Episode 8: Seed Keepers Around the World - From the Archives with Adam Alexander

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Adam Alexander
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Melody Reese
The seeds we grow are shaped by place, but they're also shaped by people over generations. Farmers, gardeners and seed savers have selected what thrives where they grow, held on to varieties important to their communities, and passed along seeds and knowledge from one person to another. In this From the Archives episode, will be traveling the world with author and seed saver Adam Alexander.

Adam has spent over 30 years seeking out rare and locally important crops and just as importantly, the people who continue to care for them. In this presentation, he'll take us to Ethiopia and Albania, to India and across Europe, sharing stories of farmers, seed savers and plant breeders and what their work can teach us about diversity, adaptation and resilience.

This presentation, Meetings with Remarkable Seeds and the Amazing People Who Nurture Them, was originally recorded as part of Seed Savers Exchange's 2025 Virtual Conference. This is From the Archives on Sowing Connections. I'm Melody and I'm so glad you're here. Now here's Adam Alexander.

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Adam Alexanger
How do we need to be thinking about how we maintain, improve, and breed new crops that are actually a part of building a sustainable solution to feeding us all, and which breaks away and provides what I call a counter evolution to the hegemony of the big agribusinesses that are essentially trying to tell us that it's monoculture and homogeneity and genetically narrow cultivars are what's going to save us all. And also to give the lie, if you like, to what I call a sort of a colonial global north attitude, particularly about plant breeding, which is we know best. And I just got heartily sick of listening to people telling me that actually all the solutions lie, in a sort of technological, answers. And molecular breeding is really the only way forward. And so the some of the people that you see in this photograph are, are obviously people that I've met in my travels. And I will share some of their stories with you as we go forward.

But I wanted to start in, Ethiopia. The one of the reasons why I was keen to go to Ethiopia was because, again, there's a narrative that we are being given, which is, you know, these people

that they can't feed themselves. It's nothing but famine and disaster and climate change is, is making everything next to impossible for them. I know that Ethiopia is it's one of the most genetically diverse parts of Africa and certainly sub-Saharan Africa, and it is home to some incredibly important indigenous crops. And it's these crops that offer a way of thinking and solutions that are very positive. And for me, life affirming, about how we think about how we feed ourselves. So, you know, the Southern Rift Valley is it's the mountains rise in metric terms to 2600m. So we're looking at 9000 10,000ft elevation in the south. We're just a few degrees above the equator. And they have, a short rainy season and a long, rainy season.

And the, the it the farmers very smartly have over not just generations but millennia, embraced all the kind of potential opportunities not only of their own indigenous crops, but the introductions. And these are introductions that will have come through from the Old World, if you like, particularly of Southeast Asia and the Fertile Crescent, you know, of the of the Middle East, but as well from the Americas and particularly post 1492, when Christopher Christopher Columbus allegedly discovered the New World. And that to me was something that I was very keen to see more of. Is their kind of pragmatism and also their deep, deep knowledge of how to maintain their crops. And, one of the one of the again, really interesting things for me is how indigenous farmers and not just in, sub-Saharan Africa, but all over the global South in my travels are how they till the soil.

And one of the things that certainly I don't know if it's the case with you guys, but certainly here everybody talks about no dig and it's the way to go. And you know, we have our in inverted commas, “no dig gurus” who are kind of reinventing the wheel. Actually, indigenous farmers have been employing a really interesting form of cultivation which is effectively they gently till the soil, they, you know, there's no big plow goes in and turns it over and it never has. And this is, to me a very typical scene of what I'm seeing on some of the farms in certain parts of the this area of southern Ethiopia I've been in.

And one of the farmers I met was Ducamo and what you see behind him is a remarkable crop. It's called enset. It's actually a member of the banana family. And there are a number of wild species of enset, but the only one that has been domesticated is in Ethiopia. Although enset is an African, indigenous crop, mostly found in southern Africa. But the Ethiopians several thousand years ago started to domesticate it. And they don't they don't grow it for its fruit. They grow it for its stem. And it's and the sort of tuberous top part of the root, which provides an extremely nutrient dense but high carbohydrate, high carbohydrate staple. This feeds at least 40 million people in Ethiopia, out of a population of about 120 million. So it's a really, really important part of their, their food culture. And, I saw it growing in lots of different regions in Ethiopia, but the place where I sort of really came face to face with it was in a very interesting little, mountainous area where the farmers are practicing agroforestry and have been doing so literally for centuries.

And here was this wonderful lady, Shanu, who's a who's a grandmother and who gave me a sort of tour of her farm where she grows and maintains, enset which is grown as a perennial, and as you fellow seedy folk will know, perennials are clones and therefore being able to maintain them

and their genetic flecks, if you like, means that you do need some seeds from time to time. You need to get them to flower and to be able to genetically, evolve as their climate and their environment is changing. So enset is harvested usually about once every 6 or 7 years, and it tends to flower after about eight years. So what farmers like Shanu do is they will select their sort of favorite enset plants and allow 1 or 2 of them to flower every now and then, collect the seeds sow them, and use them as the foundation for building and developing a new perma, a new, sort of permanent culture of enset within their agroforestry, environment.

And what we see here with her is she, you know, this is a lady who is, she, she is getting on in years, but she was so incredibly kind of agile and fit and out every day working with her crops. And she showed me how, you know, she would cut it down and then, prepare it and scrape off the fibers. And what's interesting about this crop is not only does it provide a staple for a, basically to make a flour which they use to turn into pancakes, which is very important, which, which they flavor with salt that comes from the salt flats 1000km to the northeast of where they where she is. But they then obviously they have their own coffee.

Let us not forget that coffee is indigenous to Ethiopia. And so all these farmers grow their own coffee and it is shade grown. And believe you me, you haven't lived until you've drunk a cup of coffee from beans roasted and ground in a little farmstead like that that belongs to Shanu. And, But what I was going to say is that this kind of visceral relationship that farmers like her and her families have with what they grow and eat and the knowledge that they have, that they have. Got gotten from their families, from their parents, from their mothers, from their grandfathers from, and which they then pass on to their children is something that I just, you know, I think to myself, why aren't, you know, we should all be, having this sort of intimate and visceral relationship with what we grow and what we eat. we'll come back to Ethiopia, I promise, because it is such an amazing country. And for seedy nuts and seeds savers and collectors like me, it's just a wonderful place to have been.

And this is Albania and in a way, why go to Albania? A lot of people, you guys may not have even know where the place is, although I think Donald Trump's son seems to think he can build a few fancy resorts on the Mediterranean, the Adriatic coast there. But Albania was known as the North Korea of Europe. It was run as a by this dictator called Enver Hoxha, who fortunately died in about 1989. And but he'd run the country as as a communist state. And he hated everybody, including the Russians and the Chinese. And so he made the country literally self-sufficient in food and energy. Today, 85% of all the electricity produced in Albania is from hydro, thanks to having an autocrat telling everybody what they had to do. And you had these huge collective farms that were, home to Europe's greatest diversity of land races. Or you guys in America tend to call them farmers varieties. And, these are now hugely under threat because of the influx of modern cultivars and kind of changing tastes. But still, Albania is, 40% of the economy is based on 60% of the economy is agricultural, and I think, or 40% and then 60% of the population work on the land.

So there is this deep culture. Miras, this is an area in south east Albania, the Korçë region. And it's incredibly important because it's been under continuous cultivation for 2500 years. Albania

has the oldest viticulture in Europe, and in fact, there's archeological evidence to show that these regions were being cultivated 4500 years ago. And Miras is quite a small, narrow it's a village of about, about 6000 population, and it is pretty much entirely self-sufficient.

And what you see in this photograph is a valley where the the average farm size is about two and a half acres. And that's because with the fall of collapse of communism and the collective farm system, all the farms were broken up and everybody who worked in collective farms was given a piece of land or given the same amount, actually.

And so when you travel through Albania, you see these strips of land being cultivated. You notice there's a serious absence of fencing. That's and it was quite amazing to walk among these, these fields of great diversity of crops where everybody kind of respects everybody else's space. And there's a lot of collaboration and work that goes on together for them to be able to maintain their irrigation systems and, and, and to most importantly, maintain the diversity of crops that they're growing.

And these people are consummate seed savers. It was, for me, very reassuring. You know, here we see leeks coming into flower. This is in in May time and I, when I, when I went to Miras I thought, gosh, they're doing it just like I am. So maybe I am getting something right. And there's I mean, this is a leek that I grow myself now the Miras leek and it's incredibly hardy.

I mean, this they're growing on at an elevation of about two, 2500ft, about 850m above sea level on a plateau, in in a climate that is just completely gorgeous because they get a reasonable amount of rainfall, they get these short, cold winters and then long, late summers. And so they can just grow anything and everything, and they take great pride in their the diversity of the varieties they're growing.

But they also bring not only unbelievable farming skills to a their production, but also agronomistic and breeding skills. So this is Zorba. His wife. Ramona was less willing to be photographed, also a lot more attractive than Zorba. But both Ramona and Zorba worked on a collective farm, and she was a chief agronomist. And back in the day, Hoxha recognized that if he wanted to feed his country, even if they weren't being fed particularly well, he needed the smartest people to be working in agronomy and actually also in veterinary.

And so if you were a bright kid at school and you went wanted to go to university, you were told you can only go to university to study either a veterinary or agronomy. And that what that meant was that you have this incredible cohort of very bright people who are actually responsible for maintaining and developing food production in Albania within the collective system.

There was no motivation for them to really work was ghastly. I mean, it just did not work. But when they were liberated from that system, whenever it was, you know, 35 years ago now, they, they, they brought it into their, into their fields. And I have these, I call them wow moments. They don't happen a lot, but over 35 years I've had a few of them.

And one of them was with Zorba and his oxheart tomato. And in in this region, culture Miras region of Korçë. I was actually given by a guy who runs the gene bank at the university. There five distinct landrace oxhearts, all grown within five miles of each other. Amazing. But this one, this oxheart, Zorba you know, handed me a fruit to try. This was in September, and I. You know, oxheart I've yet to find one that I really, really fallen in love with. And I cut into this bit into it, and it was like it was a taste sensation that I just never had before with this type of tomato. It was fleshy, unimpeachabley sweet and tomatoey with just a little hint of acid. It was just bliss. And fortunately, Zorba was very, very few seeds in these fruit. And he said, oh, I'm a bit short of seed. But my friend, Robert, who I'll introduce you to, maintained part of the collection in the gene bank, so he was able to give me some seeds to to trial at home, which I've been doing.

The other thing that you have there is this not only they grow amazing tomatoes, they grow amazing peppers. And again, these are all locally local varieties. These are all landraces, whether it's a what they call 'Goat's Horn' or the one that's in Zorba right hand, or 'Gogozahre' which is an incredibly thick fleshed, fruity sweet pepper with a lovely hint of heat to it, absolutely redolent of a the pepper that got me started on my journey, which I discovered in Donetsk in 1989, which I write about in my in my first book, *The Seed Detective*. Not the time to tell you about it here today, but what's so interesting about Albania is that you have this it is a rearguard action because about 60% of the genetic diversity of their local varieties has been lost in the last 35 years. But you have these places slightly isolated, where communities really are passionate about maintaining their diversity. And then with their connection with the Department of Agronomy in the local university and also with schools, really encouraging the kids to embrace the potential and opportunities, particularly for things like agro tourism and gastronomy, that these incredibly diverse crops offer them. They have a future in these places.

One of the things that I've also been very keen on is just, you know, why does why do local varieties matter to people? Why do the seeds that are absolutely about them take precedent. And Rajasthan in, you know, north west India, which is a semi-arid, hyper arid, you know, the Thar Desert takes up half the country. Is it's it's a it's a region where no self-respecting Rajasthani will ever eat anything that isn't grown in Rajasthan. And they have an absolutely embedded culture of seed saving. And that's partly because, you know, if you're an impoverished farmer, where's the money coming from to buy expensive modern cultivars? It's just ain't there. And Begas region. I went to this region, which is, not not far from in the sort of central part of Rajasthan, near Jaipur and to to meet up with a really interesting new generation of farmers who are responding to a kind of huge middle class demand in India to be eating organic, particularly organic food.

Because, again, provenance is so important. You know, Indian farmers, some of you will know, you know, are poisoning themselves with chemicals and not only themselves and their families, but the people who are eating this stuff. And so the markets are filling up with more and more organically grown produce. And there was a wonderful family that I met amongst many different families.And these were four, actually three brothers and a cousin working together. And they had around about 20 acres. And they and the, the women and typical being, some of you will

know when you find yourself in these very traditional communities, guess where all the women are? They're in the fields weeding and working. And the guys are they're happy to fly the flag.

But these were lovely, lovely family, lovely, lovely family. And I met them, their mother, the matriarch, and boy was she in charge. But everything that they were growing was from seed. They saved themselves. And again, they they were using tube wells, real problems with increased salinization. They got lots and lots of problems with unreliable rains and insufficient rain.

And interestingly enough, when I was there, which was a sort of early February in 2019 was the last time I was there. And, you know, it can be cold, you know, they were they were getting frosts. So you have some quite interesting climate extremes, but what they're growing is just wonderful, and particularly proud of their local carrots. They grow, you know, these wonderful what you call daikon, mooli and very, very keen to show and share the seeds with me of everything that they were growing. And it's it was It's just such a privilege for me to be able to hang out with these people. I sit at their feet because they have forgotten more than I will ever know about how you grow and maintain crops, because they've been following these things for generations.

it's very important the company you keep and actually just going cold to a place can be difficult. I mean, a really good example of that, which I actually write about in *The Seed Detective* is my encounters with, in the Hopi Nation, because I'd been really, you know, the the story of how the Hopi, people have maintained their blue maize and it's fundamental to their culture was something I was really curious about.

And I kind of thought in, you know, my usual sort of cheeky way, I wonder if I could grow any, you know, maize that's maybe grown in hyper arid regions back in South Wales. If I treated it as if it was in a desert somewhere and I was told by everybody, Adam, you got no chance. The Hopi, they, you know, rather understandably, don't have much time for outsiders who've been, you know, who have been murdering them and exploiting them for centuries. They're generally making their life a misery. And but and so I had very little expectation of ever being able to really meet and engage with a Hopi farmer. And, but I'd been talking to a restaurateur in, in, in, in another part of the U.S. who had, who was working with food, indigenous, American crops that he was buying from indigenous farmers in, in Arizona and, and New Mexico. And, and he said, look, you know, there's a, there's this guy who kind of sells bric a brac and Indian artifacts on the Second Mesa. And, and I, I think he might sell seeds. Go and check him out. And actually, I did I drove up there and what was interesting was actually, when I arrived on the Second, the Second Mesa, the school was open and the kids were, you know, it was an open day.

Everybody was welcome. So there was so immediately that preconception of the kind of being an unwelcome outsider was just blown out of the water. Everybody was very welcoming. And I asked, they said, oh, well, go up, go and see this, go to this place. And I drove up and there was this sort of it was, it was like it was like something out of a Western, some sort of shuttered small building with a clapperboard front and, you know, the fly screen blowing in the wind and, and a

battered old F-150 out the front. And I went in and then these two guys and one of them is a really tall, impressive Hopi. And the other was a sort of diminutive white guy from, from Ohio. And he had married a Hopi, Janice Janice Long, who was farming, and she'd been out back. You know, she was baking, and he shouted at her and asked her to come in and see me. And I thought, I thought, I'm going to get nowhere. And she said, so what do you want? And I told her about my interest in her, what she was doing, and she was brilliant. And she said, sure, she gave me some, some seeds. She also gave me some white tepary beans to take home and, and grow.

I have very few a couple of key rules is you ask you don't take and so if so I'll always ask somebody if they if there's something that they're willing to, to share with me. I'm not interested in any commercial exploitation of that, of that material. And, but but I am interested in is using that material to tell their story. in doing that, that just, I hope, makes people much more aware that it's, you know, it's not us who are appropriating their genes, it's the others.

One of the things I was also very interested to look at, and this is brings you back to Ethiopia was the how, again, farmers who have very little money and also very small holdings. How on earth do they maintain the, the most resilient, best adapted varieties of their crops? In the face of a lot of pressure to be buying seed or growing seed of imported, modern cultivars, particularly homogenous cultivars, maize, wheat, stuff like that.

And they do something very interesting in certain parts of Ethiopia. They have these, what they call community seed banks. And just to remind you, and this is one of the things that I think we we need to show some humility about is that, you know, something like 70% of the world's population is fed from farms of less than five acres.

And so us in the global North, in our, you know, our modern agricultural systems. We're a minority. We don't we're not we don't represent in any way, shape or form, actually what is really happening in the world. And in the case of Chefedonsa is a small village, a couple of hours drive from the capital of Ethiopia, Addis Ababa. And this is a seed bank where what happens is the the government of government department, which is the sort of center for the conservation of genetic diversity of local crops, is helping farmers by saying, okay, what we will do is we are going to lend you some seeds of this is particularly of landrace, crops wheat, barley, oats, chickpeas, lots and lots of different things, but primarily cereals. And the farmer then takes away. However many bags of seed they need to, to grow their crop. And then with harvest time, they return the seed they've borrowed plus 10%. And this means that these seed banks are able to support more and more farmers. So in Chefedonsa they had a seed bank, which is like a co-op. They have 2000 members.

Those 2000 members are growing 10,000 acres of cereals, employing maybe 120 different farmers, varieties of primarily cereals, but also legumes. And if you want to, if you want, if you're not a member of the co-op, you have to buy the seed. If you're a member of the co-op, you come back, they give you lend you more seed if you want to grow something different.

And what they're also doing is they're training the farmers to be to really select the seed that is going to be returned. So, you know, in in the back office of this, this building full of full of sacks of, of grain was a little lab. And the, the farmers bringing their samples and they are tested and checked and, but also they're helped to understand how they should be cleaning the their seeds better what, what what methods they should be employing to ensure that actually what comes back into the library is as good, if not better than what they, what they borrowed.

And I, I again found this something that was for me. I thought, why? Why aren't we all doing this? You don't have to be an impoverished farmer from the Global South to be operating a system like this. You know, particularly farmers here. You know, it's it's how do you make the numbers add up? And particularly if you are a regenerative farmer and you're wanting to to grow populations of cereals and locally adapted, developed ones, actually, such a big part of your cost is the seed. If you were part of a co-op where you actually never have to buy it, you just borrow it and return it. This can have a big impact on your bottom line.

I just kind of wanted to bring you back briefly, to closer to home to Denmark, where again, there's this really interesting group of breeders and growers. And you have these incredibly enthusiastic amateurs. So one of the guys called Søren and Søren just was determined to develop an aubergine, eggplant that he could grow outside in Denmark, where you can see from the photograph, even in the summer, the weather isn't always great. And his own bean and this, this aubergine actually is really nice. Which is called sort black raven sort and raven in Danish is the result of many years of playing around with a whole different diversity of, aubergine eggplant that some that had come from Siberia, the odd modern cultivar that he was de-hybridizing and just allowing things to accidentally cross and find their way. After ten years, we now have Black Raven, and the great thing is, you can grow it outside in a very uncertain climate, and I was able to get a crop in my garden last year in the most miserable summer I can ever remember.

So it's proof evidence again of the importance of local adaptive breeding, which can be both systematic and deliberate, as in the case of Vital Seeds. And a lot of it happening with you guys in the States. And with what people like Anna are doing in Austria, and then wonderful accidental breeding, of which I saw plenty in Denmark, and of course, which is going on all over the world. And that's it. I just want to say thank you.

The Seed Detective was published in 2023. In the States, *The Accidental Seed Heroes* is actually not published in the US until the beginning of September (2025), so I hope you guys are going to be on tenterhooks waiting for publication day. Thank you very much.

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Melody Reese
Across Adam's travels, the crops and growing conditions change, but one thing remains consistent. Seeds are kept alive by people. Adam calls many of the farmers, gardeners and plant breeders. He meets accidental seed heroes. Their stories remind us that preserving diversity means continuing to grow, observe, select, share, and learn. Thank you for joining us

on this episode of Sowing Connections. We'll be back in two weeks for a featured episode with chef, educator, and entrepreneur Sean Sherman. We'll see you soon.