotal stories once in a while, but it's hard to measure. But I really think that that's where we contribute. But we do have students who actually go out and carve out careers in this field. And it's really heartening to see.

Dr. Wendy Slusser 53:05

And do they like also go and work for food companies?
Some of them do. There's a great deal of startups right now new, innovative food companies that are so started by social entrepreneurs, who want to do good things in society. And I've encouraged my students all the time, look for those opportunities to help render legal services on behalf of these companies. But we have we have students from all different walks of life who do different things in food, we've had labeling exercises for students, so they go to the grocery store and collect labels of food product. And then we analyze these labels and look at them as lawyers. And we've even worked with consumer advocacy groups in Washington DC on labeling exercises. If nothing else, these students are better shoppers than ever.

Dr. Wendy Slusser 53:55
Explain to me when I look at a label, I'm looking at it the nutritional content. So as a lawyer, what are you looking at? Well, that's where the olive oil comes from?

Michael Roberts 54:07
That's a great question. I oftentimes will look I look at the ingredient list is in descending order. I look at the percentage of daily value.

Dr. Wendy Slusser 54:16
And what you mean by descending order is the most to the most to the least?

Michael Roberts 54:21
I look at the daily percentage value of sugar from sugar to salt to you name it, I oftentimes look at claims because I'm suspicious of claims on food and look at them with a critical eye. I look at country of origin. I tell students the beginning a class and I remind them at the end, that if there's anything we've learned in class when you go to the grocery store you need to take with you a food law lawyer and nutritionist as well as the food sciences to make sure the food is safe. Oh my god. So you have to have a whole committee to go with you. Yeah, and and and yet, you'll probably have disputes amongst the experts. So but Buying food for health or for the planet is not an easy endeavor. It's interesting to think about is we've set up food in a way that we have Caveat emptor on steroids. Consumer beware, you're on your own. So we expect consumers to go through all this glean through all this information that we provide for them on a label, or any number of scientific digest that they want to peruse, or media reports, we expect the consumer to read everything, and to understand it, and to come to the right conclusion. And then on top of it, we expect the consumer to make the right decision.

Dr. Wendy Slusser 55:40
And then you have the marketers who've created a display to drive you to one of those items anyway. So you're not really making the decision?
Michael Roberts  55:49
No, we have loaded the duck. So we've made it extremely difficult for consumers. And then we expect more out of them all the time. Yeah, I can't tell you how many conferences I've been to. If consumers make the right choices, the market will respond well. Okay, that may be true, but we're putting a lot of pressure on consumers with very little information. That's great. The other thing about food that makes it so complicated is that we value choice. And anytime we take away choice or restrict choice, when it comes to food, we raise the ire of consumers. That's true. You know, you look at portion control, attempts in New York, to read to take any away SNAP benefits for products that are not front that are unhealthy, you name it, we take away choice, we incur the wrath of consumers driven oftentimes by industry criticism, and even in some cases, you know, editorials by newspapers and other media sources. So food is so fundamental to us, not only to our sustenance, but culturally, but we also think of it in terms of choice. And it makes it very difficult to regulate choice.

Dr. Wendy Slusser  57:02
That's for sure. And also might make the forbidden fruit more interesting.

Michael Roberts  57:07
It does. Yeah. There's a lot of products speak to that, like Red Bull, for example. Yeah. That markets itself as a as a counterculture food is not good for you, but people will buy it because they're making a statement, especially like young men, for example. Yeah. Which is their target audience. Interesting.

Dr. Wendy Slusser  57:28
Well, Michale, to wrap up, I want to sort of have you think in the future, where do you see the role of food law going?

Michael Roberts  57:36
Yeah, that's a great question. I when I first started in this field, and quite frankly, even when I first started here at UCLA with the wrestling center, going on six years now, I would, in the back of my mind worry that this was a fad, that it would sort of blow by and it wouldn't be sustainable. I no longer have that concern. In fact, I think is it we're not even big enough. We're not growing fast enough. We've got to somehow, amp up. Just yesterday, last night, I had a conversation with a food law litigator in California. This is the mecca of food litigation, at any given time, anywhere from 100 to 200, class action lawsuits filed in California, on over food labeling.

Dr. Wendy Slusser  58:24
That is incorrect or misleading?
That is misleading.

And who pays for those?

Those are class action lawsuits.

So what does that mean?

That means that a plaintiff's lawyer will represent a group of consumers who filed a lawsuit against a food company for violating a state law. Usually it's a deceptive advertising act.

And they don't have to pay the lawyer, lawyer does it for like a commission or something?

I thought that those were going to run their course at some point. When we according to this lawyer, we now have more lawsuits going on than he has seen for years. So the growth of interest in food issues legally is certainly indicated by this growth and dynamic of food litigation. Then on top of that, when you think about food systems issues, everything as we relate agriculture and the environment and food and health and diet together, we're suddenly creating this global awareness of the importance of food, especially in relation with climate change. And so, like you said, companies, universities, think tanks, governments all have this overarching interest. Now, how that translates into opportunities for lawyers is not so clear, but I think it's creating a demand. Leadership for example, matters. Having lawyers and leaders who are trained in food law will be more important in years to come. That's why I'm very optimistic about the field. It's not just the courtroom, but it's the is the world leadership. I've been working very closely in the last little while with looking with the FAO and the UN looking at the history of these institutions that developed after World War Two, that deal with food. And wondering, how can they use governance strategies to help deal with these global problems
that relate to food? And so it's, I am optimistic, I think there's going to be an even bigger role. And the question for us and for me is how do we now react to that and anticipate and design our curriculum or program on how we interact with students in a way that allows us to meet those needs?

Dr. Wendy Slusser 1:00:52
Well, Michael, you're one of the leaders, I think we're the people that have been in this field for longer than most. And I want to thank you for what you do. And your work not just globally, nationally, but here on the campus at UCLA. And you're always a huge hit among the students that I see you present to and, and inspiring people. And so I want to thank you for that. I don't know if you have anything else to add before we wrap up? No,

Michael Roberts 1:01:19
It's just thank you to you for your leadership on campus. And I'm always pleased to see the wonderful things that you're doing and thank you very much.

Dr. Wendy Slusser 1:01:32
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