

Changes to the Midwest Fruit Pest Management Guide - Part 3

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SPEAKERS


Dr. Lina Rodriguez Salamanca, Iowa State University Extension and Outreach, Christa Hartsook, Joe Hannan

C Christa Hartsook 00:15
Hello, and welcome to the Small Farms Podcast, a production of the Small Farms Program at Iowa State University Extension and Outreach. Our podcast covers the opportunities and challenges associated with rural life.

J Joe Hannan 00:29
I am Joe Hannon, Commercial Horticulture Field Specialist with Iowa State University Extension and Outreach and welcome to the Small Farm Sustainability Podcast. This podcast is part three of a four part series discussing changes to the Midwest Fruit Pest Management Guide. Be sure to check out parts one and two as we talk about different changes within the book. And well, it's just some good good entertainment. With me today is Dr. Lena Rodriguez Salamanca Diagnostician and Extension Plant Pathologist with the Plant and Insect Diagnostic Clinic at Iowa State. Welcome Lina. How are you doing today?

D Dr. Lina Rodriguez Salamanca 01:04
Pretty good, excited to talk about grapes and the changes to the guide.

J Joe Hannan 01:09
Perfect. So before we dive into the guide, what's been happening in your neck of the woods here in this January?



D Dr. Lina Rodriguez Salamanca 01:15
Well, lots of snow and working on the 2022 issue of the guide.

J Joe Hannan 01:22
Wow you're getting started with 2022, that's like eight months ahead of time!

D Dr. Lina Rodriguez Salamanca 01:27
Well, there's a lot of time and resources that we do take to develop this guide and update it.

J Joe Hannan 01:33
And you're looking at really taken apple and grape updates and applying those to all the rest of the chapters or a bunch more chapters? Or what's the plan there?

D Dr. Lina Rodriguez Salamanca 01:42
Yes, the plan is to go through, as we did for apples and grapes, for the rest of the crops.

J Joe Hannan 01:49
Woah, yeah, I can see our starting in January. So Lina, if people didn't catch parts one or two, maybe one tell me who you are.

D Dr. Lina Rodriguez Salamanca 01:57
Yes, I am a Diagnostician and Extension Plant Pathologist, so all things, diseases and pathogens, and I help find out if there's a pathogen causing a problem on samples or a particular field and I can help heal that way. I'm just in the lab most of the time, but every now and then they invite me to do podcasts.

J Joe Hannan 02:16
We get you out to do podcast, pre COVID I actually saw you in the field for some field days. So post COVID... (Laughing) that will maybe ever actually happened! So yeah, so if you're a commercial fruit or vegetable person and you sent in a sample to the diagnostic clinic for support, your information, your your sample, almost guaranteed crossed Lina's desk at some point or another. She's kind of been my go to contact point for the last several years. Really, she does a phenomenal job, takes a lot of the work off my plate for diagnosing things. So we just found it... just send it to Lina. That's what I say. Just send it to Lina, she'll take care of it.

D

Dr. Lina Rodriguez Salamanca 02:54

Thank you, Joe. You've helped me quite a bit too. There's so many things that are are not related with pathogens, and then I knew that horticulturalists here.

J

Joe Hannan 03:02

Yeah, then you call myself, or Ajay, or Patrick and are like "what is this? Help me out!" So we're talking about the Midwest Fruit Pest Management Guide, that's our big book that we put out every year that talks about pests, products, timing for application that our farmers are using to make pest management decisions. Recapping from episodes one and two, we made major changes to the apple and grape tables again, go back and check out the first couple episodes, or stay tuned here and we'll talk about some of those changes within the grape context. Lina, where can we find the Midwest Fruit Pest Management Guide online?

D

Dr. Lina Rodriguez Salamanca 03:39

Well, the easiest will be to go online on your browser and just look for the Midwest Fruit Guide 2021 and it's the first resource that pops up.

J

Joe Hannan 03:49

Yeah, I just Googled it and it was the first one that popped up for me too, and I'll have the link in the show notes. And then if you're a commercial fruit crop grower, I mean somebody that's growing fruit crops for profit, talk to me, and I'll get you a copy for free. We've got hard copies that'll be coming into the state getting delivered here hopefully soon. And I'll work with you to give you a free copy. So Lina, before we dive into the grape chapter, again, let's give some credit to all the folks that help us out. Do you want to maybe just list off what states are all kind of involved in developing the Fruit Pest Management Guide?

D

Dr. Lina Rodriguez Salamanca 04:21

Yeah, this past year we had entomology, plant pathology, and horticulture folks, Extension Specialists from Arkansas, Illinois, Indiana, Iowa, Kansas, Kentucky, Minnesota, Ohio and Wisconsin.

J

Joe Hannan 04:38

So, those are states that all actually have people actively participating in putting this book together. So credit to all those folks that pitch in and do this. This is Lina leading the team, me just talking about it with you guys, and a lot of other folks that are actually doing the grunt work here, the leg work of all of putting this book together. So kudos to all those folks. So Lina.

kind of like we talked a little bit about the Apple Chapter when I open up the Grape Chapter, I see a completely new chart right within the first section of that chapter. Do you want to talk through a little bit about what that new chart is for grapes?

D Dr. Lina Rodriguez Salamanca 05:14

Yeah, so this is the grape insect pest chart. And this chart highlights the the primary insects that we see in grapes in the Midwest. And when they occur, what stage of the crop they will occur. So you'll have in their columns with the stages, you know, dormant, bud break, through veraison to harvest, and post harvest, and then the rows will be those pests. So something interesting there is that we have major pests, the entomologist and the Midwest, take a really hard look at this. And those major pests are in a different shade. Those major pests are present in most vineyards, and most years and a usually cause economic damage if you do not take management steps. We also have minor pests in there that are insects that are often present, but usually do not cause economic damage. And most often do not require management. And the last degree there, the entomologists added impending pests. And so these are pests that are not known to occur in the Midwestern States, but they are likely to appear in the future. So the entomologist want you to really be on the look for those particular impending pasts.

J Joe Hannan 06:35

Especially if you're on the eastern side of the region that puts together this book. If you're in Illinois, Ohio, Wisconsin, you should be able to look out for these pests much sooner than our Iowa folks. They always tend to get the problems before we see them here in the state, and so...

D Dr. Lina Rodriguez Salamanca 06:48

That's right.

J Joe Hannan 06:48

Yeah, so we've got the major past and minor past, again, the major parts of the ones that we're likely to see every year and part of an effort of cleaning up the second part of this book, where we talk about actual products at growth stages for each pest. Part of pulling this out major and minor was to kind of clean up that next table, to really just focus on, what do we actually deal with here in your vineyard? Let's just try to try to simplify things a little bit by splitting out major versus minor. So Lina, after we get this insect pest by stage, we go into the actual spray schedule by stage section, right?

D Dr. Lina Rodriguez Salamanca 07:26

Yes. So this is what we call the stage charts, you'll have the particular grape stage, then followed by some important comments, either on diseases or insect pests, and those charts then will have, now, a column for products and formulation, an active ingredient, a column for

the insect or a fungicide resistant action code, either IRAC, or FRAC if it's for fungicides,

J Joe Hannan 07:56
Check out Episode One!

D Dr. Lina Rodriguez Salamanca 07:58
Yes, check out episode one. And then that you will find columns by either pests or diseases. And each row of them will have the rate of a product and right under the efficacy for that particular pests or disease. And at the end of those tables, there's two more columns stack, columns for re entr interval on the top and pre harvest interval at the bottom, and maximum amount of product and maximum application of that product. All those are new to this layout.

J Joe Hannan 08:32
So the reason for changing this layout here, Lina, my understanding, is that it's designed to help you look at all the pests that you could have at a particular crop stage, then look at all the different products and be able to line up and choose products that are going to minimize number of products that you have to apply to control the pests that you have in the field. You'll be able to say, you know, I've got X pest, Y pest, and what products are available for it and then make your selection from there.

D Dr. Lina Rodriguez Salamanca 09:02
Yes, it will allow you to do that side by side comparison of products. So at the beginning of the season, you can use that to plan you know, what do you have in your shed? What do you need in your shed? And then kind of look at streamlining the process of building that pest management plant throughout the season?

J Joe Hannan 09:20
Yeah, especially as you're going throughout the season, it's really important to keep an eye on the max amount and the max applications of a product that can be applied for per year, because as we get more and more of these new products on the market, whether it's an insecticide or fungicide, there are real limitations there that force you to plan out what you're using, when you're using it throughout the season so that you stay legal.

D Dr. Lina Rodriguez Salamanca 09:45
Yes, remember the label is the law. And we tried our best to put all this information here, but the label is the law and you should double check it. One of our challenges here to create this tables is we do go through and look at labels and curate as much as possible. But we do have a challenge. And Joe has been phenomenal helping out developed a database that pulls all this

information to create the tables. However, the system to create the charts, and the ones to put the charts on the designing for the book sometimes fails us. So be on the look, we may have some errors here and there, be on the look, let us know if you find anything wonky, because that sometimes happens.

J Joe Hannan 10:29

We're still working on the wonky factors trying to figure those out, right?

D Dr. Lina Rodriguez Salamanca 10:33

Yes!

J Joe Hannan 10:34

We're working through it. It's a learning process for everybody here. But again, I talked about this a little bit in manual part two of this series, but we spent a lot of time determining what goes into these tables. And I think we did a fairly decent job in deciding to keep REI, and PHI, and FRAC, and rate and efficacy, and max amount and max application, because it gives you that entire big picture of what is available to you, and all the information that you really need to keep an eye out as you go through your pest management plan for the season. Kudos to everybody that, you know, stuck with it for multiple months to figure that out.

D Dr. Lina Rodriguez Salamanca 11:12

Yeah, and we put a lot of effort on looking at the way that the efficacy ratings are placed on stages here. We also made a more consistent rating across tree fruit and small fruit. And so particularly for grape here, you will encounter the different ratings in there. You may have a, you know, excellent, good, or fair rating for efficacy. But also we will find an X for example, if the pest is not in the label for that particular product, or if over the years, we have discovered that a product is not effective anymore, you will find an I for not effective or ineffective. And U for cases where the product may be just brand new, or even though it's in the label, the pest is in the label of that product, but we really don't know the efficacy of that particular product controlling that pest or disease.

J Joe Hannan 12:07

Yeah, you guys spent a lot of time going back through and looking at all of this efficacy information and really trying to update it and making sure it's as accurate as possible with information available from really across the country. The entomologists and pathologists did a lot of background work to upgrade and update this informations.

D Dr. Lina Rodriguez Salamanca 12:25

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Correct, yes.

J Joe Hannan 12:26

But again, it's there intended for you to help make decisions and choose products that will actually do the job. Otherwise, it's just a waste of wasted time and waste of money.

D Dr. Lina Rodriguez Salamanca 12:35

And we don't want you wasting money. And we don't want you wasting product either. So we want to make sure that you're protecting pollinators that, you know, you're not affecting your bottom line by using a product that is not going to give you the results that you hoped for.

J Joe Hannan 12:50

Yeah. So Lina, when I look at the new stage table, I don't see any notes column on those tables anymore. What happened to the information that was in the notes?

D Dr. Lina Rodriguez Salamanca 13:01

Well, we discovered that some of those notes pertain to post harvest interval or re entry interval. And that's why we made those columns available for all products. Some of those notes in the past also pertain to maximum amounts or maximum application. But other notes that were important for particular diseases or pests, we did keep the most important notes at the very beginning of the stage. So you will find them as bullet points that you should read as your crop reaches that that stage to remind you of those very important comments.

J Joe Hannan 13:37

Now more than ever, it's important to go through and look at the notes at the start of each crop stage, because there's a lot of information there that provide some additional background information on how to effectively use the product for that pest at that stage. So you really do need to read the text that goes with these tables.

D Dr. Lina Rodriguez Salamanca 13:56

Yeah, and there's a lot of great notes, especially when to scout or when certain pesticides, you may not want to use those or there's other considerations that you need to be aware of.

J Joe Hannan 14:06

Yeah, I'm looking at just great bud break to bloom for diseases, and I see phytotoxicity alert, and there's a whole bunch of information under phytotoxicity. So that's where you're going to

find that type of information now, is in those notes section that's the start of each crop stage.

D Dr. Lina Rodriguez Salamanca 14:23

Yeah, and sometimes those notes may send you to the additional notes on the chapter at the very end. There's a section for, for example fungicide resistance, there's a section for phytophthora, you know there's different sections in there that will be then first in the stage, that are important, and they will send you to the special notes chapter at the end of chapter.

J Joe Hannan 14:44

So there's a few things where you got to go hunting around sometimes, but otherwise, those chapters are generally pretty self contained.

D Dr. Lina Rodriguez Salamanca 14:51

Yes. And much more consistent from stage to stage and even in between crops.

J Joe Hannan 14:57

Yep. Lina. We talked about the major and minor pests. The tables within the crop stages are all focusing on the the major pests, but the minor pests didn't go away, we still moved that information elsewhere. Correct?

D Dr. Lina Rodriguez Salamanca 15:09

Right. So, we put a lot of effort on improving the efficacy tables, both for fungicides and insecticides. And we did this for apple, grape, but also for all other crops in the guide. So when you go at the end of the chapter, you will have efficacy tables that will have products on the first column, and then you'll have side by side all pests in the case of insects, major and minor, and then at the very end, you will have the REI, the PHI, the max amount, and the max application. And so you'll have side by side efficacy that you can compare for minor and major pests.

J Joe Hannan 15:49

Yep, so all the information is there, we just kind of moved it around a little bit. I think one thing we talked about before we started recording is that the efficacy tables for apples and grapes, did not make it into the hardcopy version this year, right?

D Dr. Lina Rodriguez Salamanca 16:04

Yes, that's right. So unfortunately, didn't make it, but you can easily get it from the PDF that

will be updated. Otherwise, you can contact us, Joe, or myself and we'll happy to send you a copy. But yes, this is one of those, you know, design tricky things that we're still troubleshooting, so be patient with us, please.

J Joe Hannan 16:23

Yes, in the end, this whole book will come together. This is kind of an intermediate stepping stone for us this year. But yeah, so when you pick up, and I started distributing out the my hardcopies, I'll make sure I have print out version for apples and grapes for the efficacy tables that got missed. So not a big deal. It's just one of those- Oops, we'll get it fixed. But again, we'll get it update and added to the PDF version. Okay, Lina, anything else you want to talk about from a great standpoint here today?

D Dr. Lina Rodriguez Salamanca 16:49

Yes! We want to ask the grape growers to please take a look at the chapter before the season starts. Give us your feedback. We look forward to hearing your thoughts. And then during the season, you know, if you make notes, certain places, at the end of the season, let us know too. We'll have a survey available to you at both points in time, but we're looking forward to your feedback. We want to make sure that what we envision in this new layout does work for you, or if there are minor tweaks, or even major tweaks, let us know we want that feedback. We want this guide to work for you.

J Joe Hannan 17:23

Yeah, the book is for you. So let us know. Well, Lina, this has been a great chat for part three here talking a little bit about the grapes chapter. Again, very similar to the apple chapter. Thanks for joining in on the conversation today and kind of talking about some of these major changes to this book for all the listeners out there, thanks for tuning in. Listen to parts one and parts two, we dove into a lot more in depth detail on on the book changes here. And then we've got one more part coming up part four. So stay tuned for that one. Huge thank you to Christa Hartsook and Olivia Hanlon at the ISU Small Farms Sustainability Program for editing and hosting and all these podcasts. So again, Lina, thanks for joining us today.

D Dr. Lina Rodriguez Salamanca 18:00

Thank you.

J Joe Hannan 18:01

Alright, thanks, everybody for tuning in. We'll talk to you soon.

I Iowa State University Extension and Outreach 18:04

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