

Agricultural Innovation Board Meeting  
September 25, 2023 9am-11:50am  
Transcript Text

0:0:0.0 --> 0:0:2.550

e8370aaa-4528-4a15-b4cf-109a6488d54b

So welcome, AIB.

0:0:2.560 --> 0:0:20.230

e8370aaa-4528-4a15-b4cf-109a6488d54b

As a reminder, this meeting is being recorded as public record and that participation in a recorded meeting will be deemed as consent to be recorded, including statements both written and oral public records, including this recording will be requested can be requested at any time in accordance with the Vermont Public Records Act.

0:0:21.400 --> 0:0:23.170

e8370aaa-4528-4a15-b4cf-109a6488d54b

So welcome all.

0:0:23.900 --> 0:0:30.600

e8370aaa-4528-4a15-b4cf-109a6488d54b

Let's start with some introductions and I think I will start in the room here.

0:0:31.600 --> 0:0:32.210

e8370aaa-4528-4a15-b4cf-109a6488d54b

Uh.

0:0:32.220 --> 0:0:32.840

e8370aaa-4528-4a15-b4cf-109a6488d54b

Here, why don't you go?

0:0:33.710 --> 0:0:35.30

e8370aaa-4528-4a15-b4cf-109a6488d54b

And Sarah, I wouldn't.

0:0:35.40 --> 0:0:41.600

e8370aaa-4528-4a15-b4cf-109a6488d54b

Toxicologist at the health department, Laura the Petro, Director of water quality at the Agency of Bag.

0:0:42.980 --> 0:0:48.660

e8370aaa-4528-4a15-b4cf-109a6488d54b

Jill Goth, agricultural specialist. OHS.

0:0:48.670 --> 0:0:52.630

e8370aaa-4528-4a15-b4cf-109a6488d54b

You're going to help Vermont and caricature food markets in his.

0:0:52.640 --> 0:0:54.160

e8370aaa-4528-4a15-b4cf-109a6488d54b

Alright, give you an extension.

0:0:54.710 --> 0:1:0.750

e8370aaa-4528-4a15-b4cf-109a6488d54b

Jonathan Sherman Crawford told Stephanie Smith, Vermont Agency of Agriculture Steve Schubart.

0:1:1.160 --> 0:1:5.560

e8370aaa-4528-4a15-b4cf-109a6488d54b

Umm, I agricultural specialist farmer.

0:1:5.610 --> 0:1:5.950

e8370aaa-4528-4a15-b4cf-109a6488d54b

I don't know.

0:1:8.190 --> 0:1:8.870

e8370aaa-4528-4a15-b4cf-109a6488d54b

I like that term.

0:1:9.990 --> 0:1:11.180

e8370aaa-4528-4a15-b4cf-109a6488d54b

They do a lot more, yeah.

0:1:12.790 --> 0:1:13.970

e8370aaa-4528-4a15-b4cf-109a6488d54b

Ah, Amanda.

0:1:17.630 --> 0:1:18.320

Amanda St.Pierre

Sorry, Amanda.

0:1:18.330 --> 0:1:20.620

Amanda St.Pierre

Saint Pierre, Dairy Farmer in Berkshire, Vt.

0:1:24.270 --> 0:1:26.300

e8370aaa-4528-4a15-b4cf-109a6488d54b

I'm just going to do some Members first clearance.

0:1:28.690 --> 0:1:32.650

Cutler, Clarice

Hey there, Clarice environmental analyst with the agency and natural resources.

0:1:38.430 --> 0:1:41.90

e8370aaa-4528-4a15-b4cf-109a6488d54b

OK, let's do Patty.

0:1:42.800 --> 0:1:44.500

Casey, Patti

How did Casey agency back Walter?

0:1:47.990 --> 0:1:48.570

e8370aaa-4528-4a15-b4cf-109a6488d54b

You cash.

0:1:50.900 --> 0:1:54.560

Cash, Steven

Steve Cash, Agency of agriculture, water quality division.

0:1:59.240 --> 0:1:59.900

e8370aaa-4528-4a15-b4cf-109a6488d54b

Dylan gabbert.

0:2:9.540 --> 0:2:10.980

e8370aaa-4528-4a15-b4cf-109a6488d54b

Think he's not quite with us yet?

0:2:12.520 --> 0:2:14.120

e8370aaa-4528-4a15-b4cf-109a6488d54b

I Clark.

0:2:16.100 --> 0:2:20.860

Parmelee, Clark

Park Parmley Agency of Bad Public Health and Resource management division.

0:2:23.760 --> 0:2:23.970

e8370aaa-4528-4a15-b4cf-109a6488d54b

That.

0:2:26.500 --> 0:2:29.360

Szczukowski, Zach

It's actually kowski agency bag.

0:2:33.280 --> 0:2:34.0

e8370aaa-4528-4a15-b4cf-109a6488d54b

Thanks.

0:2:34.580 --> 0:2:39.390

e8370aaa-4528-4a15-b4cf-109a6488d54b

I'm Heather and Jeff were just doing introductions.

0:2:39.400 --> 0:2:41.410

e8370aaa-4528-4a15-b4cf-109a6488d54b

You wanna do a quick introduction?

0:2:42.170 --> 0:2:46.340

Jeffrey Sanders

Short Jeff Sanders with UM extension works with for Heather.

0:2:49.60 --> 0:2:51.400

Heather Darby

Heather Darby, you VM extension agronomist.

0:2:54.640 --> 0:2:55.90

e8370aaa-4528-4a15-b4cf-109a6488d54b

Other.

0:2:55.680 --> 0:2:56.400

e8370aaa-4528-4a15-b4cf-109a6488d54b

Hi, Wendy too.

0:2:56.410 --> 0:2:58.560

e8370aaa-4528-4a15-b4cf-109a6488d54b

We're just doing our quick introductions.

0:3:1.540 --> 0:3:1.970

Wendy Sue Harper (Guest)

Hi.

0:3:1.980 --> 0:3:2.850

Wendy Sue Harper (Guest)

I'm Wendy sue.

0:3:2.860 --> 0:3:5.10

Wendy Sue Harper (Guest)

I represent the soil biology position.

0:3:10.30 --> 0:3:10.450

e8370aaa-4528-4a15-b4cf-109a6488d54b

Great.

0:3:15.310 --> 0:3:16.320

e8370aaa-4528-4a15-b4cf-109a6488d54b

Ohh thanks Dylan.

0:3:17.130 --> 0:3:18.870

e8370aaa-4528-4a15-b4cf-109a6488d54b

You can introduce now if you have audio.

0:3:23.350 --> 0:3:26.490

e8370aaa-4528-4a15-b4cf-109a6488d54b

If not, he's introducing himself on the chat, and he's from Bayer crop science.

0:3:31.640 --> 0:3:35.190  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
OK, so ohh yes, go ahead.

0:3:32.820 --> 0:3:35.740  
Dillon Gabbert  
It let's did this am I.

0:3:35.750 --> 0:3:36.410  
Dillon Gabbert  
Am I working now?

0:3:37.120 --> 0:3:37.780  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Yes. Yep.

0:3:36.420 --> 0:3:38.320  
Dillon Gabbert  
Alright, Dylan came with bear crops.

0:3:38.330 --> 0:3:39.130  
Dillon Gabbert  
I sorry about that.

0:3:39.870 --> 0:3:40.270  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Thank you.

0:3:40.280 --> 0:3:40.860  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
No problem.

0:3:41.190 --> 0:3:41.910  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Thanks for joining.

0:3:43.500 --> 0:3:44.780  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Ohh brook.

0:3:48.10 --> 0:3:50.480  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
We're just doing quick introductions through there, bro.

0:3:50.840 --> 0:3:51.720  
Decker, Brooke  
Yes, I'm here.

0:3:51.360 --> 0:3:51.720

e8370aaa-4528-4a15-b4cf-109a6488d54b

Thank you.

0:3:51.760 --> 0:3:54.390

Decker, Brooke

It's taking me a second to get it logged on today.

0:3:54.540 --> 0:3:59.470

Decker, Brooke

I'm Brooke Decker with the Vermont Agency of Agriculture and Food Markets.

0:3:59.480 --> 0:4:0.980

Decker, Brooke

And I am the pollinator health specialist.

0:4:4.290 --> 0:4:4.860

e8370aaa-4528-4a15-b4cf-109a6488d54b

Great.

0:4:5.530 --> 0:4:6.540

e8370aaa-4528-4a15-b4cf-109a6488d54b

Thanks all.

0:4:6.670 --> 0:4:8.640

e8370aaa-4528-4a15-b4cf-109a6488d54b

And so we are.

0:4:11.750 --> 0:4:21.920

e8370aaa-4528-4a15-b4cf-109a6488d54b

Just First things first, we can kind of go over the meeting minutes that is sent out from the August meeting.

0:4:23.170 --> 0:4:24.390

e8370aaa-4528-4a15-b4cf-109a6488d54b

I did.

0:4:25.920 --> 0:4:42.50

e8370aaa-4528-4a15-b4cf-109a6488d54b

We made an adjustment to include Wendy Sues proposals more accurately, but I think but those are now what is posted on line and on our team site or SharePoint or you want to get to it.

0:4:42.880 --> 0:4:49.250

e8370aaa-4528-4a15-b4cf-109a6488d54b

Did anybody else have any other changes or comments on August meeting minutes?

0:4:53.340 --> 0:4:58.530

e8370aaa-4528-4a15-b4cf-109a6488d54b

OK, action items, we have a couple that were crossing off today.

0:4:58.540 --> 0:5:0.450

e8370aaa-4528-4a15-b4cf-109a6488d54b

So Heather and Jeff are joining us.

0:5:0.460 --> 0:5:10.210

e8370aaa-4528-4a15-b4cf-109a6488d54b

So we can ask them about fluency, agent and some historic Munich use based on our questions that came up in our discussions last month.

0:5:12.130 --> 0:5:22.320

e8370aaa-4528-4a15-b4cf-109a6488d54b

We I saw a bunch of you added uh comments into our kind of BMP all inclusive list, so that's great.

0:5:22.330 --> 0:5:33.200

e8370aaa-4528-4a15-b4cf-109a6488d54b

We're going to have a discussion on that later after we talk with Heather and Jeff and we are going to go over some example treated seed tags today as part of the agenda.

0:5:33.210 --> 0:5:35.630

e8370aaa-4528-4a15-b4cf-109a6488d54b

And Jonathan Chamberlain's gonna help with that.

0:5:36.930 --> 0:5:37.780

e8370aaa-4528-4a15-b4cf-109a6488d54b

So.

0:5:39.920 --> 0:5:41.650

e8370aaa-4528-4a15-b4cf-109a6488d54b

Just one other ping one.

0:5:41.660 --> 0:5:42.70

e8370aaa-4528-4a15-b4cf-109a6488d54b

Think of it.

0:5:42.80 --> 0:5:43.610

e8370aaa-4528-4a15-b4cf-109a6488d54b

That's always listed as an action item.

0:5:43.620 --> 0:5:51.560

e8370aaa-4528-4a15-b4cf-109a6488d54b

So for AIB members that are eligible, you can send me your per diem reimbursement sheets and then I can process them through the business office.

0:5:54.360 --> 0:6:1.830

e8370aaa-4528-4a15-b4cf-109a6488d54b

Alright, so we have Heather Darby and Jeff Sanders with us today, I.

0:6:3.560 --> 0:6:12.240

e8370aaa-4528-4a15-b4cf-109a6488d54b

I sent you guys kind of a list of the questions that came up in our discussion last month.

0:6:12.690 --> 0:6:16.940

e8370aaa-4528-4a15-b4cf-109a6488d54b

And so first was about this fluency agent.

0:6:17.30 --> 0:6:30.990

e8370aaa-4528-4a15-b4cf-109a6488d54b

And so we were discussing the requirement that is out of Canada about the requirement to use industry reducing seed lubricant but prohibiting the use of talking graphite.

0:6:31.120 --> 0:6:32.640

e8370aaa-4528-4a15-b4cf-109a6488d54b

So we were wondering if you guys could.

0:6:34.910 --> 0:6:40.780

e8370aaa-4528-4a15-b4cf-109a6488d54b

First, talk a little bit about what you know about the use of 1000 graphite in Vermont.

0:6:41.440 --> 0:6:44.480

e8370aaa-4528-4a15-b4cf-109a6488d54b

It's prevalent or the need for it, et cetera.

0:6:44.490 --> 0:6:53.430

e8370aaa-4528-4a15-b4cf-109a6488d54b

And then anything that you know about seed lubricant that aren't talking graphite, yeah, we're going to talk about the research.

0:6:53.920 --> 0:6:54.610

e8370aaa-4528-4a15-b4cf-109a6488d54b

I think so too.

0:6:54.620 --> 0:6:56.750

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, little bit presentation.

0:6:58.910 --> 0:7:1.30

e8370aaa-4528-4a15-b4cf-109a6488d54b

If I go ahead and Heather or Jess.

0:7:1.630 --> 0:7:2.420

Heather Darby

OK.

0:7:3.330 --> 0:7:9.830

Heather Darby

Well, I think Steve was mentioning some of the work we were doing.



0:7:9.840 --> 0:7:21.120

Heather Darby

We were trying to set up some demonstrations for our annual field day to look at the impact of different fluency agents on just creating dust.

0:7:22.150 --> 0:7:22.630

Heather Darby

Umm.

0:7:23.640 --> 0:7:36.530

Heather Darby

And so Jeff spent a lot of time just trying to access some of the other fluency agents that are not talk or graphite, which are easily accessible and available.

0:7:37.50 --> 0:7:39.230

Heather Darby

And you know what I mean?

0:7:39.240 --> 0:7:44.520

Heather Darby

Nobody's using alternative fluency agencies that we know of at this point.

0:7:45.160 --> 0:8:9.500

Heather Darby

Umm, so graphite and talk are the primary fluency agents that people use if they're using them and umm, so I will really just turn it over to Jeff to talk about his experiences accessing the materials and umm what he found and and others were there for the demonstrations.

0:8:10.940 --> 0:8:14.930

Heather Darby

To see the different you know, levels of dust that are created.

0:8:14.940 --> 0:8:18.680

Heather Darby

So Jeff Hall at you take it from her.

0:8:16.790 --> 0:8:22.280

Jeffrey Sanders

OK, alright, so ohh so we took this on ohm.

0:8:23.360 --> 0:8:23.930

Jeffrey Sanders

It's part of.

0:8:23.940 --> 0:8:31.790

Jeffrey Sanders

It's out of the the Corn Dust Consortium paper that came out a few years ago.

0:8:31.860 --> 0:8:34.430

Jeffrey Sanders

I brought a couple of copies to the field day.

0:8:35.290 --> 0:8:35.980

Jeffrey Sanders

It's a.

0:8:36.40 --> 0:8:41.890

Jeffrey Sanders

It's basically a compilation of four studies that were done in around the country in Canada.

0:8:42.690 --> 0:8:47.670

Jeffrey Sanders

And So what they So what they found is that.

0:8:49.990 --> 0:8:54.440

Jeffrey Sanders

Bees and insects are affected by neonics through their premise.

0:8:54.450 --> 0:8:55.900

Jeffrey Sanders

Basically is that it's a.

0:8:56.30 --> 0:9:8.140

Jeffrey Sanders

They're affected through the dust that these air planners and air seeders are producing because they use vast volumes of air to pressurize the seed system.

0:9:8.210 --> 0:9:14.150

Jeffrey Sanders

And so it air comes in, goes through the seed and then goes out, and it's picking up.

0:9:15.480 --> 0:9:21.190

Jeffrey Sanders

Ah, near on that as it's going through the planter.

0:9:21.200 --> 0:9:31.150

Jeffrey Sanders

So they did a bunch of different work and and basically the idea is if we can reduce the dose re we reduce the risk.

0:9:31.200 --> 0:9:32.10

Jeffrey Sanders

So.

0:9:32.120 --> 0:9:41.710

Jeffrey Sanders

So in Vermont, talk and graphite are used either exclusively or in in various combinations.

0:9:43.640 --> 0:9:59.880

Jeffrey Sanders

To to lubricate air seeders and most people do use use talc and some people use graphite and John Deere also has a product out that's like 80% talc, 20% graphite.

0:10:0.710 --> 0:10:11.870

Jeffrey Sanders

So, umm, so then we went out on the market and and looked for this fluency agent put out by Bayer and John Deere.

0:10:11.930 --> 0:10:15.470

Jeffrey Sanders

The dealership was that was pretty readily available.

0:10:16.400 --> 0:12:14.430

Jeffrey Sanders

It came out of a warehouse in Canada because that's where it's used mostly but, but it was we we were able to get it within two weeks of placing the order and the other product that we looked at is called dust and that's a that's a soybean product that that also umm also claims makes a claim to reduce reduce dust coming out of a planter and and actually the dust product makes a claim that because it will on a molecular level that it it's cylindrical not flat, it's not chipping they the claim they're making is that the the sea treatments are getting chipped off the seed in the planter and that's when they're getting blown out into the atmosphere and that's because of the angularity of the molecules that make these products up and the soy product claims to be spherical so things roll better in the planter box and they did a bunch of research to demonstrate this uh but it was it was all funded by the soybean folks so but anyways be that as it may there is there's actually four products that that we looked at the the the dust product which was also readily available through an online broker called Shoop a big online clearing house for agg stuff and so we we acquired those products we fooled fooled around with them seeing how dusty they were and and we haven't used any in our planning equipment because obviously it was after the planting season uh but they are they are all readily available.

0:12:16.440 --> 0:12:17.410

Jeffrey Sanders

At the cost?

0:12:16.610 --> 0:12:17.700

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Jeff, can I ask you a question?

0:12:17.800 --> 0:12:19.430

Jeffrey Sanders

Yep, please jump right in.

0:12:20.40 --> 0:12:21.940

Jeffrey Sanders

Yep, Yep.

0:12:18.840 --> 0:12:23.670

e8370aaa-4528-4a15-b4cf-109a6488d54b

Sorry, this soybean one, are you saying it's called dust?

0:12:23.870 --> 0:12:25.60

Jeffrey Sanders

That's called das.

0:12:23.720 --> 0:12:27.820

e8370aaa-4528-4a15-b4cf-109a6488d54b

Like, do USTOKI think sure of hearing that right.

0:12:25.110 --> 0:12:28.950

Jeffrey Sanders

Yeah, the name of the, the name of the the name.

0:12:28.960 --> 0:12:38.980

Jeffrey Sanders

Uh, it's put out by low new tech and so LOWMUT ech.com.

0:12:41.640 --> 0:12:41.870

e8370aaa-4528-4a15-b4cf-109a6488d54b

OK.

0:12:39.550 --> 0:12:44.350

Jeffrey Sanders

We'll bring you to a website where you can check, check that product out.

0:12:46.660 --> 0:12:54.900

Jeffrey Sanders

So and that's and I found that product to be kind of clumpy, sticky and high humidity.

0:12:54.910 --> 0:12:57.440

Jeffrey Sanders

So I I'm not sure.

0:12:57.450 --> 0:13:1.570

Jeffrey Sanders

I guess it was ten years in the making, but I thought that it might.

0:13:1.620 --> 0:13:16.880

Jeffrey Sanders

It might be a little clumpy in the planter boxes depending on various atmospheric conditions, but so those are the four products, the cost obviously the the Bayer product is is the most expensive.

0:13:19.180 --> 0:13:23.980

Jeffrey Sanders

I have a I have a a price list.

0:13:23.990 --> 0:13:26.230

Jeffrey Sanders

I have the actual invoice up in front of me.

0:13:27.290 --> 0:13:42.950

Jeffrey Sanders

Uh, the Lubricator runs about \$151.00 last year or this summer, for a pale that'll treat uh, it'll it's about \$0.60 per bag of corn seed.

0:13:43.360 --> 0:13:46.960

Jeffrey Sanders

And so that's the cost of applying that product.

0:13:48.300 --> 0:13:58.20

Jeffrey Sanders

Umm, the other products are quite a bit less than that, on an order of, you know, five times cheaper or even more, but it's still not.

0:13:58.360 --> 0:14:0.30

Jeffrey Sanders

I wouldn't say it's a lot of money.

0:14:0.80 --> 0:14:10.150

Jeffrey Sanders

It's more expensive, but it's still it's \$0.60 on a, you know, a \$300.00 bag of corn or \$400.00 bag of corn.

0:14:11.370 --> 0:14:12.620

e8370aaa-4528-4a15-b4cf-109a6488d54b

What which product was that?

0:14:13.110 --> 0:14:13.930

e8370aaa-4528-4a15-b4cf-109a6488d54b

I think that so that.

0:14:10.160 --> 0:14:17.410

Jeffrey Sanders

So, but that would be the that's the Bayer, the Bayer product.

0:14:15.10 --> 0:14:18.980

e8370aaa-4528-4a15-b4cf-109a6488d54b

Sorry, yes, that's the bear booty 20, right?

0:14:19.400 --> 0:14:19.620

Jeffrey Sanders

Yeah.

0:14:19.90 --> 0:14:20.680

e8370aaa-4528-4a15-b4cf-109a6488d54b

No, that's the the policy.

0:14:20.950 --> 0:14:21.540

e8370aaa-4528-4a15-b4cf-109a6488d54b

Can it, Jeff?

0:14:21.550 --> 0:14:24.730

e8370aaa-4528-4a15-b4cf-109a6488d54b

Can you run through the year, everything four products, I just want to make sure.

0:14:24.740 --> 0:14:28.740

e8370aaa-4528-4a15-b4cf-109a6488d54b

So we have Bayer fluency, we have soybean dust.

0:14:26.520 --> 0:14:29.50

Jeffrey Sanders

So you have we have bare fluency.

0:14:29.130 --> 0:14:42.490

Jeffrey Sanders

We have the soybean dust product and then we have talk and then we have powdered graphite and there's actually a 5th that I didn't look at, which is a combination of the talk and the powder graphite.

0:14:43.270 --> 0:14:43.410

e8370aaa-4528-4a15-b4cf-109a6488d54b

OK.

0:14:44.490 --> 0:14:44.950

Jeffrey Sanders

So.

0:14:45.200 --> 0:14:48.360

e8370aaa-4528-4a15-b4cf-109a6488d54b

And and can you go through the the prices on those?

0:14:48.440 --> 0:14:53.610

Jeffrey Sanders

So the price on a a jug of I mean the the volumes are all different.

0:14:53.620 --> 0:14:58.610

Jeffrey Sanders

So I'm not sure what what you'd make of it, but the talk was 2829.

0:15:0.650 --> 0:15:23.560

Jeffrey Sanders

For like a three or four pound jug, the lubricator was \$151.00 for a £5 bucket, let's say, and then the powdered graphite was \$11.81 for like a quart, and then the the.

0:15:23.630 --> 0:15:31.40

Jeffrey Sanders

I don't actually have the slip on the on the mutex product, but someone could just jump on Shoop and it would tell you what it costs.

0:15:31.50 --> 0:15:31.990

Jeffrey Sanders

It's not a lot of money.

0:15:34.0 --> 0:15:38.490

Jeffrey Sanders

That's A and that price would be right on [online@shoot.com](mailto:online@shoot.com).

0:15:38.540 --> 0:15:42.760

Jeffrey Sanders

So, but they they're all used in different amounts.

0:15:42.980 --> 0:15:48.940

Jeffrey Sanders

So that's the the issue is that the price doesn't tell you what it is per per unit.

0:15:48.950 --> 0:15:55.780

Jeffrey Sanders

The talk you use 1/3 of a cup, the graphite use a tablespoon of the dust product.

0:15:55.790 --> 0:15:59.860

Jeffrey Sanders

You use 80CC's and the fluency agency.

0:16:0.130 --> 0:16:5.780

Jeffrey Sanders

You use 23CC, so it's all kind of relative to.

0:16:7.790 --> 0:16:12.580

Jeffrey Sanders

To each product but but the lubricator is more money, there's no doubt about it.

0:16:14.780 --> 0:16:17.130

Jeffrey Sanders

So there's that.

0:16:16.860 --> 0:16:19.0

e8370aaa-4528-4a15-b4cf-109a6488d54b

And Jeff, are they all?

0:16:21.270 --> 0:16:22.710

e8370aaa-4528-4a15-b4cf-109a6488d54b

Ohh dry.

0:16:23.70 --> 0:16:24.370

Jeffrey Sanders

They're all dry powder.

0:16:25.100 --> 0:16:25.530  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Yeah.

0:16:25.570 --> 0:16:26.140  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
OK.

0:16:24.420 --> 0:16:26.240  
Jeffrey Sanders  
Yep, yeah.

0:16:26.180 --> 0:16:27.810  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
So they applied in the planter box.

0:16:28.540 --> 0:16:29.130  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Did you hear?

0:16:29.220 --> 0:16:30.640  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Excuse me, OK.

0:16:28.700 --> 0:16:31.250  
Jeffrey Sanders  
So you would, so you would apply.

0:16:31.260 --> 0:16:37.860  
Jeffrey Sanders  
So you would put the seed into the planter box and then you would measure out all of them except for the graph.

0:16:37.870 --> 0:16:40.370  
Jeffrey Sanders  
I have a measuring container with them.

0:16:40.450 --> 0:16:41.540  
Jeffrey Sanders  
They're sold with it.

0:16:41.550 --> 0:16:49.550  
Jeffrey Sanders  
So you would just measure out the the amount in the container so they all have little scoops and you just scoop some on top.

0:16:50.160 --> 0:16:55.380  
Jeffrey Sanders  
And I know, I know that generally speaking it gets used excessively.



0:16:55.520 --> 0:16:57.510

Jeffrey Sanders

People put more on than they need.

0:16:57.640 --> 0:16:58.260

Jeffrey Sanders

It's just the way.

0:16:59.480 --> 0:17:0.980

Jeffrey Sanders

It's just the way people do it.

0:17:3.280 --> 0:17:3.710

Jeffrey Sanders

So.

0:17:3.400 --> 0:17:3.890

e8370aaa-4528-4a15-b4cf-109a6488d54b

OK.

0:17:3.900 --> 0:17:4.100

e8370aaa-4528-4a15-b4cf-109a6488d54b

Can I?

0:17:5.640 --> 0:17:5.880

Jeffrey Sanders

Yep.

0:17:6.30 --> 0:17:7.400

e8370aaa-4528-4a15-b4cf-109a6488d54b

So do you have another question?

0:17:15.520 --> 0:17:15.720

Jeffrey Sanders

Yeah.

0:17:7.410 --> 0:17:17.140

e8370aaa-4528-4a15-b4cf-109a6488d54b

So two general types of seed, seed planters, air and the finger type, I guess plates.

0:17:17.210 --> 0:17:20.890

e8370aaa-4528-4a15-b4cf-109a6488d54b

Or do you use the lubrication on both of them?

0:17:20.990 --> 0:17:21.840

e8370aaa-4528-4a15-b4cf-109a6488d54b

Both types are just.

0:17:22.30 --> 0:17:32.530

Jeffrey Sanders

You you would, you would most likely used the lubricant and maybe a different lubricant, maybe graphite for the finger pickup as opposed to a tilt product.

0:17:33.400 --> 0:17:42.500

Jeffrey Sanders

Umm, because the the mechanics of moving the seed are are different and umm John Deere I did look up.

0:17:42.510 --> 0:17:43.540

Jeffrey Sanders

John Deere does.

0:17:43.550 --> 0:17:51.130

Jeffrey Sanders

Actually, uh support the use of the fluency agent and their in their planters so.

0:17:53.520 --> 0:17:54.830

Jeffrey Sanders

The airplane enters.

0:17:51.310 --> 0:17:55.590

e8370aaa-4528-4a15-b4cf-109a6488d54b

Which which type of planter of the air or the finger pickup OK?

0:17:54.880 --> 0:18:22.490

Jeffrey Sanders

Yeah, the airplane ears, I think it's much less of a factor, although the research in that big research paper does show that there is an increase in neonics in the atmosphere with a finger pickup planner, it couldn't really explain why, but it's at a it's at a much lower level than using an airplane, ITER using a finger pickup planner doesn't remove the risk.

0:18:22.640 --> 0:18:23.990

Jeffrey Sanders

Just decreases the risk.

0:18:26.470 --> 0:18:29.170

Jeffrey Sanders

Of of of getting neonics in the in the air.

0:18:30.180 --> 0:18:36.0

Heather Darby

So one of the things we talked about at the field day that you might be trying to get at Steve was?

0:18:38.220 --> 0:18:52.960

Heather Darby

Think we had talked about precision planting and seed shape size all having an influence on, you know, the farmers populations.

0:18:54.20 --> 0:18:59.350

Heather Darby

You know, part of the reason they're using these fluency agents is to get the seed to move.

0:18:59.360 --> 0:19:10.100

Heather Darby

And with the right seed size and precision, type planners and vacuum seeders, we've been able to improve the populations.

0:19:11.450 --> 0:19:21.500

Heather Darby

But there's, you know, that's not something we can always fully rely on to still get good populations, which is why people use the fluency agents.

0:19:22.400 --> 0:19:22.850

Jeffrey Sanders

Right.

0:19:23.80 --> 0:19:24.320

Jeffrey Sanders

So the so the idea.

0:19:23.550 --> 0:19:25.300

Heather Darby

Do you know what I'm talking about, Jeff?

0:19:25.340 --> 0:19:26.100

Heather Darby

You you get.

0:19:26.110 --> 0:19:27.980

Heather Darby

I think you gave an example of this year.

0:19:30.90 --> 0:19:30.490

Jeffrey Sanders

Right.

0:19:27.990 --> 0:19:32.780

Heather Darby

You didn't use any fluency agent and you had round round seeds.

0:19:33.540 --> 0:19:33.720

Jeffrey Sanders

Yeah.

0:19:32.850 --> 0:19:36.330

Heather Darby

You had rounds, but we kind of get what we get here.

0:19:36.380 --> 0:19:38.60

Heather Darby

We don't get to choose so.

0:19:38.130 --> 0:19:38.740

Jeffrey Sanders

Right.

0:19:38.830 --> 0:19:39.560

Jeffrey Sanders

So.

0:19:40.370 --> 0:19:46.780

Jeffrey Sanders

So what people are shooting for is like, near as they can get to 100% singulation.

0:19:47.370 --> 0:19:52.110

Jeffrey Sanders

So that means that every seed's getting dropped very uniformly.

0:19:52.760 --> 0:19:53.0

Jeffrey Sanders

Uh.

0:19:53.10 --> 0:20:2.930

Jeffrey Sanders

Within a row and across the rows on a planter so that every so if you're planning at, let's say 32,000 every six and 3/4 of an inch, there's gonna be a seed.

0:20:3.290 --> 0:20:17.460

Jeffrey Sanders

And what the what happens in that system is if if you get seed that is too large, not the right shape, so there's rounds flats and and another another shape which I can't remember off the top of my head.

0:20:17.470 --> 0:20:27.850

Jeffrey Sanders

But there's different shapes, seeds they perform differently in the planter, and one of the things that the the lubricant does is it helps the planter pick that seed up.

0:20:28.340 --> 0:20:33.10

Jeffrey Sanders

So if everything's matched up perfectly, you really don't need that for that.

0:20:33.20 --> 0:20:42.20

Jeffrey Sanders

But in Vermont, we tend to get the seed that's left over and the big the big clients get to see that they want.

0:20:42.90 --> 0:20:44.830

Jeffrey Sanders

And the smaller clients get the seed that they can get.

0:20:45.110 --> 0:20:48.20

Jeffrey Sanders

So planners don't know what you can change.

0:20:48.30 --> 0:20:50.970

Jeffrey Sanders

Plates and the planner to help with that.

0:20:50.980 --> 0:21:6.290

Jeffrey Sanders

But there's always going to be some variability and that fluency the the lubricant dresses that and it and it also helps lubricate the mechanics of the planner from a maintenance point of view.

0:21:6.720 --> 0:21:15.990

Jeffrey Sanders

John Deere and Kinsey and these plant planner manufacturers recommend using that as a matter of mechanics in the in the machine.

0:21:16.850 --> 0:21:18.60

e8370aaa-4528-4a15-b4cf-109a6488d54b

So what do you say, lubricant?

0:21:20.130 --> 0:21:20.880

Jeffrey Sanders

Yeah.

0:21:18.70 --> 0:21:21.850

e8370aaa-4528-4a15-b4cf-109a6488d54b

You mean the graphite, the talk or you mean the fluent station or what?

0:21:21.10 --> 0:21:22.500

Jeffrey Sanders

Yeah, I'm trying to.

0:21:24.480 --> 0:21:24.780

e8370aaa-4528-4a15-b4cf-109a6488d54b

OK.

0:21:31.670 --> 0:21:31.930

e8370aaa-4528-4a15-b4cf-109a6488d54b

Right.

0:21:22.550 --> 0:21:33.40

Jeffrey Sanders

I'm trying to be generic, not single out any particular product but talkin talkin graph I are lubricants for the for the planner, that's all.

0:21:33.50 --> 0:21:34.30

Jeffrey Sanders

That's all they're there for.

0:21:42.920 --> 0:21:43.570

Jeffrey Sanders

So.

0:21:34.980 --> 0:21:43.650

e8370aaa-4528-4a15-b4cf-109a6488d54b

Does the does the manufacturers make correct amount commendation about the fluency agent that particular product?

0:21:44.60 --> 0:21:50.870

Jeffrey Sanders

So what I did find was that John Deere supports the use of that and that's why you can buy it at a John Deere dealer.

0:21:51.500 --> 0:21:58.370

Jeffrey Sanders

I did not find any information where Kinsey addressed it, although the planting units are very similar.

0:21:59.40 --> 0:22:9.950

Jeffrey Sanders

So so I not knowing I don't see why it would cause an issue with the Kinsey Planner or or a sunflower planter.

0:22:9.960 --> 0:22:12.230

Jeffrey Sanders

They're all basically the same.

0:22:12.240 --> 0:22:14.540

Jeffrey Sanders

The sunflower is different.

0:22:14.670 --> 0:22:17.550

Jeffrey Sanders

I should clarify 11's a positive pressure system.

0:22:17.560 --> 0:22:18.390

Jeffrey Sanders

Pressure system.

0:22:18.400 --> 0:22:19.760

Jeffrey Sanders

The other's a negative pressure system.

0:22:19.770 --> 0:22:21.50

Jeffrey Sanders  
System how?

0:22:21.60 --> 0:22:30.0

Jeffrey Sanders  
How the air moves across the seed but umm, but anyways they they all they all will work I should say.

0:22:32.680 --> 0:22:36.970

e8370aaa-4528-4a15-b4cf-109a6488d54b  
Would anybody ever use the fluency agent and the graphite talent?

0:22:37.790 --> 0:22:38.930

e8370aaa-4528-4a15-b4cf-109a6488d54b  
Make sure that.

0:22:37.670 --> 0:22:42.30

Jeffrey Sanders  
No, I don't think so because of the expense.

0:22:42.40 --> 0:22:49.850

Jeffrey Sanders  
If you're gonna spend the money on the fluency agency, I don't think you're gonna spend more money on other products.

0:22:49.860 --> 0:22:53.940

Jeffrey Sanders  
When, when the fluency agents claim is to do what the other products are doing anyway.

0:22:55.120 --> 0:22:55.560

e8370aaa-4528-4a15-b4cf-109a6488d54b  
OK.

0:22:56.140 --> 0:22:57.810

e8370aaa-4528-4a15-b4cf-109a6488d54b  
Do we have any sense of the?

0:22:59.760 --> 0:23:4.730

e8370aaa-4528-4a15-b4cf-109a6488d54b  
Uh percent of folks who use one product over another.

0:23:4.780 --> 0:23:6.660

e8370aaa-4528-4a15-b4cf-109a6488d54b  
Do we know what folks are commonly doing?

0:23:8.220 --> 0:23:13.40

Jeffrey Sanders  
I think they're commonly buying what's available, which is is mostly talk.

0:23:14.500 --> 0:23:17.500

Jeffrey Sanders

I think that's the the go to product in Vermont.

0:23:21.500 --> 0:23:21.740

e8370aaa-4528-4a15-b4cf-109a6488d54b

OK.

0:23:23.580 --> 0:23:23.920

e8370aaa-4528-4a15-b4cf-109a6488d54b

Thank you.

0:23:26.790 --> 0:23:27.250

e8370aaa-4528-4a15-b4cf-109a6488d54b

And are there.

0:23:26.260 --> 0:23:32.570

Jeffrey Sanders

So the other, the other thing, the other thing that that research shows is that and where improvements can be made.

0:23:32.580 --> 0:23:44.310

Jeffrey Sanders

And I thought I just make mention of it is in the sea treatment process, the coatings on the seed, that's what's chipping off in, in the planter and getting blown out.

0:23:44.360 --> 0:23:46.180

Jeffrey Sanders

So I did.

0:23:46.250 --> 0:23:51.870

Jeffrey Sanders

I did reach out to seed manufacturers and I wasn't able to get and I researched out their websites.

0:23:52.480 --> 0:24:2.520

Jeffrey Sanders

I'd spent a few hours trying to figure out if they've improved their seat codings and I wasn't able to determine that they had or had not.

0:24:4.590 --> 0:24:19.150

Jeffrey Sanders

But a less abrasive, a less abrasive or more durable seed coating would reduce the amount that gets chipped off in the in the seeding process, which would then reduce the amount going into the atmosphere.

0:24:21.190 --> 0:24:21.660

e8370aaa-4528-4a15-b4cf-109a6488d54b

Can I?



0:24:21.710 --> 0:24:26.240

e8370aaa-4528-4a15-b4cf-109a6488d54b

Are there inherent problems with using talc or graphite?

0:24:26.250 --> 0:24:30.270

e8370aaa-4528-4a15-b4cf-109a6488d54b

I know TALC has been implicated in, but what about graphite?

0:24:30.280 --> 0:24:30.640

e8370aaa-4528-4a15-b4cf-109a6488d54b

I don't know.

0:24:32.550 --> 0:24:33.280

Jeffrey Sanders

What do you mean?

0:24:33.290 --> 0:24:34.290

Jeffrey Sanders

Just like cancer.

0:24:37.120 --> 0:24:38.180

Jeffrey Sanders

Ohh I'd I'm not aware.

0:24:34.490 --> 0:24:40.720

e8370aaa-4528-4a15-b4cf-109a6488d54b

Well, environmentally, I mean our talking graphite, an issue to the environment.

0:24:40.380 --> 0:25:1.810

Jeffrey Sanders

So I I don't know that, but I will say that if you add 1/3 of a cup of talk to every fill up of corn and you have a say A6 row planter, you're gonna put, you're gonna put 2 cups of talk on your planter and you're gonna seed about 30 acres.

0:25:2.870 --> 0:25:3.270

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yep.

0:25:2.960 --> 0:25:5.90

Jeffrey Sanders

So you're putting 2/2 cups of towel.

0:25:6.820 --> 0:25:9.390

Jeffrey Sanders

Out over 30 acres of land.

0:25:10.380 --> 0:25:10.530

e8370aaa-4528-4a15-b4cf-109a6488d54b

The.

0:25:9.440 --> 0:25:17.290

Jeffrey Sanders

So I would think that environmentally that would be a pretty minute risk of anything.

0:25:18.220 --> 0:25:18.660

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.

0:25:18.760 --> 0:25:19.310

e8370aaa-4528-4a15-b4cf-109a6488d54b

OK. Thanks.

0:25:18.470 --> 0:25:21.170

Jeffrey Sanders

Talks are fairly inert, inert product.

0:25:22.0 --> 0:25:22.270

e8370aaa-4528-4a15-b4cf-109a6488d54b

Uh-huh.

0:25:32.40 --> 0:25:47.160

Jeffrey Sanders

And then the like I guess the last thing I would this we're gonna talk about is separately would be the planners themselves with respect to we had a planner there that a farmer has that's be friendly that's that's what great planes was making the claim of.

0:25:47.170 --> 0:25:53.20

Jeffrey Sanders

But basically all that meant was their blowing the air down onto the ground instead of up into the air.

0:25:54.580 --> 0:26:9.40

Jeffrey Sanders

And and the research shows that that may not have that big of an effect on the eventual outcome with respect to uh, causing problems for insects.

0:26:12.970 --> 0:26:13.290

e8370aaa-4528-4a15-b4cf-109a6488d54b

So maybe.

0:26:12.450 --> 0:26:23.100

Heather Darby

Yeah, I think originally, umm we were considering trying to retrofit planners including our own at U VM.

0:26:23.570 --> 0:26:33.230

Heather Darby

But after talking with folks in Canada and also here in the US, it seemed like what we could feasibly do.

0:26:33.360 --> 0:26:40.450

Heather Darby

Which would be to force the dust to the ground, would likely cause other issues.

0:26:40.660 --> 0:26:48.410

Heather Darby

As Jeff just mentioned and so we, we did not continue to pursue Sue that option.

0:26:48.480 --> 0:26:58.290

Heather Darby

It did seem like, you know, originally that might be a good option, but after talking with folks seemed like it might.

0:26:58.540 --> 0:27:15.960

Heather Darby

You know, it might be better in one way, but worse in another, which is blowing the dust on the ground and then, you know, maybe more potential for runoff or to have negative impacts on other beneficials, umm, that are out out on the ground.

0:27:19.170 --> 0:27:19.920

Heather Darby

So it does.

0:27:18.790 --> 0:27:20.60

e8370aaa-4528-4a15-b4cf-109a6488d54b

Can I ask a question there?

0:27:20.70 --> 0:27:21.430

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, yeah, yeah.

0:27:21.440 --> 0:27:22.300

e8370aaa-4528-4a15-b4cf-109a6488d54b

Another yeah.

0:27:22.350 --> 0:27:29.360

e8370aaa-4528-4a15-b4cf-109a6488d54b

I mean, just in in sort of got the gears turning on the the carcinogen question kinds are causing.

0:27:29.370 --> 0:27:31.480

e8370aaa-4528-4a15-b4cf-109a6488d54b

So I just look at safety data sheet for talc.

0:27:32.440 --> 0:27:34.720

e8370aaa-4528-4a15-b4cf-109a6488d54b

It does say they have it listed as a.

0:27:34.990 --> 0:27:36.760

e8370aaa-4528-4a15-b4cf-109a6488d54b

You know it has a cute talk city.

0:27:36.770 --> 0:27:42.340

e8370aaa-4528-4a15-b4cf-109a6488d54b

If inhaled, its carcinogenic feel like part of the work we're trying to do, all those protect farmers and and.

0:27:44.560 --> 0:27:45.810

e8370aaa-4528-4a15-b4cf-109a6488d54b

Barnyard, right.

0:27:45.820 --> 0:28:4.510

e8370aaa-4528-4a15-b4cf-109a6488d54b

And then also when the children and everybody in that barnyard is, is that something that we're worried about or or looking at in this process or we tasked with that because, well, I mean that's not not specifically for these BMP's, but I mean certainly it's something can be discussed and it's a concern, I mean absolutely.

0:28:5.460 --> 0:28:6.610

e8370aaa-4528-4a15-b4cf-109a6488d54b

Ohh yeah right.

0:28:6.620 --> 0:28:9.290

e8370aaa-4528-4a15-b4cf-109a6488d54b

I mean, it's just listed as they list it as a.

0:28:9.300 --> 0:28:11.310

e8370aaa-4528-4a15-b4cf-109a6488d54b

You know, toxic carcinogen.

0:28:11.320 --> 0:28:16.410

e8370aaa-4528-4a15-b4cf-109a6488d54b

So obviously you know, we're trying to figure out how to grow food with poison or less poison.

0:28:16.420 --> 0:28:17.610

e8370aaa-4528-4a15-b4cf-109a6488d54b

I mean, this is a poison.

0:28:18.100 --> 0:28:20.390

e8370aaa-4528-4a15-b4cf-109a6488d54b

Think there's zero argument about that?

0:28:20.400 --> 0:28:26.10

e8370aaa-4528-4a15-b4cf-109a6488d54b

Just looking at their own safety data sheet and how we handle poisons, probably a little bit about what we're trying to figure out here.

0:28:26.20 --> 0:28:34.820

e8370aaa-4528-4a15-b4cf-109a6488d54b

So I guess I just want to make that point that this is carcinogenic, maybe not to the land or the bees, but I feel bad for my farmer friends who have to breathe this stuff in.

0:28:36.0 --> 0:28:38.540

e8370aaa-4528-4a15-b4cf-109a6488d54b

Sorry, do you wanna come in on that?

0:28:38.680 --> 0:28:47.10

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, I mean we, you know, focusing on the red, you know how EPA assesses toxicity of the Unix points that these agents aren't included.

0:28:47.20 --> 0:28:48.880

e8370aaa-4528-4a15-b4cf-109a6488d54b

So I don't think it's right.

0:28:48.890 --> 0:28:49.660

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, right.

0:28:49.700 --> 0:28:51.850

e8370aaa-4528-4a15-b4cf-109a6488d54b

So it's nothing that I've ever sorry.

0:28:51.860 --> 0:28:53.50

e8370aaa-4528-4a15-b4cf-109a6488d54b

Can you dumb that down for me?

0:28:53.240 --> 0:28:54.870

e8370aaa-4528-4a15-b4cf-109a6488d54b

We just don't have any data on it.

0:28:55.240 --> 0:28:55.650

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.

0:28:55.660 --> 0:29:2.410

e8370aaa-4528-4a15-b4cf-109a6488d54b

So when EPA assesses the toxicity, when they tell the whole country, you know, here's the pesticide.

0:29:2.420 --> 0:29:4.310

e8370aaa-4528-4a15-b4cf-109a6488d54b

Here's how it affects human health.

0:29:5.100 --> 0:29:13.650

e8370aaa-4528-4a15-b4cf-109a6488d54b

They focus on the active ingredients and so the active ingredient in these treated seeds is the actual, you know, Munich of noise.

0:29:13.870 --> 0:29:20.470

e8370aaa-4528-4a15-b4cf-109a6488d54b

So we're as far as the stuff that I've read from EPA, they haven't included any mention of these other agents.

0:29:22.150 --> 0:29:58.560

e8370aaa-4528-4a15-b4cf-109a6488d54b

And what percentage of the active ingredient is what's being spread and that and what we're looking at, you know the potential negative effects of these, you know, this total volume being applied or just being, you know, out there and we're just looking to active ingredients as I mean we're looking at 5% of what is being put out or yeah, I mean I think human health might be a little bit different from environmental concerns because you know, noise, obviously we're talking about a lot of environmental umm, so for human health, the percent of active ingredient is really.

0:30:0.420 --> 0:30:8.620

e8370aaa-4528-4a15-b4cf-109a6488d54b

I won't be inconsequential, but municipalities are so non toxic to humans that we're not really concerned about about that.

0:30:10.960 --> 0:30:18.910

e8370aaa-4528-4a15-b4cf-109a6488d54b

But yeah, looking at talk exposure could could be, I mean we should in the very least think about that in terms of like keep PE that should be used right?

0:30:18.920 --> 0:30:24.930

e8370aaa-4528-4a15-b4cf-109a6488d54b

Because I think those particles could probably be the the inhalation could be prevented.

0:30:24.940 --> 0:30:27.990

e8370aaa-4528-4a15-b4cf-109a6488d54b

If you're wearing the right there on there, so if you data issues, yeah.

0:30:32.430 --> 0:30:32.630

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yep.

0:30:26.240 --> 0:30:42.730

Jeffrey Sanders

Can I can I chime in and I chime in on that just to from a practical from a practical standpoint, when you scoop the talk out of the container and put it onto the corn seed, there's there's virtually no dust.

0:30:43.300 --> 0:30:56.320

Jeffrey Sanders

There's no, there's no inhalation of talc when at that point, because the talk is it's it's it's kind of a, it's kind of a weird substance, but unless you throw it up in the air, it's it's staying.

0:30:57.520 --> 0:31:5.150

Jeffrey Sanders

That stain in in a in a, in a scoop, and you're just dumping the scoop on top of the corn seed and shutting the lid.

0:31:5.240 --> 0:31:13.570

Jeffrey Sanders

Your exposure, your exposure to get that inhaled at that point is is negligible at best.

0:31:13.620 --> 0:31:31.410

Jeffrey Sanders

I think it could be an issue if you're working on the planter in the air seeders on and and it's blowing air all over you that that, I would argue would be more of a risk and I don't most people shut their planners down when they work on them so I I don't.

0:31:31.420 --> 0:31:31.790

Jeffrey Sanders

I don't.

0:31:33.260 --> 0:31:45.30

Jeffrey Sanders

I don't know if how substantial the risk of getting cancer from telcos and in this in this scenario, I'll just, I'll just say that.

0:31:46.470 --> 0:31:52.790

e8370aaa-4528-4a15-b4cf-109a6488d54b

Jeff, do you have, umm, even just a picture of the label?

0:31:57.220 --> 0:31:57.460

Jeffrey Sanders

Yeah.

0:32:0.90 --> 0:32:0.570

Jeffrey Sanders

Long long.

0:31:52.850 --> 0:32:5.580

e8370aaa-4528-4a15-b4cf-109a6488d54b

Like so, the label of these, like the four things that you were kind of evaluating that might help us, if you can just send me a picture later, you know, like yeah, just forward that just yeah.

0:32:5.590 --> 0:32:13.180

e8370aaa-4528-4a15-b4cf-109a6488d54b

And actually, I was gonna ask, were you gonna summarize some of these findings, any kind of written format that we can enter into the record?

0:32:16.360 --> 0:32:16.760

Jeffrey Sanders

Umm.

0:32:16.730 --> 0:32:18.560

Heather Darby

I mean, we could. It wasn't.

0:32:18.610 --> 0:32:25.900

Heather Darby

It was just them the demonstration, but definitely if you need test.

0:32:24.820 --> 0:32:26.100

e8370aaa-4528-4a15-b4cf-109a6488d54b

Isn't that be extensive?

0:32:26.110 --> 0:32:30.480

e8370aaa-4528-4a15-b4cf-109a6488d54b

Just just to listen to products and drops reservations, I mean would be helpful.

0:32:30.280 --> 0:32:31.630

Heather Darby

OK. Yep.

0:32:34.540 --> 0:32:34.970

e8370aaa-4528-4a15-b4cf-109a6488d54b

And if you.

0:32:37.40 --> 0:32:38.210

e8370aaa-4528-4a15-b4cf-109a6488d54b

I think I did.

0:32:38.220 --> 0:32:41.690

e8370aaa-4528-4a15-b4cf-109a6488d54b

You say that talk is the most common seed lubricant.

0:32:41.700 --> 0:32:42.360

e8370aaa-4528-4a15-b4cf-109a6488d54b

You OK?

0:32:40.820 --> 0:32:42.600

Jeffrey Sanders

Yeah, it is.

0:32:43.460 --> 0:32:43.720

e8370aaa-4528-4a15-b4cf-109a6488d54b

OK.

0:32:44.950 --> 0:32:46.410

e8370aaa-4528-4a15-b4cf-109a6488d54b

Is there any just because of the price?



0:32:48.200 --> 0:32:50.900

Jeffrey Sanders

Uh, I had the price on the screen to.

0:32:53.240 --> 0:32:53.710

Jeffrey Sanders

I did a.

0:32:53.200 --> 0:32:56.500

e8370aaa-4528-4a15-b4cf-109a6488d54b

I mean, you think that's why people use it most discussing the cost?

0:32:55.870 --> 0:32:57.720

Jeffrey Sanders

I think it's because there's lots available.

0:32:57.810 --> 0:32:59.60

Jeffrey Sanders

They go to the dealership.

0:32:58.670 --> 0:32:59.970

e8370aaa-4528-4a15-b4cf-109a6488d54b

OK, so it's something.

0:32:59.70 --> 0:33:0.140

Jeffrey Sanders

That's what's on the shelf.

0:33:3.310 --> 0:33:3.610

e8370aaa-4528-4a15-b4cf-109a6488d54b

Uh.

0:33:0.150 --> 0:33:3.900

Jeffrey Sanders

They grab a couple containers for the season and they walk out the door.

0:33:3.910 --> 0:33:5.20

Jeffrey Sanders

They don't give it much thought.

0:33:6.40 --> 0:33:6.470

e8370aaa-4528-4a15-b4cf-109a6488d54b

As a.

0:33:6.960 --> 0:33:7.510

Jeffrey Sanders

Does that?

0:33:9.450 --> 0:33:9.570

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.

0:33:7.580 --> 0:33:20.800

Jeffrey Sanders

Is that makes I the price of it is \$28.29 for container and I'm gonna say a container will do 500 acres of corn roughly.

0:33:23.880 --> 0:33:24.40

e8370aaa-4528-4a15-b4cf-109a6488d54b

OK.

0:33:29.580 --> 0:33:33.140

Jeffrey Sanders

I'm trying to find a label on talk for you right now, but I was.

0:33:34.980 --> 0:33:36.310

e8370aaa-4528-4a15-b4cf-109a6488d54b

Ohh, that's OK, it can be later.

0:33:37.640 --> 0:33:37.980

Jeffrey Sanders

OK.

0:33:36.320 --> 0:33:43.200

e8370aaa-4528-4a15-b4cf-109a6488d54b

I just know that I was wondering to get at Steves questions of whether there was any caution.

0:33:46.850 --> 0:33:47.70

Jeffrey Sanders

No.

0:33:43.210 --> 0:33:48.760

e8370aaa-4528-4a15-b4cf-109a6488d54b

You know there's no PPE on those labels like, you know, grower, snacking or anything, yeah.

0:33:51.230 --> 0:33:54.220

e8370aaa-4528-4a15-b4cf-109a6488d54b

But still would be helpful just for us to see it, I think so.

0:33:54.230 --> 0:33:56.330

e8370aaa-4528-4a15-b4cf-109a6488d54b

I can include it in our meeting materials whenever.

0:33:57.250 --> 0:34:5.390

e8370aaa-4528-4a15-b4cf-109a6488d54b

Whenever you find it but or I can look online for the other ones and that's you where you got the soybean one and the?

0:34:6.150 --> 0:34:6.330

Jeffrey Sanders

Yeah.

0:34:7.550 --> 0:34:7.710

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.

0:34:10.650 --> 0:34:25.220

e8370aaa-4528-4a15-b4cf-109a6488d54b

Umm any anybody have any more questions before I shift gears and our questions for Heather and Jeff, but anybody have anything else about tap talk, graphite fluency agents that their observations?

0:34:25.290 --> 0:34:26.140

e8370aaa-4528-4a15-b4cf-109a6488d54b

I have a question.

0:34:26.250 --> 0:34:27.160

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, go ahead, John.

0:34:27.230 --> 0:34:45.930

e8370aaa-4528-4a15-b4cf-109a6488d54b

Have you noticed over the years during your lip reviewing data from these research whether you can actually see or data is available to see the amount of dusting that's occurred from see treated back in 2010 to seed treated.

0:34:45.940 --> 0:35:5.240

e8370aaa-4528-4a15-b4cf-109a6488d54b

Now you know, cause the industry has said that they are doing a better job of encapsulating coding, protecting these seeds and I didn't know if that was actually visible in any data sets or anything that you guys have noticed when you talk about these dusting off events.

0:35:8.380 --> 0:35:9.550

Jeffrey Sanders

I don't have anything on that.

0:35:9.500 --> 0:35:10.700

Heather Darby

No, no.

0:35:14.700 --> 0:35:16.150

e8370aaa-4528-4a15-b4cf-109a6488d54b

I wonder if that's the question we could ask.

0:35:19.390 --> 0:35:19.680

Heather Darby

Yeah.

0:35:17.980 --> 0:35:19.990

e8370aaa-4528-4a15-b4cf-109a6488d54b

Did industry for? Yeah.

0:35:19.690 --> 0:35:26.630

Heather Darby

I mean, I think the seed industry would know best about how well they're seed coatings.

0:35:26.640 --> 0:35:27.590

Heather Darby

I guess they're working.

0:35:27.600 --> 0:35:28.90

Heather Darby

They were.

0:35:27.230 --> 0:35:30.650

e8370aaa-4528-4a15-b4cf-109a6488d54b

What was what was the core, especially the part?

0:35:30.660 --> 0:35:31.550

e8370aaa-4528-4a15-b4cf-109a6488d54b

That's why I'm back in it.

0:35:31.800 --> 0:35:32.140

Dillon Gabbert

Uh.

0:35:34.10 --> 0:35:55.720

Dillon Gabbert

Hi guys this is this is Dylan Gap with bear and so so kind of a point to to bring up you know we have been making you know the industry has been making some some advances in this sort of technology and by looking at you know sort of the process by which seeds get treated that's sort of 1 process by changing that process a little bit.

0:35:55.730 --> 0:36:3.980

Dillon Gabbert

We've seen a little a decrease in dust off from that as well as different, you know advances in different polymer technology.

0:36:4.380 --> 0:36:7.790

Dillon Gabbert

It's used here, so this is something that we're working towards.

0:36:7.800 --> 0:36:20.130

Dillon Gabbert

And actually, umm, you know, one of our scientists, Doctor Ron Colletti, had made a presentation on a lot of this at the American Chemical Society in 2022.

0:36:20.460 --> 0:36:32.560

Dillon Gabbert

And this is certainly something, you know, we're we're happy to talk about and and and happy to share with you all over the course of, you know, whatever questions that you may have home with with those regard.

0:36:36.660 --> 0:36:37.420

e8370aaa-4528-4a15-b4cf-109a6488d54b

Heather and Jeff.

0:36:36.710 --> 0:36:37.560

Amanda St.Pierre

Hi, it's me. Anna.

0:36:38.150 --> 0:36:40.290

Amanda St.Pierre

I have a question when it's appropriate.

0:36:42.440 --> 0:36:43.130

e8370aaa-4528-4a15-b4cf-109a6488d54b

Go ahead, Amanda.

0:36:44.50 --> 0:36:49.280

Amanda St.Pierre

Just back to the type of planters you guys are seeing around the state.

0:36:49.530 --> 0:36:54.660

Amanda St.Pierre

Do you find people are going more towards the vacuum planters and that's the direction?

0:36:55.50 --> 0:37:7.80

Amanda St.Pierre

And is there assistance and we were talking at one point having assistance in if we wanted to convert or put something on there that helped we reduce the dust.

0:37:8.470 --> 0:37:11.540

Amanda St.Pierre

Are you guys seeing any of that development in Vermont?

0:37:13.140 --> 0:37:13.620

Jeffrey Sanders

So.

0:37:16.30 --> 0:37:22.510

Jeffrey Sanders

Yeah, at most planners sold today are are some variation of a of an air plant or a vacuum planter.

0:37:24.400 --> 0:37:30.830

Jeffrey Sanders

Not all of them, but if you order one, generally speaking it's gonna be an air, an air planter.

0:37:30.880 --> 0:37:53.20

Jeffrey Sanders

So with respect to adding anything to to the planter, there's virtually nothing nothing out there commercially available done hours and hours of researching, watching YouTube videos, chasing down leads of of people that put them on in Ontario. Uh.

0:37:54.710 --> 0:38:1.330

Jeffrey Sanders

Talking to people around the country and and there's just not, that's not A at this point.

0:38:1.820 --> 0:38:6.260

Jeffrey Sanders

I don't think they saw the results they were looking for to pursue it any further.

0:38:8.340 --> 0:38:19.120

Jeffrey Sanders

I think I think the things that we're talking about today are are much more practical way to get at a reduction than than adding things to the planter.

0:38:20.390 --> 0:38:21.520

Jeffrey Sanders

There's just nothing.

0:38:22.390 --> 0:38:26.770

Jeffrey Sanders

There's nothing commercially available at all to retrofit plan or two.

0:38:28.90 --> 0:38:28.280

Heather Darby

Yeah.

0:38:28.290 --> 0:38:54.880

Heather Darby

And I I think what we heard was that blowing the dust on the ground, which is the thing that sort of the easiest I would say retrofit that could be actually probably made and people were trying to make close the dust on the ground and it was causing the other issues, you know killing ground beetles, higher potential for runoff.

0:38:55.920 --> 0:38:57.430

Heather Darby

Umm, so it was.

0:38:57.680 --> 0:39:1.480

Heather Darby

As Jeff said, people just steered away from those options.

0:39:2.470 --> 0:39:11.920

Heather Darby

There was some talk about sort of putting these almost like would be in a flower mill or something like that, like a cyclone dust collector.

0:39:11.930 --> 0:39:13.920

Heather Darby

But it's just, it's not really feasible.

0:39:15.170 --> 0:39:17.460

Heather Darby

Umm, out in the field.

0:39:17.750 --> 0:39:21.540

Heather Darby

You know it in an enclosed area, those things were great.

0:39:21.550 --> 0:39:27.700

Heather Darby

But when you're out in the field, those types of possible options just were not feasible.

0:39:27.750 --> 0:39:32.590

Heather Darby

So we we've kind of steered away from those options, Amanda.

0:39:37.760 --> 0:39:51.350

Heather Darby

We do think the fluency agents, though, seem like the, you know, the best, best option at this point to reduce dust and that's, you know, the way it appears anyway that the Canadians have gone as well.

0:39:54.860 --> 0:40:1.50

e8370aaa-4528-4a15-b4cf-109a6488d54b

Heather and Jeff, are you going to use any like supplementing agent this year or any test plots and do a comparison?

0:40:3.80 --> 0:40:3.240

Heather Darby

Yeah.

0:40:1.950 --> 0:40:4.0

Jeffrey Sanders

Yeah, I bought.

0:40:4.10 --> 0:40:11.510

Jeffrey Sanders

I bought enough fluency agent to take care of our needs for like 3 years, so I had to buy.

0:40:11.560 --> 0:40:14.790

Jeffrey Sanders

I had to buy it in a big case.

0:40:14.800 --> 0:40:16.910

Jeffrey Sanders

It's the only way they would sell it so.

0:40:17.840 --> 0:40:20.810

Jeffrey Sanders

Ohm, I got way more than we needed.

0:40:20.860 --> 0:40:28.650

Jeffrey Sanders

So our actually probably gonna give a couple farmers that were at that field day, umm, some to try and keep some for ourselves.

0:40:30.70 --> 0:40:31.890

e8370aaa-4528-4a15-b4cf-109a6488d54b

So are you just going to use the?

0:40:33.650 --> 0:40:34.560

e8370aaa-4528-4a15-b4cf-109a6488d54b

Fluency agent.

0:40:34.570 --> 0:40:37.750

e8370aaa-4528-4a15-b4cf-109a6488d54b

Are you gonna use the fluency agent and the soybean process?

0:40:38.60 --> 0:40:38.270

Heather Darby

Well.

0:40:36.650 --> 0:40:39.660

Jeffrey Sanders

No, no, just just the fluency agent.

0:40:40.350 --> 0:40:40.650

e8370aaa-4528-4a15-b4cf-109a6488d54b

OK.

0:40:50.600 --> 0:40:50.800

Jeffrey Sanders

Yeah.

0:40:40.920 --> 0:40:52.360

Heather Darby

I mean, if we're gonna set up some trials, we'll probably look at a variety of products on the research farm, but you'd have to put more thought into that.



0:40:54.910 --> 0:41:0.430

Jeffrey Sanders

So that I think the challenge there is that it's it's essentially air pollution.

0:41:1.850 --> 0:41:5.720

Jeffrey Sanders

So you have to get set up to capture air pollution. And I'm.

0:41:5.950 --> 0:41:14.250

Jeffrey Sanders

I mean, I think, like Heather said, you have to put some, some of the studies that were done were very elaborate and how they how they measured this stuff.

0:41:15.350 --> 0:41:19.690

Jeffrey Sanders

Umm, so it's it's a it's a science unto itself.

0:41:23.520 --> 0:41:24.80

Jeffrey Sanders

Do they have?

0:41:24.170 --> 0:41:27.730

Jeffrey Sanders

They had drift fields and and look.

0:41:27.980 --> 0:41:32.250

Jeffrey Sanders

They did sampling at different distances from the field.

0:41:32.320 --> 0:41:35.330

Jeffrey Sanders

It was very those studies were very, very in depth it.

0:41:35.340 --> 0:41:36.610

Jeffrey Sanders

It was actually impressive.

0:41:36.620 --> 0:41:38.230

Jeffrey Sanders

It was the very well done.

0:41:45.990 --> 0:42:1.190

e8370aaa-4528-4a15-b4cf-109a6488d54b

So the other just in our last couple minutes that we have you guys, we were wondering about how the research is going for treated seeds first side only treated seeds in your plots.

0:42:5.870 --> 0:42:7.150

Heather Darby

Uh, let me see here.

0:42:10.330 --> 0:42:15.510

Heather Darby

Umm could ohh I'm just trying to share if you give me a second I think.

0:42:28.270 --> 0:42:30.630

Heather Darby

Oops, there we go.

0:42:32.570 --> 0:42:32.940

Heather Darby

Right.

0:42:32.950 --> 0:42:39.980

Heather Darby

So we did put out UMA number of demonstration plots and some research plots.

0:42:40.880 --> 0:42:48.920

Heather Darby

Uh, that the research facility in Alberg, we just started harvesting the corn last week.

0:42:50.40 --> 0:43:14.180

Heather Darby

So one of the things we were interested is in evaluating the impact of treated seed, uh, treated with neonics and fungicides and then another untreated plot where the seed was only treated with fungicides but not treated with neonics and it was the same variety.

0:43:14.250 --> 0:43:33.420

Heather Darby

So basically, umm neonics or not, and we planted at 5 different planting dates starting in you know early May through early June trying to pick up when.

0:43:34.810 --> 0:43:41.360

Heather Darby

I see corn maggot, adult flights and egg laying and larvae, populations.

0:43:42.280 --> 0:43:43.380

Heather Darby

Uh would be occurring.

0:43:44.420 --> 0:43:47.470

Heather Darby

So again, we started in May.

0:43:47.480 --> 0:43:50.730

Heather Darby

The first well May 10th almost the first week of May.

0:43:50.740 --> 0:44:11.300

Heather Darby

As soon as we could and we had replicated plots that were treated and untreated for replication replications of each, they were planted in a field up at the research farm that hadn't had a history of corn or neonics.

0:44:11.310 --> 0:44:13.470

Heather Darby  
Seeds sense?

0:44:13.520 --> 0:44:20.640

Heather Darby  
I wanna say about 2006 I think was the last time that corn was planted in that field.

0:44:20.650 --> 0:44:24.40

Heather Darby  
But there is corn planted all around us.

0:44:24.700 --> 0:44:33.100

Heather Darby  
Umm, so you know there is definitely neonics in the system, but not in this particular field.

0:44:34.470 --> 0:44:41.470

Heather Darby  
So we planted at a population of 33,977 plants per acre.

0:44:42.420 --> 0:44:42.880

Heather Darby  
Umm.

0:44:43.870 --> 0:44:46.710

Heather Darby  
And planted at the different planting dates.

0:44:46.720 --> 0:44:52.720

Heather Darby  
And then we went out and counted populations and looked for seed corn maggot and wire worm.

0:44:53.390 --> 0:45:5.550

Heather Darby  
We also were tracking flights seedcorn maggot adult flights to see when the populations could have been the highest. Umm.

0:45:6.200 --> 0:45:21.430

Heather Darby  
And then looking at that relationship compared to emergence and then now we're harvesting the corn to look at yields and again this is the same variety just treated or untreated with neonics.

0:45:21.520 --> 0:45:35.450

Heather Darby

Everything else was the same, so you can see umm, with the populations there, there was no significant difference in any of the planning dates and corn populations.

0:45:36.380 --> 0:45:49.770

Heather Darby

So the the highest flight fly populations that we saw was occurring during planning date two and three and there was a week between each planning date roughly umm.

0:45:50.140 --> 0:45:55.670

Heather Darby

And if folks remember, it was really cold this spring.

0:45:55.720 --> 0:46:4.590

Heather Darby

I mean, we had a pretty cool growing season in general and it took a while for the first planning date to come out of the ground.

0:46:4.600 --> 0:46:14.220

Heather Darby

You can see it took, you know about 10 days and then that time frame got substantially shorter as time went on and the ground got warmer.

0:46:15.100 --> 0:46:29.640

Heather Darby

So the populations generally also got better with later planning dates and likely that was obviously because the ground was warmer, there was less risk of loss, seed loss to, you know, different factors.

0:46:30.880 --> 0:46:43.620

Heather Darby

We did go out, obviously counted the populations and where we were missing plants we dug up to find seed to see if the seed, what the seed had been impacted by.

0:46:45.350 --> 0:46:46.340

Heather Darby

In most cases.

0:46:48.710 --> 0:46:59.260

Heather Darby

I think we've we found one wire worm, but we didn't find any other insect predation throughout the whole study, even though we were seeing high fly populations.

0:47:0.590 --> 0:47:2.720

Heather Darby

So we didn't see any difference.

0:47:2.730 --> 0:47:8.630

Heather Darby

We also had this trial out on five different farms.

0:47:8.640 --> 0:47:16.450

Heather Darby

I'm sorry for other farms across Vermont, Umm, and we also didn't see any difference in this year.

0:47:16.460 --> 0:47:39.20

Heather Darby

We did monitor fly populations at two of those sites and the fly populations at those sites peaked either well before or well after when the corn had been planted and was up, so didn't seem to pose a risk to the corn in this in this particular year. Uh.

0:47:41.80 --> 0:47:43.370

Heather Darby

The next slide I can.

0:47:46.320 --> 0:47:49.360

Heather Darby

So we just started harvesting the corn.

0:47:50.460 --> 0:47:50.900

Heather Darby

Umm.

0:47:50.960 --> 0:48:2.830

Heather Darby

We harvested the 1st and the 2nd planning date and so the first planning date we saw no difference in yields at all between the untreated and the treated.

0:48:2.840 --> 0:48:7.160

Heather Darby

And then the second planning date, we also didn't see any significant differences.

0:48:8.320 --> 0:48:8.750

Heather Darby

Umm.

0:48:8.760 --> 0:48:16.110

Heather Darby

Between the treated and the untreated, which you know made sense, the populations were, you know, virtually the same.

0:48:16.380 --> 0:48:19.170

Heather Darby

Everything else was treated treated the same.

0:48:19.600 --> 0:48:32.640

Heather Darby

We did have a little raccoon damage and the first planning date which may have impacted the overall yields, but really we weren't seeing any differences in yields.

0:48:35.470 --> 0:48:37.650

Heather Darby

Umm, I will say you know.

0:48:39.480 --> 0:48:39.960

Heather Darby

Umm.

0:48:42.560 --> 0:48:44.630

Heather Darby

This is you guys have learned about this.

0:48:44.640 --> 0:49:0.550

Heather Darby

For what a year, now that we know that seed corn maggot itself is highly, highly variable year to year, it's very attracted to fields that have, you know, green sod.

0:49:0.560 --> 0:49:2.50

Heather Darby

Let's say that got turned over.

0:49:2.60 --> 0:49:6.190

Heather Darby

Or maybe even cover crops decomposing organic matter, right?

0:49:6.200 --> 0:49:7.130

Heather Darby

There are flies.

0:49:7.340 --> 0:49:12.690

Heather Darby

They're looking for dead gross things to lay their eggs in, and then we get maggots, right?

0:49:12.700 --> 0:49:15.240

Heather Darby

I mean, that's what flies do.

0:49:15.610 --> 0:49:23.600

Heather Darby

So I will say this field had no minor application and it also did not have a cover crop or a lot of residue.

0:49:24.630 --> 0:49:35.100

Heather Darby

Umm, so it wasn't necessarily a very like the most attractive place for flies to come and lay their eggs, right?

0:49:35.110 --> 0:49:37.840

Heather Darby

They're not after the corn seed itself.

0:49:38.10 --> 0:49:42.560

Heather Darby

They're after the environment that the corn has been planted into.

0:49:43.10 --> 0:49:56.370

Heather Darby

We did have several farms that were green sod, so we thought we might see higher wireworm populations and possibly a sea corn maggots.

0:49:56.880 --> 0:50:5.130

Heather Darby

But both of those fields were no till into herbicide killed sod.

0:50:5.280 --> 0:50:15.470

Heather Darby

So the sod wasn't actually flipped over and it wasn't looking delicious to the maggot flies, right?

0:50:15.850 --> 0:50:25.770

Heather Darby

So I do think that, umm, we didn't necessarily have any highly, highly conducive environments.

0:50:26.500 --> 0:50:39.220

Heather Darby

In our study, there was minor application in at all of the farms to the fields except for one and so there was minor.

0:50:39.690 --> 0:50:48.780

Heather Darby

But you know, we did not see significant fly or maggot damage in this particular year.

0:50:50.660 --> 0:50:53.370

Heather Darby

Which we know that that's really common.

0:50:53.580 --> 0:51:7.730

Heather Darby

So there was a question I think that was sent around what's kind of termed the Halo effect, which is when there's kind of regular usage.

0:51:8.440 --> 0:51:16.770

Heather Darby

This has been documented with GMO crops, so I'm I'm not sure that it's been documented with other pesticides.

0:51:16.780 --> 0:51:27.320

Heather Darby

I have not seen it in the literature, but the Halo effect it has been reported with GMO's as an example.

0:51:28.160 --> 0:51:34.610

Heather Darby

So use of GMO corn to reduce the impact of corn.

0:51:34.620 --> 0:51:42.450

Heather Darby

Boar has had an impact on other fields that are not treated.

0:51:42.820 --> 0:51:59.180

Heather Darby

So basically, a broader use of GMO's to reduce corn bar has reduced the overall populations of the corn bar moth that flies around and impacts lots of crops.

0:52:0.210 --> 0:52:20.640

Heather Darby

So this has been documented, well documented in the literature that the use of GMO corn for corn boars has actually benefited farms that don't use GMO's because the populations overall across the landscape have been reduced.

0:52:21.540 --> 0:52:24.920

Heather Darby

And there is some, you know, hypothesis.

0:52:24.930 --> 0:52:40.30

Heather Darby

And again, I I don't believe this has been documented in the literature that because we've had, you know, broad scale use of neonics as seed treatments that it has reduced the fly populations.

0:52:40.460 --> 0:52:55.20

Heather Darby

And so that we're benefiting from that and maybe I benefited from it in this study or maybe, you know, on a farm where we did our projects, we benefited from that as well.

0:52:55.550 --> 0:53:4.340

Heather Darby

So you know, this comes up a lot, especially as you're doing research to try to figure out what the impact is.

0:53:4.950 --> 0:53:5.370

Heather Darby

Umm.

0:53:5.550 --> 0:53:11.510

Heather Darby

If there is indeed this Halo effect happening, so I just wanted to bring that up.

0:53:11.520 --> 0:53:21.390

Heather Darby



I I don't know if if anybody else has dug into this more, but I I didn't see any, you know, recent literature on this.

0:53:21.400 --> 0:53:23.420

Heather Darby

I have seen it for GMO's.

0:53:24.210 --> 0:53:26.910

Heather Darby

Umm, but not not for neonics.

0:53:28.520 --> 0:53:39.40

Heather Darby

That doesn't mean it doesn't exist, but it does cause issues when you're trying to do research and trying to evaluate you know what's the potential.

0:53:39.480 --> 0:53:46.820

Heather Darby

If we remove neonics as seed treatments, so just to put that out there.

0:53:46.100 --> 0:53:50.490

e8370aaa-4528-4a15-b4cf-109a6488d54b

Heather, are you are you planning to redo all this next year?

0:53:50.950 --> 0:53:51.520

Heather Darby

Yes.

0:53:50.550 --> 0:53:52.160

e8370aaa-4528-4a15-b4cf-109a6488d54b

To repeat it? Yeah.

0:53:51.770 --> 0:53:52.710

Heather Darby

Yep, Yep.

0:54:2.340 --> 0:54:2.450

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.

0:53:54.790 --> 0:54:4.380

Heather Darby

Yeah, I mean, we know when you're out of any could be especially with pests, you know that and it's like any year try to do an experiment with some pests.

0:54:4.390 --> 0:54:5.560

Heather Darby

You're hoping to show up?

0:54:5.570 --> 0:54:6.260

Heather Darby  
It doesn't.

0:54:7.310 --> 0:54:8.410

Heather Darby  
Like gotta keep going.

0:54:10.670 --> 0:54:17.440

Heather Darby  
In this particular year, you know it having that treated seed did not have an impact.

0:54:17.450 --> 0:54:28.250

Heather Darby  
I actually I scouted all the farms myself in the early season and the only damage I saw out there to populations was from birds.

0:54:28.970 --> 0:54:32.320

Heather Darby  
There were, you know, I found again at one site.

0:54:32.330 --> 0:54:38.210

Heather Darby  
I found one wire worm, but outside of that I didn't see much insect pressure at all.

0:54:39.970 --> 0:54:40.250

Heather Darby  
OK.

0:54:41.380 --> 0:54:51.700

Heather Darby  
Umm, we have also been looking at neonics in the soil and we are also collecting water samples as well.

0:54:51.860 --> 0:54:53.900

Heather Darby  
And also I'll talk about that next.

0:54:54.820 --> 0:55:8.680

Heather Darby  
So at this site at the research site, we went out and we collected soil in in the study area and we collected it to a 6 inch depth.

0:55:8.690 --> 0:55:27.830

Heather Darby  
And then we basically we collected them into undisturbed soil cores and then we cut the soil core from zero to 2 1/2 inches and then 2 1/2 to 6 inches to see if there were any umm neonics residuals in the soil.

0:55:28.20 --> 0:55:30.70

Heather Darby

So again, this was at the research site.

0:55:30.80 --> 0:55:44.360

Heather Darby

We have not had a corn planted there for many, many years, so from those results, this is before we planted in the top 2 1/2 inches of the soil.

0:55:44.370 --> 0:55:48.620

Heather Darby

We didn't detect any and Yonex at all.

0:55:49.50 --> 0:56:6.490

Heather Darby

And then in 75% of the samples, so not all the samples we did detect neonics in the 2 1/2 to 6 inch core at an average of 6 parts per billion, which is a very, very small amount.

0:56:6.500 --> 0:56:17.690

Heather Darby

The detectable limit is 2, so anything above 2 is reported and anything below that if not detectable.

0:56:17.700 --> 0:56:26.290

Heather Darby

So can only detect to two parts per billion, so we did see neonics and some of the samples at the research site.

0:56:26.670 --> 0:56:34.70

Heather Darby

So we have taken additional samples, we took samples a month after planting.

0:56:34.330 --> 0:56:38.110

Heather Darby

We are just took samples again after harvest.

0:56:38.500 --> 0:56:47.610

Heather Darby

We'll take samples again before we head into the winter, but but we haven't gotten those results back from the lab yet.

0:56:50.500 --> 0:56:55.710

Heather Darby

OK, so we do have another site in Saint Albans Bay.

0:56:55.760 --> 0:57:0.950

Heather Darby

That's a research site that separated into.

0:57:3.50 --> 0:57:11.240

Heather Darby

Two different types of treatments that are tiled and untilled with best management practices.

0:57:11.250 --> 0:57:28.590

Heather Darby

And, umm, and then I guess what we would consider maybe not best management practices at this point and we have been sampling soil for neonics there and we've also been sampling water.

0:57:28.600 --> 0:57:37.370

Heather Darby

So we've been sampling, we've been sampling the surface runoff and we've also been sampling the water coming out of tile.

0:57:38.410 --> 0:57:43.380

Heather Darby

We do not have any of the water samples back yet from the lab.

0:57:43.430 --> 0:57:54.940

Heather Darby

And we're, you know, we've been sampling since before planting, so we've sampled quite a few times across the season when we've had enough water to sample.

0:57:54.950 --> 0:58:3.150

Heather Darby

And of course, this has been a good year because there's been a lot of water and we'll continue to sample right at this point to the end of the season.

0:58:4.270 --> 0:58:7.180

Heather Darby

But again, we don't have any results back from the lab.

0:58:7.430 --> 0:58:12.120

Heather Darby

We do have a few of the soil results back, so I'll share those with you.

0:58:12.430 --> 0:58:20.880

Heather Darby

So again, this is a commercial dairy down in Saint Albans Bay where we have these trial set up.

0:58:20.990 --> 0:58:24.260

Heather Darby

The plots themselves are quite large.

0:58:24.270 --> 0:58:27.290

Heather Darby

You know, they're acres, so 6 to 7 acres.

0:58:27.300 --> 0:58:29.530

Heather Darby

So we're looking at a much bigger area.

0:58:30.130 --> 0:58:37.910

Heather Darby

They're replicated twice per kind of treatment, so it's a much bigger scale.

0:58:38.300 --> 0:58:40.870

Heather Darby

The research plots obviously are much smaller.

0:58:40.880 --> 0:58:45.310

Heather Darby

Those are only 10 by 20 feet, and again these are on A8 on acreage.

0:58:46.960 --> 0:58:56.690

Heather Darby

So this field has been in corn for three years and prior to that was in alfalfa for a number of years.

0:58:56.700 --> 0:58:58.780

Heather Darby

Grass alfalfa mix it was.

0:59:0.490 --> 0:59:12.720

Heather Darby

Tile and then turned into corn essentially for the trial and the field has had corn with cover crop and every year the seed has been treated with neonics.

0:59:12.730 --> 0:59:20.290

Heather Darby

This is a heavy clay soil, very poorly drained, and again we have some areas that are tilled and some that are not.

0:59:21.830 --> 0:59:34.40

Heather Darby

So this is pre plant soil samples, again from zero to 2 1/2 inches and then 2 1/2 to 6 inches.

0:59:34.210 --> 0:59:37.670

Heather Darby

And this is just showing the two different kind of watersheds.

0:59:38.510 --> 0:59:42.440

Heather Darby

Umm, there's no treatment differences at this point.

0:59:42.450 --> 0:59:46.590

Heather Darby

They're just different areas out in the the research area.

0:59:47.480 --> 1:0:3.820

Heather Darby

So this was pre planned so you can see in the top 2 1/2 inches we were detecting neonics at a very low level, but in all the samples we took again around 4 parts per billion.

1:0:4.850 --> 1:0:5.240

Heather Darby

Umm.

1:0:5.290 --> 1:0:12.160

Heather Darby

In the second watershed, there were some samples where we didn't detect any neonics, so it did vary.

1:0:12.170 --> 1:0:13.310

Heather Darby

In the second watershed.

1:0:14.240 --> 1:0:18.90

Heather Darby

Umm, deeper into the soil profile.

1:0:18.140 --> 1:0:25.700

Heather Darby

So 2 1/2 to 6 inches, the levels of neuronal were a little bit higher.

1:0:25.950 --> 1:0:30.400

Heather Darby

We haven't run any statistics on this, but slightly higher.

1:0:30.410 --> 1:0:39.600

Heather Darby

Again, still four parts per billion is very low level but detectable, but you can see the number of samples that we were seeing.

1:0:39.610 --> 1:0:42.180

Heather Darby

Neonics went down substantially, right?

1:0:42.190 --> 1:0:59.640

Heather Darby

So less than half in most cases we were detecting neonics, so this was before planting and the prior year the field had been corned and had had neonics and the prior year before that the same.

1:0:59.650 --> 1:1:2.800

Heather Darby

So there is some low levels of residual.

1:1:4.780 --> 1:1:10.310

Heather Darby

Neonics, so this is the only other results I have back at this time.

1:1:10.320 --> 1:1:16.620

Heather Darby

So this is one month after planting, and this is the samples were only taken.

1:1:18.390 --> 1:1:19.320

Heather Darby

You know, they were.

1:1:19.330 --> 1:1:20.700

Heather Darby

It was a 6 inch sample.

1:1:20.710 --> 1:1:24.20

Heather Darby

They weren't separated and you can see that.

1:1:24.840 --> 1:1:25.280

Heather Darby

Umm.

1:1:25.480 --> 1:1:35.350

Heather Darby

In most cases, we detected neonics in that 6 inches of soil at again kind of around that three to four parts per billion.

1:1:35.440 --> 1:1:48.60

Heather Darby

Not every sample had a detectable neonics, and again, the levels or really low UM and very similar to before we planted really.

1:1:49.150 --> 1:2:1.330

Heather Darby

So that's under the update on the research that we've done so far and you know more more data to come as we continue to get the soil.

1:2:3.780 --> 1:2:4.610

Heather Darby

Samples spec.

1:2:6.360 --> 1:2:6.650

Heather Darby

Alright.

1:2:6.660 --> 1:2:7.770

Heather Darby

And the water samples.

1:2:7.910 --> 1:2:9.30

Heather Darby

But we haven't gotten any yet.

1:2:12.490 --> 1:2:12.880

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Thank you.

1:2:12.890 --> 1:2:15.510

e8370aaa-4528-4a15-b4cf-109a6488d54b

Heather, you go ahead, Steve.

1:2:15.810 --> 1:2:21.970

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yes, either the so part of the project was demonstrating it on farms.

1:2:22.740 --> 1:2:23.0

Heather Darby

Yep.

1:2:23.110 --> 1:2:29.50

e8370aaa-4528-4a15-b4cf-109a6488d54b

Have you had any feedback from the farmers that you worked with on the treated versus untreated?

1:2:30.580 --> 1:2:33.160

Heather Darby

Yeah, those fields have not been harvested yet.

1:2:35.740 --> 1:2:39.250

Heather Darby

I mean, obviously this is a really tough year to tell much.

1:2:40.310 --> 1:2:40.580

e8370aaa-4528-4a15-b4cf-109a6488d54b

Umm.

1:2:39.890 --> 1:2:43.620

Heather Darby

I mean our our research plots are in really good shape.

1:2:43.630 --> 1:2:55.770

Heather Darby

You could see some most I don't even wanna show the yields cause we've had exceptional yields up on those soils, but a lot of arms, you know, they're the corn is in really, really tough shapes.



1:2:55.780 --> 1:3:0.670

Heather Darby

So you know, they have all been given the.

1:3:2.550 --> 1:3:12.260

Heather Darby

Populations, you know that there wasn't any difference in population and I, you know, honestly I think it's the least of their concerns at this point.

1:3:12.790 --> 1:3:14.120

Heather Darby

And those in any field.

1:3:15.900 --> 1:3:16.100

Heather Darby

Yeah.

1:3:15.350 --> 1:3:21.440

e8370aaa-4528-4a15-b4cf-109a6488d54b

So the yield yields are, those would be, you're recorded, you'll get the yield record.

1:3:20.910 --> 1:3:23.910

Heather Darby

The yields of those fields are not going to be recorded.

1:3:24.380 --> 1:3:26.340

e8370aaa-4528-4a15-b4cf-109a6488d54b

Ohh, they're not OK OK.

1:3:24.30 --> 1:3:32.260

Heather Darby

That was we were supposed to record it in a couple of the fields, but I mean the fields are in stuff.

1:3:32.710 --> 1:3:34.390

Heather Darby

I mean, it really tough shape.

1:3:35.940 --> 1:3:36.260

e8370aaa-4528-4a15-b4cf-109a6488d54b

OK.

1:3:35.460 --> 1:3:37.690

Heather Darby

It's not not uh.

1:3:40.280 --> 1:3:40.540

e8370aaa-4528-4a15-b4cf-109a6488d54b

OK.

1:3:39.960 --> 1:3:42.210

Heather Darby

It's not something we're going to bother people with.

1:3:42.890 --> 1:3:43.190

e8370aaa-4528-4a15-b4cf-109a6488d54b

OK.

1:3:42.360 --> 1:3:44.790

Heather Darby

It's not worth for their trouble.

1:3:44.800 --> 1:3:50.250

Heather Darby

I mean, one of the fields is practically dead and not from, not from our study.

1:3:51.280 --> 1:3:52.270

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, yeah.

1:3:50.310 --> 1:3:56.270

Heather Darby

But you know, just way, way too much water a number fields were heavy clay.

1:3:57.280 --> 1:4:2.40

Heather Darby

They're just, yeah, next year we'll revisit that.

1:4:3.240 --> 1:4:3.830

e8370aaa-4528-4a15-b4cf-109a6488d54b

OK, great.

1:4:3.840 --> 1:4:4.120

e8370aaa-4528-4a15-b4cf-109a6488d54b

Thank you.

1:4:8.100 --> 1:4:8.380

Heather Darby

Yeah.

1:4:8.390 --> 1:4:10.950

Heather Darby

And it was on on unfortunate.

1:4:10.960 --> 1:4:24.810

Heather Darby

It's been a horrible year as everybody knows, but we do have good data coming out of the research farm and umm, yeah, I think we'll, we'll definitely think about trying to.

1:4:25.340 --> 1:4:29.770

Heather Darby

We did have a cover crop there, but I think we need to make it more luscious.

1:4:31.810 --> 1:4:31.990

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.

1:4:32.270 --> 1:4:33.730

Heather Darby

For the for the bugs.

1:4:34.660 --> 1:4:35.10

e8370aaa-4528-4a15-b4cf-109a6488d54b

You.

1:4:35.510 --> 1:4:36.510

e8370aaa-4528-4a15-b4cf-109a6488d54b

Amanda has a question.

1:4:38.180 --> 1:4:38.850

Amanda St.Pierre

Yeah.

1:4:38.660 --> 1:4:39.70

Heather Darby

Amanda.

1:4:38.900 --> 1:4:39.540

Amanda St.Pierre

Thanks.

1:4:39.580 --> 1:4:40.550

Amanda St.Pierre

Hi, how are you?

1:4:41.40 --> 1:4:41.220

Heather Darby

Good.

1:4:50.350 --> 1:4:51.120

Heather Darby

Gosh, forever.

1:4:41.180 --> 1:4:55.860

Amanda St.Pierre

Just wondering, in a typical study before you guys would draw any conclusions, how many years would you wanna run this study before you guys could make a determination on impacts and?

1:4:56.920 --> 1:4:57.140

Heather Darby  
Yeah.

1:4:57.830 --> 1:5:1.570

Amanda St.Pierre  
You know that the seriousness of such impacts, et cetera, et cetera.

1:5:2.740 --> 1:5:8.110

Heather Darby  
Yeah, I mean, I would say at least four years for this type of study.

1:5:8.560 --> 1:5:10.40

Heather Darby  
I mean, any study, right?

1:5:10.50 --> 1:5:17.500

Heather Darby  
I mean, that's most researchers give it two years because that's what they get funding for, and that's what becomes publishable.

1:5:18.560 --> 1:5:27.320

Heather Darby  
Umm, but in this case with, you know, especially with insect pests and environmental influences, because they're not.

1:5:30.180 --> 1:5:33.530

Heather Darby  
You know, it's not something that we can rely on every year.

1:5:54.950 --> 1:5:55.200

e8370aaa-4528-4a15-b4cf-109a6488d54b  
No.

1:5:33.540 --> 1:6:1.390

Heather Darby  
We know that, you know, we know that already that the corn maggot is not an issue every year, but when it is, there's no rescue treatments and that you know, that's why people always treated because in the event that we have one of those years, you've hedged your wrist, there are seed corn, maggot flies every year.

1:6:1.400 --> 1:6:6.260

Heather Darby  
But whether or not the field is, you know, looks good to them.

1:6:6.310 --> 1:6:8.830

Heather Darby  
Like I said, has a lot of decaying organic matter.

1:6:9.760 --> 1:6:10.360

Heather Darby

Umm.

1:6:10.740 --> 1:6:14.940

Heather Darby

And also you know the the weather's conducive for them and the conditions.

1:6:15.990 --> 1:6:18.710

Heather Darby

Umm well, depend on if they have a major impact.

1:6:19.500 --> 1:6:21.600

Heather Darby

No, be it could.

1:6:21.130 --> 1:6:24.140

Amanda St.Pierre

When do you think you'll get the results on what you've done?

1:6:24.150 --> 1:6:26.560

Amanda St.Pierre

And then the other, the other part of it is.

1:6:26.700 --> 1:6:31.570

Amanda St.Pierre

Has anybody studied the economic impacts of when that occurs with the maggots?

1:6:33.40 --> 1:6:33.180

Heather Darby

Yes.

1:6:31.580 --> 1:6:36.240

Amanda St.Pierre

Like when that has happened in in, you know that kind of information.

1:6:36.800 --> 1:6:37.290

Heather Darby

Yes.

1:6:37.300 --> 1:6:41.100

Heather Darby

So there has been a ton of work done on seed corn maggot.

1:6:42.220 --> 1:6:50.740

Heather Darby

Umm, you know, a lot of that was has been done for years and because it has been a huge issue in the Northeast.

1:6:51.640 --> 1:6:52.150

Heather Darby

Umm.

1:6:52.160 --> 1:7:6.350

Heather Darby

Partially because of our climate and the time that we're planting and the fact that we have a lot of manure and we have rotations with sod and even in my time before, you know, we did have neuronic feed treatments.

1:7:6.410 --> 1:7:10.270

Heather Darby

I saw a number of fields that you know were completely decimated.

1:7:12.590 --> 1:7:18.860

Heather Darby

And, you know, people did use uh, you know, other planter box treatments at that time.

1:7:18.870 --> 1:7:23.580

Heather Darby

But it definitely wasn't as consistent or regular as as the seed treatments.

1:7:23.590 --> 1:7:25.50

Heather Darby

I would say so.

1:7:25.60 --> 1:7:34.210

Heather Darby

You know, there is a lot of work and there actually was just a report that came out for this year and the devastating impacts of seed corn maggot, which I can send to to people.

1:7:34.940 --> 1:7:41.950

Heather Darby

Umm, you know, there's still problematic and you know, there's still major outbreaks.

1:7:41.960 --> 1:7:46.220

Heather Darby

So you know it hasn't gone away for sure.

1:7:48.110 --> 1:7:52.700

Heather Darby

And and there have been at the economic losses are listed in those reports.

1:7:52.830 --> 1:7:55.420

Heather Darby

So I can I'll make sure to send that out to everybody.

1:7:55.430 --> 1:7:56.850

Heather Darby

I just got it a few weeks ago.

1:7:59.0 --> 1:7:59.670

e8370aaa-4528-4a15-b4cf-109a6488d54b

Think so?

1:8:3.220 --> 1:8:8.410

Heather Darby

Yeah, I mean, I we've talked about this a lot and we're not doing anything new.

1:8:8.450 --> 1:8:12.110

Heather Darby

You know the research that we're doing here is is not new.

1:8:12.120 --> 1:8:21.920

Heather Darby

We know that the pest can be a problem like nobody can refute that we know that we could see major economic losses and years where it's a huge problem.

1:8:22.590 --> 1:8:23.140

Heather Darby

Umm.

1:8:23.330 --> 1:8:31.420

Heather Darby

And we have conducive fields, you know, we do use practices that have a lot of organic matter, new organic matter.

1:8:31.430 --> 1:8:33.380

Heather Darby

That's yummy for the flies, you know?

1:8:33.390 --> 1:8:34.620

Heather Darby

Like I said, they're maggots.

1:8:34.630 --> 1:8:35.950

Heather Darby

Think about your garbage.

1:8:35.960 --> 1:8:39.360

Heather Darby

When you don't, you know it's hot out and you don't bring it to the dump.

1:8:39.370 --> 1:8:47.520

Heather Darby

You know, it's like, ohh my so that you know, that's what they're looking for is, is is dead material to lay their eggs.

1:8:47.530 --> 1:8:49.300

Heather Darby

And we have a lot of that.

1:8:49.350 --> 1:8:59.630

Heather Darby

So in certain years, especially when we have very cold springs, and I honestly I thought this year would be one of those years because we had a a cooler spring.

1:9:1.760 --> 1:9:8.570

Heather Darby

But I didn't actually see flights when a lot of people were planning their corn so.

1:9:10.520 --> 1:9:13.330

Heather Darby

Anyway, you know, we know we know seedcorn maggots.

1:9:13.340 --> 1:9:14.490

Heather Darby

An issue big issue.

1:9:14.500 --> 1:9:25.920

Heather Darby

It's hard to control and that's why I think we've been really, you know, thinking about how how to reduce those dust to begin with like that is a major issue.

1:9:25.930 --> 1:9:42.230

Heather Darby

We wanna get rid of that issue and you know from everything we've done and all the speakers that you folks have had in there, we keep thinking about the fluency agents and it it does feel like, you know, that is a really good, feasible place to start.

1:9:42.750 --> 1:9:43.310

Heather Darby

Umm.

1:9:43.760 --> 1:9:53.60

Heather Darby

And the options are already there and they bent, you know, already used widely, you know, and just north of us so.

1:9:59.880 --> 1:10:1.100

e8370aaa-4528-4a15-b4cf-109a6488d54b

Hi there, this is Stephanie.



1:10:1.110 --> 1:10:7.730

e8370aaa-4528-4a15-b4cf-109a6488d54b

Additionally, would it would access to uniform seed round seed in Vermont?

1:10:10.830 --> 1:10:11.290

Heather Darby

Umm.

1:10:7.740 --> 1:10:16.330

e8370aaa-4528-4a15-b4cf-109a6488d54b

I mean, in Vermont particularly, would that does that help in in Jeff, I think you mentioned a little bit about that, but I'm curious.

1:10:16.370 --> 1:10:17.0

Heather Darby

Yeah.

1:10:17.50 --> 1:10:21.240

Heather Darby

I mean, I think that would be difficult and every year it's different.

1:10:27.20 --> 1:10:28.20

e8370aaa-4528-4a15-b4cf-109a6488d54b

The.

1:10:21.300 --> 1:10:30.20

Heather Darby

What people have available anyway now I that would be a different lift for sure, much different.

1:10:29.930 --> 1:10:30.180

e8370aaa-4528-4a15-b4cf-109a6488d54b

OK.

1:10:31.110 --> 1:10:43.610

e8370aaa-4528-4a15-b4cf-109a6488d54b

So if you think about seed seed sizes, seed forms, just take your sweet corn here and look at your at the top part is the rounds, the middle part is the flat.

1:10:43.990 --> 1:10:48.640

e8370aaa-4528-4a15-b4cf-109a6488d54b

So you talk about what percent of an ear is your seed sizes.

1:10:49.110 --> 1:11:1.690

e8370aaa-4528-4a15-b4cf-109a6488d54b

Just think about that because you know as these corn mature there is way more flats than there are around you know we will get people that want medium rounds because supposedly that's the best flow.

1:11:1.700 --> 1:11:2.960

e8370aaa-4528-4a15-b4cf-109a6488d54b

You know, they're round, they flow.

1:11:3.460 --> 1:11:14.110

e8370aaa-4528-4a15-b4cf-109a6488d54b

We'll just think about what percent of an ear is actually round kernels and think about why it's hard to get them or they are less available.

1:11:14.740 --> 1:11:34.780

e8370aaa-4528-4a15-b4cf-109a6488d54b

See, companies do sort of, and it's not what it used to be back when there were actually plate planners, the old style plate planner, they size seed a lot tighter because those plates basically were really needed that versus this new technology or new planners don't need that quite precise.

1:11:35.40 --> 1:11:36.880

e8370aaa-4528-4a15-b4cf-109a6488d54b

So you'll get medium rounds.

1:11:36.890 --> 1:11:49.990

e8370aaa-4528-4a15-b4cf-109a6488d54b

You'll get medium flat and then you'll get either real big or real small, but if you just think about why it is what it is, it's just think about the structure of an ear and that will tell you that there's not a lot around.

1:11:54.100 --> 1:11:54.470

Heather Darby

Yeah.

1:11:54.480 --> 1:11:54.840

Heather Darby

Thank you.

1:11:54.370 --> 1:11:56.40

e8370aaa-4528-4a15-b4cf-109a6488d54b

Do the do they?

1:11:55.560 --> 1:12:19.770

Jeffrey Sanders

But and I I I think along those lines also I mean you're seeding accuracy if you have the right seed can easily be 9899% and if you put the wrong seed in the planter meaning not the right size or shape, it'll drop down to the mid 80s like it's drastic it, it falls off the table.

1:12:19.820 --> 1:12:21.490

Jeffrey Sanders

So it is.

1:12:21.630 --> 1:12:27.800

Jeffrey Sanders

It is important to address that one thing that I would add along the lines of seed.

1:12:28.420 --> 1:12:34.110

Jeffrey Sanders

Umm, people, people I know this is hard to believe, but a lot of people have already.

1:12:34.120 --> 1:12:37.450

Jeffrey Sanders

Or are currently ordering the seed for next year.

1:12:37.500 --> 1:12:47.60

Jeffrey Sanders

They don't even have the corn off their fields for this year, but they get the pricing advantages that the seed companies offer.

1:12:47.70 --> 1:12:56.650

Jeffrey Sanders

They need to have, I think their seed orders in and I don't know the exact date, but it's September 30th I think is one of the cut offs to get the biggest discount.

1:12:56.970 --> 1:13:3.390

Jeffrey Sanders

So people don't even know what they're gonna do, what they're gonna find and their fields in October.

1:13:3.400 --> 1:13:12.660

Jeffrey Sanders

And they're already ordering seed for for 2024, so logistically it it makes it makes it challenging.

1:13:19.680 --> 1:13:20.490

e8370aaa-4528-4a15-b4cf-109a6488d54b

Stars are the.

1:13:23.640 --> 1:13:33.960

e8370aaa-4528-4a15-b4cf-109a6488d54b

The airtime seaters are they more flexible with seed size and type then the the previous technology.

1:13:33.990 --> 1:13:34.370

Heather Darby

Bankers.

1:13:35.520 --> 1:13:35.740

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.

1:13:35.160 --> 1:13:42.70

Jeffrey Sanders

I I think I think it's how you set the planter up, but in general, yes, the modern planters are more robust.

1:13:42.790 --> 1:13:43.340

Jeffrey Sanders

Umm.

1:13:43.990 --> 1:13:50.190

Jeffrey Sanders

And at the very least, they they're much better at telling you when things are going wrong before you notice it.

1:13:51.100 --> 1:14:9.490

Jeffrey Sanders

So so if you send planner up with the latest technology, you it, it really will tease out the nuances in every row of corn and and it depends on how particular the farmer is as to how they address that.

1:14:9.700 --> 1:14:15.870

Jeffrey Sanders

But you know basically where every kernel corn's getting dropped on every row all the time.

1:14:16.230 --> 1:14:20.600

Jeffrey Sanders

So if things don't look like right on a row, it tells you very quickly.

1:14:23.130 --> 1:14:23.350

e8370aaa-4528-4a15-b4cf-109a6488d54b

Great.

1:14:23.360 --> 1:14:23.650

e8370aaa-4528-4a15-b4cf-109a6488d54b

Thank you.

1:14:32.30 --> 1:14:32.730

e8370aaa-4528-4a15-b4cf-109a6488d54b

No, thank you.

1:14:26.980 --> 1:14:33.660

Heather Darby

I have to jump off, so sorry you're happy to come back to another one.

1:14:34.650 --> 1:14:37.270

Heather Darby

And thanks for changing everything around for us.

1:14:38.940 --> 1:14:40.150

Heather Darby

We really appreciate it.

1:14:40.160 --> 1:14:40.900

Heather Darby

We're headed out.

1:14:43.400 --> 1:14:43.950

e8370aaa-4528-4a15-b4cf-109a6488d54b

Just thank you.

1:14:41.790 --> 1:14:43.970

Heather Darby

Yeah, few more work.

1:14:43.960 --> 1:14:45.430

e8370aaa-4528-4a15-b4cf-109a6488d54b

Very yeah.

1:14:45.440 --> 1:14:47.530

e8370aaa-4528-4a15-b4cf-109a6488d54b

Thank you very much for taking the time.

1:14:47.540 --> 1:14:48.650

e8370aaa-4528-4a15-b4cf-109a6488d54b

We greatly appreciate it.

1:14:49.830 --> 1:14:51.220

Heather Darby

Yeah, we'll pass.

1:14:49.980 --> 1:14:51.280

e8370aaa-4528-4a15-b4cf-109a6488d54b

And Heather, I'll just ping you later.

1:14:51.230 --> 1:14:53.460

Heather Darby

We'll pass on the information you need.

1:14:53.0 --> 1:14:53.630

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.

1:14:53.700 --> 1:14:55.30

e8370aaa-4528-4a15-b4cf-109a6488d54b

Perfect. Perfect.

1:14:56.220 --> 1:14:56.450

Jeffrey Sanders

Yeah.

1:14:53.470 --> 1:14:57.570

Heather Darby

Morgan and Steve and a a short write up here.

1:14:58.760 --> 1:15:2.800

Heather Darby

It's Monday, so definitely, hopefully we can do something by the end of the week.

1:15:5.130 --> 1:15:5.590  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
OK.

1:15:5.640 --> 1:15:7.230  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Thank you both very very much.

1:15:6.70 --> 1:15:7.260  
Jeffrey Sanders  
And thank you.

1:15:8.110 --> 1:15:8.460  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Thank you.

1:15:8.40 --> 1:15:8.530  
Heather Darby  
Thank you.

1:15:7.880 --> 1:15:9.10  
Jeffrey Sanders  
Alright, bye.

1:15:13.140 --> 1:15:16.250  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
So any discussion or questions I guess.

1:15:18.340 --> 1:15:19.310  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Really interesting.

1:15:19.680 --> 1:15:34.300  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
I mean, yeah, I'd like to see more years of it, but if there's no significant difference, but that's gonna have an over four years or three, three to five years we have.

1:15:34.810 --> 1:15:40.930  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
This is a two year research project that was funded by ETA and we contributed somebody for two year period.

1:15:40.940 --> 1:15:41.560  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Yeah.

1:15:41.610 --> 1:15:43.770  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
So I'm not sure what will happen after the second year.

1:15:47.810 --> 1:15:48.780  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Yeah, but it's really cool.

1:15:48.790 --> 1:15:53.10  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
I mean, that's soil sampling that she's doing and the water sampling.

1:15:53.710 --> 1:15:57.530  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Really, they're trying to get as much information as we can.

1:15:57.600 --> 1:15:57.810  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Yeah.

1:15:58.810 --> 1:16:2.280  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
And it's she doing that through the lab at Agency of Aging.

1:16:2.330 --> 1:16:7.60  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Yeah, which I need to find out why they haven't supported the results yet.

1:16:9.920 --> 1:16:10.120  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Yeah.

1:16:12.650 --> 1:16:13.750  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Well, you've had a flood.

1:16:13.890 --> 1:16:17.90  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Ohh kinds of things going on so.

1:16:22.170 --> 1:16:24.970  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
So if it's OK when you see, did you have something to say?

1:16:25.360 --> 1:16:27.10  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
But to chime in or no?

1:16:27.60 --> 1:16:28.270  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
OK, I just saw you come up.

1:16:28.280 --> 1:16:31.280  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
So I was going to.

1:16:31.290 --> 1:16:38.350  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
To change yours and pull up the feed tag label for review for members is that yeah, alright.

1:16:38.390 --> 1:16:42.520  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
OK, to me and Jonathan's gonna help me.

1:16:49.600 --> 1:16:57.60  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
So I guess, well, first, the reason why I'm pulling this up is so this is what?

1:17:1.60 --> 1:17:9.230  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
These look like as a PDF and so all I did is this writing gets really really small.

1:17:9.240 --> 1:17:10.190  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Really, really fast.

1:17:11.80 --> 1:17:15.340  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
So all I did was just clip it out into bigger pieces just so we could see it.

1:17:15.350 --> 1:17:21.200  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
So there's nothing on a slide that's not on this PDF of the label that Jonathan provided.

1:17:25.480 --> 1:17:28.370  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
I OK, so this is the top of the.

1:17:28.380 --> 1:17:32.190  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
So this is the section I'm gonna have Jonathan kind of walk us through of some things that are.

1:17:32.200 --> 1:17:42.360  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
And the reason why we're looking at this is we talked about last month about the possibility of kind of making the seed tag.

1:17:44.430 --> 1:17:51.700  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Language be required the same as the label on a pesticide is required, right?



1:17:51.710 --> 1:17:53.580  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Label is law for pesticides labeled.

1:17:53.590 --> 1:18:4.240  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
So we were kind of looking into the possibility of a of a recommendation that would have a seed tag label be the same requirement.

1:18:4.250 --> 1:18:7.700  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
So we just wanted to know what will what's on this right, if we were thinking about it.

1:18:7.710 --> 1:18:11.60  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
So it's something you wanna kind of walk through?

1:18:11.120 --> 1:18:11.680  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Yeah, sure.

1:18:11.690 --> 1:18:16.680  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Slow the top of the seat tag always indicates it's purpose.

1:18:16.690 --> 1:18:17.580  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Side tolerance.

1:18:17.870 --> 1:18:27.730  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
So that's like to say and glucosinolates which are the two active ingredients that this particular hybrid is tolerant too that can be used over the top, umm.

1:18:28.370 --> 1:18:37.240  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
And then there's the brand company brand and then the P 9498 AM is the actual hybrid variety.

1:18:37.770 --> 1:18:44.120  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
So that is what the customer when they look in the catalog, that's what they see for this particular brand.

1:18:44.130 --> 1:18:45.700  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
It's a 94 day.

1:18:46.190 --> 1:18:47.980  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
That's what the 94 represents.

1:18:47.990 --> 1:18:50.560  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
P is for like you can see the pioneer.

1:18:50.750 --> 1:18:53.160  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
So if somebody sees it can identify it.

1:18:53.410 --> 1:19:12.530  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
The 89 is a unique identifier for that day length and when we talk day like we talked CRM which is basically the corn relative maturity, 94 days is not really 94 days till it's nature it's all based on heating degree day units.

1:19:13.300 --> 1:19:20.410  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
So it's relative to wherever grown the AM is the actual trait of the corn.

1:19:20.470 --> 1:19:24.30  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
So every brand has their own unique identifier.

1:19:24.660 --> 1:19:31.680  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
This basically for this brand says it's above ground protection for insects above ground.

1:19:31.690 --> 1:19:38.820  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
It does not have root worm protection, and it also implies and in the catalog or whatever they buy.

1:19:38.830 --> 1:20:17.770  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
It also signifies that it is has those herbicide tolerance, so a producer will know that from that am that it has those herbicide tolerance and it is an above ground and it also does signify that it is a refuge and a bag because previous iterations of of that would have been XT or XTR or something else that would signify that it wasn't and they needed to provide their own refuge and you'll see when we get further down it talks about that F-14 is actually a seed size.

1:20:17.780 --> 1:20:25.330  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
So we talk about seed size that the flat and that actually is a small, every brand kind of has their own.

1:20:25.390 --> 1:20:28.160  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
But for this particular brand, that's a flat feed.

1:20:28.510 --> 1:20:43.450

e8370aaa-4528-4a15-b4cf-109a6488d54b

I don't really know what the 14 is that goes back predates me to back when we didn't have finger pickups and we didn't have vacuum or or positive pressure planner that would tell the producer that they needed inept 14 seat plate.

1:20:44.900 --> 1:21:11.770

e8370aaa-4528-4a15-b4cf-109a6488d54b

So that's, you know, you'll other a more common method nowadays is PDR PDF for this particular brand which is as you can tell round or flat and those they do like we talked about they do lump sizes a little bit more fluent together because these finger pickups, finger planners and air planners, the positive or negative have a lot more flexibility.

1:21:12.930 --> 1:21:25.380

e8370aaa-4528-4a15-b4cf-109a6488d54b

I will add that the reason that airplanes vacuum in particular have become more common is that they, there's singulation is much better, and there's much more adjustment.

1:21:25.470 --> 1:21:33.580

e8370aaa-4528-4a15-b4cf-109a6488d54b

So the planner will have the singulation brush that is designed to basically add the seed comes around on the plate, it'll readjust it.

1:21:33.650 --> 1:21:37.10

e8370aaa-4528-4a15-b4cf-109a6488d54b

It'll like cap it and the idea is the second seed.

1:21:37.20 --> 1:21:51.630

e8370aaa-4528-4a15-b4cf-109a6488d54b

That may be attached will then fall off, umm, and based on the amount of vacuum or air pressure you give, it will hold tighter to that seed so that the bigger the seed, typically the more vacuum you would need to hold that seat on.

1:21:51.830 --> 1:21:55.850

e8370aaa-4528-4a15-b4cf-109a6488d54b

Smaller than seed, you can lower the vacuum, whereas finger and plate planner.

1:21:55.860 --> 1:22:5.710

e8370aaa-4528-4a15-b4cf-109a6488d54b

The only adjustment you have is speed, and because if you think about a vacuum planner, we'll have up to 40 seeds on a single rotation.

1:22:6.80 --> 1:22:39.330

e8370aaa-4528-4a15-b4cf-109a6488d54b

A finger has about 7:00 or 9:00, so if you think about trying to get a seed every six and a quarter or six and three quarter inches, the speed, so they're not just different way of doing it or an industry preference, it really you know, when you walk a cornfield and you see two plants that are close together,

they're ear sizes are drastically smaller and a plant that's got a lot of space, you know it's sort of missed opportunity to because that year is not double the size of the one next to it.

1:22:39.380 --> 1:22:43.940

e8370aaa-4528-4a15-b4cf-109a6488d54b

So you know Jeff, comment about simulation is huge.

1:22:44.440 --> 1:22:46.400

e8370aaa-4528-4a15-b4cf-109a6488d54b

A skip is half a yield.

1:22:46.550 --> 1:22:49.650

e8370aaa-4528-4a15-b4cf-109a6488d54b

A double is 1/2 a yield at sort of a factor.

1:22:49.660 --> 1:23:5.530

e8370aaa-4528-4a15-b4cf-109a6488d54b

If you want to think about how it plays out and then the manufacturer provides uh umm, a bar code, so in a lot of reps or dealers can just scan that and get that information.

1:23:5.540 --> 1:23:7.810

e8370aaa-4528-4a15-b4cf-109a6488d54b

Farmers can actually use their smartphone.

1:23:8.0 --> 1:23:18.910

e8370aaa-4528-4a15-b4cf-109a6488d54b

Take a picture of that bar code and it will give them starting points of what vacuum pressure based on their planner the make the model the type of meter they're using.

1:23:19.180 --> 1:23:34.240

e8370aaa-4528-4a15-b4cf-109a6488d54b

They can pull that up on their phone using an app and actually know some initial settings to get started so that when they start with this new variety from a different one, they can change their settings and then they can fine tune it as they need to.

1:23:34.730 --> 1:23:36.900

e8370aaa-4528-4a15-b4cf-109a6488d54b

But that's why there is a barcode there.

1:23:36.910 --> 1:23:50.50

e8370aaa-4528-4a15-b4cf-109a6488d54b

Is it's like a QR code or whatever on your phone, and then there's the material, the batch number and you'll see under the material it listed the variety again.

1:23:50.170 --> 1:24:1.510

e8370aaa-4528-4a15-b4cf-109a6488d54b

And then that N IO7 is just a unique identifier for seed size, location of origin, winter production, what market it was meant for?

1:24:1.840 --> 1:24:11.750

e8370aaa-4528-4a15-b4cf-109a6488d54b

It's just not something that growers typically need to worry about, but the the reps or the dealers or handling this, it's another form of tracking.

1:24:12.260 --> 1:24:18.990

e8370aaa-4528-4a15-b4cf-109a6488d54b

Not only do they track the batch that comes in, but that batch is also unique identifier for those types of situations.

1:24:20.760 --> 1:24:26.20

e8370aaa-4528-4a15-b4cf-109a6488d54b

It also lot number the tested for germ when it was tested.

1:24:26.780 --> 1:24:27.360

e8370aaa-4528-4a15-b4cf-109a6488d54b

Umm.

1:24:28.440 --> 1:24:29.690

e8370aaa-4528-4a15-b4cf-109a6488d54b

Kernels per unit.

1:24:29.950 --> 1:24:34.730

e8370aaa-4528-4a15-b4cf-109a6488d54b

Unless you have really big corn seed, that's always gonna be 80,000.

1:24:34.740 --> 1:24:37.280

e8370aaa-4528-4a15-b4cf-109a6488d54b

That's sort of the industry standard for a unit.

1:24:39.210 --> 1:24:56.820

e8370aaa-4528-4a15-b4cf-109a6488d54b

And then when you get down below that, the reason there are two varieties listed is the main variety, which is 95% of the mix and the germ for that particular and where it was grown, that is the predominant seed they're buying.

1:24:57.230 --> 1:25:10.210

e8370aaa-4528-4a15-b4cf-109a6488d54b

But due to refuge protection of the technology, ensuring we don't get resistance, there is 5% of another variety that the seed company chooses.

1:25:10.500 --> 1:25:13.930

e8370aaa-4528-4a15-b4cf-109a6488d54b

So it's still has the herbicide tolerance.

1:25:13.940 --> 1:25:23.130

e8370aaa-4528-4a15-b4cf-109a6488d54b

So when you put the herbicide across the field, it's not killing 5% of the stand, but it does not have the same insect protection.

1:25:23.140 --> 1:25:32.750

e8370aaa-4528-4a15-b4cf-109a6488d54b

So give that refuge area so that you don't build resistance to the technology and you'll see that's 5% of it still has a 95% germ.

1:25:32.760 --> 1:25:53.380

e8370aaa-4528-4a15-b4cf-109a6488d54b

And typically the industry, whether it is actually that variety without the insect tree or it's another variety that is of similar stature, size, whatever that's provided, trying to have a question for that, is it no insect protection or different?

1:25:55.220 --> 1:26:5.660

e8370aaa-4528-4a15-b4cf-109a6488d54b

You know, so it varies somewhat on the typically I think it doesn't have it or it has a different mode of action.

1:26:5.670 --> 1:26:6.20

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.

1:26:6.70 --> 1:26:28.20

e8370aaa-4528-4a15-b4cf-109a6488d54b

So every company is a little different and how they structure it, but it's all I think EPA or that there is a larger entity that allows them to not have to plant the 20% because prior to this, if you didn't have it in a bag, you had to have 80% of your seat could have the full trace and then 20% had to have no insect trade.

1:26:28.170 --> 1:26:35.710

e8370aaa-4528-4a15-b4cf-109a6488d54b

And basically they felt like it wasn't necessarily being followed very well, even though it was producers signed it in their tech agreement.

1:26:36.740 --> 1:26:48.220

e8370aaa-4528-4a15-b4cf-109a6488d54b

So this ensures that 5% of that can harbor and host that insect and not just select resistant genes in that population.

1:26:51.130 --> 1:26:52.800

e8370aaa-4528-4a15-b4cf-109a6488d54b

And then there's the rest of it.

1:26:52.810 --> 1:26:53.940

e8370aaa-4528-4a15-b4cf-109a6488d54b

The noxious weeds.

1:26:53.950 --> 1:27:8.620

e8370aaa-4528-4a15-b4cf-109a6488d54b

All that other kind of stuff is pretty generic to any kind of certified seed, whether it be your lawn seed, grass seed, any weed, small seed, whatever, all that stuff they have to list as pure seed inert material.

1:27:8.710 --> 1:27:11.900

e8370aaa-4528-4a15-b4cf-109a6488d54b

If there is precedence of noxious weeds, umm.

1:27:12.140 --> 1:27:14.850

e8370aaa-4528-4a15-b4cf-109a6488d54b

And then they're basically begins.

1:27:14.900 --> 1:27:17.430

e8370aaa-4528-4a15-b4cf-109a6488d54b

After that, the lawyer parts.

1:27:18.630 --> 1:27:20.160

e8370aaa-4528-4a15-b4cf-109a6488d54b

I'm what's the word?

1:27:21.360 --> 1:27:42.170

e8370aaa-4528-4a15-b4cf-109a6488d54b

And basically some of it is protection of licensing, ensuring that these producers who buy this understand the tech and service agreements they're signing and then at the bottom it uses the brand names or common brand names of the products that are listed above.

1:27:42.220 --> 1:28:0.170

e8370aaa-4528-4a15-b4cf-109a6488d54b

So glyphosate, you know, the generic product is Roundup and glyphosate, the generic or the branded product is liberty or the trade is branded as Liberty Link and the trade that provides the service that they tolerances round of ready to gene.

1:28:0.540 --> 1:28:4.680

e8370aaa-4528-4a15-b4cf-109a6488d54b

So I assume this has to do with the licensing and everything else.

1:28:5.170 --> 1:28:6.560

e8370aaa-4528-4a15-b4cf-109a6488d54b

Codes tricks.

1:28:7.370 --> 1:28:8.770

e8370aaa-4528-4a15-b4cf-109a6488d54b

How common is?

1:28:12.140 --> 1:28:17.810

e8370aaa-4528-4a15-b4cf-109a6488d54b

Over the top life estate or the prostate treatments is that pretty common practice?

1:28:17.960 --> 1:28:20.90  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Yeah, yeah, yeah.

1:28:20.190 --> 1:28:20.440  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
What?

1:28:20.450 --> 1:28:21.640  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
What stage it do that?

1:28:22.540 --> 1:28:28.420  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
So it depends on the program for their herbicide, some it will be.

1:28:30.770 --> 1:28:32.840  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
A pre when the corn is even up.

1:28:32.850 --> 1:28:47.160  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
If they're doing no till and they need to have a clean stand to, sometimes people wait and they will let a small flush of the weeds come through after when the corn emerges and they'll go over the top with that and some residual.

1:28:47.750 --> 1:29:4.150  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
I would say there is very little to none, just straight by bus and it was like to say application, it's usually always in combination with some kind of other residual because Roundup has no soil activity, right?

1:29:4.160 --> 1:29:6.750  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Basically it's soil and it has no activity.

1:29:6.760 --> 1:29:9.480  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
So broadly purpose side plus the plus.

1:29:9.490 --> 1:29:10.500  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Yeah, and roundup.

1:29:10.510 --> 1:29:16.210  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Be honest with you is not super effective on on any kind of broadleaf that has any size to it.

1:29:16.550 --> 1:29:47.80  
e8370aaa-4528-4a15-b4cf-109a6488d54b



It basically you know, I mean, I'm sure if you've ever used it on your lawn or any other situations, will you such small rates that it it it may kind of just singing a little bit but can grow right through it first developed at least ragweed some of those umm more common it's not that it's tolerant to it because you can if you up your rates or you put more on so the effectiveness you know it's really just partnering it with other active modes of action really is what it is. OK.

1:29:49.120 --> 1:29:56.100

e8370aaa-4528-4a15-b4cf-109a6488d54b

How accurate is the 18,000 kernels for bag as accurate as the pound feet per pound?

1:29:56.150 --> 1:29:57.40

e8370aaa-4528-4a15-b4cf-109a6488d54b

OK.

1:29:57.210 --> 1:30:0.160

e8370aaa-4528-4a15-b4cf-109a6488d54b

I mean, I I don't have that job to count.

1:30:0.170 --> 1:30:3.320

e8370aaa-4528-4a15-b4cf-109a6488d54b

How many seats are found and then delineate that out?

1:30:3.330 --> 1:30:12.650

e8370aaa-4528-4a15-b4cf-109a6488d54b

But, but I'm sure that's what it is because, you know, I think when you get in here, there is a pounds per seat per pound.

1:30:13.210 --> 1:30:14.840

e8370aaa-4528-4a15-b4cf-109a6488d54b

Umm somewhere.

1:30:14.850 --> 1:30:16.800

e8370aaa-4528-4a15-b4cf-109a6488d54b

Either when you look up the actual.

1:30:17.800 --> 1:30:21.0

e8370aaa-4528-4a15-b4cf-109a6488d54b

Ohh information on the on your app or whatever.

1:30:23.50 --> 1:30:25.490

e8370aaa-4528-4a15-b4cf-109a6488d54b

And that's how they delineate these.

1:30:27.220 --> 1:30:27.950

e8370aaa-4528-4a15-b4cf-109a6488d54b

Seats per bag.

1:30:33.60 --> 1:30:35.570

e8370aaa-4528-4a15-b4cf-109a6488d54b

Umm I had a question.

1:30:35.580 --> 1:30:36.580

e8370aaa-4528-4a15-b4cf-109a6488d54b

I don't know if I'm putting.

1:30:36.590 --> 1:30:36.910

e8370aaa-4528-4a15-b4cf-109a6488d54b

Definitely.

1:30:36.920 --> 1:30:39.800

e8370aaa-4528-4a15-b4cf-109a6488d54b

You're kill you on the spot, but does it mean anything to you?

1:30:39.810 --> 1:30:45.720

e8370aaa-4528-4a15-b4cf-109a6488d54b

The the statement that said the seat is a mixture under the state laws of so.

1:30:45.730 --> 1:30:53.980

e8370aaa-4528-4a15-b4cf-109a6488d54b

So that list of states, do you have any idea of why those states would have a specific call out of something?

1:30:55.890 --> 1:30:56.780

e8370aaa-4528-4a15-b4cf-109a6488d54b

I'd have to look into it.

1:30:56.790 --> 1:30:57.320

e8370aaa-4528-4a15-b4cf-109a6488d54b

I don't know.

1:30:57.330 --> 1:30:58.140

e8370aaa-4528-4a15-b4cf-109a6488d54b

I I don't know.

1:30:58.150 --> 1:31:0.910

e8370aaa-4528-4a15-b4cf-109a6488d54b

It's just something I don't mean to really put you on the spot by that.

1:31:3.680 --> 1:31:5.570

e8370aaa-4528-4a15-b4cf-109a6488d54b

Umm, thank you John.

1:31:5.580 --> 1:31:6.300

e8370aaa-4528-4a15-b4cf-109a6488d54b

So as you go.

1:31:8.290 --> 1:31:8.880

e8370aaa-4528-4a15-b4cf-109a6488d54b

Down.

1:31:8.890 --> 1:31:11.160

e8370aaa-4528-4a15-b4cf-109a6488d54b

So now we're going down that what's on the label.

1:31:11.170 --> 1:31:14.920

e8370aaa-4528-4a15-b4cf-109a6488d54b

So this is the next thing on the label.

1:31:15.470 --> 1:31:38.300

e8370aaa-4528-4a15-b4cf-109a6488d54b

Do you wanna keep going, John or like so I guess on the second page or maybe it's even on the bottom of the first page, it does say the that this seed is treated when you talk about the optimum acre Mac that is a branded name that this seed company uses for their above ground protection ohm.

1:31:39.360 --> 1:31:53.90

e8370aaa-4528-4a15-b4cf-109a6488d54b

So that is unique by the company is just something they branded to make it easier for producers to know that acre Max is above ground acre Max, Extra is above ground and below ground.

1:31:53.100 --> 1:31:56.730

e8370aaa-4528-4a15-b4cf-109a6488d54b

So that's kind of an example of the difference you come see.

1:31:56.740 --> 1:32:3.780

e8370aaa-4528-4a15-b4cf-109a6488d54b

Companies will use delineated and then when next below that is the fungicides like nematodes.

1:32:3.790 --> 1:32:13.760

e8370aaa-4528-4a15-b4cf-109a6488d54b

Each treatment lumagen is this company's brand for the mixture that they use that they put on their seed.

1:32:13.770 --> 1:32:23.340

e8370aaa-4528-4a15-b4cf-109a6488d54b

So you can get varying rates of this lumazine depending on whether you want 2:50 or 12:50 treatment, depending on what you're after.

1:32:23.930 --> 1:32:35.400

e8370aaa-4528-4a15-b4cf-109a6488d54b

If you want if this variety only comes and it's just above ground, but you know you have root worm issues, then you can get the higher rate of the sea treatment.

1:32:35.470 --> 1:32:40.990

e8370aaa-4528-4a15-b4cf-109a6488d54b

If not, then it's an extra cost so people are not getting that.

1:32:41.0 --> 1:32:42.150  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Just get that.

1:32:42.160 --> 1:32:43.790  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
It's not a blanket thing.

1:32:44.740 --> 1:32:45.250  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
So.

1:32:45.680 --> 1:32:46.580  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
So that's what that means.

1:32:49.0 --> 1:32:49.230  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Umm.

1:32:49.240 --> 1:32:52.60  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
And also I think I'm answering my own question from before.

1:32:52.70 --> 1:32:56.350  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
So this actually so the major component is like the 95%, right?

1:32:56.360 --> 1:32:59.430  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
That's what they mean by major component and then the refuge component.

1:32:59.520 --> 1:33:7.130  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
So this is saying the refuge component for it's exercise actually has copy and and and it had a higher rate.

1:33:8.750 --> 1:33:9.860  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Right, I'm reading that right.

1:33:9.930 --> 1:33:28.120  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Yeah, but it doesn't have the chlorine Anila flooring and there's typically a difference in the color of feed to the producer knows that there's a difference in the major component in this company is pink and the refuge is purple.

1:33:29.480 --> 1:33:29.950  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
The seeds.

1:33:29.960 --> 1:33:31.440

e8370aaa-4528-4a15-b4cf-109a6488d54b

So you can see the mix.

1:33:33.110 --> 1:33:49.50

e8370aaa-4528-4a15-b4cf-109a6488d54b

So the terms of the rates that are reported here ohm where it says .0033 pounds AI is that for the bag with all 80,000 seeds or is that for the?

1:33:50.780 --> 1:33:52.190

e8370aaa-4528-4a15-b4cf-109a6488d54b

Individual seeds.

1:33:52.500 --> 1:33:59.50

e8370aaa-4528-4a15-b4cf-109a6488d54b

I think those first ones go with that first parenthetical all for 80,000 seats, but that but.

1:33:59.60 --> 1:34:0.230

e8370aaa-4528-4a15-b4cf-109a6488d54b

But is that like the?

1:34:0.270 --> 1:34:6.570

e8370aaa-4528-4a15-b4cf-109a6488d54b

So that's the amount that's in the bag .003 pounds of AI.

1:34:8.780 --> 1:34:9.260

e8370aaa-4528-4a15-b4cf-109a6488d54b

Understand.

1:34:9.490 --> 1:34:16.750

e8370aaa-4528-4a15-b4cf-109a6488d54b

I mean, I understand the clothianidin is .25 milligrams per seed and look orange and alcohol is .25.

1:34:16.940 --> 1:34:24.150

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, because they're referring it to pounds of active in that major component versus milligrams per seat.

1:34:27.870 --> 1:34:28.450

e8370aaa-4528-4a15-b4cf-109a6488d54b

About here.

1:34:30.470 --> 1:34:31.590

e8370aaa-4528-4a15-b4cf-109a6488d54b

You can be the math guy.

1:34:31.600 --> 1:34:32.150

e8370aaa-4528-4a15-b4cf-109a6488d54b

I will try.

1:34:36.930 --> 1:35:9.810

e8370aaa-4528-4a15-b4cf-109a6488d54b

So now we're getting more into the smaller print, going down the label and this is where and some of the mandatory language of that first, umm, all caps raised, caution treated seeds do not use treated seed for feed, food or oil purposes at the mandatory label statement not allow children pets or livestock to have access to treat scene since they're away from food and feed stuff and do not use an MPC back or any other.

1:35:11.130 --> 1:35:13.330

e8370aaa-4528-4a15-b4cf-109a6488d54b

Umm other things?

1:35:15.670 --> 1:35:23.0

e8370aaa-4528-4a15-b4cf-109a6488d54b

Uh, that I just underline here that I thought were things that we were thinking of.

1:35:23.10 --> 1:35:26.690

e8370aaa-4528-4a15-b4cf-109a6488d54b

There is some PPP PPE called out.

1:35:29.960 --> 1:35:40.900

e8370aaa-4528-4a15-b4cf-109a6488d54b

For people who are using it, even specifically calling out types of chemical resistant gloves that I recommended.

1:35:42.710 --> 1:36:3.20

e8370aaa-4528-4a15-b4cf-109a6488d54b

And then it does have kind of environmental statement and we learned about this when we were talking about the valuations for Munich and the that EPA did about the toxicity to birds and mammals being a risk that they.

1:36:5.180 --> 1:36:7.450

e8370aaa-4528-4a15-b4cf-109a6488d54b

Called out and needing mitigation measures.

1:36:7.460 --> 1:36:10.700

e8370aaa-4528-4a15-b4cf-109a6488d54b

And so this is calling out compound toxic to birds and mammals.

1:36:10.710 --> 1:36:11.960

e8370aaa-4528-4a15-b4cf-109a6488d54b

And that's from ingestion.

1:36:13.660 --> 1:36:14.270

e8370aaa-4528-4a15-b4cf-109a6488d54b

Umm.

1:36:14.520 --> 1:36:22.120

e8370aaa-4528-4a15-b4cf-109a6488d54b

And so then all of those seats after that mean terms after that are about don't leave it out on the surface of the soil.

1:36:24.150 --> 1:36:34.190

e8370aaa-4528-4a15-b4cf-109a6488d54b

It does have some statements in there to reduce seed dust, ensure the planting equipment is functioning properly in cording with the manufacturers recommendations.

1:36:35.540 --> 1:36:35.800

e8370aaa-4528-4a15-b4cf-109a6488d54b

Uh.

1:36:37.360 --> 1:36:40.190

e8370aaa-4528-4a15-b4cf-109a6488d54b

The plant treated seed and just soil to the recommended minimum depth.

1:36:43.880 --> 1:36:47.270

e8370aaa-4528-4a15-b4cf-109a6488d54b

Don't broadcast, not plant by broadcasting on the soil surface.

1:36:49.310 --> 1:36:50.350

e8370aaa-4528-4a15-b4cf-109a6488d54b

They're really incorporated.

1:36:53.220 --> 1:36:59.440

e8370aaa-4528-4a15-b4cf-109a6488d54b

Cover a collect treated seeds build during loading so these are some of the things that we also saw in our list of VMPS.

1:36:59.510 --> 1:37:6.140

e8370aaa-4528-4a15-b4cf-109a6488d54b

So I was trying to call like this box is basically all those BMPS that we saw in our our spreadsheet.

1:37:8.360 --> 1:37:12.560

e8370aaa-4528-4a15-b4cf-109a6488d54b

Including do not contaminate water bodies when disposing of planting equipment wash waters.

1:37:14.600 --> 1:37:18.40

e8370aaa-4528-4a15-b4cf-109a6488d54b

So these things are on here and then the next line is this pollinators.

1:37:19.380 --> 1:37:20.40

e8370aaa-4528-4a15-b4cf-109a6488d54b

Uh.

1:37:20.540 --> 1:37:25.130

e8370aaa-4528-4a15-b4cf-109a6488d54b

For language, so compounds in this product are highly toxic to bees.

1:37:27.450 --> 1:37:30.110

e8370aaa-4528-4a15-b4cf-109a6488d54b

It was directly ensure that plenty equipment functioning properly.

1:37:32.670 --> 1:37:36.860

e8370aaa-4528-4a15-b4cf-109a6488d54b

It does say minimize seed, coat abrasion.

1:37:40.370 --> 1:37:42.120

e8370aaa-4528-4a15-b4cf-109a6488d54b

And then it goes into.

1:37:46.520 --> 1:37:51.880

e8370aaa-4528-4a15-b4cf-109a6488d54b

It does have a restricted entry interval for it console.

1:37:53.60 --> 1:38:0.580

e8370aaa-4528-4a15-b4cf-109a6488d54b

I'm supposed, after she's have been planted, do not allow or allow worker entry into treated areas during the restricted entry interval of 12 hours.

1:38:6.560 --> 1:38:10.280

e8370aaa-4528-4a15-b4cf-109a6488d54b

So other advisory statements in your groundwater.

1:38:13.270 --> 1:38:14.860

e8370aaa-4528-4a15-b4cf-109a6488d54b

So see, treatments are known.

1:38:16.60 --> 1:38:25.490

e8370aaa-4528-4a15-b4cf-109a6488d54b

So each through soil into groundwater, so a lot of I guess I don't really need to call this out this in the meeting materials, but it's just something for us.

1:38:25.500 --> 1:38:32.820

e8370aaa-4528-4a15-b4cf-109a6488d54b

We wanted to look at and I guess my personal takeaway is that a lot of the BMPS are actually listed on this label.

1:38:35.90 --> 1:38:39.220

e8370aaa-4528-4a15-b4cf-109a6488d54b

Is this a big, big, consistent example of all ctags like all ctags?

1:38:39.350 --> 1:38:42.610

e8370aaa-4528-4a15-b4cf-109a6488d54b

So I have a second one, OK, that still said so.



1:38:44.570 --> 1:38:46.530

e8370aaa-4528-4a15-b4cf-109a6488d54b

So it does have a restriction on here for.

1:38:48.570 --> 1:38:55.260

e8370aaa-4528-4a15-b4cf-109a6488d54b

Like a rate restriction, so don't apply for clothianidin more than .1 pounds of active ingredient per acre per year.

1:38:55.270 --> 1:38:58.490

e8370aaa-4528-4a15-b4cf-109a6488d54b

So they're trying to say that this is counts towards that.

1:39:5.40 --> 1:39:12.80

e8370aaa-4528-4a15-b4cf-109a6488d54b

And then there's a bunch of grazing and plant back, which we were talking about plant back I think last month.

1:39:12.590 --> 1:39:20.250

e8370aaa-4528-4a15-b4cf-109a6488d54b

So it just really calls out any restrictions for planting specific crap.

1:39:22.260 --> 1:39:22.480

e8370aaa-4528-4a15-b4cf-109a6488d54b

Then.

1:39:24.830 --> 1:39:27.750

e8370aaa-4528-4a15-b4cf-109a6488d54b

This is at the bottom of the statement of the label.

1:39:29.990 --> 1:39:30.670

e8370aaa-4528-4a15-b4cf-109a6488d54b

And.

1:39:32.540 --> 1:39:42.20

e8370aaa-4528-4a15-b4cf-109a6488d54b

It I think it's talking about the protection of the technology, but then also disclaimers about the technology, right.

1:39:42.500 --> 1:39:44.480

e8370aaa-4528-4a15-b4cf-109a6488d54b

So you must find the technology use agreement.

1:39:45.410 --> 1:39:46.80

e8370aaa-4528-4a15-b4cf-109a6488d54b

Don't let me down.

1:39:46.90 --> 1:39:55.560

e8370aaa-4528-4a15-b4cf-109a6488d54b

Then you can explain that like to buy it you have to sign it to you or to eat, or I don't know what the exact terminology you.

1:39:55.610 --> 1:40:8.460

e8370aaa-4528-4a15-b4cf-109a6488d54b

I mean, before we take it to the grower, we have to make sure that there's going to be some file and it can be it's not specific to brands, it's specific across the industry.

1:40:8.470 --> 1:40:16.400

e8370aaa-4528-4a15-b4cf-109a6488d54b

They have taken this tech use agreement and made it across the industry, so there is places online you can go sign it.

1:40:16.610 --> 1:40:22.80

e8370aaa-4528-4a15-b4cf-109a6488d54b

So if you grow two different brands, as long as you've got one sign, you're fine.

1:40:23.700 --> 1:40:25.420

e8370aaa-4528-4a15-b4cf-109a6488d54b

OK, OK.

1:40:25.570 --> 1:40:27.610

e8370aaa-4528-4a15-b4cf-109a6488d54b

Another question just on the previous slide.

1:40:27.690 --> 1:40:27.800

e8370aaa-4528-4a15-b4cf-109a6488d54b

But.

1:40:29.870 --> 1:40:33.30

e8370aaa-4528-4a15-b4cf-109a6488d54b

Of the plant back is.

1:40:33.100 --> 1:40:34.310

e8370aaa-4528-4a15-b4cf-109a6488d54b

Is that all?

1:40:34.320 --> 1:40:44.220

e8370aaa-4528-4a15-b4cf-109a6488d54b

All of the crops and things that are listed there are those things that would just not grow based on the half life of what was no OK, gotcha.

1:40:44.230 --> 1:40:52.470

e8370aaa-4528-4a15-b4cf-109a6488d54b

It has to do with residues in food, so it's purely for safety of human consumption type food going forth.

1:40:52.480 --> 1:41:7.640

e8370aaa-4528-4a15-b4cf-109a6488d54b

So these thing yeah, EPS establishes a tolerance in food crops or crops because of that poison would go

through and like us and be talking right, they just they would they either happen either would exceed the tolerance or they just haven't.

1:41:8.690 --> 1:41:9.100

e8370aaa-4528-4a15-b4cf-109a6488d54b

It's done.

1:41:9.110 --> 1:41:11.910

e8370aaa-4528-4a15-b4cf-109a6488d54b

The studies and a lot of times past.

1:41:12.490 --> 1:41:16.520

e8370aaa-4528-4a15-b4cf-109a6488d54b

That's why companies just don't wanna spend the money to do the study.

1:41:16.530 --> 1:41:18.460

e8370aaa-4528-4a15-b4cf-109a6488d54b

That would take you to get the tolerance.

1:41:18.470 --> 1:41:18.670

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.

1:41:18.680 --> 1:41:19.30

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.

1:41:19.80 --> 1:41:24.230

e8370aaa-4528-4a15-b4cf-109a6488d54b

So they just say don't do it, so they don't have to go spend them several \$1,000,000 developing the tolerance.

1:41:24.410 --> 1:41:29.40

e8370aaa-4528-4a15-b4cf-109a6488d54b

So I don't know if the case on this one, whether it has, they have tolerances or it would exceed the tolerance.

1:41:29.330 --> 1:41:31.700

e8370aaa-4528-4a15-b4cf-109a6488d54b

It sounds like it would create toxic food.

1:41:32.10 --> 1:41:39.780

e8370aaa-4528-4a15-b4cf-109a6488d54b

Well, people based on what I'm reading here is just we couldn't grow anything in the show cuz it would create off the plants.

1:41:39.860 --> 1:41:46.920

e8370aaa-4528-4a15-b4cf-109a6488d54b

Well, I suspect in this case they just didn't want to spend the money on the study for this particular use case because it didn't.

1:41:47.80 --> 1:41:47.660

e8370aaa-4528-4a15-b4cf-109a6488d54b

It wouldn't.

1:41:48.80 --> 1:42:2.950

e8370aaa-4528-4a15-b4cf-109a6488d54b

You know, it was either exceeded tolerance that's been established by FDA or they didn't want to develop this study to get the tolerance because there's a study that have to do to get the tolerance on us or anything you want to add to that, most of them are like 30 days using.

1:42:2.960 --> 1:42:3.410

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.

1:42:3.420 --> 1:42:8.410

e8370aaa-4528-4a15-b4cf-109a6488d54b

So 30 days and sugar cane is 8 months and then basically anything they don't tell you.

1:42:10.490 --> 1:42:12.340

e8370aaa-4528-4a15-b4cf-109a6488d54b

Don't do it in 12 months, right?

1:42:12.350 --> 1:42:14.460

e8370aaa-4528-4a15-b4cf-109a6488d54b

I mean, that's kind of their blanket cover.

1:42:14.610 --> 1:42:15.700

e8370aaa-4528-4a15-b4cf-109a6488d54b

OK, got coverage.

1:42:15.750 --> 1:42:17.170

e8370aaa-4528-4a15-b4cf-109a6488d54b

No, just trying to understand that.

1:42:17.180 --> 1:42:17.620

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.

1:42:17.670 --> 1:42:17.900

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.

1:42:17.910 --> 1:42:19.320

e8370aaa-4528-4a15-b4cf-109a6488d54b

So, Sir, anything you want to add to that?

1:42:19.330 --> 1:42:19.940

e8370aaa-4528-4a15-b4cf-109a6488d54b

It's just kind of.

1:42:20.770 --> 1:42:37.480

e8370aaa-4528-4a15-b4cf-109a6488d54b

I mean, I think you're you're kind of reading the other side of what they're saying, but I'm not sure that's how the, you know, talking about the EPA, read the the documents the EPA produces that says, you know, Steve is saying there can be this much pesticide on this type of food.

1:42:40.230 --> 1:42:44.160

e8370aaa-4528-4a15-b4cf-109a6488d54b

I don't know if EPA would agree that growing it would make toxic food.

1:42:44.210 --> 1:42:46.30

e8370aaa-4528-4a15-b4cf-109a6488d54b

I don't think that's how they would interpret that.

1:42:49.310 --> 1:42:52.630

e8370aaa-4528-4a15-b4cf-109a6488d54b

They would say they can't approve the tolerance, right?

1:42:53.320 --> 1:42:58.180

e8370aaa-4528-4a15-b4cf-109a6488d54b

But, but usually the tolerances I mean they they do a margin of exposure.

1:42:58.190 --> 1:43:0.70

e8370aaa-4528-4a15-b4cf-109a6488d54b

So they try to account for.

1:43:0.920 --> 1:43:4.290

e8370aaa-4528-4a15-b4cf-109a6488d54b

I mean, I always give the example of a risk cup like a measuring cup.

1:43:4.300 --> 1:43:10.810

e8370aaa-4528-4a15-b4cf-109a6488d54b

So for any chemical that has noncancer effects, you don't want to fill up your cup right?

1:43:10.820 --> 1:43:23.970

e8370aaa-4528-4a15-b4cf-109a6488d54b

Whether it's from the stuff you put your pet or the stuff that's sprayed on your food, so they usually try to keep the cup, not all those you know, not like ready to overflow, right?

1:43:23.980 --> 1:43:29.40

e8370aaa-4528-4a15-b4cf-109a6488d54b

If your risk cup is pretty much full, it's the can't out of use. Yeah.

1:43:29.50 --> 1:43:30.750

e8370aaa-4528-4a15-b4cf-109a6488d54b

So you don't want exposure?

1:43:30.860 --> 1:43:31.130

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.

1:43:31.140 --> 1:43:35.970

e8370aaa-4528-4a15-b4cf-109a6488d54b

With the margin of exposures, they usually try to keep your cup 10 or 100 fold.

1:43:37.240 --> 1:43:40.780

e8370aaa-4528-4a15-b4cf-109a6488d54b

You know, attempt full from what I've read.

1:43:42.710 --> 1:43:45.180

e8370aaa-4528-4a15-b4cf-109a6488d54b

So it's just the 10th of poison exposure.

1:43:45.230 --> 1:43:52.60

e8370aaa-4528-4a15-b4cf-109a6488d54b

So it's not 100% God, they give you more margin of error right to the margin of safety or you want to call it.

1:43:52.250 --> 1:43:52.590

e8370aaa-4528-4a15-b4cf-109a6488d54b

So yeah.

1:43:54.340 --> 1:43:54.710

e8370aaa-4528-4a15-b4cf-109a6488d54b

Good.

1:43:56.840 --> 1:43:57.0

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.

1:43:59.30 --> 1:44:5.840

e8370aaa-4528-4a15-b4cf-109a6488d54b

But the point is there are restrictions on the use that are enforceable for.

1:44:8.290 --> 1:44:10.570

e8370aaa-4528-4a15-b4cf-109a6488d54b

The purposes of using these seeds.

1:44:13.480 --> 1:44:15.450

e8370aaa-4528-4a15-b4cf-109a6488d54b

And this is only where like.

1:44:19.810 --> 1:44:20.480

e8370aaa-4528-4a15-b4cf-109a6488d54b

I just went.

1:44:20.490 --> 1:44:21.900

e8370aaa-4528-4a15-b4cf-109a6488d54b

You were saying, like, enforceable.

1:44:21.910 --> 1:44:29.350

e8370aaa-4528-4a15-b4cf-109a6488d54b

So they're enforceable on this label, are they, and are they on the other on the sure they're based on the actual test, right?

1:44:29.360 --> 1:44:35.330

e8370aaa-4528-4a15-b4cf-109a6488d54b

Like they would be on the right because they're forceful under 5th row clothing and label, right?

1:44:35.340 --> 1:44:37.850

e8370aaa-4528-4a15-b4cf-109a6488d54b

So that they reflect what's on the label.

1:44:38.360 --> 1:44:38.870

e8370aaa-4528-4a15-b4cf-109a6488d54b

I don't know.

1:44:38.880 --> 1:44:41.560

e8370aaa-4528-4a15-b4cf-109a6488d54b

I mean the seed tag isn't necessarily enforceable, is it?

1:44:43.640 --> 1:44:46.530

e8370aaa-4528-4a15-b4cf-109a6488d54b

Actually that's that's that's I think what we're talking about, right?

1:44:46.540 --> 1:44:47.250

e8370aaa-4528-4a15-b4cf-109a6488d54b

So what's happening?

1:44:47.260 --> 1:44:49.730

e8370aaa-4528-4a15-b4cf-109a6488d54b

Like little little backup on that.

1:44:50.0 --> 1:45:4.470

e8370aaa-4528-4a15-b4cf-109a6488d54b

Actually, EPA is in the process of trying to decide if they can make seed tag language enforceable and they're gonna issue a rulemaking, what they call it, advanced notice of proposed rulemaking next month.

1:45:6.940 --> 1:45:9.50

e8370aaa-4528-4a15-b4cf-109a6488d54b

Specifically about this type of thing.

1:45:9.60 --> 1:45:27.400

e8370aaa-4528-4a15-b4cf-109a6488d54b

Whether the language that they put on a seed tag is enforceable under 15 around their arguments going to be since it's a fiber requirement and it's repeated on the seed tag, it's effectively labeling and therefore it's enforcement.

1:45:27.750 --> 1:45:29.90

e8370aaa-4528-4a15-b4cf-109a6488d54b

That's their logic change.

1:45:29.100 --> 1:45:32.470

e8370aaa-4528-4a15-b4cf-109a6488d54b

They're gonna use to me when I look at this label.

1:45:32.480 --> 1:45:34.540

e8370aaa-4528-4a15-b4cf-109a6488d54b

This is the pertinent information to grower.

1:45:34.550 --> 1:45:40.940

e8370aaa-4528-4a15-b4cf-109a6488d54b

Would need to know without having to pull out the exact label for the active ingredient. Right?

1:45:40.980 --> 1:45:41.370

e8370aaa-4528-4a15-b4cf-109a6488d54b

Right.

1:45:41.380 --> 1:45:42.610

e8370aaa-4528-4a15-b4cf-109a6488d54b

That's certainly the idea.

1:45:43.960 --> 1:45:49.610

e8370aaa-4528-4a15-b4cf-109a6488d54b

And Steve, now that I've now that that question was asked, I can't get to my notes for some reason.

1:45:49.620 --> 1:46:6.40

e8370aaa-4528-4a15-b4cf-109a6488d54b

But you and I met with EPA in April or so because I I asked that question of how much you know when we started this project, I asked them how much residue is left on the food that's grown from these treated seed.

1:46:6.950 --> 1:46:22.470

e8370aaa-4528-4a15-b4cf-109a6488d54b

Their answer was not very much so the the you know if we think about how much of these pesticides were exposed to most of it's coming from Bollier use like where they're actually spraying these pesticides on the growing crop and not from the treated seed.

1:46:22.480 --> 1:46:24.470

e8370aaa-4528-4a15-b4cf-109a6488d54b

So so yes, we're exposed to these.



1:46:24.740 --> 1:46:28.350

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yes, we're exposed to in our diet, but it's not from the treated seed.

1:46:31.530 --> 1:46:38.100

e8370aaa-4528-4a15-b4cf-109a6488d54b

But they probably did include this in the Risk Cup, which is why they're putting this they well, so that that was the trouble.

1:46:38.730 --> 1:46:45.420

e8370aaa-4528-4a15-b4cf-109a6488d54b

It was hard to find and so that's why we had that phone call with them and it it was minimal.

1:46:45.480 --> 1:46:50.410

e8370aaa-4528-4a15-b4cf-109a6488d54b

It was like less than 1/10 of a percent or something of our overall exposure.

1:46:57.240 --> 1:47:16.300

e8370aaa-4528-4a15-b4cf-109a6488d54b

So that overall basically for all the new Nicholas notes that I think we were talking about invite flow period, but they were pretty certain that all of this Community going treated seeds would have a similar tolerance or similar residue on produce growing from tree. OK.

1:47:20.640 --> 1:47:22.720

e8370aaa-4528-4a15-b4cf-109a6488d54b

So this is for the Pioneer label.

1:47:24.190 --> 1:47:24.580

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.

1:47:24.590 --> 1:47:26.520

e8370aaa-4528-4a15-b4cf-109a6488d54b

And I can go through. OK.

1:47:26.530 --> 1:47:28.740

e8370aaa-4528-4a15-b4cf-109a6488d54b

So then there's more.

1:47:28.950 --> 1:47:32.780

e8370aaa-4528-4a15-b4cf-109a6488d54b

These product use statements also so this one was for.

1:47:34.710 --> 1:47:34.870

e8370aaa-4528-4a15-b4cf-109a6488d54b

The.

1:47:36.400 --> 1:47:37.430

e8370aaa-4528-4a15-b4cf-109a6488d54b  
Hercules.

1:47:37.480 --> 1:47:38.830

e8370aaa-4528-4a15-b4cf-109a6488d54b  
Insect protect engines.

1:47:38.840 --> 1:47:41.510

e8370aaa-4528-4a15-b4cf-109a6488d54b  
And then the few statement came with like all of those traits.

1:47:41.520 --> 1:47:45.100

e8370aaa-4528-4a15-b4cf-109a6488d54b  
So there was a use statement for around already you statement for that Liberty Link.

1:47:47.730 --> 1:47:49.350

e8370aaa-4528-4a15-b4cf-109a6488d54b  
So this is the second example.

1:47:49.920 --> 1:47:54.930

e8370aaa-4528-4a15-b4cf-109a6488d54b  
So that's the cloud of label that you'll you had sent to me.

1:47:57.420 --> 1:47:57.900

e8370aaa-4528-4a15-b4cf-109a6488d54b  
Umm.

1:48:0.470 --> 1:48:4.370

e8370aaa-4528-4a15-b4cf-109a6488d54b  
And I don't know if you're as familiar with all of these things.

1:48:4.380 --> 1:48:5.290

e8370aaa-4528-4a15-b4cf-109a6488d54b  
And it's it's OK.

1:48:5.300 --> 1:48:5.990

e8370aaa-4528-4a15-b4cf-109a6488d54b  
You don't have to be.

1:48:6.0 --> 1:48:15.270

e8370aaa-4528-4a15-b4cf-109a6488d54b  
I think it's all the same information because it's similar to the state requirements or federal requirements as far as percent germ and the basic stuff.

1:48:15.280 --> 1:48:16.990

e8370aaa-4528-4a15-b4cf-109a6488d54b  
But I'm not sure about the backside of it.

1:48:20.170 --> 1:48:21.330  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Yeah.

1:48:21.870 --> 1:48:24.570  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
And so it still has same things you were saying, like the percentages of.

1:48:26.410 --> 1:48:30.820  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Pierce seed versus, you know, noxious weed and inert matter and things like that.

1:48:30.830 --> 1:48:33.440  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
And the treatment it comes with a.

1:48:36.110 --> 1:48:38.540  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Initials and it does the call out.

1:48:38.550 --> 1:48:41.190  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
So then leader and what these mean, right?

1:48:41.200 --> 1:48:45.60  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
So the F goes with this specific.

1:48:46.690 --> 1:49:2.710  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Seed treatment and so with the FAL H2 Q you can figure out all of this that I wrote this down here, But this treatment, this text box is not on the actual label, so it just has the FAL.

1:49:2.720 --> 1:49:6.600  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
And then you have to go to this chart to see what where where is this chart.

1:49:6.640 --> 1:49:7.960  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
This chart is just below it.

1:49:7.970 --> 1:49:10.270  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Here I can so it's on the tab.

1:49:10.280 --> 1:49:10.870  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Yeah, yeah, yeah.

1:49:10.880 --> 1:49:13.910

e8370aaa-4528-4a15-b4cf-109a6488d54b

It's on the tag, it's just below eyes trying to make it bigger.

1:49:16.190 --> 1:49:16.900

e8370aaa-4528-4a15-b4cf-109a6488d54b

Umm.

1:49:19.310 --> 1:49:24.730

e8370aaa-4528-4a15-b4cf-109a6488d54b

So similar things on here that you know the needed do not use feed food oil.

1:49:28.410 --> 1:49:29.360

e8370aaa-4528-4a15-b4cf-109a6488d54b

I.

1:49:31.410 --> 1:49:43.210

e8370aaa-4528-4a15-b4cf-109a6488d54b

General information has some kind of user handler caution statements, so avoid breathing and making contact with dust.

1:49:43.220 --> 1:49:43.970

e8370aaa-4528-4a15-b4cf-109a6488d54b

Remove clothing.

1:49:43.980 --> 1:50:5.240

e8370aaa-4528-4a15-b4cf-109a6488d54b

Launder, wash hands and face before eating, drinking or smoking, so those were just I tried to highlight that box because those types of statements were not on the Pioneer 1, umm, and but they do have PPE, which was similar to the Pioneer one.

1:50:7.30 --> 1:50:11.270

e8370aaa-4528-4a15-b4cf-109a6488d54b

One this one does have first aid pioneer one didn't have that.

1:50:11.280 --> 1:50:15.960

e8370aaa-4528-4a15-b4cf-109a6488d54b

So just trying to call out that there's definitely differences among received label.

1:50:17.680 --> 1:50:22.100

e8370aaa-4528-4a15-b4cf-109a6488d54b

Ah, but does have has a human and animals.

1:50:24.710 --> 1:50:26.820

e8370aaa-4528-4a15-b4cf-109a6488d54b

Just call out birds and mammals.

1:50:26.830 --> 1:50:31.990

e8370aaa-4528-4a15-b4cf-109a6488d54b

Becoming contacts will cover and collect foods that are skilled, and that bottom box.

1:50:37.540 --> 1:50:52.50

e8370aaa-4528-4a15-b4cf-109a6488d54b

This ctag had a specific storage and disposal, so again they call out the away from food feed, donut, allow access by children, pets, livestock and do not reuse or refill empty seat bags.

1:50:54.230 --> 1:50:56.290

e8370aaa-4528-4a15-b4cf-109a6488d54b

Does anybody use those bags?

1:50:56.300 --> 1:50:58.960

e8370aaa-4528-4a15-b4cf-109a6488d54b

Is that have you ever see even not said that yet?

1:50:58.970 --> 1:50:59.470

e8370aaa-4528-4a15-b4cf-109a6488d54b

Not using it.

1:51:1.230 --> 1:51:1.630

e8370aaa-4528-4a15-b4cf-109a6488d54b

Umm.

1:51:3.710 --> 1:51:5.160

e8370aaa-4528-4a15-b4cf-109a6488d54b

Saying this is similar stuff.

1:51:5.590 --> 1:51:10.180

e8370aaa-4528-4a15-b4cf-109a6488d54b

Don't contaminate buyers of water when just looking back to St Seed or the wash waters.

1:51:10.190 --> 1:51:11.380

e8370aaa-4528-4a15-b4cf-109a6488d54b

From your plenty of equipment.

1:51:16.550 --> 1:51:17.110

e8370aaa-4528-4a15-b4cf-109a6488d54b

You go back.

1:51:17.120 --> 1:51:17.830

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, sorry.

1:51:24.790 --> 1:51:27.530

e8370aaa-4528-4a15-b4cf-109a6488d54b

I was gonna say the overall production.

1:51:28.890 --> 1:51:30.210

e8370aaa-4528-4a15-b4cf-109a6488d54b

Ohh that was on the last one too.

1:51:30.220 --> 1:51:30.680

e8370aaa-4528-4a15-b4cf-109a6488d54b

We didn't.

1:51:30.770 --> 1:51:35.760

e8370aaa-4528-4a15-b4cf-109a6488d54b

We can call it out that there was a kind of an exemption, yeah.

1:51:43.680 --> 1:51:46.400

e8370aaa-4528-4a15-b4cf-109a6488d54b

So this is for the specific treatment.

1:51:47.760 --> 1:51:52.340

e8370aaa-4528-4a15-b4cf-109a6488d54b

Uh, but again, I think this part of the label.

1:51:55.500 --> 1:52:5.890

e8370aaa-4528-4a15-b4cf-109a6488d54b

They make statements for any of the potential treatments, but you have to refer back to that first coat, like FAL H2 Q to see.

1:52:5.900 --> 1:52:9.220

e8370aaa-4528-4a15-b4cf-109a6488d54b

OK, I have this on this seed you know?

1:52:9.230 --> 1:52:20.900

e8370aaa-4528-4a15-b4cf-109a6488d54b

So this is more of a generic part of a label that you have to go back and look to see if the the treatments were actually applicable to that bag that you have with my interpretation.

1:52:21.350 --> 1:52:22.150

e8370aaa-4528-4a15-b4cf-109a6488d54b

So this was a.

1:52:24.920 --> 1:52:33.490

e8370aaa-4528-4a15-b4cf-109a6488d54b

For if there's coffee and on your scene, then so they're making the umm toxicity statement or be exposure.

1:52:35.560 --> 1:52:36.600

e8370aaa-4528-4a15-b4cf-109a6488d54b

Reduce dust.

1:52:38.490 --> 1:52:41.400

e8370aaa-4528-4a15-b4cf-109a6488d54b

Again, they do not apply more.

1:52:43.20 --> 1:52:46.670

e8370aaa-4528-4a15-b4cf-109a6488d54b

This had a .2 pounds of active ingredient quality and then for acre per year.

1:52:49.60 --> 1:52:50.890

e8370aaa-4528-4a15-b4cf-109a6488d54b

We're the previous one was .1 boundary.

1:52:52.790 --> 1:52:53.510

e8370aaa-4528-4a15-b4cf-109a6488d54b

Umm.

1:52:58.500 --> 1:53:6.750

e8370aaa-4528-4a15-b4cf-109a6488d54b

It does have Clint back crops and but the plants back crops are specific for each.

1:53:8.920 --> 1:53:11.380

e8370aaa-4528-4a15-b4cf-109a6488d54b

Active ingredient applied to the seed.

1:53:11.390 --> 1:53:17.930

e8370aaa-4528-4a15-b4cf-109a6488d54b

So there's goofy and specific point back restrictions, and then there's, for example, this profanity.

1:53:18.820 --> 1:53:23.180

e8370aaa-4528-4a15-b4cf-109a6488d54b

You Kanazawa treated seeds, right, so there's different client backs on that one.

1:53:25.430 --> 1:53:31.180

e8370aaa-4528-4a15-b4cf-109a6488d54b

Ah, this is just more for the different treatments can be on there.

1:53:35.80 --> 1:53:45.580

e8370aaa-4528-4a15-b4cf-109a6488d54b

This is more of that legal statement for kind of like that product use statement on the pioneer once this is what that information looks like on this example.

1:53:45.650 --> 1:53:47.220

e8370aaa-4528-4a15-b4cf-109a6488d54b

So this a different C tag.

1:53:47.510 --> 1:53:48.300

e8370aaa-4528-4a15-b4cf-109a6488d54b

This is the same.

1:53:48.310 --> 1:53:54.90

e8370aaa-4528-4a15-b4cf-109a6488d54b

This is the continuation of this don't have one this one or the cows.

1:53:54.100 --> 1:53:54.330

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.

1:53:54.340 --> 1:53:55.220

e8370aaa-4528-4a15-b4cf-109a6488d54b

Cab the cab.

1:53:59.270 --> 1:54:1.60

e8370aaa-4528-4a15-b4cf-109a6488d54b

So this is just the bottom of that statement.

1:54:5.520 --> 1:54:5.810

e8370aaa-4528-4a15-b4cf-109a6488d54b

Right.

1:54:5.820 --> 1:54:6.690

e8370aaa-4528-4a15-b4cf-109a6488d54b

And this is legal.

1:54:8.760 --> 1:54:9.620

e8370aaa-4528-4a15-b4cf-109a6488d54b

The bar room.

1:54:9.660 --> 1:54:10.170

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.

1:54:10.220 --> 1:54:12.880

e8370aaa-4528-4a15-b4cf-109a6488d54b

So it's just reading up on, yeah.

1:54:12.920 --> 1:54:19.170

e8370aaa-4528-4a15-b4cf-109a6488d54b

So the job wasn't Monsanto branding got bought out when Bayer bought OK, so yeah.

1:54:22.80 --> 1:54:24.290

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, I don't know what this the front says.

1:54:24.300 --> 1:54:25.620

e8370aaa-4528-4a15-b4cf-109a6488d54b

It's productive month Angeles.



1:54:25.660 --> 1:54:26.170

e8370aaa-4528-4a15-b4cf-109a6488d54b

Is this the?

1:54:27.520 --> 1:54:31.530

e8370aaa-4528-4a15-b4cf-109a6488d54b

Herbicide resistant or not, they'll go back if it's accurate.

1:54:33.720 --> 1:54:34.320

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.

1:54:34.370 --> 1:54:36.390

e8370aaa-4528-4a15-b4cf-109a6488d54b

So it's not, it's conventional brand.

1:54:36.400 --> 1:54:38.290

e8370aaa-4528-4a15-b4cf-109a6488d54b

Ohh, conventional conventional, yeah.

1:54:41.110 --> 1:54:47.200

e8370aaa-4528-4a15-b4cf-109a6488d54b

Which is crazy because I think BT Double Pro is a GMO, but it's for.

1:54:51.530 --> 1:54:53.630

e8370aaa-4528-4a15-b4cf-109a6488d54b

Insect protection, correct?

1:54:53.640 --> 1:54:54.120

e8370aaa-4528-4a15-b4cf-109a6488d54b

I don't.

1:54:54.130 --> 1:54:56.330

e8370aaa-4528-4a15-b4cf-109a6488d54b

I don't understand that exactly.

1:54:57.370 --> 1:55:13.920

e8370aaa-4528-4a15-b4cf-109a6488d54b

Winky Double Pro Grip Complete is, I think that the above ground double protection for them, which would be a purpose that tolerant with a insect tolerant you rib is there in refugee bag.

1:55:13.970 --> 1:55:17.710

e8370aaa-4528-4a15-b4cf-109a6488d54b

OK, see, you can see the BT double bro rib.

1:55:17.760 --> 1:55:18.420

e8370aaa-4528-4a15-b4cf-109a6488d54b

OK.

1:55:18.690 --> 1:55:19.610  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
And that's the trade.

1:55:19.620 --> 1:55:23.500  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
So I I don't I I don't know their label well enough to know.

1:55:23.990 --> 1:55:24.580  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Right.

1:55:24.650 --> 1:55:27.270  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
So it does say as far as the teachers are pretty new technology.

1:55:29.390 --> 1:55:39.20  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
So I don't know what that usually that COV conventional but yeah, OK, I don't know where that labels ohh.

1:55:42.70 --> 1:55:47.900  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
So it does have a lot of information on the bottom of this tag.

1:55:47.910 --> 1:55:56.800  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
This is still that same label, so there was a lot of resistance management information.

1:55:58.90 --> 1:55:59.300  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
On this side, I kept it.

1:56:0.270 --> 1:56:3.850  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
I'm pretty small, but we can make it bigger if we need to, and so it's very.

1:56:5.410 --> 1:56:6.150  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Geographic.

1:56:9.120 --> 1:56:15.240  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
And talking about I refuge requirement.

1:56:20.800 --> 1:56:23.980  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
But that was the the bottom of that label, OK.

1:56:26.100 --> 1:56:29.190

e8370aaa-4528-4a15-b4cf-109a6488d54b

So I can provide so the the actual PDF.

1:56:30.0 --> 1:56:30.880

e8370aaa-4528-4a15-b4cf-109a6488d54b

I can't get out of this.

1:56:33.830 --> 1:56:37.810

e8370aaa-4528-4a15-b4cf-109a6488d54b

Are on our SharePoint team so these PDF's are.

1:56:40.680 --> 1:56:45.830

e8370aaa-4528-4a15-b4cf-109a6488d54b

We are all have access to these ones, so this is that OK.

1:56:48.480 --> 1:56:52.60

e8370aaa-4528-4a15-b4cf-109a6488d54b

This is what this tag actually the PDF of that label looks like.

1:56:52.770 --> 1:56:59.980

e8370aaa-4528-4a15-b4cf-109a6488d54b

My guess is that's generic in that other thing you showed is specific to that hybrid, right?

1:56:59.990 --> 1:57:1.220

e8370aaa-4528-4a15-b4cf-109a6488d54b

That's yeah.

1:57:1.230 --> 1:57:4.980

e8370aaa-4528-4a15-b4cf-109a6488d54b

So that one is generic that's specific to that hybrid. Yeah.

1:57:4.990 --> 1:57:7.130

e8370aaa-4528-4a15-b4cf-109a6488d54b

So that may not be a double regg.

1:57:9.710 --> 1:57:12.220

e8370aaa-4528-4a15-b4cf-109a6488d54b

There's not indicated as a refuge.

1:57:13.430 --> 1:57:14.230

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, so.

1:57:16.100 --> 1:57:17.370

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, right.

1:57:17.380 --> 1:57:25.290

e8370aaa-4528-4a15-b4cf-109a6488d54b

And that matters, but so that then that kind of goes along with having this box of of that would be filled by, yeah.

1:57:25.300 --> 1:57:25.750

e8370aaa-4528-4a15-b4cf-109a6488d54b

Correct.

1:57:25.760 --> 1:57:34.600

e8370aaa-4528-4a15-b4cf-109a6488d54b

So it's like this part of the label covers all everything they offer, right and then they just have to see, OK, what am I actually getting? Yeah.

1:57:38.40 --> 1:57:46.850

e8370aaa-4528-4a15-b4cf-109a6488d54b

So is there any time spent with the farmer decoding this information and maybe you know, maybe it's just known I I'm.

1:57:46.860 --> 1:57:58.370

e8370aaa-4528-4a15-b4cf-109a6488d54b

I'm just like there's a lot of information on these tags and how to use the products and the difference between what was specific to the item that we saw with the, the what we just discovered.

1:57:58.380 --> 1:58:2.570

e8370aaa-4528-4a15-b4cf-109a6488d54b

We just literally talked about versus what the generic tag says.

1:58:2.720 --> 1:58:6.140

e8370aaa-4528-4a15-b4cf-109a6488d54b

And so how do how do farmers become?

1:58:6.150 --> 1:58:12.350

e8370aaa-4528-4a15-b4cf-109a6488d54b

And maybe they do become educated just of their own accord, because they're responsible for these products and they finalize something agreement.

1:58:12.360 --> 1:58:12.760

e8370aaa-4528-4a15-b4cf-109a6488d54b

But I'm just.

1:58:13.720 --> 1:58:15.540

e8370aaa-4528-4a15-b4cf-109a6488d54b

I'm just curious, is there any time spent?

1:58:16.740 --> 1:58:19.90

e8370aaa-4528-4a15-b4cf-109a6488d54b

Like who spends time with the farmer?

1:58:19.220 --> 1:58:23.220

e8370aaa-4528-4a15-b4cf-109a6488d54b

And maybe this could be a completely stupid question, so I'm still willing to accept that as well.

1:58:27.510 --> 1:58:28.400

e8370aaa-4528-4a15-b4cf-109a6488d54b

Maybe there is no answer.

1:58:28.410 --> 1:58:28.620

e8370aaa-4528-4a15-b4cf-109a6488d54b

Why?

1:58:28.630 --> 1:58:40.100

e8370aaa-4528-4a15-b4cf-109a6488d54b

Experience is the person who's who's delivering or providing that product to them, whether it's the licensing agreement and when it comes to refuge and stuff, that's a big part.

1:58:40.440 --> 1:58:43.650

e8370aaa-4528-4a15-b4cf-109a6488d54b

It's gotten a lot simplified now that it's complete in the bag.

1:58:44.820 --> 1:58:51.70

e8370aaa-4528-4a15-b4cf-109a6488d54b

The grower knows what they want for above below herbicide tolerance.

1:58:51.80 --> 1:59:3.650

e8370aaa-4528-4a15-b4cf-109a6488d54b

That's a customer decision as to when they're picking out what they want and then when it comes to the sheet treatment, basically there's, you know, my example is there's three choices.

1:59:3.660 --> 1:59:30.720

e8370aaa-4528-4a15-b4cf-109a6488d54b

There's without there's a low rate and there's a high rate and the low and high rate is depending on what they what their goals are for that product, whether they participated on continuous corn acres and if it's in the bag below ground, then 12:50 is is not something they maybe want, but 12:50 is the generic low rate for controlling wire.

1:59:30.960 --> 1:59:32.740

e8370aaa-4528-4a15-b4cf-109a6488d54b

A few core magic get that kind of stuff.

1:59:32.790 --> 1:59:33.160

e8370aaa-4528-4a15-b4cf-109a6488d54b

OK.

1:59:33.410 --> 1:59:35.640

e8370aaa-4528-4a15-b4cf-109a6488d54b

The higher rate typically gets the root worm.

1:59:35.770 --> 1:59:55.540

e8370aaa-4528-4a15-b4cf-109a6488d54b

I know some brands put the 12:50 on all their below ground stuff because it not only is affective under the worm, but it adds another level of resistance management because it's another mode of action to prevent the resistance from forming of that to those technologies.

1:59:56.330 --> 2:0:1.760

e8370aaa-4528-4a15-b4cf-109a6488d54b

Umm, but yeah, I mean, do they know all this stuff in the bottom?

2:0:2.50 --> 2:0:4.740

e8370aaa-4528-4a15-b4cf-109a6488d54b

I mean, it's on every single bag they buy.

2:0:4.750 --> 2:0:12.0

e8370aaa-4528-4a15-b4cf-109a6488d54b

So whether or not you know, for most producers, the replant stuff is pretty basic.

2:0:12.10 --> 2:0:16.280

e8370aaa-4528-4a15-b4cf-109a6488d54b

The fact that they know that if they have a crop failure and it says it in here, they can do it.

2:0:16.450 --> 2:0:20.360

e8370aaa-4528-4a15-b4cf-109a6488d54b

Umm, we don't deal with a lot of the other things.

2:0:20.370 --> 2:0:25.820

e8370aaa-4528-4a15-b4cf-109a6488d54b

I mean, growers are not going to in the next eight months going to have another crop after that corn crop.

2:0:26.30 --> 2:0:34.910

e8370aaa-4528-4a15-b4cf-109a6488d54b

So maybe in areas where they double crop or they can do that, this is talked about a little more, but for the most part our environment limits a lot of that activity.

2:0:35.120 --> 2:0:36.230

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, that's true.

2:0:36.240 --> 2:0:37.250

e8370aaa-4528-4a15-b4cf-109a6488d54b

You know you're not gonna put it.

2:0:37.260 --> 2:0:45.670

e8370aaa-4528-4a15-b4cf-109a6488d54b

Alfalfa crop in with an 8 or 12 months restriction on it after you take your corn crop off, you know which is unfortunately can't do that here.

2:0:45.680 --> 2:0:47.550

e8370aaa-4528-4a15-b4cf-109a6488d54b

It would be nice, but we can't.

2:0:47.560 --> 2:0:49.340

e8370aaa-4528-4a15-b4cf-109a6488d54b

Maybe in Florida you can, but yeah.

2:0:49.380 --> 2:1:3.970

e8370aaa-4528-4a15-b4cf-109a6488d54b

So you know, some of it is maybe in other areas it's more, it's something that they're having to explain to them, whereas here you know, a lot of these restrictions, PPE and stuff, I think they're all pretty well aware of that, I mean.

2:1:6.110 --> 2:1:8.300

e8370aaa-4528-4a15-b4cf-109a6488d54b

That's pretty basic stuff.

2:1:8.470 --> 2:1:11.980

e8370aaa-4528-4a15-b4cf-109a6488d54b

I mean, there's nothing in there that's too more than what they're probably.

2:1:11.990 --> 2:1:22.180

e8370aaa-4528-4a15-b4cf-109a6488d54b

I mean, you don't see many people going out planning in short, you know and not wearing, you know, shoes that have toes covered, you know, things like that.

2:1:22.250 --> 2:1:25.910

e8370aaa-4528-4a15-b4cf-109a6488d54b

That was the how were the scenes actually loaded into the planter box?

2:1:27.670 --> 2:1:28.320

e8370aaa-4528-4a15-b4cf-109a6488d54b

Manually?

2:1:28.330 --> 2:1:30.890

e8370aaa-4528-4a15-b4cf-109a6488d54b

Or is there a feeder or so ohm?

2:1:31.420 --> 2:1:51.720

e8370aaa-4528-4a15-b4cf-109a6488d54b

I would say in our instance with our location, 80% of it to farmer never touches the seat period because it's brought in boxes, plastic boxes that then they have a material piece of equipment that basically conveyors it into their units.

2:1:52.60 --> 2:1:53.130

e8370aaa-4528-4a15-b4cf-109a6488d54b

Umm.

2:1:53.170 --> 2:2:10.280

e8370aaa-4528-4a15-b4cf-109a6488d54b

And then a percentage of ours is actually a bag that they open the top, so different than a feedback, it's got A tag or a a tab that they rip opens it and then they dump it in and then the last bit of piece they would do is add their their lubricant to it.

2:2:10.560 --> 2:2:17.10

e8370aaa-4528-4a15-b4cf-109a6488d54b

So, you know, I don't think it's it's not part of their everyday peace when they load that they stick their hands.

2:2:17.380 --> 2:2:21.700

e8370aaa-4528-4a15-b4cf-109a6488d54b

There's no reason to ever contact, but I mean they are opening.

2:2:21.990 --> 2:2:24.100

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, it's for those that have bags.

2:2:24.110 --> 2:2:25.10

e8370aaa-4528-4a15-b4cf-109a6488d54b

They are opening a bag.

2:2:25.420 --> 2:2:31.950

e8370aaa-4528-4a15-b4cf-109a6488d54b

The bad bird box or they have like one bag goes, they fill with three operators and so typically a normal planner.

2:2:31.960 --> 2:2:52.370

e8370aaa-4528-4a15-b4cf-109a6488d54b

They'll at least come two bags per box, and then if it's a central fill system, there's very few of those that handle bags because most of those systems can hold almost 2 boxes, so they'll just directly refill these central central boxes that hold viewers from 40 to 50 units to see.

2:2:52.580 --> 2:2:53.250

e8370aaa-4528-4a15-b4cf-109a6488d54b

OK.

2:2:53.660 --> 2:2:53.940

e8370aaa-4528-4a15-b4cf-109a6488d54b

OK.

2:2:55.690 --> 2:2:58.180

e8370aaa-4528-4a15-b4cf-109a6488d54b

Are you being here this thousand scenes correct?

2:3:0.530 --> 2:3:5.250

e8370aaa-4528-4a15-b4cf-109a6488d54b

But you most producers plant their own quarter, their custom planners.



2:3:7.910 --> 2:3:15.460

e8370aaa-4528-4a15-b4cf-109a6488d54b

Majority of it themselves to do OK, there's a few operators around that do it or do it for their neighbor or whatever.

2:3:15.470 --> 2:3:21.820

e8370aaa-4528-4a15-b4cf-109a6488d54b

But but it's not a it's people on their own planners and places the window to plant has gotten too small.

2:3:21.890 --> 2:3:22.720

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.

2:3:22.970 --> 2:3:28.750

e8370aaa-4528-4a15-b4cf-109a6488d54b

So there's there used to be some around, but I would think the last 10 years that's sort of diminished.

2:3:29.640 --> 2:3:33.270

e8370aaa-4528-4a15-b4cf-109a6488d54b

What are these planners thoughts right now?

2:3:33.370 --> 2:3:37.630

e8370aaa-4528-4a15-b4cf-109a6488d54b

A customer who told me they they got quoted quarter \$1,000,000.

2:3:39.680 --> 2:3:40.650

e8370aaa-4528-4a15-b4cf-109a6488d54b

That's twelve, bro.

2:3:40.900 --> 2:3:41.670

e8370aaa-4528-4a15-b4cf-109a6488d54b

And they make.

2:3:42.20 --> 2:3:44.220

e8370aaa-4528-4a15-b4cf-109a6488d54b

I mean, that's not the biggest planner in our area.

2:3:49.30 --> 2:3:50.540

e8370aaa-4528-4a15-b4cf-109a6488d54b

Amanda, did you have a question?

2:3:50.550 --> 2:3:52.780

e8370aaa-4528-4a15-b4cf-109a6488d54b

I think I saw your hand raised.

2:4:0.160 --> 2:4:0.480

e8370aaa-4528-4a15-b4cf-109a6488d54b

Maybe not.

2:4:12.440 --> 2:4:13.220

e8370aaa-4528-4a15-b4cf-109a6488d54b

OK so.

2:4:16.360 --> 2:4:19.780

e8370aaa-4528-4a15-b4cf-109a6488d54b

Any other the the last thing that's kind of on.

2:4:21.630 --> 2:4:23.900

e8370aaa-4528-4a15-b4cf-109a6488d54b

Our plate to discuss is.

2:4:26.170 --> 2:4:28.640

e8370aaa-4528-4a15-b4cf-109a6488d54b

Going back to this existing.

2:4:31.480 --> 2:4:34.530

e8370aaa-4528-4a15-b4cf-109a6488d54b

Nicholas, but go ahead before we do that, can we talk about rescheduling?

2:4:34.900 --> 2:4:35.330

e8370aaa-4528-4a15-b4cf-109a6488d54b

Sure.

2:4:35.420 --> 2:4:35.850

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.

2:4:36.440 --> 2:4:36.830

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yep.

2:4:36.840 --> 2:4:44.180

e8370aaa-4528-4a15-b4cf-109a6488d54b

So we have so as of right now, the next meeting is scheduled for October 23rd.

2:4:44.530 --> 2:4:47.910

e8370aaa-4528-4a15-b4cf-109a6488d54b

We are going to be missing our beloved Steve.

2:4:47.920 --> 2:4:48.580

e8370aaa-4528-4a15-b4cf-109a6488d54b

Do I know that day?

2:4:48.590 --> 2:4:50.990

e8370aaa-4528-4a15-b4cf-109a6488d54b

So we would like to talk about different.

2:4:52.450 --> 2:5:0.240

e8370aaa-4528-4a15-b4cf-109a6488d54b

Dates for our next meeting, I will say also, you know holidays are coming up.

2:5:0.250 --> 2:5:7.170

e8370aaa-4528-4a15-b4cf-109a6488d54b

So we have been on the reoccurring schedule of every fourth Monday of the month going into November.

2:5:7.570 --> 2:5:10.830

e8370aaa-4528-4a15-b4cf-109a6488d54b

So October was going to be the last meeting that follows that schedule.

2:5:10.840 --> 2:5:23.330

e8370aaa-4528-4a15-b4cf-109a6488d54b

And then on our calendars right now, we're not meeting in November end of November because of Thanksgiving and instead we're doing what's scheduled I think is either December 4th or 6th.

2:5:24.100 --> 2:5:31.310

e8370aaa-4528-4a15-b4cf-109a6488d54b

So it's instead of a beginning of December, so we're avoiding the end of November and December for obvious reasons.

2:5:31.900 --> 2:5:33.670

e8370aaa-4528-4a15-b4cf-109a6488d54b

So that's what's on the schedule right now.

2:5:33.680 --> 2:5:38.780

e8370aaa-4528-4a15-b4cf-109a6488d54b

So we are talking about pencil new dates for October 23rd.

2:5:39.190 --> 2:5:40.880

e8370aaa-4528-4a15-b4cf-109a6488d54b

So just wanted to put it out there.

2:5:40.890 --> 2:5:53.900

e8370aaa-4528-4a15-b4cf-109a6488d54b

If we keep it, keep it on Monday, we can do the the following that you know either October 30th or November 6th if we want to keep it at a Monday, how about the 16th October?

2:5:53.950 --> 2:5:55.760

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, we could do October 16th.

2:5:57.290 --> 2:5:57.510

e8370aaa-4528-4a15-b4cf-109a6488d54b

I'm.

2:5:57.520 --> 2:6:4.930

e8370aaa-4528-4a15-b4cf-109a6488d54b

I'm I'm thinking we have a lot to do and it's probably better to have more meetings and fewer meetings.

2:6:7.250 --> 2:6:9.690

e8370aaa-4528-4a15-b4cf-109a6488d54b

Maybe we do October 16th and then another.

2:6:9.730 --> 2:6:11.30

e8370aaa-4528-4a15-b4cf-109a6488d54b

Then in early N1.

2:6:14.790 --> 2:6:15.180

e8370aaa-4528-4a15-b4cf-109a6488d54b

What's up?

2:6:15.520 --> 2:6:16.590

e8370aaa-4528-4a15-b4cf-109a6488d54b

Up to the board members.

2:6:16.600 --> 2:6:21.20

e8370aaa-4528-4a15-b4cf-109a6488d54b

Obviously he's good for me too, yeah.

2:6:23.300 --> 2:6:24.220

e8370aaa-4528-4a15-b4cf-109a6488d54b

He it's nothing.

2:6:24.230 --> 2:6:25.480

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yep, alright.

2:6:25.670 --> 2:6:27.390

e8370aaa-4528-4a15-b4cf-109a6488d54b

More you're Monday afternoon.

2:6:27.400 --> 2:6:28.70

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, alright.

2:6:28.80 --> 2:6:29.200

e8370aaa-4528-4a15-b4cf-109a6488d54b

You want. Afternoon.

2:6:29.250 --> 2:6:32.610

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, the opposite afternoon is always been good for me, OK?

2:6:34.800 --> 2:6:38.130

e8370aaa-4528-4a15-b4cf-109a6488d54b

Everyone else, go back to the afternoon for the 16th.

2:6:39.420 --> 2:6:41.960

e8370aaa-4528-4a15-b4cf-109a6488d54b

I got funds up OK.

2:6:43.670 --> 2:6:45.50

e8370aaa-4528-4a15-b4cf-109a6488d54b

Alright, so we will do.

2:6:47.810 --> 2:6:54.490

e8370aaa-4528-4a15-b4cf-109a6488d54b

October 16th, so I will make your calendars respect that and we'll go back to the one to four.

2:6:59.240 --> 2:7:0.670

e8370aaa-4528-4a15-b4cf-109a6488d54b

I'm Proctor 16th.

2:7:2.410 --> 2:7:2.650

e8370aaa-4528-4a15-b4cf-109a6488d54b

OK.

2:7:10.990 --> 2:7:12.70

e8370aaa-4528-4a15-b4cf-109a6488d54b

What time did we say that was?

2:7:12.810 --> 2:7:15.520

e8370aaa-4528-4a15-b4cf-109a6488d54b

Umm, just 1:00 PM to 4:00 PM.

2:7:18.40 --> 2:7:19.490

e8370aaa-4528-4a15-b4cf-109a6488d54b

Feels and then right I will.

2:7:30.860 --> 2:7:31.850

e8370aaa-4528-4a15-b4cf-109a6488d54b

OK, so for the last.

2:7:33.780 --> 2:7:35.460

e8370aaa-4528-4a15-b4cf-109a6488d54b

Well, do we wanna talk about November too?

2:7:35.470 --> 2:7:36.0

e8370aaa-4528-4a15-b4cf-109a6488d54b

While we're at it?

2:7:39.720 --> 2:7:41.690  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Alright, so do you wanna keep in November?

2:7:41.700 --> 2:7:43.230  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
OK, sorry I wasn't following that.

2:7:43.240 --> 2:7:45.20  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Do you wanna keep a November, then?

2:7:48.160 --> 2:7:49.550  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Should we meet the 16th?

2:7:49.560 --> 2:7:51.930  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
You wanna try and meet before Thanksgiving? In November?

2:7:52.40 --> 2:7:53.580  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
I was thinking November 13th.

2:7:59.160 --> 2:8:1.290  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
OK, I'm getting nods all around.

2:8:1.300 --> 2:8:1.580  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
OK.

2:8:1.590 --> 2:8:8.510  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
So then we'll do October 16th, November 13th, 1:00 to 4:00 PM.

2:8:13.400 --> 2:8:25.260  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
So then I believe the next meeting after that is on our calendars are ready and is scheduled for Monday, December 4th.

2:8:26.810 --> 2:8:27.450  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Absolutely.

2:8:27.460 --> 2:8:28.980  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
That one got it.

2:8:31.230 --> 2:8:34.40

e8370aaa-4528-4a15-b4cf-109a6488d54b

Does that come to the deadline? Yeah.

2:8:36.260 --> 2:8:51.460

e8370aaa-4528-4a15-b4cf-109a6488d54b

I mean, the real deadline is March 2021, but theoretic you know I'd be best if we had something you know produced by December that we can start talking about.

2:8:51.470 --> 2:8:56.90

e8370aaa-4528-4a15-b4cf-109a6488d54b

Everything do we now have a report due at the end of December or is it? We all.

2:8:56.100 --> 2:8:56.750

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, OK.

2:8:56.760 --> 2:8:57.350

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.

2:8:57.400 --> 2:8:58.470

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, we always have a report.

2:8:58.480 --> 2:8:59.510

e8370aaa-4528-4a15-b4cf-109a6488d54b

We have an annual report.

2:8:59.560 --> 2:9:3.520

e8370aaa-4528-4a15-b4cf-109a6488d54b

OK, so that the treated seeds are the BMP.

2:9:3.560 --> 2:9:12.270

e8370aaa-4528-4a15-b4cf-109a6488d54b

We have to have a recommendation recommended set of BMPS for the legislature by March of 2024.

2:9:12.700 --> 2:9:17.950

e8370aaa-4528-4a15-b4cf-109a6488d54b

Saturday Star told me in test them out while I was in there.

2:9:17.960 --> 2:9:21.320

e8370aaa-4528-4a15-b4cf-109a6488d54b

He said he'd like to see it way before that.

2:9:22.70 --> 2:9:28.850

e8370aaa-4528-4a15-b4cf-109a6488d54b

So the the the thinking is we have to give something that answers the one that has to actually pass it on.

2:9:28.860 --> 2:9:31.80

e8370aaa-4528-4a15-b4cf-109a6488d54b

So give something to answer by December.

2:9:31.940 --> 2:9:42.510

e8370aaa-4528-4a15-b4cf-109a6488d54b

So that he can you know that we basically prefilled our charge would start looking at the other 18 things we're supposed to do so.

2:9:53.700 --> 2:9:54.390

e8370aaa-4528-4a15-b4cf-109a6488d54b

So let's.

2:9:56.240 --> 2:9:58.210

e8370aaa-4528-4a15-b4cf-109a6488d54b

Maybe give birth 30 minutes.

2:9:58.220 --> 2:9:59.900

e8370aaa-4528-4a15-b4cf-109a6488d54b

Open it up for discussion.

2:10:1.740 --> 2:10:5.350

e8370aaa-4528-4a15-b4cf-109a6488d54b

And what people thought and they were.

2:10:9.620 --> 2:10:11.990

e8370aaa-4528-4a15-b4cf-109a6488d54b

Looking at the MP's here, I can pull that up.

2:10:12.60 --> 2:10:15.600

e8370aaa-4528-4a15-b4cf-109a6488d54b

The only thing I would say about the BMP is we need to be careful fluids.

2:10:15.610 --> 2:10:18.220

e8370aaa-4528-4a15-b4cf-109a6488d54b

The agent is a brand name of a product.

2:10:18.280 --> 2:10:18.950

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.

2:10:19.80 --> 2:10:32.30

e8370aaa-4528-4a15-b4cf-109a6488d54b

So we don't want to specify an exact brands, we should probably return that fluency agent see blooper, kinter alternative or whatever.

2:10:32.40 --> 2:10:32.850

e8370aaa-4528-4a15-b4cf-109a6488d54b

You just wanna do?



2:10:33.220 --> 2:10:34.770  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Yeah, let's put it in here.

2:10:34.830 --> 2:10:47.30  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
But we know so the 8020 is just a generic blends of 12th, OK, so you can buy the two mixed together in an 8020 blend or you can buy health or even by grand.

2:10:51.50 --> 2:10:55.280  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Which it it's the fluidity agent, which is the synthetic.

2:10:56.710 --> 2:10:57.340  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
That's serial.

2:10:57.390 --> 2:10:58.640  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
OK. Synthetically.

2:10:59.380 --> 2:11:0.600  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
OK, that's what it is.

2:11:1.70 --> 2:11:1.600  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Yeah.

2:11:1.610 --> 2:11:9.990  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
So it's I I think the because we were just looking at what the Canadian PM Array verbiage is is require.

2:11:11.850 --> 2:11:13.400  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Require use of.

2:11:15.400 --> 2:11:17.580  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Dust reducing lubricant.

2:11:24.70 --> 2:11:24.870  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Shoot now.

2:11:24.940 --> 2:11:26.270  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Like, what does it say about?

2:11:26.320 --> 2:11:29.660

e8370aaa-4528-4a15-b4cf-109a6488d54b  
But it prohibits the use of talking graphite.

2:11:31.620 --> 2:11:33.960

e8370aaa-4528-4a15-b4cf-109a6488d54b  
It's obviously a sentence that makes that flow better.

2:11:36.260 --> 2:11:39.120

e8370aaa-4528-4a15-b4cf-109a6488d54b  
Alright, figure I think I can't.

2:11:40.930 --> 2:11:43.320

e8370aaa-4528-4a15-b4cf-109a6488d54b  
Who's Bruce pivoting the use of talking graph?

2:11:43.330 --> 2:12:5.620

e8370aaa-4528-4a15-b4cf-109a6488d54b  
So basically the equivalent of EPA in Canada, OK, has that requirement and that's their reasoning on that on the telecom graph, that's for, just for the abrasion to the basically citing the research that shows that talking graphite are for sure. OK.

2:12:6.320 --> 2:12:9.310

e8370aaa-4528-4a15-b4cf-109a6488d54b  
Breakfast materials on the treated seed.

2:12:9.380 --> 2:12:9.620

e8370aaa-4528-4a15-b4cf-109a6488d54b  
OK.

2:12:10.720 --> 2:12:12.710

e8370aaa-4528-4a15-b4cf-109a6488d54b  
And so I did ask.

2:12:12.720 --> 2:12:13.970

e8370aaa-4528-4a15-b4cf-109a6488d54b  
That's the action item.

2:12:14.40 --> 2:12:16.310

e8370aaa-4528-4a15-b4cf-109a6488d54b  
Follow up and I think I sent it to you guys.

2:12:16.320 --> 2:12:25.20

e8370aaa-4528-4a15-b4cf-109a6488d54b  
So I got a response from PMR, A cause we were wondering how that is enforced and they.

2:12:27.460 --> 2:12:33.30

e8370aaa-4528-4a15-b4cf-109a6488d54b  
Basically, are using the label, so they're using the label of.

2:12:36.240 --> 2:12:38.680  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
It's on the seed seed tag label.

2:12:43.160 --> 2:12:49.340  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
That then refers to the pesticide label.

2:12:49.410 --> 2:12:49.710  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Mm-hmm.

2:12:49.720 --> 2:12:52.770  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
And then that's how it is enforced.

2:12:54.330 --> 2:12:55.260  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
So I think I sent you.

2:12:55.330 --> 2:12:55.800  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
I sent.

2:12:55.810 --> 2:12:56.580  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Yeah, you got it.

2:12:56.590 --> 2:12:57.160  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Yeah.

2:12:57.170 --> 2:12:57.520  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Yeah.

2:12:57.530 --> 2:13:20.10  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
And and what it says is basically has so the the label of the insecticide says when using a seed flow lubricant with disc treated seed, only a dust producing fluency agent is permitted talking graph that are not permitted to be used as a seed flow lubricant for corner.

2:13:20.20 --> 2:13:22.390  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
So I didn't seen treated with this insecticide.

2:13:22.450 --> 2:13:25.170  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
So basically it becomes enforceable under the insecticide. OK.

2:13:27.570 --> 2:13:30.590

e8370aaa-4528-4a15-b4cf-109a6488d54b

Which is, I think, pretty much what he P is gonna propose in their roommate.

2:13:51.450 --> 2:13:54.620

e8370aaa-4528-4a15-b4cf-109a6488d54b

Umm, that and I was just trying to capture that.

2:13:54.630 --> 2:13:58.980

e8370aaa-4528-4a15-b4cf-109a6488d54b

So we, ah, we're using fluency agent.

2:13:59.960 --> 2:14:2.160

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, just because it's.

2:14:2.170 --> 2:14:3.410

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, we don't wanna stick.

2:14:3.420 --> 2:14:10.470

e8370aaa-4528-4a15-b4cf-109a6488d54b

If there's other products available for producers to use, yeah, I don't know what John Deere brand or whatever they carry is.

2:14:10.520 --> 2:14:14.110

e8370aaa-4528-4a15-b4cf-109a6488d54b

But yeah, it may not be branded fluency agent, right?

2:14:22.170 --> 2:14:22.860

e8370aaa-4528-4a15-b4cf-109a6488d54b

Are there any other?

2:14:24.850 --> 2:14:28.480

e8370aaa-4528-4a15-b4cf-109a6488d54b

I things that Members would like to.

2:14:32.90 --> 2:14:36.440

e8370aaa-4528-4a15-b4cf-109a6488d54b

Bring up after reviewing this over our since our last meeting.

2:14:40.730 --> 2:14:43.180

e8370aaa-4528-4a15-b4cf-109a6488d54b

Or things that they would like me to pull over.

2:14:43.190 --> 2:14:49.330

e8370aaa-4528-4a15-b4cf-109a6488d54b

So basically the the tab that just is BMP's is the ones that are out there from different publications.

2:14:50.600 --> 2:15:3.940

e8370aaa-4528-4a15-b4cf-109a6488d54b

The tab for AIB BMPS are ones that have been specifically proposed, so like when we heard from Wendy Sue last month, so those are in this tab captured. Umm.

2:15:8.20 --> 2:15:8.640

e8370aaa-4528-4a15-b4cf-109a6488d54b

And.

2:15:11.210 --> 2:15:25.590

e8370aaa-4528-4a15-b4cf-109a6488d54b

But I didn't get any specific emails about adding to this list for a IV specific proposed BMP since last month, but this is this tab is where I just altered that word for months agent.

2:15:25.600 --> 2:15:27.180

e8370aaa-4528-4a15-b4cf-109a6488d54b

So is it the AIP proposal?

2:15:33.330 --> 2:15:38.770

e8370aaa-4528-4a15-b4cf-109a6488d54b

So I don't know if any of the Member one had to share kind of any comments that they added.

2:15:40.960 --> 2:15:42.310

e8370aaa-4528-4a15-b4cf-109a6488d54b

I was confused about.

2:15:42.600 --> 2:15:48.270

e8370aaa-4528-4a15-b4cf-109a6488d54b

You can see in South 17 had the same comment on both that BMP tab and the IBM PC.

2:15:48.870 --> 2:15:50.650

e8370aaa-4528-4a15-b4cf-109a6488d54b

Umm, just the way that that was sprayed?

2:15:50.660 --> 2:15:57.880

e8370aaa-4528-4a15-b4cf-109a6488d54b

I don't know if I'm just reading it wrong, but it seems like you're really low bar and I wondered if should it say don't use any and nick to seamless.

2:15:57.890 --> 2:16:2.100

e8370aaa-4528-4a15-b4cf-109a6488d54b

There's a specific type of problem that can only be effectively managed with near.

2:16:5.450 --> 2:16:6.990

e8370aaa-4528-4a15-b4cf-109a6488d54b

Ohh yeah yeah, I guess it is written.

2:16:7.0 --> 2:16:10.580

e8370aaa-4528-4a15-b4cf-109a6488d54b

It doesn't really seem to discourage or provide much.

2:16:12.880 --> 2:16:14.530

e8370aaa-4528-4a15-b4cf-109a6488d54b

Stringency around the use of machines.

2:16:17.170 --> 2:16:21.180

e8370aaa-4528-4a15-b4cf-109a6488d54b

I'm seeing that that's from the Connecticut one.

2:16:21.190 --> 2:16:23.340

e8370aaa-4528-4a15-b4cf-109a6488d54b

And so I right and so it's on this one.

2:16:23.350 --> 2:16:26.920

e8370aaa-4528-4a15-b4cf-109a6488d54b

So I'm gonna say that so that tide with Wendy sues proposed ones.

2:16:26.930 --> 2:16:28.240

e8370aaa-4528-4a15-b4cf-109a6488d54b

So I yeah.

2:16:28.250 --> 2:16:30.750

e8370aaa-4528-4a15-b4cf-109a6488d54b

So you did the same comment here.

2:16:30.800 --> 2:16:31.370

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.

2:16:31.380 --> 2:16:31.880

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah. OK.

2:16:42.230 --> 2:16:44.880

e8370aaa-4528-4a15-b4cf-109a6488d54b

This is an I'm just reading your other comments there about.

2:16:45.510 --> 2:16:55.270

e8370aaa-4528-4a15-b4cf-109a6488d54b

So we are using Munich as a generic term and so you're calling out a comment of which specific unit.

2:16:55.280 --> 2:16:55.720

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, yeah.

2:17:0.760 --> 2:17:1.770  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Maybe it is all of them.

2:17:1.780 --> 2:17:2.10  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
I just.

2:17:2.20 --> 2:17:6.940  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
I didn't know if there was a distinction there that like these these units are OK and these aren't.

2:17:6.950 --> 2:17:9.700  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Are they all considered highly toxic to these?

2:17:13.270 --> 2:17:16.680  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Does it remember any Members have a thought.

2:17:17.510 --> 2:17:17.870  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
About that.

2:17:18.210 --> 2:17:22.340  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
So this is a proposed BMP from members.

2:17:22.350 --> 2:17:31.990  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
So maybe when you do, I don't know if you well, you call out a specific in your toxicity in your shared document.

2:17:32.0 --> 2:17:32.760  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Right. Wendy tooth.

2:17:33.810 --> 2:17:34.330  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
What game?

2:17:33.160 --> 2:17:34.670  
Wendy Sue Harper (Guest)  
I did and I can.

2:17:35.990 --> 2:17:42.250  
Wendy Sue Harper (Guest)  
Put the that stuff in in this document.

2:17:42.260 --> 2:17:47.380

Wendy Sue Harper (Guest)

I think I can do it as a screenshot, I'll just take me a minute to do it so people can see.

2:17:50.60 --> 2:17:51.30

Wendy Sue Harper (Guest)

Ohh, wait a minute.

2:17:51.240 --> 2:17:53.500

Wendy Sue Harper (Guest)

Let's slow down, OK?

2:18:0.580 --> 2:18:6.970

Wendy Sue Harper (Guest)

And the date it came from, I think it was EPA's where I got most of the state of from.

2:18:8.580 --> 2:18:9.690

Wendy Sue Harper (Guest)

OK, so there it is.

2:18:10.740 --> 2:18:11.70

e8370aaa-4528-4a15-b4cf-109a6488d54b

Great.

2:18:11.80 --> 2:18:12.470

e8370aaa-4528-4a15-b4cf-109a6488d54b

Thank you for having us perfectly.

2:18:24.80 --> 2:18:24.920

e8370aaa-4528-4a15-b4cf-109a6488d54b

Are there any other?

2:18:29.510 --> 2:18:32.660

e8370aaa-4528-4a15-b4cf-109a6488d54b

Ohh yeah, so yeah, looks like you had a question about the.

2:18:36.90 --> 2:18:42.240

e8370aaa-4528-4a15-b4cf-109a6488d54b

Alright, not even gonna try to pronounce that, but piperonal sign part of that.

2:18:42.250 --> 2:18:47.540

e8370aaa-4528-4a15-b4cf-109a6488d54b

So yeah, yeah, I mean I I guess the concern here is that it's just this toxic.

2:18:47.590 --> 2:18:52.420

e8370aaa-4528-4a15-b4cf-109a6488d54b

I mean it's, you know, it inhibits the enzymes that metabolize the insecticide.



2:18:52.430 --> 2:18:56.350

e8370aaa-4528-4a15-b4cf-109a6488d54b

So it makes it more toxic to insects, and therefore it also makes it more toxic to bees.

2:18:57.70 --> 2:19:1.610

e8370aaa-4528-4a15-b4cf-109a6488d54b

OK, so PBO is not selective at all for insect sips versus BI.

2:19:1.620 --> 2:19:4.50

e8370aaa-4528-4a15-b4cf-109a6488d54b

Don't think people are used as a seed treatment.

2:19:6.90 --> 2:19:6.660

e8370aaa-4528-4a15-b4cf-109a6488d54b

OK.

2:19:6.810 --> 2:19:9.220

e8370aaa-4528-4a15-b4cf-109a6488d54b

So I mean that may be a topic.

2:19:9.230 --> 2:19:18.260

e8370aaa-4528-4a15-b4cf-109a6488d54b

Well, my of just make this comment on that recommendation is that as far as I know, PBO is not used in a as a seed treatment.

2:19:18.270 --> 2:19:23.370

e8370aaa-4528-4a15-b4cf-109a6488d54b

It's a synergist for follow your insecticides so.

2:19:27.820 --> 2:19:29.710

e8370aaa-4528-4a15-b4cf-109a6488d54b

So maybe we'll talk about later, I guess.

2:19:33.630 --> 2:19:42.180

e8370aaa-4528-4a15-b4cf-109a6488d54b

Making them more toxic or more well, what it does is it being it has the effect of reducing the amount you have to apply.

2:19:42.190 --> 2:19:49.180

e8370aaa-4528-4a15-b4cf-109a6488d54b

So one way of 1 argument for the use of PBO is it actually reduces the amount of use.

2:19:49.300 --> 2:19:54.690

e8370aaa-4528-4a15-b4cf-109a6488d54b

So in effect, so there's a there's an issue with the insecticide.

2:19:54.700 --> 2:19:59.0

e8370aaa-4528-4a15-b4cf-109a6488d54b

You you're using less of it, so play some more effective.

2:20:3.210 --> 2:20:4.20

e8370aaa-4528-4a15-b4cf-109a6488d54b

Not so.

2:20:4.30 --> 2:20:6.610

e8370aaa-4528-4a15-b4cf-109a6488d54b

May not be used each week.

2:20:27.350 --> 2:20:28.340

e8370aaa-4528-4a15-b4cf-109a6488d54b

OK, I'm going back.

2:20:28.350 --> 2:20:29.680

e8370aaa-4528-4a15-b4cf-109a6488d54b

I just switched to the.

2:20:33.70 --> 2:20:43.860

e8370aaa-4528-4a15-b4cf-109a6488d54b

More generic, not generic, but of all the BMP's that are have been published, are there any when people were reviewing?

2:20:46.670 --> 2:20:51.470

e8370aaa-4528-4a15-b4cf-109a6488d54b

The bigger picklist, are there any that they would?

2:20:51.540 --> 2:20:55.250

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, want to advocate for.

2:20:58.50 --> 2:20:59.340

e8370aaa-4528-4a15-b4cf-109a6488d54b

Including in our.

2:21:1.270 --> 2:21:4.240

e8370aaa-4528-4a15-b4cf-109a6488d54b

AIB that you would want to bring up for discussion here.

2:21:9.20 --> 2:21:14.740

e8370aaa-4528-4a15-b4cf-109a6488d54b

And I can go through and we haven't actually like gone through line by line of these all of them.

2:21:18.20 --> 2:21:18.390

e8370aaa-4528-4a15-b4cf-109a6488d54b

Right.

2:21:18.620 --> 2:21:21.490

e8370aaa-4528-4a15-b4cf-109a6488d54b

You were just there at the modifying equipment and doesn't sound like that.

2:21:21.500 --> 2:21:25.570

e8370aaa-4528-4a15-b4cf-109a6488d54b

It sounds like defenders had done a lot of work and that that's not really an option.

2:21:27.880 --> 2:21:28.930

e8370aaa-4528-4a15-b4cf-109a6488d54b

That's way down at the bottom.

2:21:28.940 --> 2:21:30.90

e8370aaa-4528-4a15-b4cf-109a6488d54b

Sorry, I get there.

2:21:31.300 --> 2:21:31.870

e8370aaa-4528-4a15-b4cf-109a6488d54b

Phone you're gonna.

2:21:34.30 --> 2:21:34.210

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.

2:21:39.530 --> 2:21:42.510

e8370aaa-4528-4a15-b4cf-109a6488d54b

There doesn't seem to be the, so we're both.

2:21:42.560 --> 2:21:47.700

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, people thought it was, and we also got information from Canada on that too.

2:21:47.860 --> 2:21:52.780

e8370aaa-4528-4a15-b4cf-109a6488d54b

You know, it wasn't no people action or effective.

2:21:56.640 --> 2:21:57.290

e8370aaa-4528-4a15-b4cf-109a6488d54b

Are you serious?

2:22:4.740 --> 2:22:6.890

e8370aaa-4528-4a15-b4cf-109a6488d54b

Can I ask a clarifying question around act?

2:22:7.700 --> 2:22:10.10

e8370aaa-4528-4a15-b4cf-109a6488d54b

4545 yeah.

2:22:11.100 --> 2:22:19.620

e8370aaa-4528-4a15-b4cf-109a6488d54b

For section A establishment of threshold levels, past pressure required prior to use of Munich, Snoid treated article seats.

2:22:20.480 --> 2:22:22.510

e8370aaa-4528-4a15-b4cf-109a6488d54b

Are we coming up with these thresholds?

2:22:22.520 --> 2:22:24.520

e8370aaa-4528-4a15-b4cf-109a6488d54b

Are we saying we're going to separate?

2:22:24.530 --> 2:22:24.980

e8370aaa-4528-4a15-b4cf-109a6488d54b

OK.

2:22:24.990 --> 2:22:26.90

e8370aaa-4528-4a15-b4cf-109a6488d54b

We just have to consider it.

2:22:26.580 --> 2:22:27.970

e8370aaa-4528-4a15-b4cf-109a6488d54b

That's one of the things they consider.

2:22:29.130 --> 2:22:32.220

e8370aaa-4528-4a15-b4cf-109a6488d54b

So it's the sentence right before I know for.

2:22:32.230 --> 2:22:36.860

e8370aaa-4528-4a15-b4cf-109a6488d54b

Does that mean we have so in developing the rules with age innovation for it?

2:22:36.870 --> 2:22:48.440

e8370aaa-4528-4a15-b4cf-109a6488d54b

So this is this is agency of a vague in developing the roles with AIB, the Secretary shall address and so we've been interpreted that.

2:22:48.450 --> 2:22:58.100

e8370aaa-4528-4a15-b4cf-109a6488d54b

So these A through G is how we looked at all the information we've heard to then get to the point where we are today.

2:22:58.570 --> 2:23:10.690

e8370aaa-4528-4a15-b4cf-109a6488d54b

So we made sure to address these topics so that we have the knowledge about these things to then make our recommendation as an app.

2:23:10.740 --> 2:23:12.570

e8370aaa-4528-4a15-b4cf-109a6488d54b

So that's how we're checking these.

2:23:12.580 --> 2:23:19.420

e8370aaa-4528-4a15-b4cf-109a6488d54b

So in developing the rules with AIB, we have talked about and heard about, right, yeah, OK.

2:23:19.430 --> 2:23:20.680

e8370aaa-4528-4a15-b4cf-109a6488d54b

So another way to look at is this.

2:23:20.690 --> 2:23:37.70

e8370aaa-4528-4a15-b4cf-109a6488d54b

When the legislature was considering establishing some at one point, the legislature tried to do this themselves and realized it was more complicated than than they could do, so they created this process to do it.

2:23:37.350 --> 2:23:49.260

e8370aaa-4528-4a15-b4cf-109a6488d54b

But one of the things that they wanted us to consider is thresholds for using it and that, and that's why we spent some time having people talk to us about it.

2:23:49.270 --> 2:23:52.960

e8370aaa-4528-4a15-b4cf-109a6488d54b

But you know, if we could, we're not establishing those questions.

2:23:52.970 --> 2:23:56.160

e8370aaa-4528-4a15-b4cf-109a6488d54b

No, no, it's just gaining and understanding, right.

2:23:56.170 --> 2:23:59.480

e8370aaa-4528-4a15-b4cf-109a6488d54b

We're not establishing thresholds, but we talked about it.

2:23:59.490 --> 2:24:4.380

e8370aaa-4528-4a15-b4cf-109a6488d54b

We heard people talk about, you know, several different researchers talk about that.

2:24:4.750 --> 2:24:11.590

e8370aaa-4528-4a15-b4cf-109a6488d54b

And what I took away from it is it's very hard to do because you can't really.

2:24:11.700 --> 2:24:14.90

e8370aaa-4528-4a15-b4cf-109a6488d54b

You can't really sample for these pests.

2:24:14.140 --> 2:24:18.150

e8370aaa-4528-4a15-b4cf-109a6488d54b

You know, they'll show up too late in the process.

2:24:20.500 --> 2:24:24.290

e8370aaa-4528-4a15-b4cf-109a6488d54b

You've already planned with the corn. When?

2:24:24.380 --> 2:24:30.890

e8370aaa-4528-4a15-b4cf-109a6488d54b

One I could show up and so by the time you found out how many are there there, it's it's too late, right?

2:24:30.900 --> 2:24:33.520

e8370aaa-4528-4a15-b4cf-109a6488d54b

And organic solves all this by just planting later, right?

2:24:34.470 --> 2:24:35.20

e8370aaa-4528-4a15-b4cf-109a6488d54b

I don't know.

2:24:35.30 --> 2:24:35.500

e8370aaa-4528-4a15-b4cf-109a6488d54b

Do they?

2:24:35.550 --> 2:24:44.20

e8370aaa-4528-4a15-b4cf-109a6488d54b

Is that no, we talked about four or more meeting that well, I don't know if it avoids it, but it it could certainly reduce the risk.

2:24:45.70 --> 2:24:55.360

e8370aaa-4528-4a15-b4cf-109a6488d54b

I I would assume it's still be the same just because I mean she she floor Heather talked about there was a two week or almost a two week window for what?

2:24:55.370 --> 2:24:55.880

e8370aaa-4528-4a15-b4cf-109a6488d54b

The flies.

2:24:56.830 --> 2:24:57.600

e8370aaa-4528-4a15-b4cf-109a6488d54b

You're high?

2:24:58.10 --> 2:24:59.80

e8370aaa-4528-4a15-b4cf-109a6488d54b

Umm yeah.

2:24:59.90 --> 2:25:1.540

e8370aaa-4528-4a15-b4cf-109a6488d54b

Once the soil warms up, they really drop off.

2:25:1.750 --> 2:25:5.310

e8370aaa-4528-4a15-b4cf-109a6488d54b

So we had someone here say that specifically we go back and no.

2:25:5.350 --> 2:25:9.620

e8370aaa-4528-4a15-b4cf-109a6488d54b

But someone said organic farmers are just planting later and we just shorter day corn.

2:25:11.70 --> 2:25:13.480

e8370aaa-4528-4a15-b4cf-109a6488d54b

So there is a solution that doesn't involve.

2:25:15.170 --> 2:25:17.170

e8370aaa-4528-4a15-b4cf-109a6488d54b

There, there's a practice, right?

2:25:18.320 --> 2:25:19.730

e8370aaa-4528-4a15-b4cf-109a6488d54b

So well, it's talking about that.

2:25:19.740 --> 2:25:20.650

e8370aaa-4528-4a15-b4cf-109a6488d54b

I mean, yeah.

2:25:20.660 --> 2:25:21.260

e8370aaa-4528-4a15-b4cf-109a6488d54b

So what's the?

2:25:21.270 --> 2:25:25.830

e8370aaa-4528-4a15-b4cf-109a6488d54b

What's the impact if you can't plant corn before a certain date?

2:25:27.310 --> 2:25:35.480

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, I mean, it is a real, I mean it this is where I look at this as like a bigger question for Vermont and Rilk and where's that milk going?

2:25:35.490 --> 2:25:38.970

e8370aaa-4528-4a15-b4cf-109a6488d54b

Is there a demand for milk and per stall economics is that?

2:25:40.630 --> 2:25:44.200

e8370aaa-4528-4a15-b4cf-109a6488d54b

Really the best for the farmers dollar on spent.

2:25:44.250 --> 2:25:49.290

e8370aaa-4528-4a15-b4cf-109a6488d54b

And that's one thing that I really would, you know, look at that has her hand up.

2:25:51.140 --> 2:26:11.70

Amanda St.Pierre

Yeah, this gets into a little bit broader scope than I think this committee maybe tasked with and

obviously I think farmers are gonna be very passionate and concerned if we are trying to dictate when we're allowed to plant.

2:26:12.730 --> 2:26:20.850

Amanda St.Pierre

And if it's the best use of our money, we've chosen to be in the dairy industry, we have a passion for it.

2:26:20.860 --> 2:26:22.360

Amanda St.Pierre

We feel a purpose of it.

2:26:23.100 --> 2:26:23.890

Amanda St.Pierre

Umm.

2:26:24.520 --> 2:26:41.740

Amanda St.Pierre

And we struggle, as all farmers of whatever crop they're trying to farm with the dictates of whether certainly climate change or if you don't believe in that weather patterns, you know where we're at, the mercy of Mother Nature.

2:26:42.270 --> 2:26:51.270

Amanda St.Pierre

So I'm really sensitive to that kind of, UM, kind of that kind of challenges.

2:26:51.280 --> 2:27:0.60

Amanda St.Pierre

I mean open to discussion, but I I would just really be sensitive to trying to incorporate that in the in the work that we're tasked with.

2:27:2.730 --> 2:27:6.320

e8370aaa-4528-4a15-b4cf-109a6488d54b

No, I mean and and just have to, I totally agree.

2:27:6.330 --> 2:27:9.650

e8370aaa-4528-4a15-b4cf-109a6488d54b

I think we're all of you're trying to feed people and figuring out the best way to do it.

2:27:10.450 --> 2:27:17.790

e8370aaa-4528-4a15-b4cf-109a6488d54b

Umm, so I'm by no meaning suggesting all farmers in Vermont use organic practices.

2:27:17.910 --> 2:27:19.90

e8370aaa-4528-4a15-b4cf-109a6488d54b

Think that would be.

2:27:19.200 --> 2:27:24.120

e8370aaa-4528-4a15-b4cf-109a6488d54b

That is obviously not what what we're tasked with doing here today, but but it was just you know.



2:27:25.710 --> 2:27:26.660

e8370aaa-4528-4a15-b4cf-109a6488d54b

But it's a fact.

2:27:26.670 --> 2:27:27.520

e8370aaa-4528-4a15-b4cf-109a6488d54b

It's a factor, right?

2:27:27.530 --> 2:27:29.740

e8370aaa-4528-4a15-b4cf-109a6488d54b

It's just a question is that that comes up.

2:27:29.750 --> 2:27:40.400

e8370aaa-4528-4a15-b4cf-109a6488d54b

It's a question that when it, when it comes to managing pests, you know, some of the information we got was that you have fewer pests this particular pests.

2:27:40.540 --> 2:27:52.320

e8370aaa-4528-4a15-b4cf-109a6488d54b

If you plant later and the other information was that even if you want maybe something that doesn't have any treatment at all, it's not even available or you have to order it two years in a so right.

2:27:52.330 --> 2:27:55.80

e8370aaa-4528-4a15-b4cf-109a6488d54b

And again, I'm coming from this also thinking about.

2:27:58.480 --> 2:28:3.10

e8370aaa-4528-4a15-b4cf-109a6488d54b

Food systems, you know, all of us trying to earn a living.

2:28:3.420 --> 2:28:9.900

e8370aaa-4528-4a15-b4cf-109a6488d54b

And again, no offense to bear pharmaceuticals, but bear, DuPont, Dow.

2:28:9.910 --> 2:28:10.980

e8370aaa-4528-4a15-b4cf-109a6488d54b

They're all doing great.

2:28:10.990 --> 2:28:14.460

e8370aaa-4528-4a15-b4cf-109a6488d54b

They're all doing these companies or making money in a lot of sectors, right?

2:28:14.730 --> 2:28:29.120

e8370aaa-4528-4a15-b4cf-109a6488d54b

And so, you know, just trying to figure out how to make sure that we're not just using chemicals for the sake of their quarterly earnings statements, which I've just read, which are fascinating, that.

2:28:29.440 --> 2:28:31.310

e8370aaa-4528-4a15-b4cf-109a6488d54b

But again, I have a minor in dairy.

2:28:31.380 --> 2:28:37.800

e8370aaa-4528-4a15-b4cf-109a6488d54b

I'm a big fan of dairy and and I'm a big fan of agriculture, so it's a really tough spot.

2:28:37.810 --> 2:28:39.50

e8370aaa-4528-4a15-b4cf-109a6488d54b

It's a tough, tough one.

2:28:39.130 --> 2:28:42.890

e8370aaa-4528-4a15-b4cf-109a6488d54b

It would be nice to know what cultivars I mean.

2:28:43.170 --> 2:28:50.960

e8370aaa-4528-4a15-b4cf-109a6488d54b

Some of the cultivars that the farmers want to use may have a longer season, so they may not like planning later.

2:28:50.970 --> 2:28:52.610

e8370aaa-4528-4a15-b4cf-109a6488d54b

That might doesn't work. Yeah.

2:28:52.620 --> 2:28:52.840

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.

2:28:52.850 --> 2:28:57.760

e8370aaa-4528-4a15-b4cf-109a6488d54b

No, I totally understand that that a longer day corn would not work for that, right?

2:28:57.770 --> 2:29:2.650

e8370aaa-4528-4a15-b4cf-109a6488d54b

But it's just part of this broader conversation of why we're here.

2:29:2.840 --> 2:29:3.170

e8370aaa-4528-4a15-b4cf-109a6488d54b

Right.

2:29:3.180 --> 2:29:5.220

e8370aaa-4528-4a15-b4cf-109a6488d54b

And I think these are the kinds of questions that are.

2:29:7.170 --> 2:29:8.680

e8370aaa-4528-4a15-b4cf-109a6488d54b

Legislature is gonna ask.

2:29:8.890 --> 2:29:18.530

e8370aaa-4528-4a15-b4cf-109a6488d54b

So, you know, having these discussions, why we need to do, we need to talk about this stuff, because this is these are the questions we're gonna get whatever we come up with, we go there.

2:29:20.430 --> 2:29:21.860

e8370aaa-4528-4a15-b4cf-109a6488d54b

These are the questions we're going to get.

2:29:22.370 --> 2:29:25.20

e8370aaa-4528-4a15-b4cf-109a6488d54b

So when you see it as something that.

2:29:28.720 --> 2:29:34.330

Wendy Sue Harper (Guest)

I I think we need to understand what short day varieties there are out there.

2:29:37.520 --> 2:29:40.860

Wendy Sue Harper (Guest)

If, as part of this conversation, that's all.

2:29:43.270 --> 2:29:43.420

e8370aaa-4528-4a15-b4cf-109a6488d54b

Hello.

2:29:44.220 --> 2:29:46.380

e8370aaa-4528-4a15-b4cf-109a6488d54b

And that's formations available, right?

2:29:49.740 --> 2:29:52.540

e8370aaa-4528-4a15-b4cf-109a6488d54b

Umm, I just want to make sure I'm following our.

2:29:55.970 --> 2:29:59.720

e8370aaa-4528-4a15-b4cf-109a6488d54b

Is this like a proposed but not yet no?

2:29:59.730 --> 2:30:0.740

e8370aaa-4528-4a15-b4cf-109a6488d54b

I would say it's proposed.

2:30:0.750 --> 2:30:4.220

e8370aaa-4528-4a15-b4cf-109a6488d54b

It's a question, so one of the you know, one of the.

2:30:7.60 --> 2:30:17.380

e8370aaa-4528-4a15-b4cf-109a6488d54b

Factors in managing seedcorn maggot is planting later, so the question was asked, well, why can't we just always plant later?

2:30:17.840 --> 2:30:21.70

e8370aaa-4528-4a15-b4cf-109a6488d54b

The answer is we should have a good answer for that.

2:30:21.80 --> 2:30:22.570

e8370aaa-4528-4a15-b4cf-109a6488d54b

There's lots of other factors.

2:30:22.580 --> 2:30:26.710

e8370aaa-4528-4a15-b4cf-109a6488d54b

And Amanda, you you might want than any other one intended.

2:30:26.720 --> 2:30:27.710

e8370aaa-4528-4a15-b4cf-109a6488d54b

Consequences.

2:30:27.880 --> 2:30:39.240

e8370aaa-4528-4a15-b4cf-109a6488d54b

You know the industry for producers to become more profitable and have basically gotten away from external inputs having to purchase has been they now start cutting.

2:30:39.250 --> 2:30:40.260

e8370aaa-4528-4a15-b4cf-109a6488d54b

Hey, the 25th of May.

2:30:41.430 --> 2:30:45.240

e8370aaa-4528-4a15-b4cf-109a6488d54b

So you know, logistically how many things can you do at once?

2:30:45.410 --> 2:30:57.620

e8370aaa-4528-4a15-b4cf-109a6488d54b

Plant corn plant, harvest hay and so there's a lot of different factors that you pick this planting and you make them sit for the first three months of may not to do anything.

2:30:57.690 --> 2:30:59.90

e8370aaa-4528-4a15-b4cf-109a6488d54b

It's windows.

2:30:59.410 --> 2:31:30.180

e8370aaa-4528-4a15-b4cf-109a6488d54b

There are times that you just can't plant then, but at the same time that may also be the side effect that then has not delayed the in has delayed the insect as well because you get all this moisture you get cold weather it's not congruent to planting conditions, so then you delay planting and maybe they are planting the first week of June, but that necessarily has not they have not accumulated the GPU needs because aren't the core maggits also somewhat dependent on temperature and moisture and other things.

2:31:30.190 --> 2:31:39.760

e8370aaa-4528-4a15-b4cf-109a6488d54b

So you know I I I think it it's it's a novel idea but I don't think it's also the first time that that the discussion of shorter day corn has come up.

2:31:39.970 --> 2:31:40.880

e8370aaa-4528-4a15-b4cf-109a6488d54b

You know when you're talking?

2:31:41.120 --> 2:31:47.120

e8370aaa-4528-4a15-b4cf-109a6488d54b

Till guys are now taking, our farmers are now taking first cut off and then putting corn in.

2:31:47.230 --> 2:31:48.980

e8370aaa-4528-4a15-b4cf-109a6488d54b

But it's not their entire acreage.

2:31:48.990 --> 2:31:54.820

e8370aaa-4528-4a15-b4cf-109a6488d54b

It's another opportunity to produce soil erosion and and new tree management differently and things.

2:31:54.830 --> 2:32:3.50

e8370aaa-4528-4a15-b4cf-109a6488d54b

So I I think it's it's it's all kind of a piece that fits together and to for this board to then turn industry upside down.

2:32:3.260 --> 2:32:7.450

e8370aaa-4528-4a15-b4cf-109a6488d54b

You know, I do think that there is times and there's going to be opportunity to move forward.

2:32:7.460 --> 2:32:16.190

e8370aaa-4528-4a15-b4cf-109a6488d54b

If Steve has become shorter and they have to shorten up day length so there is, I mean there exists a 75 day, you know, silage corn.

2:32:17.260 --> 2:32:25.400

e8370aaa-4528-4a15-b4cf-109a6488d54b

But is that going to meet the needs without increasing anchorage of corn in this in this state, which I don't know, that that's what the state wants as well.

2:32:25.530 --> 2:32:31.380

e8370aaa-4528-4a15-b4cf-109a6488d54b

I mean, to me it's it's a it, it's it's a, it's a big discussion, right.

2:32:31.390 --> 2:32:32.500

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, it's a go there.

2:32:32.510 --> 2:32:32.760

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.

2:32:32.770 --> 2:32:36.280

e8370aaa-4528-4a15-b4cf-109a6488d54b

And you know, so I don't know.

2:32:36.770 --> 2:32:42.340

e8370aaa-4528-4a15-b4cf-109a6488d54b

We have three more meetings and should this be discussed, that's fine and the question can you get shorter date?

2:32:42.350 --> 2:32:42.640

e8370aaa-4528-4a15-b4cf-109a6488d54b

Current.

2:32:42.650 --> 2:32:48.60

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, but it's no different than, you know, you tackle that snowball and the ball keeps.

2:32:48.100 --> 2:32:50.90

e8370aaa-4528-4a15-b4cf-109a6488d54b

So that's my take on it.

2:32:52.720 --> 2:32:54.310

e8370aaa-4528-4a15-b4cf-109a6488d54b

Or anything you wanna throw in there.

2:32:54.360 --> 2:32:54.930

e8370aaa-4528-4a15-b4cf-109a6488d54b

Well, I was.

2:32:55.40 --> 2:32:57.140

e8370aaa-4528-4a15-b4cf-109a6488d54b

Asking that then I have a question for you Steve.

2:32:57.720 --> 2:33:6.970

e8370aaa-4528-4a15-b4cf-109a6488d54b

But I mean that whole conversation about that's all about the the the test, not necessarily the fact that you can actually get the feed that doesn't have that trade in it, right.

2:33:6.980 --> 2:33:12.750

e8370aaa-4528-4a15-b4cf-109a6488d54b

So it doesn't sound like there's 100% opportunity to get the feed without the trait.

2:33:13.160 --> 2:33:20.910

e8370aaa-4528-4a15-b4cf-109a6488d54b

And so to have some farmers be penalized for saying you can't plant your seed because you need to delay it versus the others.

2:33:21.590 --> 2:33:22.40

e8370aaa-4528-4a15-b4cf-109a6488d54b

Umm.

2:33:22.140 --> 2:33:36.560

e8370aaa-4528-4a15-b4cf-109a6488d54b

And they're ordering their seed early again and we just talked about how they're trying to order it right now, so that that like I'm curious if there can be BMP that are not regulatory or just good ideas and BMP's that can be, you know, I guess like sure that's the goal.

2:33:36.570 --> 2:33:39.990

e8370aaa-4528-4a15-b4cf-109a6488d54b

Should go to if in the legislature, but so those are the comments on that.

2:33:40.0 --> 2:33:42.570

e8370aaa-4528-4a15-b4cf-109a6488d54b

But my question for you is you met with some farmers, right?

2:33:42.580 --> 2:33:46.380

e8370aaa-4528-4a15-b4cf-109a6488d54b

Is there any feedback or anything that is worthwhile to share that with us?

2:33:46.480 --> 2:33:47.920

e8370aaa-4528-4a15-b4cf-109a6488d54b

No, no. OK.

2:33:47.930 --> 2:33:48.310

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.

2:33:48.320 --> 2:33:50.500

e8370aaa-4528-4a15-b4cf-109a6488d54b

Well, I think we have to talk to more farmers.

2:33:50.840 --> 2:33:51.40

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.

2:33:52.260 --> 2:33:56.510

e8370aaa-4528-4a15-b4cf-109a6488d54b

And certainly encourage any all the board members to do that when you have a chance.

2:33:56.520 --> 2:34:9.870

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, but I mean the as far as, yeah, I mean, the whole point of this is to come up with some recommendations to address the issue of the impacts of neonicotinoid trees.

2:34:10.360 --> 2:34:10.710

e8370aaa-4528-4a15-b4cf-109a6488d54b

Right.

2:34:11.180 --> 2:34:25.120

e8370aaa-4528-4a15-b4cf-109a6488d54b

So whatever form that takes, whether it's a set of rules or it's a set of good practices, or it's something else, whatever it is, we just as a board have to have something to give the legislature for them to consider.

2:34:26.0 --> 2:34:26.410

e8370aaa-4528-4a15-b4cf-109a6488d54b

Uh.

2:34:26.420 --> 2:34:28.550

e8370aaa-4528-4a15-b4cf-109a6488d54b

And they're, I'm sure they're considering things already.

2:34:28.560 --> 2:34:33.330

e8370aaa-4528-4a15-b4cf-109a6488d54b

You know, I'm sure they've got all kinds of ideas for some folks who have ideas about what to do.

2:34:33.340 --> 2:34:43.310

e8370aaa-4528-4a15-b4cf-109a6488d54b

But you know, we're we have the opportunity to look at all the factors and discuss it and then come forward with something or or a range of things.

2:34:43.320 --> 2:34:45.180

e8370aaa-4528-4a15-b4cf-109a6488d54b

You don't necessarily.

2:34:45.210 --> 2:34:47.20

e8370aaa-4528-4a15-b4cf-109a6488d54b

Even have to all agree on anything.

2:34:47.30 --> 2:34:51.240

e8370aaa-4528-4a15-b4cf-109a6488d54b

You just need to have the you know sort of have gone through the process.

2:34:54.230 --> 2:34:59.400

e8370aaa-4528-4a15-b4cf-109a6488d54b

And considered all the information and develop some ideas which is what you know.

2:34:59.490 --> 2:35:7.220

e8370aaa-4528-4a15-b4cf-109a6488d54b

This is why we were, you know, we were given this because we have the time to do it and the legislature would necessarily said that makes no sense.



2:35:7.280 --> 2:35:7.560

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.

2:35:7.600 --> 2:35:18.570

e8370aaa-4528-4a15-b4cf-109a6488d54b

The other thing I thought about today and I I'm not sure so between Canada and it was I think Pennsylvania, they shared, you know they're doing some work in that in the space of not having Unix.

2:35:18.580 --> 2:35:23.990

e8370aaa-4528-4a15-b4cf-109a6488d54b

And to me, it just the climate regime seems really important for pest pressure, right?

2:35:24.0 --> 2:35:26.760

e8370aaa-4528-4a15-b4cf-109a6488d54b

Like the South, Georgia seems like really strong on pest pressure.

2:35:27.580 --> 2:35:30.90

e8370aaa-4528-4a15-b4cf-109a6488d54b

Umm, but as you go north, obviously it's cold.

2:35:31.20 --> 2:35:38.450

e8370aaa-4528-4a15-b4cf-109a6488d54b

Umm, so I just don't remember their timing of how long they've been doing some of this work because of today's conversation.

2:35:38.460 --> 2:35:51.570

e8370aaa-4528-4a15-b4cf-109a6488d54b

Sort of enlightened me to think about like, Oh my gosh, this residual effect of what if this overall Halo effect is why we don't have the pest pressure we have or you know I have to assume it was climate, but is it a Halo effect?

2:35:51.990 --> 2:35:57.230

e8370aaa-4528-4a15-b4cf-109a6488d54b

And as time goes on, like with Canada, how they're operating because you know, they were saying you have to.

2:35:58.330 --> 2:36:5.640

e8370aaa-4528-4a15-b4cf-109a6488d54b

Well, they said they struggled because they have people right to go out and do the field checks to say that the best pressure high enough that then you can do the tree seed.

2:36:6.330 --> 2:36:25.160

e8370aaa-4528-4a15-b4cf-109a6488d54b

But over time, are we going to see the populations go up because residual effect later and I just don't know that that it doesn't sound like according to Heather, that there's much research in that space and it's relatively new that people are starting to have these, you know, on bands on having seed.

2:36:25.170 --> 2:36:32.160

e8370aaa-4528-4a15-b4cf-109a6488d54b

And so it's like we don't really know the long term consequences yet, and I don't think we have research on that to understand it.

2:36:34.640 --> 2:36:36.90

e8370aaa-4528-4a15-b4cf-109a6488d54b

I think there is some.

2:36:38.170 --> 2:36:41.910

e8370aaa-4528-4a15-b4cf-109a6488d54b

And a little even in a couple of the Quebec papers.

2:36:44.40 --> 2:36:47.570

e8370aaa-4528-4a15-b4cf-109a6488d54b

It escapes me that I can look at it up in my pile of stuff.

2:36:48.0 --> 2:37:5.640

e8370aaa-4528-4a15-b4cf-109a6488d54b

I think if laboratory that was talking about that amount of have found in the field and that was a study done over five years over many, many acres in Quebec specifically, which sort of mirrors Vermont, yeah, climate.

2:37:7.310 --> 2:37:10.580

e8370aaa-4528-4a15-b4cf-109a6488d54b

And that was just on the pressure alone.

2:37:10.650 --> 2:37:19.400

e8370aaa-4528-4a15-b4cf-109a6488d54b

Plus this, there is a different planting practice in Quebec for my understanding to Vermont where their rotating a lot of times corn and soy.

2:37:19.460 --> 2:37:24.760

e8370aaa-4528-4a15-b4cf-109a6488d54b

So I don't know I can bring up that study and and when I tell you.

2:37:24.870 --> 2:37:26.70

e8370aaa-4528-4a15-b4cf-109a6488d54b

Well, not necessarily.

2:37:26.150 --> 2:37:31.590

e8370aaa-4528-4a15-b4cf-109a6488d54b

I think like probably a lot less organic material potentially, maybe it's changing a little bit more, but?

2:37:33.650 --> 2:37:37.210

e8370aaa-4528-4a15-b4cf-109a6488d54b

Because it's not as much manure or heavy base of a system up there.

2:37:37.220 --> 2:37:39.390

e8370aaa-4528-4a15-b4cf-109a6488d54b

In some areas it is, but there's a lot more crop land.

2:37:44.250 --> 2:37:50.390

e8370aaa-4528-4a15-b4cf-109a6488d54b

Five years isn't very long, so right, like in the big picture, it was 177 farms over five years.

2:37:50.530 --> 2:37:50.890

e8370aaa-4528-4a15-b4cf-109a6488d54b

There we go.

2:37:51.730 --> 2:37:56.620

e8370aaa-4528-4a15-b4cf-109a6488d54b

That was not a not long study, but it was a wrong.

2:37:56.940 --> 2:37:59.520

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, yeah, that might be good to see.

2:38:0.70 --> 2:38:1.700

e8370aaa-4528-4a15-b4cf-109a6488d54b

Resurrect that somewhere?

2:38:1.890 --> 2:38:2.390

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.

2:38:2.400 --> 2:38:7.450

e8370aaa-4528-4a15-b4cf-109a6488d54b

And I guess I was trying to think is like between squeezing ourselves between Canada and Pennsylvania, what does that look like?

2:38:7.710 --> 2:38:9.860

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, a little bit of both, huh?

2:38:10.200 --> 2:38:16.160

e8370aaa-4528-4a15-b4cf-109a6488d54b

And did Elsa Elson Field mention that Halo affected he have in his presentation?

2:38:16.170 --> 2:38:18.380

e8370aaa-4528-4a15-b4cf-109a6488d54b

He talked about that cause I know he talked about.

2:38:18.390 --> 2:38:25.530

e8370aaa-4528-4a15-b4cf-109a6488d54b

He said something about finding the back corner of of the organic farm to try to find something that had not had it.

2:38:25.540 --> 2:38:25.820

e8370aaa-4528-4a15-b4cf-109a6488d54b

Did he?

2:38:27.200 --> 2:38:28.910

e8370aaa-4528-4a15-b4cf-109a6488d54b

I mean, I haven't looked at his in a few weeks.

2:38:28.920 --> 2:38:31.220

e8370aaa-4528-4a15-b4cf-109a6488d54b

I mean, fought back in June of this.

2:38:31.340 --> 2:38:32.240

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.

2:38:32.390 --> 2:38:33.10

e8370aaa-4528-4a15-b4cf-109a6488d54b

Remember.

2:38:33.80 --> 2:38:33.910

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, forever.

2:38:33.920 --> 2:38:38.670

e8370aaa-4528-4a15-b4cf-109a6488d54b

But before the there was almost 20 years of not having or.

2:38:38.680 --> 2:38:44.840

e8370aaa-4528-4a15-b4cf-109a6488d54b

She was, you know, 18 years of not having anything on that plot and still had the same level as the plots that last year had it.

2:38:45.540 --> 2:38:48.600

e8370aaa-4528-4a15-b4cf-109a6488d54b

So it's just there's deeper in the and the deeper soil.

2:38:48.610 --> 2:38:49.900

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, there's something there.

2:38:57.970 --> 2:38:58.970

e8370aaa-4528-4a15-b4cf-109a6488d54b

I would just throw out there.

2:38:58.980 --> 2:39:4.420

e8370aaa-4528-4a15-b4cf-109a6488d54b

I mean, it's as someone who tracks his pasture based agriculture, who doesn't spray anything herbicide.

2:39:4.500 --> 2:39:8.630

e8370aaa-4528-4a15-b4cf-109a6488d54b

You know any of what we in our space usually just called biocide poison?

2:39:11.90 --> 2:39:22.140

e8370aaa-4528-4a15-b4cf-109a6488d54b

A lot of the soil scientists out there are gonna say that the diversity of spiders and everything that we see above ground is a huge indicator of soil health.

2:39:23.710 --> 2:39:29.480

e8370aaa-4528-4a15-b4cf-109a6488d54b

And when we when we spray or tell anything, we're we're generally even, you know, round up as an effective pesticide.

2:39:29.490 --> 2:39:33.80

e8370aaa-4528-4a15-b4cf-109a6488d54b

We're killing all of the diversity on that field.

2:39:33.90 --> 2:39:50.340

e8370aaa-4528-4a15-b4cf-109a6488d54b

And so the question is, you know, decades of filth and herbicide biocide spray is that impacting our insect biology and and maybe that's why we're seeing some of some of these numbers decline like this.

2:39:50.350 --> 2:39:51.240

e8370aaa-4528-4a15-b4cf-109a6488d54b

You're in this study.

2:39:51.850 --> 2:39:59.600

e8370aaa-4528-4a15-b4cf-109a6488d54b

Just anecdotally, I would say that's probably exactly it for just we're not creating habitat for these animals anymore.

2:39:59.610 --> 2:40:3.750

e8370aaa-4528-4a15-b4cf-109a6488d54b

So I would just, I don't know if that's just my observation.

2:40:5.590 --> 2:40:5.840

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.

2:40:5.850 --> 2:40:10.860

e8370aaa-4528-4a15-b4cf-109a6488d54b

When I was just getting, I was like, how fast is it that the past pressure comes back or does it not?

2:40:10.930 --> 2:40:11.480

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, right.

2:40:11.490 --> 2:40:15.680

e8370aaa-4528-4a15-b4cf-109a6488d54b

Is it more climate or is it more the suppression that's going on?

2:40:20.280 --> 2:40:41.660

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, I mean, that's a good point because I mean, look at the, you know, one of the factors is that if you have C core values, your just so you know you can't do anything about that, you're just, you lose your front or you lose enough, you lose his significant amount of yield.

2:40:43.340 --> 2:40:45.740

e8370aaa-4528-4a15-b4cf-109a6488d54b

So that's a there's no rescue treatment.

2:40:47.770 --> 2:40:51.890

e8370aaa-4528-4a15-b4cf-109a6488d54b

I seed corn maggot margin protection program.

2:40:53.440 --> 2:40:56.190

e8370aaa-4528-4a15-b4cf-109a6488d54b

You know, it's just like if that's really the concern, right.

2:40:56.200 --> 2:40:57.330

e8370aaa-4528-4a15-b4cf-109a6488d54b

And maybe there's a way.

2:40:57.340 --> 2:40:57.670

e8370aaa-4528-4a15-b4cf-109a6488d54b

It's just.

2:40:57.860 --> 2:40:59.290

e8370aaa-4528-4a15-b4cf-109a6488d54b

I'm just again, we're thinking outside of the box.

2:40:59.350 --> 2:41:4.500

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, if it's just all comes down to that and it's case by case.

2:41:6.430 --> 2:41:10.300

e8370aaa-4528-4a15-b4cf-109a6488d54b

We're talking about blanket treatment of neonicotinoids that that is the question.

2:41:10.380 --> 2:41:11.680

e8370aaa-4528-4a15-b4cf-109a6488d54b

That's what we're here to talk about.

2:41:11.690 --> 2:41:20.170

e8370aaa-4528-4a15-b4cf-109a6488d54b

And there's another way to some of that major issue because obviously that's devastating and is not not acceptable outcome.

2:41:20.400 --> 2:41:24.520

e8370aaa-4528-4a15-b4cf-109a6488d54b

But would be or to solve that decides of fraud application of Munich to it?

2:41:25.200 --> 2:41:26.10

e8370aaa-4528-4a15-b4cf-109a6488d54b

I don't know.

2:41:26.140 --> 2:41:30.850

e8370aaa-4528-4a15-b4cf-109a6488d54b

Again, just that's probably not in the scope of this board, but just well, no, that's a thing to talk about.

2:41:30.860 --> 2:41:37.410

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So in think we're back, they they have not allowed neonicotinoids, right?

2:41:37.700 --> 2:41:47.10

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So that for the specific one, the, so they're using the, they're using Diamond, Diamond, right?

2:41:47.20 --> 2:41:51.100

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So they 12 tons of that right then which to another insecticide.

2:41:51.110 --> 2:41:53.140

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Yeah, the current or whatever.

2:41:55.230 --> 2:41:56.800

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Do we have good?

2:41:56.970 --> 2:42:2.880

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Do we have any information about the effect on the yields of that switch?

2:42:3.340 --> 2:42:4.880

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Are there yields still comparable?

2:42:4.890 --> 2:42:6.320

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They're best pressure comparable.

2:42:6.830 --> 2:42:8.640

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I think that's in that library study.

2:42:8.850 --> 2:42:9.780

e8370aaa-4528-4a15-b4cf-109a6488d54b

She has.

2:42:9.870 --> 2:42:13.160

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It's one of the treatments is diamine.

2:42:13.430 --> 2:42:14.170

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There's neonics.

2:42:15.280 --> 2:42:16.700

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The time I think, isn't it?

2:42:17.160 --> 2:42:20.10

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I'm I'm not 100% sure whether that's good or another.

2:42:20.20 --> 2:42:26.740

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I know laboratory study did fungicide only treated in a neonics and a fungicide treated corn.

2:42:27.850 --> 2:42:35.480

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Alright, sorry side by side, when I somebody did a dynamic one somewhere in there and I think it's the one from.

2:42:39.610 --> 2:42:41.670

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I think we need to have a big review session.

2:42:42.130 --> 2:42:44.800

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, that might be something we need to do, actually.

2:42:44.810 --> 2:42:45.330

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.

2:42:45.370 --> 2:42:48.690

e8370aaa-4528-4a15-b4cf-109a6488d54b

Before we get to highlight, just do review.

2:42:48.850 --> 2:42:49.220

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.



2:42:49.260 --> 2:42:51.460

e8370aaa-4528-4a15-b4cf-109a6488d54b

I mean, we could all do it.

2:42:51.510 --> 2:42:52.810

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yes, right.

2:42:52.850 --> 2:42:56.770

e8370aaa-4528-4a15-b4cf-109a6488d54b

But everyone has a job, you know?

2:42:57.120 --> 2:43:4.120

e8370aaa-4528-4a15-b4cf-109a6488d54b

So maybe you oughta maybe that should be our next meeting is just to review some of the high points of everything we've heard so far.

2:43:6.220 --> 2:43:11.600

e8370aaa-4528-4a15-b4cf-109a6488d54b

It could be a good supporting document for anybody who, well, we're gonna have our BMP's as well, right?

2:43:11.610 --> 2:43:13.890

e8370aaa-4528-4a15-b4cf-109a6488d54b

And we're gonna have to do it anyway to write the report.

2:43:13.900 --> 2:43:14.310

e8370aaa-4528-4a15-b4cf-109a6488d54b

Right.

2:43:14.320 --> 2:43:17.0

e8370aaa-4528-4a15-b4cf-109a6488d54b

Because the legislature 'cause, we're gonna have to recap.

2:43:17.950 --> 2:43:18.580

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.

2:43:19.470 --> 2:43:24.730

e8370aaa-4528-4a15-b4cf-109a6488d54b

Everything we've heard so more.

2:43:24.740 --> 2:43:25.470

e8370aaa-4528-4a15-b4cf-109a6488d54b

Why don't you?

2:43:25.630 --> 2:43:28.630

e8370aaa-4528-4a15-b4cf-109a6488d54b

Let's think about that for the next meeting.

2:43:28.680 --> 2:43:29.490

e8370aaa-4528-4a15-b4cf-109a6488d54b

Just sort of a.

2:43:30.180 --> 2:43:32.250

e8370aaa-4528-4a15-b4cf-109a6488d54b

OK, here's what we know, right?

2:43:32.440 --> 2:43:33.750

e8370aaa-4528-4a15-b4cf-109a6488d54b

Kind of the thing, you know?

2:43:33.980 --> 2:43:34.590

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.

2:43:34.720 --> 2:43:35.380

e8370aaa-4528-4a15-b4cf-109a6488d54b

Here's what we know.

2:43:36.530 --> 2:43:36.810

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.

2:43:36.820 --> 2:43:38.50

e8370aaa-4528-4a15-b4cf-109a6488d54b

And then see where we end up.

2:43:39.370 --> 2:43:40.330

e8370aaa-4528-4a15-b4cf-109a6488d54b

But you guys think about that?

2:43:41.850 --> 2:43:44.10

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, I meant to do that over the weekend, but yeah, sure.

2:43:45.660 --> 2:43:46.860

e8370aaa-4528-4a15-b4cf-109a6488d54b

That's it was too nice.

2:43:47.480 --> 2:43:55.340

e8370aaa-4528-4a15-b4cf-109a6488d54b

So many hours in a day, I think it'd be helpful for you to organize your thoughts for responding to the legislators questions, right?

2:43:55.350 --> 2:43:56.700

e8370aaa-4528-4a15-b4cf-109a6488d54b

It's like, why not this?

2:43:56.710 --> 2:43:59.990

e8370aaa-4528-4a15-b4cf-109a6488d54b

And it's like, well, here's the research and just highlights bullet points.

2:44:0.50 --> 2:44:0.400

e8370aaa-4528-4a15-b4cf-109a6488d54b

OK.

2:44:0.410 --> 2:44:14.510

e8370aaa-4528-4a15-b4cf-109a6488d54b

Well, we can kind of do that in the context of this other thing because the, you know every every, I mean the speakers, we've had the information we have was organized around that list of things we're supposed to consider.

2:44:15.140 --> 2:44:16.910

e8370aaa-4528-4a15-b4cf-109a6488d54b

So what we can do is we can just go through that.

2:44:16.920 --> 2:44:18.80

e8370aaa-4528-4a15-b4cf-109a6488d54b

So This is why we consider.

2:44:18.90 --> 2:44:23.590

e8370aaa-4528-4a15-b4cf-109a6488d54b

Here's what we heard, you know, so if you ask a question about this, this is what we know.

2:44:23.900 --> 2:44:28.550

e8370aaa-4528-4a15-b4cf-109a6488d54b

So we'll just do a what we know umm based on that list.

2:44:29.800 --> 2:44:31.290

e8370aaa-4528-4a15-b4cf-109a6488d54b

Pretty straightforward, so that'll be a.

2:44:31.980 --> 2:44:37.860

e8370aaa-4528-4a15-b4cf-109a6488d54b

We'll have a recap session on October 66.

2:44:47.250 --> 2:44:48.260

e8370aaa-4528-4a15-b4cf-109a6488d54b

Alright. Do that.

2:44:48.590 --> 2:44:49.240

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yep.

2:44:49.730 --> 2:44:55.860

e8370aaa-4528-4a15-b4cf-109a6488d54b

OK, have that be the majority of the ohh we'll put you on that and.

2:44:57.110 --> 2:44:57.890

e8370aaa-4528-4a15-b4cf-109a6488d54b

And so we're still.

2:45:0.570 --> 2:45:1.230

e8370aaa-4528-4a15-b4cf-109a6488d54b

I'm really sorry.

2:45:1.700 --> 2:45:3.200

e8370aaa-4528-4a15-b4cf-109a6488d54b

So you get that kind of thing, yeah.

2:45:5.50 --> 2:45:5.950

e8370aaa-4528-4a15-b4cf-109a6488d54b

I do want to.

2:45:8.180 --> 2:45:12.20

e8370aaa-4528-4a15-b4cf-109a6488d54b

Make sure we have time for any public comment.

2:45:15.100 --> 2:45:19.50

e8370aaa-4528-4a15-b4cf-109a6488d54b

Anybody has joined us that would like to provide public.

2:45:29.510 --> 2:45:29.890

e8370aaa-4528-4a15-b4cf-109a6488d54b

OK.

2:45:30.960 --> 2:45:33.10

e8370aaa-4528-4a15-b4cf-109a6488d54b

Uh, thank you.

2:45:33.20 --> 2:45:35.480

e8370aaa-4528-4a15-b4cf-109a6488d54b

I didn't mean to cut that short, but I just want to make sure I got that in. But.

2:45:38.800 --> 2:45:39.260

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.

2:45:39.270 --> 2:45:42.610

e8370aaa-4528-4a15-b4cf-109a6488d54b

So OK, So what I am hearing, so we will.

2:45:45.120 --> 2:45:47.730

e8370aaa-4528-4a15-b4cf-109a6488d54b

The name she looked to review what we've learned about.

2:45:47.740 --> 2:45:48.970

e8370aaa-4528-4a15-b4cf-109a6488d54b

We know we cast right?

2:45:48.980 --> 2:45:54.120

e8370aaa-4528-4a15-b4cf-109a6488d54b

So pull up those specific studies that we don't have in our heads, but we don't have to go through.

2:45:54.130 --> 2:45:56.530

e8370aaa-4528-4a15-b4cf-109a6488d54b

We're just gonna sort of get drunk clues.

2:45:56.600 --> 2:45:56.840

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.

2:45:56.850 --> 2:45:57.830

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, OK.

2:45:57.840 --> 2:46:2.20

e8370aaa-4528-4a15-b4cf-109a6488d54b

Rather than recap the whole thing, that would drive people crazy.

2:46:5.120 --> 2:46:5.730

e8370aaa-4528-4a15-b4cf-109a6488d54b

Uh.

2:46:6.480 --> 2:46:8.340

e8370aaa-4528-4a15-b4cf-109a6488d54b

Other things?

2:46:11.210 --> 2:46:12.360

e8370aaa-4528-4a15-b4cf-109a6488d54b

Did we get our answer?

2:46:12.370 --> 2:46:21.260

e8370aaa-4528-4a15-b4cf-109a6488d54b

Kind of about I had called out an action item about understanding what short day varieties are available, but do we do we want to know more about that?

2:46:21.270 --> 2:46:26.540

e8370aaa-4528-4a15-b4cf-109a6488d54b

I can email Heather and ask her what her opinion is on the farmer.

2:46:26.550 --> 2:46:32.110

e8370aaa-4528-4a15-b4cf-109a6488d54b

She works with like, why don't they delayed planting or you?

2:46:33.560 --> 2:46:34.410

e8370aaa-4528-4a15-b4cf-109a6488d54b

But it's not so heavy.

2:46:34.420 --> 2:46:39.530

e8370aaa-4528-4a15-b4cf-109a6488d54b

The availability of feed that has multiple different dates of planting the cultivar.

2:46:39.540 --> 2:46:40.130

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, right.

2:46:40.490 --> 2:46:40.980

e8370aaa-4528-4a15-b4cf-109a6488d54b

Right.

2:46:41.40 --> 2:46:46.230

e8370aaa-4528-4a15-b4cf-109a6488d54b

Like I don't know when the fungicide treatment, which isn't, and that's not that's not available.

2:46:46.290 --> 2:46:55.480

e8370aaa-4528-4a15-b4cf-109a6488d54b

And there's I think it's hard for Vermont to influence the market in that direction, and we certainly can't set laws to influence the market.

2:46:55.520 --> 2:47:2.440

e8370aaa-4528-4a15-b4cf-109a6488d54b

So got team up with California that is there any update on New York probably not because we're not.

2:47:2.550 --> 2:47:3.650

e8370aaa-4528-4a15-b4cf-109a6488d54b

We haven't heard anything yet.

2:47:4.680 --> 2:47:6.920

e8370aaa-4528-4a15-b4cf-109a6488d54b

It's on the governors, yes, yeah.

2:47:9.860 --> 2:47:14.800

e8370aaa-4528-4a15-b4cf-109a6488d54b

It's that does remind me though, but we'll make sure to keep an eye out for the EPA.

2:47:17.60 --> 2:47:23.960

e8370aaa-4528-4a15-b4cf-109a6488d54b

Advance notice of proposed rule making, like kind of relevant to these labels.

2:47:24.230 --> 2:47:24.560

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah.

2:47:24.600 --> 2:47:27.310

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, because if they do that in past that you have to do that, right?

2:47:27.320 --> 2:47:28.40

e8370aaa-4528-4a15-b4cf-109a6488d54b

That's how that goes.

2:47:28.940 --> 2:47:30.520

e8370aaa-4528-4a15-b4cf-109a6488d54b

Can't do the federal requirement.

2:47:30.590 --> 2:47:31.400

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, right.

2:47:31.410 --> 2:47:32.480

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, federal requirements.

2:47:32.770 --> 2:47:34.120

e8370aaa-4528-4a15-b4cf-109a6488d54b

Federal rules you should take.

2:47:34.450 --> 2:47:34.950

e8370aaa-4528-4a15-b4cf-109a6488d54b

Take yours.

2:47:36.320 --> 2:47:37.930

e8370aaa-4528-4a15-b4cf-109a6488d54b

We gotta walk, right?

2:47:37.940 --> 2:47:39.220

e8370aaa-4528-4a15-b4cf-109a6488d54b

But that would be the first thing.

2:47:39.230 --> 2:47:40.790

e8370aaa-4528-4a15-b4cf-109a6488d54b

The pesticides anymore, right?

2:47:41.80 --> 2:47:42.530

e8370aaa-4528-4a15-b4cf-109a6488d54b

Yeah, right.

2:47:42.720 --> 2:47:45.370

e8370aaa-4528-4a15-b4cf-109a6488d54b

But it could influence if it's coming anyway.

2:47:45.380 --> 2:47:47.190  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
It could influence our decision for.

2:47:47.690 --> 2:47:49.10  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Right, right.

2:47:49.710 --> 2:47:51.830  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Putting it into BMP. Right?

2:47:51.840 --> 2:47:52.760  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
So that's coming anyway.

2:47:52.770 --> 2:47:55.540  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
We can do it faster than they can, yeah.

2:48:0.230 --> 2:48:3.100  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
I don't think I had any other.

2:48:5.710 --> 2:48:7.370  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Pressing action items.

2:48:9.420 --> 2:48:15.180  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
But thank you all for your this patient and we'll get there.

2:48:15.360 --> 2:48:16.280  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Yep, we'll get there.

2:48:17.760 --> 2:48:19.160  
e8370aaa-4528-4a15-b4cf-109a6488d54b  
Alright, thank you all on the line.

2:48:23.190 --> 2:48:23.760  
Casey, Patti  
Thanks everybody.