

Joe Scrimger: If you come up Telegraph, outta Detroit, you go by where I grew up. If you come up, M-53 or Van Dyke, you go through Imlay City and you go by the Imlay City muck on the east side of the road.

And I was out there in the '70s. And partially because of my history: I sold some of those guys farm equipment. And then I left the farm equipment business and farmed and did some other jobs, but when I started the organic thing, I started doin' soil testing. 'Cause we needed to show soil improvement. And some sort of tests were required. And then we started sharing that with the group.

But I ended up back on the muck, soil testing for some of those farmers. What I learned in that process was they had this nematode problem. And they were using fumigants to kill the nematodes, but in the process they killed all the biology, consequently taking more fertilizer and taking more nitrogen.

And the soil got harder. And muck isn't characteristically hard. It's characteristically soft and spongy. But it changed. Then they went to fumistats. And some guys were sayin', "Well, we're just usin' a fumistat. We're not usin' a fumigant."

Well, meaning they're only killin' some for a shorter period of time. It's a step. But it's still goin' in the wrong direction, if we understand the dynamics of biological populations.

So it's a little bit of calculus. And understanding that when you decrease those numbers, the bad numbers always go up. But when you increase the numbers, what we call "bad numbers," or disease and all that, always goes down.

And so we shouldn't focus on killing a section of the group. In the short term we might have to a little bit, 'cause the farmer needs to get a crop. But they've gotta understand that they need to bring those biological populations up.

And some of the vegetables guys have got onto that. Because they had quite an extreme, even by the time they were comin' out of the '70s.

Cliff Scholz: By “extreme,” I’m hearing that they’d done things or applied products that damaged their soil biology. Do producers of other crops, like fruit maybe, see similar problems?

Joe Scrimger: Now, I didn't work with fruit early on. I worked with it in the later years. Fruit growers may use \$600 an acre worth of pesticides, where a crop farmer may only use \$60 back then. Now with inflation, it might be \$120. But the degrading in the crop soil on the crop farms has been slower than what happened in the fruit.

Because I worked with fruit growers pretty intensively, I've been able to see some things happen with fruit and see it full cycle before it happened in farm soils. So it puts me ahead working with the farm soils. They're comin' at this later with some of the same problems.

Cherry leaf spot is a disease that hits the cherries bad. Sugar-beet leaf spot hits sugar beets. But it came later. But it's the same family of disease, and it's caused by the same process.

Corn has been getting a fungal disease recently. So now the airplanes are comin' in to spray the corn. And what I'm sayin', the cherry growers would tell you that we did that for 25 years and it doesn't work. The problem gets worse. But the corn growers don't have any concept of that at all.

But it still comes back to the lack of biology in the soil. And once you put the fungicide on to kill the fungal in the plant, most of that goes to the soil and you got less biology and you got more of a problem next year. And so it's a heck of a good equation. And I'm sure I've mentioned this: If you're sellin' the product, that's a pretty good deal. If you're buyin' the product, it's a pretty bad deal.

Cliff Scholz: You mean the fungicide product?

Joe Scrimger: The-- the dynamics of that--

Cliff Scholz: Yeah, yeah--

Joe Scrimger: —because it makes it so you have to apply more. But that's a short-term equation. Eventually, the microbes win. And their population

dramatically increases on the bad side.

Cliff Scholz: Uh-huh. Wow.

Joe Scrimger: And that equation, it's a tough one to grasp. I mean, organic farmers don't beat the biology down. They culture and work with the biology.

You don't have to do all the tests. You just gotta let them grow. And they've seen the results.

Cliff Scholz: So you mentioned about the muck soils near Imlay City. Now this is a question that I think we could go a little deeper on, 'cause it's going to how the soil responds to water, which gets to an area that I know you're passionate about, the health of our lakes and rivers.

So nitrogen management can affect soils both chemically and biologically. That means that it'll affect soil structure. What is the dynamic in the compaction or the hardening of the soils that you described, from the Imlay City example? 'Cause that's more general than just the muck soils. That happens in other soils too, right?

Joe Scrimger: Yeah, so again, I'm gonna go back to my early organic farming. And early on, we figured out that, for organic farming to work well, initially you gotta have about 3% organic matter, at least. If you're under 3% there'll be some challenges. And you can get through it if you make up for it. But you have to address that low organic matter. And a lot of people don't.

In the Thumb area there's soils that were naturally 4% and 5% organic matter. But a lot of it had got down to 3%. So we can still make that function. In this region from Battle Creek towards Chicago, the organic matter was lower and then they decreased it. So they've got a lot of organic matters down to 1.5%. Consequently, you don't find a lot of organic farmers there.

Then I was goin' back to these friends and customers that I had, on the Imlay City muck, that soil was 60% organic matter. And I was havin' a hard time. Why do these guys have all these problems?

It's like... but I had to, had to do a lotta talkin' with 'em. And then there was

that question and there was the question of what happens with this anaerobic liquid manure.

And I took both of those questions to Dr. Reams early on. And, he got through to me fairly quickly, in respect to what happens. When that muck starts to turn compact and it starts to plow out in chunks, which it had – and they can run bigger tractors on it now where they never could back in the '50s – it's switchin' to anaerobic.

And anaerobic, there's biology there. It just tends to be the wrong biology. It still produces nitrogen, but it's not controllable. On the muck you'll start out in the spring, you won't have hardly any nitrogen. And so they put some on.

But mid season, that muck, because there's 60% organic matter, and even though it's compact, will still release 150 pounds of nitrogen by itself. It just releases it at the wrong time. Where if it's mellow and working, that aerobic system builds it in such a way there's more of a continual release that peaks mid season when that plant is in its maximum growth stage and can soak it up. But it doesn't peak as high as it does as when it's compact when you're dealing with 60% organic matter.

And while I was figuring that, I was also workin' with some potato farms up in the Thumb, that I knew personally, that had irrigation. And I think I've talked about the dead spots showin' up. And these were dead spots that would start out as big as a desk. Then they'd get as big as a house. And then they'd get maybe an acre. And then they'd maybe get to five acres.

But I saw that happen on regular loam ground in the Lapeer area that was only 3% or 4% organic matter, maybe, on cash crop farm. I saw it happen on Imlay City muck that was 60% organic matter. And I saw it happen on the potato farms in Silverwood that were 1.5% organic matter. That they had these dead spots showin' up.

And that was a challenge. And it took a while to get through that process. We could do some liming, adding calcium and get a little spurt. But if they didn't change what they were doin', that spot would come right back again. What we had to change was the nitrogen and some of the chemical use.

Cliff Scholz: Okay.

Joe Scrimger: Those were forewarning systems. Those were the canary in the mineshaft that was telling those farms that somethin' they're doing overall is startin' to show up here. And I don't think they ever really identified it like that, most of 'em.

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