

## Glenmary Farms: Virginia Cooperative Extension Mentors Growers in GAP Certification Preparation

### PART I: Introduction to the Farm

I'm here speaking with Michael Richard from Glenmary Farms in Bristol, Virginia. Tell us a little bit--this is an amazing the system. Can you just share a little bit about how this system works and what it is exactly?

Sure. This is what they call an oscillating system or it's part--it's a hybrid of hydroponic system. Strawberries through science has shown they like mass around the roots. So, we use ground coconut husk as our medium to grow them in. Also, a nice feature of coconut husk is that it has a lower saturation point. It hits a certain point and the water just releases. And strawberries like to be surrounded by moisture. They just don't like to be sitting in it. And the strawberries do very well. And, so this system, what you're looking at right now, is stationary, but it actually oscillates each day so that we get equal sun on the plants.

Tell us exactly, how did you decide on this system?

About ten years ago, standing in my field in about 6 " of water, my strawberries are floating and you could smell the farm fermenting probably about a half a mile away. And I just remember looking up in the sky and saying to myself, there's got to be a better way. At that time, I had just started my doctorate program and I said, this is going to be my research, I'm going to figure out a better way to grow strawberries here in southwest Virginia. The idea was born, my research was specifically on the economic viability, extending the strawberry growing season in southern Appalachia.

One of the key features of growing like this is you're looking at the environmental footprint. Once it's completely operational. we'll be harvesting somewhere around 1 million gallons of water off of the roof, that we will put through a system, a cleansing system, that'll be put back into the greenhouse. We recapture all of the excess fertigation solution which will also go back into the fertigation shed, be re-analyzed, and again reintroduced into the greenhouse. So the idea is to make our environmental footprint as minimal as possible, to the extent that we actually use, instead of plastic, cardboard containers, cardboard flats, all of which are biodegradable, compostable, and recyclable.

To go in line with that environmental footprint, everybody here is trained to a GAP standard. Everybody knows that when they enter the greenhouse, they have to wash their hands. If they leave the greenhouse for any reason, they have to come back in, wash their hands again. We are very particular about how we do everything. We are a higher priced strawberry and part of that is we want to produce a higher quality as well. So that when people purchase that strawberry, they should never get a bad strawberry in our box. It goes back to the picker with cleanliness. It goes back to the picker that they drop a berry, it doesn't go into a box. That berry gets thrown away. If they see a problem in the row everybody is trained in the greenhouse to say, hey, we've got a problem here, how do we take care of it? And it's immediately addressed.

GAP is a concept. It's an idea that everybody in the greenhouse is geared towards cleanliness. An idea that if something's dirty, it needs to be taken care of. It's really a mindset that really goes all the way through the greenhouse. Essentially, it's a culture It's a culture pf cleanliness. There's always going to be

issues, but if your mind is always wrapped around trying to do it the right way, the chance of problems is reduced significantly.

So, while we're talking about food safety, step back a minute. What markets do you sell to, because that dictates food safety standards...What pushed you towards that GAP certification?

What's kind of interesting or fun is there are a lot of organizations that don't require the GAP, but they like to hear the story. For example, at grocery stores, right now our berries are in Food City. They require a GAP certification; however, we're selling to restaurants, local retail areas, and they like to see and hear the story that this is what we have to do for Food City. So, this is what you're getting part of the benefit of us working with a large grocery store chain.

## PART II: GAP Audit Preparation & Benefits

I'm also here with Alex who is the greenhouse manager here at Glenmary Farms. Alex, I know that we worked through the process with you for GAP certification or good agricultural practices. Can you just share some about that and how the process worked for you all.

When you first start GAP, it does seem rather daunting when you are first trying to put your manual together and you're going through all these logs and SOPs that you're being asked to keep. At first, it seems like a lot, but once you get it organized, once you really get what you are doing here, you do realize that you're already doing a lot of it and now you're just keeping records of everything you're doing.

Tell us some of the benefits of being in a hydroponic set up in a greenhouse structure versus being in a field.

Our greenhouse specifically. As you notice, the roof will open. All four walls will open up, They're all netted. When our plastic rolls up to let out some of the heat that we're getting, no birds can come in. Our doors remain closed so no wildlife can just wander in. And on top of that, all of our berries are up off the ground so there's no little critters had the chance of wandering in and eating on them or anything like that. Being enclosed really helps us.

As the folks are doing the harvesting, tell us about how you trace back, what rows. I mean, this is a big greenhouse, so how do you do the whole traceability and tell us about that.

So, our traceability is not complex in any way. When our pickers pick the berries, they put them straight into our boxes. There's no other packages they go into. They go straight in here. They get weighed. Then they come down to the front of the greenhouse. We put them on our main scale. We weigh them to get the exact poundage that is in them. And then we take that stamper, and each flat gets a stamp of our traceback code, so we know that it came out of this greenhouse, what day it came out of, what year it was, if anything were to come from that, it's a quick phone call to anybody we've sold to, to say, hey, we have this problem with this traceback code that we've sold you and they can recall from there.

How has GAP certification benefited the operation here?

A lot of grocery stores such as Food City, who we're dealing with right now, won't do business with us if we aren't at least obtaining a GAP certification. So really that sets us up to be able to sell to bigger grocery stores.

Okay. As far as we talked about the process and extension being able to help you all, would you recommend that process to other folks?

Absolutely. Absolutely. It's there is work behind it, but if you're in agriculture, you're already working and it is not that difficult and it's going to help you in the long run.

Well, thank you so much for...

Yeah, of course. I'm glad to have you guys and talk to you.

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