Indiana Int'l & Comp. Law Review
Volume 35 Number 2 2025

SYMPOSIUM TRANSCRIPT

DECIDING WHAT'S ON THE DINNER DOCKET

NOVEMBER 15, 2024

VICE DEAN ALLISON MARTIN, OPENING COMMENTS

Vice Dean Allison Martin: Good morning. I want to say thank you for being here. I'm Allison Martin, Vice Dean, and a professor here at IU Robert H. Mckinney school of law, and it is my pleasure to welcome you to the law school's Indiana International and Comparative Law Review Symposium.

I'm going to begin by reading Indiana University's Land Acknowledgement and Institutional Neutrality policy. IU Indianapolis acknowledges our location on the traditional and ancestral territory of the Miami, Potawatomi and Shawnee people. We honor the heritage of Native peoples, what they teach us about the stewardship of the earth, and their continuing efforts today to protect the planet. Founded in 1969, IU Indianapolis stands on the historic homelands of Native peoples and, more recently, that of a vibrant Black community, also displaced. As the present stewards of the land, we honor them all as we live, work and study at IU Indianapolis. Consistent with the Indiana University Statement of Policy on Institutional Neutrality. The comments contained in this symposium are solely the views of the speakers. Such comments and content are not intended to be construed and shall not be construed as the views of Indiana University or comments made on behalf or by Indiana University.

Today's event, titled, "Deciding What's on the Dinner Docket" comes at a pivotal time, as the demand for healthier lifestyles continues to rise, the role of food regulation has become increasingly significant. People are more conscientious than ever about what they consume, looking to food standards, safety practices, and ethical sourcing as guides for their choices. Today's symposium will delve into this critical field with expert speakers who will discuss the complex legal frameworks shaping the food we eat and the challenges they address to ensure public health, transparency, and sustainability.

Over the next three hours we'll hear from four distinguished speakers who will address a range of pressing topics within food regulation. The first presentation by Professor Amy Berg is an international comparison of food, safety, and synthetic chemicals. Following her, we'll hear from Zachary Maciejewski, an

associate at Faegre Drinker Biddle & Reith, who will discuss supply chain implications of new USDA Organic Regulations. Then, after a short break, Todd Janzen, founding partner of Janzen Schroeder Ag Law, will explore how climate change drives changes on the farm. Lastly, Brianna Schroeder, named partner at Janzen Schroeder Ag Law, will present on "Consumers as the New Food Regulators." Each presentation will end with a Q&A session moderated by Farrah Goodall, a current member of the Indiana International Indiana Comparative Law Review Executive Board. Please feel free to enjoy complimentary food and coffee available just outside the courtroom throughout the morning.

And now, I am honored to introduce our keynote speaker for today's event, Amy Berg. She is a partner at Ice Miller and an adjunct professor right here at IU Mckinney. Amy's practice focuses on assisting clients with complex environmental food and agriculture, regulatory and compliance issues. She counsels clients in the permitting operations and reporting processes of Federal and State regulatory programs, and contributes her experience to litigation at administrative proceedings, including matters related to emerging contaminants such as PFAS. Amy also assists companies of all sizes on compliance with the U.S. Food and Drug Administration and the U.S. Department of Agriculture regulations, guidance, policies, procedures regarding food and agricultural products. She helps her clients with environmental issues involved in property, redevelopment and real estate transactions. She also has created and teaches a course titled Agricultural Law and the Environment at McKinney. Amy has her Master of Science in Agronomy and Environmental Soil Chemistry from Purdue University, and her Juris Doctor from St. Louis University, where she graduated Magna Cum Laude. Please join me in welcoming Amy, who will kick it off with her presentation: "An International Comparison of Food, Safety, and Synthetic Chemicals."

PROFESSOR AMY BERG, AN INTERNATIONAL COMPARISON OF FOOD SAFETY AND SYNTHETIC CHEMICALS

Thank you for that introduction, and to Alex and Julia for all their assistance, and for the Law Review for their invitation to speak today. Okay, let's get right into this. I probably have too many slides that for me to get through today. And I tend to go on with this topic because I find it really interesting. So, I'm going to do my best to get through it and leave some time for questions.

First, what are we going to talk about today? Chemicals we consume, and we're just going to talk briefly about what that means. I'll give some examples and talk about regulation and approval – whether that's in the United States or the EU. I can't talk about every country's system, but we'll touch on some highlights and some differences. We'll also touch on prevention and monitoring a little bit. And if we have time, I'll mention some emerging issues (but I

probably won't).

Global Food Crisis

I just want to level and set the stage a bit with the global food crisis before we get started. We're going to go into some really specific detailed chemical usage today, approval and etc. This statistic from the FAO, the United Nation's ("UN") Food and Agriculture Organization, just highlights, that there are many people that face acute hunger every day, and there are things that we can do with trade to help alleviate that. We have acute hunger issues in the United States, and I want to keep this thought in mind, as we're going through some of these chemicals that we use in food, in trade, and some of the different issues that we run into with regulatory approval, and what we can do to help some of these more global issues. Agriculture, and food is a global economy, and we'll mention that briefly as well.

You'll hear people say, "food security is national security," and food security means a lot of things. We'll talk about food safety today and how food safety is a component of food security. When you talk about food security, you're talking about economic and physical access to food, nutritious food, available food, safe food. There's a lot of things that go into that. It's really important, not only United States, but also from a global perspective.

Food Quality, Identity, and Safety

For food safety, we're going to talk today about certain chemicals, what process is involved to get approval, whether it's from the FDA under the Food Drug & Cosmetic Act, or if it's in the EU. But there are a lot of measures that have been put in place under U.S. law to protect the consumer and to facilitate food safety. The system in the United States was developed over many years, and it's a fairly robust law. It has some overlapping provisions, some of that is intentional. Some of that overlap is intentional because we don't want a loophole where someone can introduce something that would maybe fall out of regulation. But there are certain systems, labeling standards of identity, that I'm not going to talk about today, but those are vital for food safety, and we don't think about them necessarily, as in the food safety aspect, but they really do facilitate food safety.

Labeling and Misbranding

The labeling. When you think about labeling, there are really detailed specifications from the FDA, and the EU as well, on what needs to be on your food product. How the nutritional label needs to be presented, and that's really important because if you have, for example, a food allergy you need to know that there's soy in that product. If you are concerned about what chemicals are in your food, you need to have something tells you what's in your food.

However, some of us don't care, we like our Doritos, and we're going to buy them. We're going to eat them. We don't really care what's in them, but some of us want to know, and it's important that those of us who want to know can have that information available.

Additionally, we're not going to talk about pathogens today, we're focusing on chemicals, but in reality, the majority of recalls in the United States are related to pathogen exposure or allergens when they've either been inadvertently introduced into the food, or there was some sort of labeling issue that the allergen wasn't properly disclosed. That's a huge safety risk if the consumer consumes something that has an allergen in it.

Standards of Identity and Adulteration

Standards of identity were developed over many years here in the United States, and that's really the intention of that is so that when you go buy peanut butter you know that that's going to be a consistent product. Peanut butter has a standard of identity – there's certain things that can be in it, and so every time you go by peanut butter, you're going to get what you think is peanut butter. If you don't follow those rules as a food company, you could be considered misbranding, and it could be considered adulterated food. There are certain penalties associated with that, and all of that comes together to protect us as consumers. It's not fail-safe, and keep in mind many of the products that we buy at the grocery store or from your local farmers market, they don't have an FDA inspector reviewing those and testing those before they hit the shelves. If you are in a meat processing facility, there is an FDA inspector on the line grading the meat, reviewing the meat and evaluating that situation. But most of the food that we consume is really it is on the honor policy, and it's the onus is on the company that is producing that food, to produce it in a manner that is safe in accordance with all of the laws, and to label that appropriately. So there needs to be measures in place to make sure that companies are doing that. Thus, there's laws, penalties for violation, and, more than anything, the penalty for a company that doesn't disclose or has a pathogen is consumer confidence in their product. It really hurts the pocketbook in the end, if you're not consistently maintaining your product.

Food Supply Chain

The food supply chain. This is a very simplistic diagram of the food supply chain, but I just want to mention it here. I didn't put arrows, because really it doesn't flow like this for everything. If you have produce that you grow and you harvest, you may transport that produce directly to the consumer. Or you may transport it to a grocery store; they may process it or may cut it up. Then you can go to the grocery store, buy pre-cut watermelon which is fantastic - it's ready to eat. There are several touch points along that path, and my point in showing

this slide is not that we sort of memorize this path specifically, but to understand how many different touch points there are, how many potential points for exposure to packaging and some sort of contaminant and packaging exposure to environmental contaminants, human exposure and equipment exposure. So that's really when you think about our food system in the United States, and in many countries it's really quite safe. It's no longer what you read about in some of the historical books. And if you've read "The Poison Squad" and some of the things that they used to be able to put in food and get away with it. But yet, it's a very complex system, and there are many points along the way where something can potentially go wrong.

U.S. Agricultural Trade

So, as I mentioned, the agricultural economy is a global economy, and this is just one figure that I chose to display how much trade has increased over the last several years. This graph shows from 1990 to 2020; over the last thirty years in the United States agricultural trade has significantly increased. We're talking five to eight times, depending on if we're talking about exports or imports. This is in dollars on the Y-axis, but really any access could be used here to depict that trend. The United States is really good at producing certain food. We export a lot of food from the United States and a lot of grain, and we have certain surpluses that we try to get rid of the best we can, but there are certain things that we can't grow in the United States because we don't have the climate for it, or whatever it may be. Coffee is an example, we import a lot of coffee, and we have very specific food tastes in this country, and we want a variety of foods, and so we need to have the means to get that, and a lot of that comes from imports. And so, keep that in mind too as we're talking about trade and chemical review and approval and movement of foods from one country to the next.

Chemicals Present in Foods

Okay, so let's get into chemicals and food. I think "chemical" has a bad connotation. As a former chemist myself, I think chemistry is really interesting, and so I don't necessarily think just because it has a complex chemical structure, that it's a bad thing. But not all of us are familiar with the food products and the food chemicals that we see on our food packaging. So, let's talk about some of those.

Food contact substances. As I mentioned before, you can have exposure to packaging, and some substances from that packaging can actually end up on your food. It's important to know what those substances are, and if that is happening.

Intentionally added. We intentionally add chemicals to some of our foods, right? And we'll talk about that and what those chemicals do and why we add them.

Contaminants. We have a variety of different contaminants.

Environmental. You can have exposure to soil.

Process. Processing, or the process of heating can actually introduce certain contaminants to your food.

Toxins. Toxins that can be produced from different sources. For example, we finished harvest, and we have a lot of corn in the grain bin, and if those conditions get moist that can produce and facilitate the growth of various fungi that can produce aflatoxin, and there are limits associated with aflatoxin, so we don't want that happening. We want to control for that.

Pesticides. We'll talk about pesticides in a little bit.

Risk Analysis

But before we get started on the legal aspects I do want to mention risk analysis. Okay, "the dose makes the poison" is a phrase that's credited to Paracelsus, a 16th century (sort of) the father of toxicology. He worked in the medical area and with drugs and sort of changed our thinking about drugs. To a large extent, that same sort of philosophy applies to chemicals and food, and to the environmental context as well.

Risk analysis involves looking at the particular substance. (1) Hazard. What is the hazard associated with that substance? (2) Exposure. Do you actually get exposed to it? What are the exposure routes? Are there multiple exposure routes? If it's a pesticide that's used on many food products, we need to consider how many food products you could be exposed to, and how many sources of this chemical you could be exposed to. (3) Vulnerable groups. (4) Fate in the environment.

This is a very technical analysis, risk analysis. With multiple data sets and modeling and people with very technical training doing this analysis and deciding sort of the risk and the potential harm for certain chemicals. That's not what we're going to talk about today, but it underlies everything that we're going to talk about today. Because when you talk about asking whether there a reasonable certainty of harm, you decide that by using this risk analysis. So it kind of underlies everything that we're going to talk about.

Food Additives

Okay, finally, let's get into some specifics. Food additives. Here's the definition for food additives, (at least the partial definition for food additives). You can see it's very broad: "any substance that may be a component of food." There are

specific exclusions from that definition that I haven't included on this slide, but regardless, the definition is very broad. For the most part, food additives are direct additives, something we're intentionally adding to the food, but you also have these indirect additives like I talked about before from packaging, storage handling, and etc.

Why do we have food additives? To a large extent, they perform a really important function. Here's a summary of some key uses for food additives, there are obviously many, and those have to be disclosed when you seek approval for your food additive. One is: maintain consistency. So let's say, for example, you have an emulsifier, and you put in your product because you want that product to have a uniform consistency. And let's say, yogurt, for example, when I open my yogurt I want it to look the same, and I want it to have the same mouth feel every time I consume it. If you have ingredients that are separating out as it sits in the refrigerator, and you go to then consume that product the next time, and those products have separated, the product itself may still be fine, may still be healthy still within its shelf life, but to you it may look like it's gone bad. Thus, maintaining consistency facilitates maintenance of that product and reducing food waste. Consumers are very picky. When they go to buy a product, they want it to be the same every time, and when they go to get their yogurt and they go back in a week, they want it to look the same right?

Improve and maintain nutritional value. When in the processing of food, you may lose nutrients, so you may choose to add some nutrient value back. You may add vitamins, and that vitamin will be considered a food additive. You have breads that are fortified with vitamins, or milk that is fortified with vitamin D. Those are all considered food additives.

Maintain palatability and wholesomeness, (sort of already mentioned), not only consistency, but maintaining the shelf life, especially as we talk about trade and getting food to areas with acute hunger. We need to make sure that food is good, and quality for as long as possible.

Provide leavening agents or control acidity/alkalinity. When you bake your bread, you need your bread to rise. That's a chemical reaction right? And so, we need to add those products that we see in our bakery or in our pantry all the time, to make sure those leavening agents are added so that our bread can rise. When you think about it, food additives means a lot of things, some of which we really want in our food.

Enhance flavor or impart desired color. (We'll talk about in a little bit).

You can't just add anything you want to the food and put it on the shelf and sell it. There is an approval process. Pre-market approval is required. You need to prove that your food additive is safe. There's a presumption that new food additives are not safe. The onus is on the company who wants to use the food additive in their product to prove to the FDA that their product is safe, and to submit that petition with all the data to support that their product, their food additive, is safe for that particular use. Keep in mind. I'll talk a little bit later about soy leghemoglobin, and when you get an approval for that soy leghemoglobin, it's not a blanket approval. Rather, it is an approval for a specific use at a specific quantity. If you have a use in one of your yogurt products, and you want to use that same chemical in your beverage product, then that's another separate analysis that has to be done and separate approval.

GRAS

There are certain exemptions under food additive approval requirements, and one of those is: generally recognized as safe ("GRAS"). If you can show that your food additive is generally recognized as safe, which sounds a little bit like a get out of jail free card, but it's not. It is self-determinative, so you can decide as the company you do your review of your food additive, and you decide that it's generally recognized as safe, based on experts in the field and publish scientific evidence, then there's no issue with using your food additive in the product that you want to put it in. But you have to have the supporting data to show that, and you can submit that to FDA as a notification and see if FDA agrees with you. But it is self-determinative, and so, you can make that determination and run with it. And of course it's to your detriment if you're wrong. The fact that it's self-determinative means also that if you get new data that shows the food additive is somehow more harmful or the data has changed, then your data was incomplete and you'll have to make that change. Maybe you'll have to change the level. Maybe you can't use it anymore. You know, that's all part of that risk analysis that has to be done.

Under the Delaney clause, that clause prohibits any food, additive or color additive, that has been shown to cause cancer in man or laboratory animals. And that's an explicit prohibition.

Color Additives

Color additives. The U.S. is unique in the fact that color additives are excluded from the definition of food additives. The approval process is very similar for color and food additives, but they're actually considered separately under U.S. law. The European Union considers color additives as food additives, so it's all sort of one regulation and is set up very similar. Similarly, as in the United States, it's sort of that risk analysis, reasonable certainty of new harm or of no harm. But let's talk about color additives. Obviously, color additives are added

for color purposes. There's presumption that they're unsafe, just like food additives. And so if you want to use a color in your product, you have to prove to the FDA that it's safe for that particular use at that particular level of use, and there is no exemption for generally recognized as safe.

If you are, for example, adding beet juice to your product (we're all familiar hopefully with beets – they have a very distinct color and a very distinct flavor). If you're adding beet juice to your product because you like the flavor, and it's there as a flavor component that will be analyzed under the food additive requirements. And you could say, if you've done the analysis and proven it, that it's generally recognized as safe and move on. However, if your beet juice is added for a color purpose, that is a color additive, and has to be analyzed under those specific laws and regulations, and there is no generally recognized as safe exemption. You would not be able to use that you would have to do pre-market approval through FDA and get approval for that food added, or that color additive.

If you're adding a substance to animal feed, and the intent is for your meat product, your egg product, your milk product to have a color on the back end, and that's why you added that substance, then that's a color additive and requires pre-market approval as well.

So the like, I said, the U.S. is unique in that aspect of having color additives separate from food additives. Those entities that are global entities that are wanting to import food products into United States have to keep that in mind that there's no generally recognized as safe exemption under the EU, so they wouldn't be utilizing that anyways if they were in the EU.

The unique nature of color additives is, there are a certified color additives, additives are color additives that are synthetic man-made chemicals. You may remember seeing blue number one or green number whatever on your food packages. This is blue number one (Blue No. 1), the picture of blue number one, and you can see it's a very nice color, very vibrant. The unique thing about synthetic color additives is they require batch certification by FDA. Every batch of synthetic color additive has to be sampled, submitted to FDA, analyzed and certified to verify that it meets the specifications of that synthetic color additive. It doesn't matter if you're located in the United States and you're producing colors, or if you're located in Italy, or any other country – you have to submit samples to FDA and get certified if you have a synthetic color additive. Then, once you actually pass the certification process, that's when you can use the label "Blue No. 1," or whatever specific color additive you have.

If you use a pigment from natural sources, so a vegetable, etc. Those don't require certification, rather those require pre-market approval. They would in the United States, and they do in the EU, but they don't require that batch

certification process through the FDA, which is a complication for food companies that want to import into United States.

This is an example of just screenshot right from the FDA website showing certain color additives. This one specifically shows the certified synthetic color additives that are approved and on the color additive list. You can see the color name and the status. "Permanently listed" means it's approved and permanently listed and certification required – that's what I was talking about that certification for synthetic color additives through FDA. And then the uses – you can see here "Blue No. 1," which was the example I used, can be used in foods. You do have to have pre-market approval for that. This is just a general summary, but it can be used in drugs and in cosmetics as well. FDA is the authority that regulates food drugs, cosmetics. So those same synthetic chemicals may be used in other purposes. All this information is online. If you're interested, you can go check it out.

Impossible Burger

Let's talk about an example. I find this example fascinating, hopefully, you do, too. The Impossible Burger. You can see here, if you went to the to the market and wanted to buy your impossible plant-based meat substitute then this is what the ingredients a label would say. Its little bit different than a hamburger which would just say "beef," (I've never had an impossible burger, so no judgment on the quality or the taste of the Impossible Burger).

We're going to talk about soy leghemoglobin. What is soy leghemoglobin? Leghemoglobin is a combination of two words: (1) legume, and (2) hemoglobin. We have hemoglobin in our bodies as animals. It has an oxygen binding function in red blood cells, and, interestingly enough, in some legumes they will produce a hemoglobin, and that's referred to as leghemoglobin. You may already know this as a farmer and an agronomist – I like to talk a lot about crops and soils, so some of you may know that legumes are said to "fix nitrogen" (which isn't technically true). The legumes form a symbiotic relationship with a bacteria called rhizobium, and forms nodules on the roots of legumes like soybeans, and in those nodules, the soybean will produce this leghemoglobin. It's produced for a very similar purpose, as in animals, it binds oxygen and facilitates that nitrogen fixation process, which is removing nitrogen from the atmosphere, converting it to a form of nitrogen that can be used in the plant. It's a great sort of relationship, and you want it to happen if you're growing soybeans.

It's very clever that Impossible Foods realized that this leghemoglobin has a very similar flavor, and acts very similarly to the hemoglobin in animals, and it has that heme group that acts very similarly and has similar chemical reaction. Impossible Foods decided to add this to their plant-based meat product, and it's a food additive. It has a similar flavor structure, and so it was added to impart

that similar flavor. If you are used to consuming meat and you want to go, buy your Impossible Burger, then it would taste similar. That's a food additive and thus requires food additive approval.

They [Impossible Foods] did their GRAS analysis. Sometimes you'll hear people refer *to GRAS substances*, but it's actually *GRAS use of substances* – because based on particular use at particular levels. Impossible Foods decided that because leghemoglobin is very similar to hemoglobin, and decided leghemoglobin was safe and they moved on and added it to their products.

But they [Impossible Foods] also want to use soy leghemoglobin to impart a particular color. That that color that we're used to, that reddish color for beef products. As a color additive, that requires a different approval process. GRAS is not allowed for a color additive, so they had to do pre-market approval, submit their petition to FDA and get approval to use soy leghemoglobin in their product as a color additive. It was approved, despite being challenged, it ultimately prevailed. You will see your products that are out there in the marketplace that have soy leghemoglobin in them.

Now the rub for some people and for some countries is: how do we produce soy leghemoglobin? As you can imagine, it would not be particularly easy to go out and harvest the nodules of legumes and of soybeans, and to get all of this soy leghemoglobin that we want. So we've modified. What's happened is they've genetically modified a yeast to produce this hemoglobin, and then they will lyse, or, rupture the yeast cells, collect the hemoglobin, the soy leghemoglobin. And by the way, this is a structural diagram of leghemoglobin and soybeans. [Referring to slides] that's what's used in the impossible meat.

In the United States, we generally take the approach that what you get out on the end, if it's pretty much identical to what you would have gotten under the natural sort of process then we're not too concerned about the means to get there. There's no yeast in the soy leghemoglobin that's collected in the end; none of the GMO product is in there, we're not too concerned about that in the U.S., but in the EU it's a different story.

EU

This is some general information about the EU and the General Food Law Regulation. Soy leghemoglobin has been. They've sought approval from the European Food Safety Authority ("EFSA"), that's the authority that was established under the EU regulations to sort of review these applications as the FDA does in the United States. EFSA approved that product.

They have their own expert panel that reviews GMO products in the EU, and GMOs are treated differently. I would say legally, they're much more sensitive

to anything that we would consider genetically engineered, and the consumers can treat it very differently as well. So that product is currently under review with the GMO panel, we'll see what happens in the end. The interesting thing is, the source is a genetically modified yeast, but you're not consuming the yeast, rather you're consuming this sort of product that's generated in the end. So it'll be interesting to see how they conclude on that issue. Soy leghemoglobin, I think, at least in Canada, New Zealand, Australia (and other countries) have already approved it, and it can be used in those food products.

I want to mention the Codex Alimentarius, and if you're like me and you know nothing about Latin, you have to Google it to figure out what it means – it means "the food code." The Codex Alimentarius Commission was established by the UN Food and Agriculture Organization ("FAO") and the World Health Organization ("WHO") to put in place kind of an international food standard. The Codex Commission now has 187 member countries, the U.S. is one and so is the EU. These countries come together and establish food standards sort of under an international consensus of how food additives should be analyzed, what maximum residue levels should be present for pesticides on food.

It's actually a very robust system and there's been very active engagement, it's a very helpful program. As you can imagine, in developing countries putting together a food law and a food system, to address raw agricultural products wouldn't be as difficult, but given all the products that we have today, all the technologies would be very difficult to put something in place just from the ground up. You know we've established ours for over a hundred years, and so these standards that have been put in place can be utilized by other countries.

The Codex was referenced when the U.S. and EU were engaged in discussions for a treaty that involved food and ag products. The Codex is referenced in other treaties as a standard, or as if nothing else, as a dispute resolution tool. But the idea is to facilitate trade, to harmonize standards, language, and terminology. The United States will refer to the Codex at times, and especially when it comes to pesticide tolerances and to verify what's being established by Codex. The EU will actually, specifically reference international standards and their regulations to harmonize what they're doing within the country, within the member countries of the EU, with the international standards. And this is really like I said before - food is a global economy - we rely on trade, especially here in the United States, so the more we can facilitate that, and make sure that the food is safe, and that it's clearly communicated from country to country what standards are being used, the more we can have safe and helpful trade.

Here's a few expert groups that exist under Codexis, and there's a number of them. This is just an example of how the Codex approaches food additives, which is very similar to how the U.S. does it. How it's done in the EU, looking at reasonable certainty of safety, what are the cumulative risks? What are the

sensitive populations? Sort of that risk analysis?

Pesticides

Now let's talk about pesticides. Pesticides is a hot-button topic. If you're a farmer, and you rely on them, you can have one view, and if you're a consumer you may have another view. Pesticides are interesting because so many different agencies have a role to play with pesticides.

The EPA has the authority to register pesticides, and under that, under the FIFRA, the Federal Insecticide, Fungicide, and Rodenticide Act. EPA *shall* register pesticides if they determine that they meet certain requirements, and there's no unreasonable adverse effects on the environment which includes risk to humans and the environment.

Then EPA, under the Food Federal Food Drug and Cosmetics Act, has authority to set tolerances. If you're using a pesticide on food, or if you have some exposure to pesticides that are utilized in a facility close to food, you may have some residue. Whether it's a contaminant or whether it's a pesticide residue, there's no replacement for good manufacturing practices. There's an assumption that GMPs are going to be utilized by companies, and you can't just say, well, it's within the tolerance so I'm not going to put in protections and controls to not control for this contaminant. It's expected that you're going to follow those GMPs and reduce contaminant exposure as much as possible. Nevertheless, there's that chance that there will be residues present on food. Thus, it's EPA's job to set those tolerances, and if it is safe to do so. If you cannot set a tolerance that's safe, then that product can't be used on food.

FDA has the responsibility for enforcing those tolerances, and that's mainly done through a monitoring program where they're periodically monitoring and sampling products in the food chain and also import-products as well.

The USDA has a role as well, because the USDA has authority over certain food products like meat and poultry, therefore the USDA will monitor those products and the residues associated with those products under the National Residue Program, the FSIS specifically does that. Then they also have their Pesticide Data Program, which is a pretty robust sampling and analysis program where they'll sample a grain and different products in the food system and test for pesticide residue. I don't have the numbers in this presentation, but for the most part, I think 99% of samples are below all tolerance levels when they're tested. So that's good to know.

Tolerances are the maximum allowable levels for pesticide residues on food – referred to that term a few times – that's unique to the U.S. The U.S. uses that tolerances term where most countries, the EU and the Codex will refer to

maximum residue levels.

The EPA will set tolerances if there's reasonable certainty that no harm will result by looking at aggregate exposure and potential other exposure. Maybe there's exposure from water sources, whatever is a potential exposure they have to consider that. The Food Quality Protection Act in 1996, that amended the law, also requires the EPA to consider sensitive populations: infants, pregnant mothers, and the fetus (we'll talk about that here in a minute).

Example – DCPA suspension

DCPA or dactyl. This is a chemical depiction of dactyl or dimethyl tetrachloryl terephthalate (you can understand why they abbreviate that). EPA issued an emergency suspension of this herbicide. That's the first time EPA has done something like that in maybe over 40 years. It just happened in August of this year, and this product is used to control weeds in specialty crops like broccoli and kale in the United States. Interestingly, EPA noted that in some situations, in its order to suspend, that there really is no replacement product. That's a hardship for the grower, if you don't have another product what are you going to do to control weeds? And you may have yield reduction as a result of that. The EPA also noted that these crops are heavily traded internationally. It's unlikely to affect the consumer in the end, because we can get those crops, we can get broccoli from other sources or many sources available in international trade. Therefore, the price is unlikely to increase for the consumer. So how does the producer deal with that? They now have a weed they can't control, they don't have a replacement product, and they may have reduced yield as a result of that. Of course, this suspension was not favored by the producers.

Let's talk about how we got there. As early as 1999, EPA started to consider that there were maybe health effects for a fetus at much lower levels than what they had set for the tolerances previously. They didn't have a lot of data, and EPA under FIFRA has to do a registration review every 15 years. They were doing that in 2013 when they requested that the registrant do some studies. (One reason I put this up here is to show how long it actually took to get to where we are today. This process can be a very long process.)

There was a lot of back and forth along this timeline with EPA going to the registrant and saying what protocols and they wanted to use, and EPA saying, "no, that's not sufficient." Eventually, EPA threatened suspension, suspended the product, got the data, lifted the suspension, reviewed all the data, and said, "oh no, we've got an issue, we're going to issue an emergency suspension" in August of 2024, and then ultimately the product was canceled in October.

Finally, EPA concluded that there was this significant risk of exposure, whether it's to a bystander or someone who enters a field after this product was used,

after DCPA was applied – especially if that under situations where that individual was pregnant and the fetus would be potentially exposed. The limits were so low that EPA found that there was this imminent hazard that could not wait. As you saw the timeline before the process of notice and comment, you know objections to this notice of suspension, and a hearing could take a long time, and EPA concluded, we can't wait. We can't wait for a suspension hearing. We can't wait for a cancellation hearing. We're going to issue this emergency cancellation right now.

With that in mind, do we think that the dactyl tolerances are still in effect? The answer is, yes, the exposure that EPA was considering was this exposure to the product applied in the field, maybe to a bystander nearby, but it wasn't food exposure. They've set those tolerances, and they still believe those tolerances are safe. You may still have some residues on food in the United States, and so those tolerances need to remain in place. You may have foods that are imported that have residues, and so, it's important to have those tolerances in place for that reason.

That brings up another point. Is it possible to have tolerances set for products that aren't registered in the United States? And the answer is, yes, you cannot use or sell a pesticide in the United States unless you've gone through registration under FIFRA and gotten approval. However, we have products that we import into United States that we don't grow in the United States, and there may be chemicals used on those products that we don't use in the U.S., for whatever reason, maybe the climate, maybe the particular crop, the particular weed, the particular insect. EPA will set tolerances for those products, tolerances have to be set. If you import a product, and there is a tolerance or not a tolerance established for that particular residue, then it is adulterated, and it cannot be imported into United States.

Interesting note – DCPA is prohibited in the EU as of 2019. The EU was a little bit, in fact, very much ahead of the United States, in reviewing that product.

Example – Chlorpyrifos

Chlorpyrifos is an insecticide that is widely used in the United States. It's been registered since 1965. In 2007 there was a petition filed by several NGOs to revoke the Chlorpyrifos tolerances. EPA, from my read of things, got an *analysis paralysis.* EPA has to go through these registration reviews, it reviews these human health risk assessments that it updates every time that gets new information. The NGOs kept going to the court and saying, "EPA is dragging its feet." Then the Ninth Circuit would issue an order, say, "make a decision," and then the EPA would blow its deadline again. Then the EPA said "we're going to revoke," and then it said, "no, I take that back, we're not going to revoke. we're going to deny your petition." So, it was kind of all over the place.

The issue was, the EPA felt like it had insufficient data to show that the tolerances were safe and felt like it needed more data. When it got to the Ninth Circuit, of course, the denial of the petition to revoke the tolerances was challenged, got to the Ninth Circuit and the Ninth Circuit, said, "EPA, you didn't do your job, this is arbitrary and capricious." The Ninth Circuit gave the EPA 60 days to go back and either revoke or modify the tolerances which, if you've worked with administrative agencies, you know, 60 days is not very long. But basically, the Ninth Circuit said, "you have two statutory programs you're working under: you have FIFRA, and you have the FFDCA, you have authority to set these tolerances. You [EPA] have to have reasonable certainty of safety to set those tolerances, and if you have insufficient data, if you can't show that they're safe, then you're not meeting your obligation under the FFDCA.

The EPA wanted to wait another 15 years for another registration review and the Ninth Circuit, said, "nope, that's another statutory scheme, and you need to fulfill your obligations under the FFDCA." So, the EPA went back, and I think sort of said, "well, we don't have enough time, we're just going to revoke everything," and of course, that made other organizations and producers unhappy. So, that was challenged. That got to the Eighth Circuit and the Eighth Circuit said, "you try again, you're acting arbitrarily and capriciously because you had data for 11 different uses that you could have reduced those tolerances, you could have modified them under the law, it says, *modify or revoke*, you could have done that EPA, and you didn't, so now you need to go back and do that." The Eighth Circuit vacated the EPA's prior order that revoked all the tolerances. Now we're kind of back to where we were, and the EPA is in the process of evaluating, reestablishing, and modifying those tolerances.

In the EU, Chlorpyrifos is no longer used, and they've set the maximum residue level at the lowest limit of detection for analytical purposes.

PFAS

Let's talk about PFAS. We could talk about PFAS for an hour by itself, but we'll try to get through some of the key points quickly. If you're not familiar with PFAS, you may have heard of "forever chemicals." These are per and polyfluoroalkyl substances that are used, and have been historically used, to a large degree, in many applications. They are great for their intended uses such as stain resistance, heat resistance, etc. They've been used in food packaging, coating of cooking surfaces, in upholstery, in firefighting foam. There are ongoing class actions related to particular PFAS.

This is an example of one on the screen. This is *PFOS* that you hear about sometimes, If you've watched the movie "Dark Waters," or you've watched "The Devil You Know," is the documentary version – that's what they're talking about, they're talking about a particular PFAS chemical in that situation.

PFAS is a very broad term and includes thousands of different chemicals. The problem with that definition is, it includes chemicals that range from sort of this long chain for fully fluorinated carbon that you see on the screen to shorter chain, to polymers, and they all act very differently, they behave differently in the environment, and their toxicity is different. A lot of laws are being established based on this very broad definition, and it's getting to be challenging. Certain States like Maine have a law where they're banning all intentionally added PFAS, by (I forget) 2032 or something. That's a lot of uses when you have a broad definition like what's being used.

PFAS are persistent, bio accumulative, and mobile in the environment and potentially harmful at very, very low levels. These are some potential issues that have been established as a result of PFAS exposure. Primarily certain PFAS exposure – the PFOS and PFOA that you hear about primarily and the ones that were used early on. Obviously, like, I said, depending on the PFAS, you may have different risks associated with those different compounds.

Highest PFAS levels on average in packaging, is in paper bags, historically bowls. Think about paper plates that you get, if there's a coating on it, and it's a paper-based product - so there's something on it that's keeping the water, the grease, whatever from getting onto your hands onto your clothes that you have them resting on – to a large extent that has been a PFAS related product. That is changing and has changed over time.

This is a figure from Shipman and Goodwin. They do a really good job of keeping this up to date. This is state prohibitions on food packaging with intentionally added PFAS. There's a lot going on with EPA, with respect to PFAS regulations, they recently released maximum contaminant levels for certain PFAS compounds and drinking water down to the four part per trillion level. One of the issues with PFAS is that we can only test for about 30 to 50 different PFAS compounds. If you have thousands of different compounds which you can only test for about 50 of them, then it's pretty obvious you don't know a lot about several of them. But anyways, this is [referring to slide] the state prohibitions that are going into place.

The FDA has done kind of an analysis and monitoring mode. Their opinion is a lot of the PFAS that has limited uses of certain compounds on packaging, and those compounds don't really move to the food product from that package. And, for the few issues that they identified those chemicals were removed from being used as food coating, and coating for food packaging. Then, as of February, substances containing PFAS as grief-proofing agents for paper and paper board are no longer used according to FDA, and this voluntary switch that has been done by the companies that manufacture those products.

There have been two recalls for PFOA, and those were in canned clams imported from China. So like I said, there's a lot going on with PFAS in the environmental space and regulatory issues that new things that the EPA is coming out with all the time, but as far as food, your primary exposure is through what's considered through food packaging.

Now let's remember, that food supply chain diagram that I showed earlier. If you have a situation where you have elevated levels in the soil, you have an animal that's getting exposed to water that's highly contaminated. You may have a very different scenario, right? But for the most part the exposure has been through food packaging for food.

The EU is definitely taking a different tact with respect to PFAS, it already has regulations and limits set up. This is an example of *some* of those limits here [referring to slide]. They have limits for PFOS, PFOA, and a couple other PFAS compounds, and then the sum of those compounds. Obviously they're considering that there's an accumulative effect from multiple exposure to those PFAS compounds. Thus, there may actually be a limit for the sum, that's less than what the individual limits are. And they have a number of levels established under the EU regulations for acceptable level of those compounds in food.

I know I'm getting close to my time limit here. Here's some food trends and some issues that are going to be coming up:

Lab grown meat. We're not really at the point where we can grow meat economically in a lab, but they can grow sort of the aroma and flavor of cells, and then add those to products.

Sugars and sweetener. There's different products coming out. There's proteins that are designed to be sweet and give you that sensation of sweetness because we love our sugar in the United States right? Then there's sugars that are being modified so that they have an even sweeter flavor, so that you can use less of the sugar, but still maintain that same level of sweetness. I think you could just reduce sugars in the products, but, like I said, we like our sugars and our flavors.

Then different coatings for different paper containers that are coming out with different sort of natural-based products that can be used in those situations.

I'm a little bit over, but thank you, and I'll take any questions.

Farrah Goodall ("FG"): We can take questions for about 5 min if anybody has anything burning.

PROFESSOR AMY BERG ("AB"), QUESTIONS & ANSWERS

Regarding the potential overturning of *Chevron* and effects on food law. That's an interesting question, a question that we're all sort of grappling with and different things, but the food law is very robust, and it has a lot of provisions in it that explicitly say, who has discretion to do what. So I don't know that *Chevron* or the doing away with *Chevron* is going to have a huge impact in this space. Judges are not in a position to do a risk analysis, so those things are going to be in the purview of the of the experts. But there's always going to be those situations of ambiguity in the law, and someone thinks that they challenge that they will.

FG: Thank you for that.

AB: Yeah, and that that is explicitly in the statute, but that's been decided that being safe before that time, period is not enough. You have to have more than that. That's helpful in showing that wide usage over a period of time that didn't result in any health effects, but you also have to have the experts and the published scientific evidence to support that determination. Yeah, it's good point. Thank you for that question.

FG: Any others back there?

AB: Yeah, and that's a real concern. We were actually talking about last night. Companies want to push the limit on what they put on their products. But consumers are rigorous right, and they're evaluating your statements. And there's this misinformation out there. Usually, if you have the evidence to support whatever's on your product, and what's in your product, for us those challenges as they come up. For marketing purposes, your position in a grocery store can be so important. So we're always counseling our clients to make sure what you're saying is actually true, and that you can back up what you're saying. If it's a statement about if it's just boasting, or if it's trying to make some comment about levels in your food, you need to have it. Yeah, it's definitely an interesting challenge, say, with all the information that's out there. Thank you.

FG: Way in the back.

AB: Yeah, and it's not necessarily catfish that's the issue. Catfish are under the authority of the USDA. (And it gets really interesting, what's with USDA? What's with FDA?). There are certain issues that arise in fishing, because sometimes our waters are used as our dispensary, right? Dilution is the solution, and they may have certain issues in the water and come into contact with certain levels of chemicals that other products don't. More often than not, the issues that you run into – you'll see tuna issues with mercury – they're not synthetic, they're contaminants like lead, mercury and stuff like that. But those are more

the issues that come up sort of in the aquatic aspect.

FG: I think we have time for one more.

AB: Yeah, and sometimes what is good and what is bad is personal preference right? Sometimes that's hard to answer. The thing that I suggest is really review your product. There's a lot of new labeling that's coming out such as the bioengineered disclosure requirements. If you don't want a product that's genetically modified in any way that's your right, and that information is disclosed. Definitely look at the label. Sometimes you have to look something up, to be sure what it what it is, and what it means. All of those sort of USDA or FDA labels on the food products are there to inform you of something. And yeah, we don't want to go to the grocery store and have to spend a minute reviewing everything, but it is important to look at what's on those food labels.

FG: Well, thank you so much Professor Berg, join me in giving her a warm round of applause.

5 MINUTE BREAK

FG: Take about 5 minutes just to transition speakers. If you need a quick coffee, break or something, go ahead and feel free to do that, and around 10:10AM I'll introduce the next speaker.

ZACHARY MACIEJEWSKI, THE STRENGTHENING ORGANIC ENFORCEMENT RULE: SUPPLY-CHAIN IMPLICATIONS OF NEW USDA ORGANIC REGULATIONS

FG: Hello, everyone! I'm going to introduce our next speaker, Zachary Maciejewski. He is an associate here in Indianapolis, at Faegre Drinker Biddle and Wreath. He helps clients navigate the complexities of FDA regulatory concerns as they look to market new food, beverage, dietary supplement and cosmetic products. He helps clients draft Food Safety Modernization Act (FSMA) compliance programs for animal feed and human food manufacturing facilities. He addresses complex licensing, permitting and regulatory needs and helps navigate the intricacies of state and federal licensing entities. Zac also works with companies looking to import and export food and beverage products internationally, helping them understand compliance requirements and interface within the U.S. and foreign export authorities. Zac focuses on issues related to food safety, marketing, regulatory compliance, intellectual property, indemnification, import/export, inspections and recalls.
Please welcome Zac Maciejewski.

Zac Maciejewski ("ZM"): Thanks everybody for being here this morning. I want to before we get going, thank Alex and Julia for all of their hard work

putting this together. It's no easy task putting together any sort of symposium or event, so they've done a great job.

I'm going to be talking about the New USDA Strengthening Organic Enforcement Regulations. These regulations could probably fill an entire day of conversation. So, what I'll be doing in 25 min is a significant overview of these regulations, and their impact now on the on the food supply chain in the United States.

A little bit of a roadmap for my presentation. We're going to talk about the rationale for why USDA implemented these updates to the organic regulations. Who they apply to. Why they matter, and then we'll talk about some of the changes, noncompliance, repercussions and supply chain disruptions, and how to mitigate those disruptions.

The first slide here is, "who do they apply to?" But I think it's more important to first talk about why these regulations are put in place, and I'm going to read off USDA's five bullet points for why they implemented these new regulations: (1) to protect organic integrity, (2) to strengthen farmer and consumer confidence in the USDA organic seal, (3) to improve market traceability, (4) to increase import oversight, and (5) to enhance enforcement ability.

The key driver behind the new SOE regulations is organic fraud. Since the implementation of the organic program, it's been rife with fraud because it's been very hard to enforce compliance. Particularly with products that are imported foreign countries. Obtaining the organic seal in the United States, for the longest time, there wasn't really a nexus between foreign supplier and domestic seller. Which led to significant fraud.

There are a few cases that USDA cited in its rules leading up to the promulgation of the new regulations. One was *United States v. Hakan Adro DMCC, et al.*: the DOJ indicted and convicted multiple individuals and entities from Turkey for committing organic fraud. They charged as much as a 50% premium on organic grain that they deemed organic, but which was not organic. Another one here in the United States is *U.S. v. Wolf*. The defendant there pled guilty to a 46-million-dollar conspiracy to sell non-GMO corn and soybeans. These were just a couple of the cases there. There are many more out there, and they kind of underpin the rationale of why USDA implemented these new rules.

Who do they apply to?

Prior to the implementation of the new SOE rules, the regs were very vague as to who was considered a handler. It was traditionally understood to be just entities that physically handle organic products. So, think your farmer, your picker, your distributor whose warehouse, or who's handling bulk products.

These entities are still regulated, but the new rules now go into entities that do not physically handle organic ag agricultural products. So, the definition of "handle" is: an entity that sells processes or packages organic agricultural products. Within this definition now includes entities that sell trade, facilitate the sale or trade or import or export products. Regulations are capturing entities that were on the fringes of the organic regulations before that were not necessarily directly regulated, and pulls them in. Sales brokers are a big entity that's now regulated. Brokers are very prominent in the produce industry, oftentimes they never actually physically touch the product. They're arranging sales between a farmer and a buyer, and they're now required to be certified by a USDA certifying agent as organic if they want to facilitate those sales. The same applies to importers and exporters of organic products.

These entities used to not be regulated and part of the broad sweep of these new regulations, trying to capture these entities who have a significant role in sale of organic products in the United States. Pulling in as many entities in the supply chain as possible. It's been interesting watching U.S. entities work with their foreign suppliers to become compliant with the regulations because it's essentially forcing a foreign arm, in some instances, to comply with U.S. regulations. There's, as you can imagine, a host of issues with convincing foreign entities to comply with U.S. regulations – but seems to be moving relatively smoothly from what I've heard. Still, in the U.S., legally, you have to do it, and so it's been working okay, from what we've heard.

Then there are certain entities that are not within the rule, mainly retail establishments. Like grocery stores that don't process organic products or process them at the point of final sale; customs brokers; logistics brokers; transportation companies that that only handle transportation of the product; warehouses that only handle tamper-evident packaged products are exempt, but warehouses that handle bulk product are not exempt. So, if they're handling bushels of apples, they're not exempt. If they're handling packaged cans of apples they are except.

Why do the regulations matter?

They matter for food companies for a variety of reasons, one of them being noncompliance. Well, one not compliance can lead to a company's inability to market product as organic. Marketing organic products is a significant selling factor for a lot of a lot of companies, especially produce companies. Failing to confirm that your entire supply chain is compliant with the organic regulations can lead to your inability to market organically.

There's also consumer fraud class action risk for marketing products that are not organic as organic, this is false and misleading to consumers and can a company susceptible to consumer fraud litigation which is rampant in the United States

right now. A lot of it for good reason, being honest and truthful to consumer is important, especially with respect to organic products that carry a premium among consumers.

There's also significant business-to-business litigation risk. If company A Sells Company B product, then Company A says, is organic, but it's not. This leads to breach of contract issues and to business litigation issues.

Then there's also the risk of regulatory enforcement. Of course, there's the risk of losing your organic certification, but there's also criminal liability. Any entity that knowingly sells or labels a product as organic when the product has not been produced or handled, pursuant to the regulations they're subject to civil penalties of up to $21,689 per violation. That number is actually specified in the regulations. And any person who makes a false statement to a certifying agent or state organic program governing official is subject to imprisonment of not more than 5 years and additional fines. So, there are hefty, regulatory enforcement measures in place with the new regulations, and there's significantly increased litigation risk associated with noncompliance.

As I kind of already talked about, the regulations from a 30,000-foot view. There's a broadened definition of handle capturing. Importantly, entities that don't physically handle or don't physically touch organic products, particularly importers and exporters.

The regulations now also require entities to develop a fraud prevention plan, essentially outlining the measures that they're taking to ensure that organic products aren't susceptible to fraud throughout the supply chain. Then, as I also mentioned, increased enforcement.

Given that a big focus of the today's presentations, or some of the focus, was trying to bring in as much international influence as possible. I wanted to focus just a little bit more about the impact on importers and import suppliers. One of the key requirements now is that entities must have their certification prior to shipping products to the United States. It's not a ship and get it later type of scenario. It's you have to become certified, and then you can ship. Given that the implementation date for the regulations went into effect back in March, I think, we're probably beyond some of those initial headaches. But there certainly were issues where entities were shipping product on the water and then finding out that they needed to become certified with USDA important denials and a lot of supply chain bottlenecks. Then entities are also now required to obtain a NOP import certificate prior to importing product in the United States – their document essentially confirming that all of the products in the shipment are certified, organic, be submitted to U.S. Customs and Border Protection Agency part of the lot.

There are also additional labeling requirements for organic products. I'm not going necessarily bore you all with what those are, but they are significantly enhanced, and it's essentially marking everything as organic and describing where you received it from and where it's going.

The broader picture here is USDA is trying to envision any possible scenario where there could be fraud in enforcing people to say, "this is organic, it's not fraudulent" as many times as possible.

Import certificate process. Needless to say, it's just initial, and it's another hurdle for warrant suppliers to obtain documentation from them from their certifying agents prior to shipping it to the United States. Interestingly, they can import certificate to comply to multiple shipments. It can be valid for up to a year, I believe at times. Which has caused a lot of industry to say, "how is this actually producing organic fraud, if the first shipment is compliant, but the rest of the shipments throughout the year are not?" And there's no oversight from a certifying agent, verifying that those subsequent shipments are compliant – are we really achieving the end purpose? The flip side of that is, certifying agents, there's not enough of them in the world to verify each shipment of products. Don't let the good be the enemy, don't let great be the enemy of good end of scenario.

Some of the potential supply chain disruptions, that we're seeing, that are kind of important (just for placing these regulations in context), is that a lot of foreign suppliers and certifiers simply don't have the capacity to manage these requirements. U.S. regulators are putting a lot of strain on entities that were no longer that used to not be regulated at all, and subjecting them to U.S. Government regulation now, and it's definitely resulted in some supply chain bottlenecks. They're certainly becoming more ironed out as time goes on.

Another is a lot of the way that these products are declared organic when they're imported in the United States is through customs and border protection. Harmonized tariff schedules. Some products don't have an organic code. So, if you import soybeans (is a bad example, because there's definitely an organic code and non-organic code, but let's just say there's no organic code) and you import soybeans. CBP has no way of knowing – "are these organic soybeans or are these non-organic?" The shipment still requires the import certificate, the shipping documentation must still say that the product's organic, but at the end of the day that product gets into the United States after CBP approves it, and the CBP is not having to approve organic or not organic. Thus, certain products are susceptible to misclassification and fraud, and I think that there is some sort of effort to try to rewrite some of those tariff schedules, but that requires cross agency work, and that takes a long time.

Then, as I mentioned, the broad applicability of the NOP import certificate to multiple shipments of products can complete the product. One shipment, on January first, is subject to the same certificate as the shipment on December 31st. A lot can happen in that year, and throughout that time period.

Some of the key takeaways, you know, throughout all this, in in my view, is revisiting your supply chain verification. We're going back and working with your suppliers to verify that they're compliant at the end of the day. It's the U.S. entity that's responsible for making sure that their foreign suppliers are compliant. It's the U.S. entity that's going to be subject to fraud, litigation, or the U.S. breach of contract action. It's on them to confirm that their suppliers, and everybody throughout their supply chain, is certified and is maintaining transactional records. It's incredibly important, and something I didn't talk about a ton, but which is important, is reviewing, or looking at your product labels – making sure that you actually have certification for each individual product that you are selling as organic. The organic process supplies on a per product basis, so each new product is now required to go through the certification process again with and making sure that those labels are accurate.

With that I'll answer any questions.

FG: Let's see from the crowd?

ZAC MACIEJEWSKI, QUESTIONS & ANSWERS

ZM: The seal, well, carrots aren't adulterated right? They're still safe. Non-organic carrots are still safe and safe to eat. They're not going to cause (assuming that they're not contaminated with the pathogen or chemical), they're not going to cause any harm, so they're not adulterated. Organic products are subject to different growing requirements and different handling requirements than non-organic products, and there's a premium price that consumers place with those products. Arguably, those products are healthier because they're not subject to certain growing processes that not organic products are re subject to. But they're not adulterated. It's a good question, because as a consumer, you see an organic product, and you think this is healthier, this is better than the other one. . . And cost! [laughter] Chain constraints, growing constraints.

FG: Go ahead.

ZM: Yeah, between non-GMO and organic. An interesting question (honestly, I don't know with certainty). Foods that are genetically modified cannot (99% sure) be considered organic. That definitely factors into the analysis of organic and non-GMO, but whether that modification occurs over time, or whether that was human induced I'd have to look at it and get back to you. I admittedly am not an expert in that. It's a good question.

FG: Thank you for that. Next question, go ahead.

ZM: Ingredients versus finished products, absolutely. I mean finished product theoretically is, you know, think of a tortilla chip. The issue comes down to the ingredients. That's where a lot of the fraud comes from, and intermixing. If you're shipping in containerfuls of corn or soybeans, it'd be incredibly easy to pick that half of it's going to be organic and half of it's not. We're going to mix it together and hope they don't test it right? That was a case in California a few years ago, where a farmer had five fields; one of them was organic and four of them were conventional, non-organic. The court said that the claim wasn't preempted because his organic claim was fraudulent. USDA preempts a lot of consumer claims. If a product is certified organic by a certifying agent (unless there was some sort of knowing fraud committed against that agent) the claim is going to be preempted under USDA. But fraudulent advertising is not, according to this California court that . . . long roundabout rant.

FG: Go ahead.

ZM: Sorry, just to make sure I'm understanding it correctly. The process to become certified. Yeah, so, you have to develop an organic system plan, and it has to be verified by a USDA certifying agent. There are entities that USDA certifies as kind of carrying forth their regulations and making sure that entities are individually certified. USDA doesn't actually individually certify anybody. Rather, it hires third parties to go out and inspect farms and look at organic system plans and then make a determination that entity is satisfy the requirements. It's per entity, but also per product. For example, if an entity sells five products, the entity is going to be certified organic to sell orange soybeans and a grain product, but maybe they also sell tomatoes, then that product would not be covered. And, if you go on the USDA database (the organic integrity database), kind of search around for individual companies and see what their products are, and the product itself is not listed. [Re-asks question] Oh, it would be that entity. Yeah, the USDA is pretty serious about this, too, because they connect the penalty supply also to people that are call it responsibly connected. On an individual basis held liable for committing fraud, because that's where a lot of this is coming from.

FG: And I have a question – Compared to the EU, for example, are our regulations stricter, or do we see any difference between other countries?

ZM: Great question that I don't know the answer off the top of my head. I know that a big push behind a lot of these regulations. Generally speaking, the EU is much stricter. My hunch is comparable countries are much stricter. It would be incredibly hard, for the for USDA to make this law more robust than it individually inspecting everything, and marketed as a well.

FG: Thank you. Next Question.

ZM: I probably think it was difficult at the beginning, I mean, industry had so much time with this, that doesn't mean that's asking a small farm the middle of Europe comply with USDA organic. Some farmers might find it incredibly difficult, because they haven't had to do it before, but a lot of them are probably growing organic product, and in their country and selling it throughout. You know the EU or Asia, or wherever: and it's really growing practices. But, it was more so just the documentation requirements. I think that we've got more hard work involved now than there used to be. And nobody likes more paperwork.

FG: Okay, well, if there are no further questions, please give a warm round of applause to Zac.

Thank you for your attention. So far, we're at the halfway point of the morning, so we're going to take a little bit longer of a break. The next speaker will start promptly at 10:55. If you could be back here with a few minutes to spare so I can introduce them.

If you haven't found them already. The restrooms are out this door to the left, and if you need to leave early this morning, please sign out on those iPads that you signed in on so that way you can get your CLE credit. If there's any questions, Alex and Julia are around, and we'll see you all in a few minutes. Thank you.

½ WAY BREAK

FG: Hi, everyone. If you wouldn't mind finding your seats. Our next speaker is Todd Janzen, founder and partner at Janzen Schroeder Ag. Law here in Indianapolis. Todd is a frequent author and speaker on legal issues affecting agriculture. His reach includes testifying before the U.S. Senate and House subcommittees on issues concerning ag, data collection, privacy, and technology. He writes a regular blog column on law and technology issues, the Janzen Ag. Tech Blog, which has been republished on Farm Journal's AgWeb, Successful Farming Precision Ag., Hoosier Ag. Today, and Precision Farming Dealer. Todd has been interviewed by various publications on agricultural topics including the Wall Street Journal, Farm Journal, and the Progressive Dairyman. Todd is a regular commenter for Market Day Report and Ag. Day on RFD TV. In addition to his thriving practice, Todd also serves as the administrator for the Ag Data Transparent Project, a national effort to bring transparency to contracts between farmers and technology providers.

Please welcome Todd Janzen.

TODD JANZEN, CLIMATE CHANGE DRIVES CHANGES ON THE FARM

Todd Janzen ("TJ"): Well, thank you very much, and especially thank you, Alexandra and Julia, for setting this all up and hosting dinner last night. Let me slide over here in front of the microphone.

So just to get a feel for who is here today, raise your hand if you're a current law student. So I have an idea. All right, that's most of you. What about, raise your hand if you're a currently practicing lawyer. All right, so some people getting CLE credit, too. What about professors? I guess, you are also currently practicing lawyers. Okay great.

All right. Well, hey! I am a 2002 graduate of IU Law School of Indianapolis. It actually wasn't called McKinney back when I graduated, but I can say a few great things about going to law school here. I was one of the classes that started in the old building, which is over there, and ended up finishing up in the new building. So, this was really state of the art when we started here. I'm also the very first class, first day of law school was with Professor Roisman. And it was her first day here as well, I think, teaching. So, she really kicked us off with a bang, because if you've had her, she's tough, expects a lot. And I will say I probably learned more about property law in law school than any other subject, thanks to her. So, she's hard and tough on you, but I feel like you get what you pay for.

I'm happy to be here today. Obviously, our practice involves agriculture. And so I'm going to talk about, not necessarily on the food side of it, like the other speakers you've heard today, but more on the production side of it. And talk about how climate change and the various initiatives that are out there have really trickled down to impacting the farmers that we work with on a day-to-day basis. And so, thinking back to when I first got involved with agricultural law, I did it because I was a farm kid. And also, because I noticed there wasn't a ton of interest in lawyers coming out of law school to go, you know, spend a day getting their boots dirty on a farm. But it really appealed to me, and I thought there was a real need for lawyers who also wanted to work in agriculture. And I'm happy today that, I'd say, an agricultural lawyer is not a rare thing. There's actually quite a few people in that space.

Climate Change Drives Changes on the Farm

So today I want to talk about three different types of contracts that we see farmers signing that didn't exist ten years ago, for sure didn't exist back in the days when I was in law school. And how these are really being driven by climate change initiatives on a national and even global scale. And how that trickles down to farmers that we work with here in Indiana. The first one is Soil Carbon Contracts, then we'll talk about Pore Space Carbon Sequestration Contracts, and

finally end with Anaerobic Digester Contracts.

Our Story Begins . . .

Because this is a thirty-minute presentation, these will be pretty high-level points and so we won't get too much into the weeds of specific provisions and contracts. But I'll tell you, I say the story begins with a Big Mac, because I think that the reason all this is happening is because corporate America, for the most part, has decided that it wants to reduce its emissions. And there are various reasons for doing that. But if you look at really any statement from a large corporation, a food corporation in the United States, they will all say we have pledged to reduce our emissions by a certain amount. McDonald's, for example, wants to reduce its greenhouse gas emissions by fifty percent by the year 2030. So that's not that far away. And what that means is that they have to achieve certain metrics by certain dates to get to that place. And the reason it impacts farmers is, you know, one thing they can do, they can change light bulbs from the old incandescence to the more energy efficient light bulbs that are LEDs. You can do all those little things, but at the end of the day that only moves the needle so far. Ultimately, what you have to do is really change what's happening throughout your supply chain. And if you can't meet these goals by doing that, what you have to do is purchase carbon credits from some other industry.

Carbon Farming Basics

So, the carbon farming contracts I'm going to talk about this is – I'm not a scientist, I'm happy to admit that – but the general gist of how this works is: when a plant grows, like a corn plant, it pulls CO_2 out of the atmosphere through photosynthesis. When that plant dies, then that CO_2 is ultimately returned into the soil in the form of carbon. But then, as decomposition takes place, that CO_2 goes, or that carbon, goes back into the atmosphere.

So, the idea with a soil carbon contract is that, if we can disrupt this cycle a little bit and we can get more carbon to stay in that soil for the long term, we can pull CO_2 out of the atmosphere. And there are companies that are willing to pay farmers to undertake these things.

Creating a Carbon Credit Takes Multiple Parties

A soil carbon contract, I think of, has four typical parties. So where we might get involved would really be in the first part of this, which would be the contract between the farmer and what we call a broker or ecosystem service broker. And they enter a contract, which I'll go through in a little more detail in a second. But this broker what they do then they also have a contract with companies like McDonald's that say we will sequester carbon for you for a certain price, and the unit of measurement is a carbon credit, which represents one metric ton of

carbon dioxide. So McDonald's pays a company like Indigo to remove carbon from the atmosphere. In return, Indigo would provide a carbon credit to McDonald's that it can then use to show that it reduced its emissions. The fourth party here is the Verifier. So there are a number of companies out there, these are private companies that will verify that what apparently is supposed to happen is really taking place. And so that the carbon credit is really being generated, the farmer really is sequestering carbon, and this is all happening as it's supposed to. You can tell there's a lot of legal issues with this sort of arrangement, and it's still in its infancy, I would say, as far as a trading platform goes.

But the contracts themselves – so, we want to talk about that first contract between the farmer and the broker who is selling the carbon credits. What does that look like? So, since carbon is the sixth element. I will give you six elements of a soil carbon contract. Although obviously there are many more, but these are the big six.

1. Enrollment of Land

So, one is the enrollment of land. All these contracts require that farmers enroll certain land into these programs. What is interesting here, I would say, is that essentially what we have is the creation of a deed restriction. So, when you enroll land, you're saying you're going to do XYZ on that land for this company. But we're not using the contract forms that we used to use for deed restrictions. And so that brings some complications I'll talk about in a little bit. But think about that as we go through this.

These are usually, I'd say, contracts for anywhere from one to ten years. And they're not recorded so it's more or less a farmer saying, I'm going to enroll this eighty-acre field in your carbon program.

2. Mandated Farming Practices

The company then would say, okay, if you're enrolling that land, here are the things you have to do, and there's a list of different practices that a company would, or I'm sorry, farm would be required to do in order to hopefully sequester more carbon on that land. Some examples would be cover cropping during times when a normal crop isn't planted; no tilling, so instead of tilling, which releases a lot of carbon into the atmosphere, you would pledge to no-till; and then other things as well. It's sort of an evolving science right now, I would say.

One thing to note is the additionality requirement. These companies only want to pay for somebody to do things for the most part that they weren't doing previously, or that they will continue to do. So, the best candidates for these programs are probably the farms that are generate the most CO_2.

3. Data Collection

So, okay, how do you take care of making sure that it's actually happening? Usually, the farmer is required to upload certain data about how they are practicing what they're doing on the farm. And so eventually, I think we'll get to a place where this can be done in an automated fashion, just using satellite imagery and algorithms and analysis by the images. But we're not there yet. And so, what we have to have is ground truthing and determination that this is really happening.

4. Third Party Verification

The fourth element would be third party verification. So these companies, that collect this data are trying to generate the carbon credit, will use a verification standard from another company, and there are a number of companies out there that do this like Gold Standard or Vera. And so, they'd be subject to spot check through these third-party verification platforms.

5. Prohibitions on Stacking

The fifth element would be what we call prohibitions on stacking. And the interesting thing about this – since there's not a recorded deed, restriction, or anything like that – is that in theory a farmer could take one field and sign up with five different brokers and get paid for generating the same carbon credit five different times. To prevent that, the farmers are required to say that they won't do that. They won't stack different programs on top of each other.

But of course this raises interesting questions because there is no way for Company A to verify that a farmer hasn't signed up with Company B unless they're exchanging information, and that would raise all sorts of antitrust collusion concerns.

6. Sale of Carbon Credits

So anyways, assuming there's no stacking and everyone's doing what they say they are going to do, then what you get to is the sale of a carbon credit. So a company like indigo would say, we actually have been able to determine this farmer generated this many carbon credits. We sell that to MacDonald's farmer gets paid, the broker gets paid, MacDonald's reduces its emissions. Everything works. I call it a system of environmental cryptocurrency because it is, these carbon credits are not a real thing, like a dollar bill. They're more like a cryptocurrency that they're built on the system of trust. And as long as everyone believes in the system, it can work.

Legal Issues with Soil Carbon Contracts

Just a few wrap-ups on this first topic. Big legal issues I see here are that these carbon credits, or these carbon contracts, are supposed to run with the land and stay on a certain field that's enrolled for ten years or so. But there's nothing that prevents a farmer from selling that land, and since it's not recorded in the chain of title, the next farmer doesn't have to follow those practices. They're supposed to, but there's no legal requirement that they do.

There's also no way to verify, no stacking is occurring.

And you know the other issue, this is not necessarily a legal one, but there's not really good rewards under this sort of program for those farms that have been doing these practices for many years because they've already achieved a lot of the soil carbon sequestration that these others are trying to reach.

Pore Space Carbon Sequestration

So, let's move on now to talk about pore space carbon sequestration contracts. And I think I put this down as a deep well carbon sequestration contract in the materials. So, what is this? Pretty interesting I would say. The idea here is that you can take carbon dioxide, compress it, inject it deep underground, and it will stay there forever. And so, it's a way to reduce CO_2 in the atmosphere. And when I say deep, I'm talking about injecting it, you know, a half mile or a mile underground. So if you think about, usually groundwater you'd hit at ten to thirty feet or so in Indiana. You're injecting this, you know, orders of magnitude deeper. So, there should be no impact on groundwater.

An interesting thing to note for you law students is that Indiana is a state that has a lot of good underground formations that are good for this. And so, Indiana is one of the States in the Midwest that we're seeing a lot of activity on these sorts of contracts.

But as you recall from first year, property law in order to put something underground, whoever owns that property owns everything from, you know the property line borders all the way down to the center of the earth, and likewise up in the sky as well.

Why Use Pore Space CO_2 Sequestration?

So, to get to that place, you have to enter into a contract with the surface owner of the land. A couple of points here. What's driving this? Why are companies going to this trouble to try and inject CO_2 underground? It's really being driven, I would say, by states like California, that have developed low carbon fuel standards. And also, by industries like the fossil fuel industry, like coal burning

power plants, or refineries that want to reduce their CO_2 emissions. Ethanol plants are a great example here in Indiana, because, although ethanol is a green fuel – it's made from growing plants like corn, same with biodiesel – the actual refining and making of that product generates quite a bit of CO_2. And so, if they can capture that CO_2 in the refinery process and inject it deep underground, then it suddenly makes ethanol a very renewable green fuel, sustainable fuel.

Pore Space Contracts

So, here's what the actual contracts look like. There's a few different elements to them. I'll talk about each element just in general and not necessarily get into the weeds. So, you have usually, let's say, a source of the CO_2, maybe it's an ethanol plant or a refinery, and it needs to get the CO_2 that it captures into an underground pore space. And once in a while, they're lucky and there's actually a pore space formation right under the facility. So that's pretty easy. They could drill straight down and pump their CO_2 in there. But more often than not they have to transport it to the location where it be injected. And I think it's economically it doesn't seem feasible to truck it to these locations. And so instead, what they want to do is build transmission pipelines to get the CO_2 to the locations where it can be injected. This will require an easement across land just like any other construction of any other pipeline.

And if you want to be a lawyer that works in the space where this is happening, I mean the Midwest is the place to be because building these pipelines across midwestern farmland is quite controversial in some areas and so, we're seeing like, just a ton of local use issues in States where they're trying to move the CO_2 long distances. South Dakota is one, for example, where they have to get, there's different permission levels in every county, and so to move a pipeline of CO_2 across the State is just an enormous burden for these companies. Indiana doesn't seem to be as difficult and so we haven't seen that sort of level of sort of local hostility to these sort of projects.

But anyways, the way it works, an easement is created, and would be ultimately granted by the landowner, who would be paid an annual fee. And I would say, for the most part, like any pipeline, once it's installed and the owner gets a royalty check every or an easement payment every year, there's not a whole lot else to the easement itself.

A little more complicated, I'd say, would be the actual contracts for the injection wells and the lease of the pore space. So, as I mentioned, the surface owner owns that land or owns the land, and they own the land underneath, including the pore space. And if you're a farmer, and you happen to get one of these contracts, if you don't have an injection well on your property, you may never even know that this is occurring right? Because the sequestration is happening a mile underground in a formation. And so, there's really no impact, I would say, on

surface use. But nevertheless, these companies will still pay you to use that pore space, because you, as the landowner, own that pore space. And if you have an injection well on your property, they'll pay you additionally, because there actually is something on the surface that you can see, and that might impact your use of the property.

Another thing about these leases of poor space – they are very long term, because the idea is that this will stay in the pore space forever.

Unique Aspects

Some unique aspects of these contracts, I would say. One is that we have seen some legislation in Indiana where we've tried to establish or get ahead of some legal issues like who owns that poor space. So, Indiana actually says that title does vest with the surface owner. Unless there's some carve out for a mineral estate, and somebody has sold that off. And there's a question, of course, about who owns that space underground. If you think about it, it's kind of like a reverse mineral estate, because, instead of the right to extract minerals out of the land, it's the right to inject minerals into the land.

The other unique thing about this or interesting aspect is that under Indiana law you don't have to get a hundred percent of pore space owners to agree to these sort of arrangements. If a company can get, let's say, 70% of the owners of the poor space in a given area, that's enough and they can drag along the 30% who are reluctant to sign up to do this, or even hostile to sign up to do this. But they do have to still compensate these owners, just like they do the 70%. And so I think that that raises some very interesting questions that we will probably see some litigation about. Can you force this 30% to go along with this? Statute says you can. But of course, rights are not always governed by statute. So, this will be fun to see how this plays itself out.

Anaerobic Digesters

All right in the last few minutes. Let me talk about anaerobic digester contracts. This is the third of our carbon trifecta here. So anaerobic digesters, I think most people have a general idea of what they are. They are a way that you take a waste stream, and as you heat it, it generates gas, biogas that can then be collected and used for other purposes.

Why Now?

And you may think, well, okay, why would generating more gas be good for the environment instead of be bad for the environment? Because if we're trying to reduce emissions, why are we generating more gas? Well, the idea is that the gas would be generated one way or another, from manure is what it is. And

whether it's put on a field or collect it in a lagoon or put in a digester, it's going to generate this gas. So, if we can capture that gas and use it, and let's say, power the same truck that would have been powered by diesel fuel with a renewable gas that comes from cow manure, then we've essentially taken a bunch of fossil fuels out of the supply chain, and we've reduced the emissions.

And so, the way this is working for our clients is, as I mentioned, California and other states have these clean fuel standards. And that means they'll pay a premium for renewable natural gas. Gas that is generated by these sort of anaerobic digesters. And for years we saw just a few digesters in the state of Indiana, because the economics were just not there. Once a state like California enacted its renewable natural gas standards or low carbon fuel standards, we suddenly saw a lot of interest in Indiana and building digesters here. And it's probably not known to most people, but what actually happens is, a dairy farm in, let's say, northeast Indiana that sells its milk to the Walmart plant in Fort Wayne, it is close enough to a pipeline that it can build a digester. They clean that gas, they inject it directly into a natural gas pipeline, and it comes out of the pipeline somewhere in California, where it is used to fuel, a vehicle. And so, it's pretty wild to think about the milk that you drink here came from a farm that's also generating a biogas that's powering vehicles in the State of California. And so, you know, even though every state tends to do its own thing, it seems like we're all in this together when you look at a scheme like this.

Dairy Farm → Manure Transfer → Digester → Biogas Production → Biogas Upgrader → Pipeline → Use

The actual digester itself – don't need to spend too much time on this, because I think I already explained it. But you know the dairy farm makes the manure. You can also use other waste streams that generate a lot of methane. Or, landfill waste, food waste, things like that goes into these giant digesters where it's heated. Gas is collected, and then it's upgraded. So it's made into a good enough quality that you can use it directly in a vehicle and it won't hurt the engine. And it's ultimately used in trucks. So, you see this last picture here, for example, this Coca-Cola truck might be using renewable natural gas and Coca-Cola is able to say that they've reduced their carbon footprint by doing this.

Legal Issues for the Farmer

So legally, the way that this works on the dairy farm, or any farm dairies just tend to be the ones that are doing it right now because the economics work for them, but I think eventually we'll see it in other sorts of farming operations. The unique thing is that the often case it's a third-party that comes onto the farm to build the digester. They're the ones that have the contracts with Coca-Cola, or Shell, or whoever it may be in California. And so it's a third party that constructs and builds these digesters on a dairy farm. The way it's done usually there's a

lease of land to this third party, and then there's also a manure supply agreement.

And I always joke, it's fun when the Westlaw salesman calls me and says, "you know, we want you to use our products. You know we want you to sign up for all these different services we can offer." And I always tell them, you don't have what we need. "Yes, we've got every form." You don't have the type of work we do. And then he'll say, "okay, give us an example." And I'll say I need a form of a manure supply contract. "Yep, you're right, we don't have that." So it's its own world.

Takeaways

Okay, a few more things. And then I think we have a little bit of time for questions. I would say, for me as a lawyer and a farm kid, it's neat to see that there are new revenue sources for farmers that allow them to diversify their income streams. And you know, even when we see, let's say, in Washington, whether or not we want to tackle climate change or not seems to be a lot of political debate always about that. But things are actually happening on the ground whether Washington figures out what it wants to do, whether it wants to tackle climate change issues or not. Things happen on the ground, and things are happening on the farm.

These contracts, I think they all touch real property law, but I also think they are often very unique in how they address certain issues. And then, finally, for people like myself and Brianna Schroeder, who you'll hear next, it's neat, and it's fun to work in an area of law where you sort of you really are on the cutting edge. And you're doing things that lawyers didn't do twenty-five years ago when I was in law school. And so that's where we are today.

So, I'm going to stop there. Here is my contact info. If you want to reach out to me, and I also have to say that we have a newsletter you can sign up for at our law firm website. So, if you're interested in these sort of topics, sign up; we, we don't use it to spam you or bombard you. We just send out a newsletter once or twice a month.

TODD JANZEN, QUESTIONS & ANSWERS

FG: Thank you. We have a few minutes for questions. Go ahead.

TJ: That's a good question. I don't know the answer to the second one. I don't know that there's any limit on how much or how many carbon credits they could acquire. I think you probably could, if you had the money, the resources, you could buy enough to offset all of your emissions. That's right. Yeah, if they're buying those offsets. I think that's possible.

FG: Thank you. Yes, go ahead.

TJ: Yes, I actually think there will be a USDA, some involvement in this at some point. When we had, the Inflation Reduction Act had the partnership for Climate Smart Commodities Grant Program at USDA. So, USDA released three billion dollars in grant money. And there were all these projects out there to really look at the science behind these sort of projects, and to figure out like, is this really working, because I think there, that's still somewhat unknown. Can we really make a meaningful difference by having farmers do these sort of activities and sequester more carbon in their soil? And it's so fractured right now. There are all these private industry initiatives out there that I think in the long run there does have to be some role for USDA to standardize and say, like, this is the verification standard that we're going to use to say things like, we will be like the last place where all these credits are retired, and so they can't be used again. So if you, McDonald's buys carbon credits from a company like Indigo, you know maybe they show them on their balance sheet that their emissions calculations. But maybe they decide, hey, the value of these has gone up, so let's resell them and we'll deal with the consequences later. But I think you have, USDA could be a clearing house for, or retirement home for these carbon credits. So, you would know once they're there they can't be resold.

FG: We'll take one more. Go ahead, Lauren.

TJ: I'd say. Not under the way property law is governed now. Because maybe they pay farmers five or ten dollars an acre to do these practices a year, and that isn't really enough to go to the trouble of creating deed restrictions and just jumping through all the hoops that is necessary to require, or to record, documents in the local chain of title. Now, we could fix all that with some work at the State level, right? If we simplified how things are recorded and you didn't require somebody actually going down to the county recorder's office and filing a piece of paper. And it's not that backwards today. But I use that as an example.

FG: Thank you. Let's give a round of applause to Todd. Thank you.

We're just going to take about two to three minutes and then we'll get started with the next speaker.

BRIANNA SCHROEDER, CONSUMERS AS THE NEW REGULATORS: HOW CONSUMER DEMAND IS CHANGING FOOD PRODUCTION

FG: Hello, everyone. Our last speaker of the day is Brianna Schroeder. She is a named partner at Janzen Schroeder Aglaw, which you just heard from Todd, the founding partner. Brianna works with the agriculture industry as she provides expertise such as litigating complicated environmental matters, drafting contracts for agribusinesses, and helping livestock farms navigate regulatory

compliance. She has a diverse group of clients, including farmers, rural landowners, agriculture companies, and industry groups. Brianna's perspective includes experience in complex litigation, civil defense, property liability, environmental law, and insurance coverage. Along with her thriving law practice, Brianna is committed to sharing insight with the industry as a sought-after speaker and author. She has authored numerous articles and given presentations on a variety of agricultural, environmental, and legal topics—including the Right to Farm Act, zoning, renewable energy, sustainability, the Clean Water Act, employment law, agritourism, farm security, and insurance coverage.

Please welcome Brianna Schroeder.

Brianna Schroeder ("BS"): Hello! I get to be your last speaker standing between you and the start of the weekend. So, I'm going to try to follow up on all the other lovely speakers you've had today. My name's Brianna. Like Todd, I grew up a farm kid; and eventually, in my practice, found a way to practice law, where some days I can be walking around a dairy farm in jeans and boots and some days I can be arguing summary judgment in a trial court. So, it's the best of both worlds, and very lucky to have this practice. We didn't plan it, but it ends up being that Todd's presentation blends nicely into mine, because I'm going to be focusing on how consumers are acting essentially as regulators of our food chain. And like Todd, I'm going to focus on the production side of things. We can talk about food, but we all know that food, generally speaking, starts on the farm. And my presentation is going to dive into the way that farms on the ground are changing the way they produce milk and meat and eggs and grains – not because they're legally required to, not because Indiana law or Federal law has said you must do this, or you cannot do that—but because that behavior has been incentivized by consumer demands. And how sometimes we see that can be more powerful than a new rule or a new regulation that comes out.

Consumers Want . . .

Transparency, Traceability, Information

So, first of all, I think, where this all kind of stems from is the idea that we've got more of a disconnect today between our ultimate food consumers and those people producing food. Right? It's like something less than 1% of the population is involved in farming. But we all eat, right? And so, I think, in part because of this disconnect—and the distance really between the consumers and the farmers, the producers – we've seen this kind of increased drive for kind of a demand for transparency, for information about the whole supply chain. People want to know where their food comes from. We see that in a lot of ways, right? I like restaurants. I'm a bit of a foodie, or I pretend I am. And so, we've all been to

the restaurants where it says this isn't just chicken, right? "This is Fischer Farms chicken," or "these are Indiana eggs," "this is cheese produced just north of Indianapolis." And as consumers, we like that, right? We feel a little closer to the farmers and the producers when we know where it came from. And so, what are consumers asking for? It's things like transparency, just the knowledge, traceability. You've probably seen some egg cartons; now, you know, you can scan it and find out where did these eggs come from?

Organic, Non-GMO

We've had organic around for a long time. I'm not going to dive too deep into that. You could have a whole day's worth of organic presentations. Non-GMO, same thing.

Animal Welfare

Now we have consumers asking questions about animal welfare. "How was this animal raised?" "How much space did they have?" "Did they have access to the outdoors?" "Was there a climate-controlled area for them to be in?"

Employee Welfare

People are also asking questions now about the employees who work on those farms. "How are they treated?" "How are we handling immigration concerns at these farms?"

Climate

Todd talked about three different ways we see farms changing because of climate concerns and a lot of times that comes through the consumers. There's no law saying you've got to do some kind of carbon storage, or you've got to adopt various climate smart technologies, but farms are doing it. Sure, part of it is farmers live here, too, and they want to make sure our planet's around and safe to our kids and grandkids to live in. But also, because it sells right? We like to know that we're buying a product that was produced responsibly.

And so, we see consumers demanding all of these things in different ways, right? And we're going to talk about that. Consumers vote with their wallets. Consumers also vote in some states through direct initiatives. And we're going to talk about that a bit. So let's dive into some examples

<u>Examples</u>

Like Janzen, we've got to kind of stay at a high level based on our time constraints. But I'll give you my contact information, too, and if anybody wants

to chat further about any of this, I'd love to. So, some examples of how consumers are changing the way we do things on the farm dairies are a great example.

Daries → Climate Smart Tech

Dairies now are entering into some direct supply agreements. Some are still selling onto the market, and you don't necessarily know where the milk is going to end up. Some are signing agreements – either it's with Walmart, it's with a yogurt company, it's with a restaurant chain. And that restaurant chain, or that retailer, or that yogurt company is going to say we are going to make representations to our consumers about this product and we need you to get on board. So, you're going to sign a contract that specifies how these cows are going to be treated, raised, how the farm is going to work so that we can accurately make these representations downstream to our consumers.

Now this could be everything from: How are you powering the farm? What kind of technologies are you adopting? Dairies now use a whole lot less water than they used to use. So, it's items like that that can be very costly for a dairy farm to put into place. But in order to get this contract – where maybe they're getting a premium right – they've got to agree to make these changes, raise these cows in this way, treat cows in a certain way, treat employees a certain way, provide specific benefits to employees. All of this. This whole package can be required through some of these direct marketing contracts.

Grains → Carbon Index Score

Grains. I won't dig into that too much, because Todd talked about that. But again, you're not legally required to plant a cover crop. However, you might get a premium, some kind of a bonus, if you can establish a low carbon index score. So that's another way. Again, you want to buy cereal, you want to buy products that are being grown in a way that's responsible, that's climate forward – companies are willing to pay farmers extra to adopt those practices, to allow them to ultimately make that claim.

Hog Farms → Animal Welfare

Pork is a big one, and I'm going to talk a little bit about Prop 12 here in a minute. But a lot of times when we think about pork, we think about animal welfare is one of the big things. And the way that programs are put into place, whether it's from a state law, or whether it is from a contract with a retailer. How are you going to check up on these things? If you've got a farm that says, "yes, we agree to do X, Y, and Z." That's great, but there's got to be some teeth in it, right? So what we're seeing, of course at Prop. 12 California law, there are going to be auditors. There's going to be certifications required. Even aside from what the

California voters did, a contract may require to say you can represent that you are this type of farm, certified, We Care program. But that means you're going to have folks come out to the farm to ensure that the way you're raising those animals complies with the representations that consumers are looking for.

Egg/Poultry → Cage Free

Eggs and poultry, this is one of the big ones. And I think, from my perspective, this is one of the earliest ones that we saw. And I've got another slide about that. That again, it's not by law that we have to have cage-free eggs, at least not here in Indiana. Not yet. But there's a ton of farms that have shifted over from a conventional egg production system to, you know, the sky's the limit. Right? Cage-free, pasture, free range. You know, you could make up a new one. Right? How do you want your eggs to be? They all have names, they, you know, they're all swaddled at birth. Come up with it and market it because consumers are going to buy it, right? But it costs more money to run those farms: it costs money for those capital investments, it costs money for the land – if you think about the amount of land required to produce the same number of eggs, if each chicken has, you know, a whole football field to itself, as opposed to being indoors, that takes money right? So, we see how that these consumer requests are turning into capital investments for farmers outside of any change in law.

On Farm Changes → Contracts, Investments, Audits, Reporting

Some of the ways we see that, as I mentioned, those direct contracts, supply contracts that say: if you are going to be a farmer and you are going to raise eggs that have our name on them, you have to agree to do it in a certain way, because that's what our consumers require. You're going to sell your eggs to McDonald's, you are going to have to raise those chickens and treat them in a certain way so that McDonald's can turn around and tell consumers: "we only use cage-free eggs." That can be done through contracts, legally binding contracts that the farmer is entering into with these downstream retailers, restaurants.

It requires a lot of investment, and that's sometimes the piece, I mean to get on my soapbox for a second here, that's sometimes the piece that I think politicians maybe don't understand. Because we can have these great ideas, right? In a perfect world, here's how we do things. That's great, and I'm on board with that. But when the consumers make these demands or voters enact a direct initiative that requires something to meet those standards, sure, maybe McDonald's pays a couple more cents a dozen for their eggs, right? Ten cents a dozen more. But you follow those eggs back through the supply chain, where are the biggest changes being made? It's not by McDonald's. It's by that farmer in Southern Indiana raising chickens who lay eggs. She is the one who has to make actual physical changes to her barns, to the farm, in order to satisfy these contracts and

these consumer demands. And if any of you are involved at all in agriculture, you know that's not a number one way to get super rich, to be a farmer, so margins are thin. And so, when you say now we're going to ask you to put in all of these new measures and it's going to cost you X number of dollars, that's got to come from somewhere. Some companies are willing to help offset some of those costs in the beginning. Otherwise, you're talking about hopefully you're, maybe you're independently wealthy, or you're going back for more loans. So again, the most concrete changes that we see are being made by the farmers. The demand or the request for these different levels of products comes from, you know, outside forces. But it does trickle back to the farmer, and that's where the real changes get made.

Audit and Reporting

And as I mentioned, we can make all these changes, we can do all these things, but it's really no good unless you can prove it. So, we have third party certification programs where they will come onto the farm, inspect the animals, the structures, the buildings, and provide that sort of independent certification back so that you can get your stamp and show we qualify for whether it's a United Egg Producers certain level or a We Care Pork Producer level; you can show that you meet that.

Cage Free Trends

Consumers → Restaurants and Retailers → Processors → Farmers

I always think cage free eggs are kind of the easiest way to think about this, and partly because that's been around for the longest. So, consumers cry out either by complaining or by writing letters, by activists, by advocates and they say "we want cage-free eggs." I taste the difference in my McMuffin or whatever, and I've got to have those cage-free eggs or I can't sleep at night. So they start making those requests, then the restaurant says, "oh, it looks like we need these cage-free eggs, where are we going to find them?" They go to the retailers, to the processors, and say, "I know we've been buying ten million conventional eggs per year, but now we need five million of those to be cage free." So then, that processor goes to the farmers and says, "we've been buying your eggs for year, but would you like to make a little bit more money? Because if you could get us some cage-free eggs we're going to pay you a little bit more." And so, you could trace it back through that supply chain.

These are all restaurants that even several years ago had pledges that they were only going to use cage-free eggs. And that's one of the most physical and very real ways to think about what those changes look like.

What does this mean?

1. Vertical Integration

So, what does that mean? We see a lot of vertical integration which is where you've got, there's a lot of different ways to think about integrators in agriculture. You see them a lot in in poultry, in eggs, in pork. Where you've got a company, let's talk about pork, you've got a company who's going to own the pigs. They're going to send you their pigs. You're going to raise them, but you don't own those pigs. That company is going to tell you how you raise those pigs: Here are the different things you've got to agree to do. We're going to be checking up on you to make sure you do that. And then in a set amount of time, we'll come back and get those pigs, or you'll deliver them to us. You'll clean your barns out, and we'll bring you another batch of pigs. And again, you've got to raise pigs in the way we tell you to raise pigs because they're our pigs.

2. Shift in control of means of production

So we see more and more of that in the Ag space. What goes along with that is kind of this shift in who controls how we produce our food. It's less and less where the farmer wakes up one day and says, "I'm going to have a farm that is going to focus on pigs that have X amount of space to turn around and jump around." And more and more becoming, "who's going to pay me? How can I get paid to do this?" And that means of control comes from further down the supply chain.

3. Decrease in volatility; potential increate in profitability

It's not all bad because these farmers can make more money. You can have a guarantee. You don't have to be quite so reliant on what the market is doing today. You can get a contract to pay a specific amount with a premium if you can meet these standards.

4. Increase in consumer influence on the farm

And at the end of the day, it comes down to, we see consumers directly impacting what you do on the farm.

California Proposition 12

So, I want to talk a little bit about what I think is kind of the ultimate expression of a consumer saying, "here's what I want to see on the farms." And, as oftentimes happens, these changes come from California and they trickle out to the rest of the country. So, Prop 12, you could talk about Prop 12 for hours. I've been to presentations where they talk about Prop 12 for hours. I promise not to

do that.

In shorthand, Prop 12 was a California direct initiative, which we don't have here in Indiana. But in California the voters turned out and enacted this into law. It sets out space requirements for how pigs, chickens, veal, things like that are raised. The key difference between Prop 12 and lots of other State laws like this, is Prop 12 doesn't say, if you raise these animals here in California, here's how you have to do it. It says, if you are going to sell pork into the California market, that pork has to come from a farm that raised their pigs in a certain way. So, we see California reaching out into every other State that raises pigs to say, if your pigs are going to end up on our market, here's how you've got to do it. And this is again, the voters in California making this call.

Prop 12 Legal Challenge

Of course, this is good job security for lawyers. Lots of lawsuits filed right away. Ultimately, they went all the way up to the Supreme Court and in 2023 the justices considered this case. Lots of dormant commerce clause challenges, which is something I hadn't thought about since law school. So, it was a good kind of refresher. You guys probably know more about it than I did.

January 1, 2024: Prop 12 went into full effect

But at the end of the day the court upheld it. And what's really crazy to me is this law –again, you think about that certification, or that reporting part – how is the California Government going to know how you are raising pigs here in Indiana? They're gonna send somebody to your farm. And so that sort of complicates even further this idea of the commerce clause, dormant commerce clause because you're going to have California not just theoretically reaching out, but literally hiring, or sending, or requiring someone to physically enter your Indiana farm to make sure you comply with California law.

NPPC v. Ross

So, there's lots of challenges to this, and I think the Supreme Court Justice Gorsuch decision was really interesting because he sort of starts out and comes at it from the consumer perspective. "What kind of goods should be in our stores?" What should we be selling in our shelves at our grocery stores? And the idea is, the California voters expressed their kind of interest in morality, they phrased it as a morality type issue, and said that the challengers, which included National Pork Producers and various farm groups said, this is California again exerting its will on other States in violation of the commerce clause, the dormant commerce clause. And Justice Gorsuch says, "[w]hile the Constitution addresses many weighty issues, the type of pork chops California merchants may sell is not on that list." And said, look, this law doesn't obviously

discriminate –California hog farmers are held to the same standards. It doesn't have a discriminatory intent. It's not setting out to really get Ohio. Of course, California eats a lot of pork doesn't produce a lot of pork. So, the vast majority of the impacts of this law are felt in other States.

Toward the end of the decision, Gorsuch says something that I think again comes back to this idea of consumers are driving the bus. Because they say, how do we settle this dispute between the interest a farmer has in making decisions about their own pork and how they raise pigs versus consumers interest in controlling what's on their shelves and having a say based on the morals and values of your average Californian. And the court says, man that's anybody's guess. Actually wait. it's your guess. "Your guess is better than ours." "Policy choices like these usually belong to the people," and that's what we're seeing here. And Prop 12 is just a real clear distillation of that idea.

Massachusetts Question 3

Massachusetts was kind of like a tag along; they had Question 3 – kind of the same thing that California did. So, I like to blame California, but they're not the only offender here. We've got other states that are saying, not just if you produce food in this state, but if you want to sell that food in this state you need to meet our requirements.

Responses to Prop 12

So, we've seen a lot of responses to this or proposed responses. Some State governments are kind of clapping back and saying, "well, okay, California, if you're going to sell almonds in our state, then you have to meet our standards and here's what our standards are." You can imagine that's kind of a race to the bottom.

We've seen some proposed Federal responses. Justice Gorsuch said, "these kinds of decisions belong to the people and their elected representatives." What are the odds that our elected representatives in Washington can get something done like this? Feels unlikely to me. But we've had proposals in the Eats Act, maybe to put it in the Farm Bill, to say something about States cannot control pre-harvest methods of production just because it's ultimately sold into that State. And so far, not a lot of traction on any of those. But the point is, our markets are so interconnected that a consumer in California can impact the way eggs are produced in Indiana. Because our commerce is fluid and we don't draw a line outside California and say, well this this pork will never make it into that state. So ultimately, almost everybody has to comply with this law because it is so interconnected.

Takeaways

So some of the takeaways. Again, we could talk about this for a lot longer. But we are seeing the way consumers impact on farm production. Some of that is through activists, you know, through board meetings, through advocacy. We also see it through, as I mentioned, with Prop 12 things like those direct voter initiatives.

Another way, I've seen it more recently, on the ground is kind of a hyper local issue, which is zoning. So, a lot of these farms – in particular livestock, eggs, poultry – before a new farm can be built, or perhaps expanded or changed, they need not just state permits to do that, they need local zoning permits. And so that's going to your local Board of Zoning Appeals (your BZA) and presenting to them. That's a body of five people from the county and saying, "here's what we'd like to do, we need your permission to do it, we need a special exception, or we need a variance, or we need some kind of permit from the county." There's a public hearing period where members of the public, consumers, can just come up to the microphone and say, "here's what I think about your proposal." And sometimes it's very specific based on maybe their proximity to that farm or the amount of times per week they drive by that farm; and so what they want to see on that farm. I've also heard people get up to the microphone and say, "you know well, this is a dairy going in, and I eat yogurt fifteen times a day every day and so here's how I think it ought to be done." And now some of that is crazy, and it gets ignored, and we all move on. But some of it finds its way into the permits for these farms through special conditions that are attached to that local zoning permit. Now, it might be something just like the number of trees planted around the property. It might have to do with the amount of water used in the feeders. It might have to do with the direction that the barns are oriented. But all of these changes come from the consumer speaking out at a public hearing, making written comments as part of this permitting process, and saying, "here's what I'd like to see on that farm, either as a neighbor or a consumer I want to sort of impose on this farm my idea of how these animals should be raised." So again, we're seeing that consumer impact on farm level.

From a legislative perspective, in states like Indiana we don't have those direct initiatives. But a lot of States do and it almost doesn't matter now that we don't have it, because we're seeing now, and the Prop 12 case has given us kind of a blueprint for how to do it. For how local consumers, local voters can make decisions that ultimately require on farm changes, not just in that State, but around the country. So, I don't think we've seen the end of those direct voter initiatives addressing food products, agricultural products, and how they are raised. I think there will be more of them. You can use that *NPPC v. Ross*, the Prop 12 decision as a blueprint to draw up exactly how a law in Indiana could impact California or in Ohio could impact Wyoming. And until the Federal Government steps in, I think we're going to continue to see that. And the

chances of the Federal Government stepping in feel low.

So, the takeaways, and we have these conversations with our farmer clients all the time, are usually we're talking about incentivizing. Usually, it's not something like Prop 12. It's just what kind of investment, how would you change the way you farm if you were willing, if you could get paid a couple cents extra per dozen eggs, or a little bit extra for each piece of pork that you produce. And then it's that on-farm changes that that farmer has to decide, is that worth it? Can I handle the upfront cost to down the road have these bigger contracts? And these are the kind of very sophisticated decisions I think, that farmers are making on the ground to comply with all the things that consumers are asking for.

So I think we have 5 min for questions. I'm gonna put up my contact info, you can send me an email, go to our website if you guys have questions. We're local, we're up by Keystone Crossing if anybody is in the area. Stop by or drop us an email.

BRIANNA SCHROEDER, QUESTIONS & ANSWERS

FG: Yes, so are there any questions? Oh, go ahead.

BS: Great question. I think you've got a crystal ball there. I think that is where we're headed. And historically, I think you would say, well, the commerce clause, right commerce clause, and the flip side of it, the dormant commerce clause, those are the laws that are going to apply. And what the Prop 12 decision said, if it applies equally to in-state producers as well as out-of-state producers, if it's not based on a clear, discriminatory intent. The law doesn't say if you're an Indiana farmer, you have to do XYZ. Those laws are going to be allowed to stand. So to your point, what happens when Texas says, "well, if you're going to sell pork into Texas, you have to use gestation crates for pigs. You cannot have pigs that are just roaming around with all of this space." You set up a clear conflict. My concern is that who gets caught in that pinch is going to be the farmers. Are we going to end up with two separate supply chains? Because right now, and they talk about this at length in the Prop 12 case, the supply chain is mingled. Not to be gruesome, but pigs get cut up, turned into meat, and they go all different which ways. So part of a pig can go here, part of it can go here, which is why we can't really separate out California into its own economy. So, what happens when you've got the Texas California divide? Farmers get caught in the pinch. We end up, maybe with two different supply chain systems. Unless we can get a Federal law on the books. Or it ends up back at the Supreme Court again to say, "okay, Supreme Court, you come up with this neat little rule. Now apply it here." I mean, probably ask your professors, they're much smarter than I am. I would say. Great question, though.

FG: After Prop 12, did you know if there was a decrease in farmers willing to comply with California regulations? Or were they like, we need to make money, we're going to comply with it?

BS: That's a great question. They talk about that in the decision. Because what's interesting is Prop 12, we all talk about the pork side of things – it also applied to eggs, it applied to veal. But you saw some farms kind of proactively make those changes. They, whether it was just based on the extra dollars they could make, but you saw farms making those changes before Prop 12 actually went into effect. It went into effect just this, January 2024. So, as part of the lawsuit, there were a lot of suggestions by different parties that nobody's going to be able to comply with this. And what we're seeing is, farmers are resilient, and they are making these changes. And so, I think it's happening. We're still waiting to see kind of that wave of inspectors and third party certification happening here on the ground, because the law is just going into effect. So, again I don't think we've seen the end of this. I don't think we've seen the end of litigation over Prop 12, either.

FG: Shibani

BS: I mean, ever is a long time. Right? So who knows? I think in the short term, probably not. Those things have been proposed. I think Senator Booker maybe proposed something a couple years ago. But there is this real push for local control. Usually, when we talk about regulating farms, we regulate them on the environmental side, and that's at the state level. And then on the Federal side, there is meat packing, there are other laws federally that do apply. But not in terms of how much space an animal needs or do all eggs have to be cage-free chickens, so I don't think we're there yet. It could happen, I mean who knows? Right? But right now, we're not seeing anything like that.

FG: I think that's all the time that we have. So please give a warm round of applause to Brianna. And then one of our executive editors for the Symposium has some concluding remarks.

JULIA BARLEY, CONCLUDING COMMENTS

Julia Barley ("JB"): Hi, everyone! My name is Julia, and I am the Executive Symposium Live Editor. I just want to say, thank you everyone for joining us today. We're so happy you're here. And a special thank you to our four speakers, who just did a wonderful job. These topics are so interesting, and I think ending with Brianna's topic just really shows how important it is to us right now as consumers.

Before we conclude, I just wanted to share with you all that a full transcript of today's event, we're going to post it with our publication. And we're going to

have three papers that are going to be published. The first is by Professor George Wright, from McKinney, who provides a comprehensive analysis of *The* Loper Bright *Regulatory Landscape*. I know we had one question about *Chevron* deference and how that's kind of changed. Professor Wright is an expert, in my opinion, and he kind of delves into this and discusses *Chevron*, and how *Loper Bright* changed that. And then Professor Amy Berg. She expanded on her presentation in a paper, and has written on *An International Comparison of Food Safety and Synthetic Chemicals*. And then the third paper is by Professor Jordan Paradise from Loyola University School of Law. Her piece is very interesting, titled *Cheech and Chong go to Court: Legal Challenges to California's Prohibition of Hemp and Food Products*. We're looking forward to reading that paper as well.

We encourage you all to stay and continue conversation. Grab some food, coffee on your way out, we have plenty. And thank you once again for coming and supporting our Symposium, and we hope that you enjoyed your time.