

## Sidedoor S7 Ep. 3 King of the Herbs Final Transcription

Lizzie Peabody: This is Sidedoor, a podcast from the Smithsonian with support from PRX. I'm Lizzie Peabody.

[MUSIC]

Lizzie Peabody: Deep in the hills of West Virginia, Ed and Carole Daniels are growing a secret garden. Well, a secret farm, really. It has to be secret, because the plants they're growing are worth a lot of money. How many cameras do you have? I'm just curious. Two?

Ed Daniels: There are multiples.

Lizzie Peabody: Two? Ten?

Ed Daniels: No, there are a lot more. There are cameras in hidden areas that [crosstalk 00:00:48].

Lizzie Peabody: How many cameras are watching us right now?

Ed Daniels: Don't pee in the woods.

Lizzie Peabody: This herb only grows in a very small band of the United States, mostly the Appalachian Mountains, from Canada down to Alabama. That's part of what makes it so valuable. Another part is how it makes you feel when you eat it.

Ed Daniels: It gives you more energy than most energy drinks. Actually, I have friends that race mountain bikes professionally, and they got in trouble. They consider it as doping.

Lizzie Peabody: Really?

Ed Daniels: Because it gives them so much energy, but it's all natural.

Lizzie Peabody: Ed's not talking about any illegal drug. He's talking about American ginseng. A small plant with a precious root that people have been using as medicine since well before European's set foot on American soil. It's so valuable that even with all this security, a few months back, a couple of people drove deep into the forest, snuck into Ed's farm with ski masks and headlamps and dug up his ginseng plants under the cloak of night. Carole estimates, the thieves stole more than \$50,000 worth of roots. What did it feel like to discover that?

Ed Daniels: It was detrimental.

Carole Daniels: Devastating. Hurt.

Ed Daniels: Yeah.

Carole Daniels: To plant every single plant one-by-one, on our knees with our hands, it's a lot of time, but...

Ed Daniels: It just goes to show you that people are ruthless. If they think they can get ahead by stealing from you, they will.

[MUSIC]

Lizzie Peabody: Wild ginseng is so highly valued around the world that it's been dug to extinction nearly everywhere, except Appalachia. Demand for wild American ginseng is highest in Asia, where people refer to it as king of the herbs. In America, it has another nickname.

Jun Wen: Ginseng is the green gold. It is known as the green gold.

Lizzie Peabody: This is Jun Wen, a Curator of Botany at the Smithsonian's National Museum of Natural History, and probably one of the most knowledgeable people about ginseng on the entire planet. She says wild American ginseng is known as green gold, because it can sell for as much as \$700 a pound in the United States. It sells for 10 times that in Asia, that's like the weight of a squirrel for the price of a used car or a trip to Maui. Here's the deal with anything referred to as gold. It's not easy to find, and green gold is getting a lot harder to find.

Jun Wen: In 1995, I walked in this area. I could have found 30, 40 ginseng plants. Now I go, I found one. It's very, very heart-breaking for me to see the extinction of the species in the wild.

[MUSIC]

Lizzie Peabody: The money that can be made from wild American ginseng is causing people to rip it out of the ground at a frenzied and unsustainable pace. That's pushing it even closer to the edge of extinction. So, this time on Side Door, we dig into the history of how ginseng claimed its throne as king of the herbs and what's being done to protect its reign well into the future. That's coming up, after the break.

[MUSIC]

Lizzie Peabody: You probably have a vague idea of what ginseng is, you might have seen it listed as an ingredient on an energy drink or on a packet of tea. Before I started researching this episode, I had no idea what ginseng was other than the name of my aunt's dog. This is what's led me to Ed and Carole Daniels' farm in West Virginia. I'm sitting on their front porch in an old wooden chair. It's cool and sunny, and the leaves are dancing in the breeze. It's this beautiful fall afternoon. Ed and Carole are telling me all about ginseng.

Ed Daniels: Ginseng is a medicine with unlimited powers.

Lizzie Peabody: The word ginseng literally translates to, "essence of man" in Mandarin because people believe it cures whatever ails you.

Ed Daniels: It gives you energy and it's supposed to be good for diabetes. It's good for your manhood...

Carole Daniels: Immunity, stress, your whole body. It's a heal-all.

Lizzie Peabody: Some people call it a cross between Viagra, Prozac and coffee, but Ed doesn't like the comparison to caffeine.

Ed Daniels: It gives you the energy, but I think it's a cleaner energy.

Lizzie Peabody: Mm.

Ed Daniels: It clears your mind a lot too.

Lizzie Peabody: Wow.

Ed Daniels: Caffeine, I think sometimes clouds that up.

Lizzie Peabody: The roots are the most prized part of the ankle high plant, because people believe that's where all its powers are found. People in South Korea like to cook with fresh ginseng root. People in China, dry the root into a powdered medicine. Ed takes ginseng every morning in a tincture form. When I ask what that means, he slides a massive glass canning jar towards me.

Lizzie Peabody: What's in there?

Ed Daniels: This here's probably moonshine.

Lizzie Peabody: Moonshine-soaked ginseng roots, Ed's own formula made with local moonshine and ginseng grown on his farm. The alcohol absorbs the medicine from the root giving you a nice liquid ginseng tonic.

Ed Daniels: The stronger the alcohol, the stronger the medicine.

Lizzie Peabody: Ed is what you might call a connoisseur of ginseng. He doesn't touch ginseng from big industrial farms, which is where most of it has grown. For him, ginseng has to be wild or grown on his property in wild conditions.

Ed Daniels: I try to keep it as wild as possible and we don't feed it. It's just naturally fed from the beech trees and the maple trees. It has an earthy taste.

Lizzie Peabody: Yeah. What does it taste like?

Ed Daniels: You want to try it?

Lizzie Peabody: Ed twists open the rusty metal top of the Mason jar and dips a spoon in. Carole passes it to me and explains what to do.

Carole Daniels: Put it underneath your tongue and let it sit there for 30 to 60 seconds.

Lizzie Peabody: Okay. Put it right under my tongue?

## Sidedoor S7 Ep. 3 King of the Herbs Final Transcription

Ed Daniels: Yeah.

Lizzie Peabody: Okay. Okay, the first thing I taste is moonshine, which is not far off from rubbing alcohol. The next thing I taste is...it tastes like a forest. It's very hard to describe this taste. It's like something I recognize, but I can't like...

Carole Daniels: Place what it is?

Lizzie Peabody: Yeah. I can't place what it is.

Ed Daniels: You've done more ginseng today than I've done in years. I can't believe you done so much.

Lizzie Peabody: Wait a minute. You're the expert.

Ed Daniels: She'll be up for a week, babe. You might go home and clean until sometime next week.

Lizzie Peabody: I didn't know.

Ed Daniels: Now you do!

[MUSIC]

Lizzie Peabody: To be clear, I slept just fine. I definitely felt a jolt of energy, which is part of what has made ginseng so sought after for millennia. Records of it, date way back to ancient China, where soldiers would eat it before battle and then put it on wounds after the fight. People back then used it to treat all sorts of ailments.

Betty Belanus: Digestion, tiredness, the effects of childbirth. One of the big ones that you'll find is, let me say "male performance problems".

Lizzie Peabody: This is Betty Belanus, curator at the Smithsonian Center for Folk Life and Cultural Heritage. She says wild ginseng used to be all over China, but it's healing properties were so highly prized, people dug it wherever they found it. One Chinese doctor is quoted as saying, "A person would rather take a handful of ginseng, than a cartload of gold and jewels." Around a thousand years ago, wild Asian ginseng became so hard to find in China, it effectively went extinct.

Betty Belanus: It was saved just for royalty, the emperors, because it started becoming so scarce and so valuable, because it was so highly regarded.

Lizzie Peabody: If there wasn't a Chinese dynasty named after your family, you probably were not going to get your hands-on ginseng. That was the way things went for centuries until along came a French-Canadian priest.

[MUSIC]

Lizzie Peabody: One day in 1716, Father Joseph Francois Lafitau, was just hanging around in Montreal, flipping through a book of medicinal Asian herbs, as one does. He stopped on an illustration of a ginseng plant, a little thing with green leaves, red berries and a big solid root, like a twisty carrot. When he read the description, he thought, "All-healing powers? Hmm. That's pretty cool." He kept reading and realized, this plant grows in the same general climate that we have right here in Canada. How about that? He set down his book, and he headed out into the woods. This is a passage from his journal.

John Francois Lafitau: After spending three months looking for the ginseng, by accident, I found it. It was ripe and the color of the fruit attracted my attention. I pulled it up and with joy, took it to an Indian I had engaged to help me hunt for it. She recognized it at once as one of the plants the Indians use.

Lizzie Peabody: Now, Father Lafitau had no idea if what he'd found was actually ginseng, but it was remarkably similar. He learned that local indigenous tribes were using it for the same things as people in China, things like helping with digestion, giving energy, healing wounds, bolstering manhood.

Betty Belanus: It was out there and native Americans were using it, in a lot of native American cultures it's considered a sacred plant.

Lizzie Peabody: If this was the same plant that people in China were calling king of the herbs, Lafitau would be one happy priest. So, he set out to confirm that what he had found was indeed ginseng. Today, we just Google it. Back then, it was hard to share and verify information halfway around the world unless you were a Jesuit.

Betty Belanus: The Jesuits were like the internet of the day.

Lizzie Peabody: (Laughs). What?

Betty Belanus: Yeah.

Lizzie Peabody: Wow.

Betty Belanus: I like to call it that. Anyway, they communicated with one another.

Lizzie Peabody: Father Lafitau sketched up the plant and mailed the picture out to the network of Jesuit priests stationed across China. After months of waiting, he got a reply.

Betty Belanus: Bingo.

Lizzie Peabody: It was ginseng?

Betty Belanus: Yes, and things took off from there.

[MUSIC]

Lizzie Peabody: Turns out, ginseng wasn't just in Canada in 1738, Benjamin Franklin got so excited that ginseng was growing in Pennsylvania. He declared, "We have the pleasure of acquainting the world that the famous Chinese plant called ginseng, is now discovered in this province." The discovery of ginseng on American soil turned out to be pretty clutch when colonists declared their independence and sent King George packing, the newly formed United States desperately a strong trade partner outside the vast British empire. Well, America had something China wanted.

Betty Belanus: The first economic venture to China, the ship was full of ginseng.

Lizzie Peabody: Over the next few decades, china was all about getting that sweet, sweet American ginseng. The Empress of China even sent her surgeon to Virginia to collect 30 tons of the root. This ginseng trade created a new source of income for people in the Appalachian Mountains.

Betty Belanus: It was a boon. It became something that people knew about and could fall back on in times of need.

Lizzie Peabody: Digging ginseng was like an old school side-gig, the Uber driving of the 18th and 19th centuries. It also provided a much-needed source of income for people who had no land or formal education. After the American Civil War, formerly-enslaved African Americans sold and traded ginseng to start building a new life. Even to this day, ginseng is a step stool to help some people in Appalachia climb out of poverty. Ed Daniels is one of those people.

Ed Daniels: Growing up poor, I'd see kids with new clothes going to school and I always wanted to be that kid. I went out and dug ginseng, and sold it. I was like, "Wow, I got new shoes now. I got new pants." Boy, I was 14, 15. I was like, "Man, I'd like to have a car." I got into it really heavy for a couple summers and dug ginseng and saved up and bought my first car, which was a '74 Volkswagen Beetle for 500 bucks. I was so proud of it because I'd earned the money from digging roots.

Lizzie Peabody: As logging, coal mining, and other jobs get harder to find in these regions, more people are digging ginseng to make ends meet and that worries Ed about the future of the plant.

Ed Daniels: I went into places that, as a kid, the whole hillside or that cove was just green. You go back now, it's not green. It's done, you dig it out and it's gone.

[MUSIC]

Lizzie Peabody: What can be done to save wild American ginseng from going the way of its Asian cousin? We'll explore that just ahead. Plus, I head to the forest to see if an amateur digger like myself can strike green gold. That's coming up, after the break.

{MUSIC}

Lizzie Peabody: I'm trudging along a muddy trail, just outside Washington, DC with Jun Wen, Botanist with this Smithsonian's National Museum of Natural History. We're close to the city, you can actually still hear the freeway.

Jun Wen: You can hear it. You know you can hear it from this forest, because we are pretty close to the freeway.

Lizzie Peabody: Jun is taking me ginseng hunting, and I'd tell you where we are, but the first rule of ginseng hunting, is that you don't tell people where you're ginseng hunting. We won't tell people where we were. We'll just say we were in a place.

Jun Wen: I never tell them it's here in ....

Lizzie Peabody: Don't say it on the mic! (Laughs).

Lizzie Peabody: Here's what I can tell you about where we are. It's an old forest with lots of different plants and trees, ginseng is an extremely slow growing herb that loves shade and these old trees to provide plenty of it. Ginseng also tends to grow on slopes because it likes to get plenty of water, but not sit in water. Jun tell me what we're looking for. How will I recognize a ginseng plant when I see it?

Jun Wen: It's quite an unusual plant, it has often three or four leaves at the top of the plant, they form an umbrella-like structure. No other plants in this forest would be like that. So, it is unique. Often it has a cluster of red fruits in the fall, it's like it's saying hello to you. It's really nice and great.

Lizzie Peabody: We're looking for a plant with green leaves that form a sort of umbrella and in the center of the leaves are red berries. When we went hunting in September, most of the berries were gone, making it really hard to find a plant. This isn't it, is it Jun? Right here?

Jun Wen: No, that's little hickory.

Lizzie Peabody: Dang it. These hickory trees keep fooling me, but eventually after scanning the forest and putting all my focus and attention on finding ginseng. Through sheer determination, mixed with a little luck, I still did not find anything, but Jun did, so hey, that's a win.

Lizzie Peabody: You found one?

Jun Wen: Yeah, we found one. A decent one.

Lizzie Peabody: Wow.

Jun Wen: It's an older plant, the root goes there. See, it's a very old, well-grown plant.

Lizzie Peabody: The plant is only about the height of my ankle, but Jun estimates, it's probably 15 to 20 years old. It's hiding between two fallen trees that have formed a V-shape and created a nice little cradle for it to hide in.

Jun Wen: The ginseng plants do not like attention. They like to hide somewhere. They are very precious. Yeah. Very precious.

Lizzie Peabody: Jun likes to call ginseng precious, like you'd describe a ruby or an emerald. I think that's a great word for it. It's extremely valuable and hard to find. When you do see a plant

## Sidedoor S7 Ep. 3 King of the Herbs Final Transcription

in the wild, it feels special. Like when a wild animal feels comfortable enough to take food out of your hand.

[MUSIC]

Lizzie Peabody: Naturalist William Bartram wrote in 1791, "The Cherokees speak of ginseng as a sentient being, able to make itself invisible to those unworthy to gather it." I am apparently unworthy, but Jun on the other hand.

Jun Wen: The ginseng, I think it knows that I won't harm them. Sometimes I think ginseng plants jump into my eyes. I hike with my husband, and he cannot see the plants, I can. It's amazing.

Lizzie Peabody: She's also of course, a highly trained botanist who has been researching ginseng since the early eighties, and over those 30 plus years, researchers and scientists still haven't solved the mystery behind ginseng's medicinal power

Jun Wen: The compound in the ginseng root is very complex. If you test one compound or another one individually, sometimes it's very hard to demonstrate whether or not the plants have the effect. This is a very controversial issue.

Lizzie Peabody: People do agree, however, that wild ginseng is more powerful than farmed ginseng. Jun says there's a simple reason for that. The denser the root, the more concentrated the power. Farmed ginseng grows really fast in loose, fertilized soil, making it big, but not as dense. Wild ginseng on the other hand, grows really slowly in tightly packed soil, making it small and very dense. So, a tiny wild root may be just as powerful as an enormous farmed root.

[MUSIC]

Lizzie Peabody: This is why wild American ginseng is so prized, but because it's so rare and so valuable, there are tons of restrictions about when and where you can dig it. Every state has its own set of laws, but you can really only harvest wild ginseng on private land. There's a ginseng hunting season, just like an animal hunting season. That's usually four months in the fall. Then, there are rules about where you can sell wild ginseng. If you're a digger, and it's hunting season, you can sell to a certified ginseng dealer. Those dealers turn around and sell the plants to people in China or South Korea.

Betty Belanus: It's a very mysterious, we've talked to a lot of ginseng dealers. They're very hesitant to tell us, they never tell us exactly who's buying it.

Lizzie Peabody: This is Smithsonian's Betty Belanus again. She says dealer operations can range from highly professional outfits to some guy in a pickup truck in the Walmart parking lot. Wildlife Rangers have sent her photos of ginseng deals going down.

Betty Belanus: They'll send us pictures of people buying a big load of ginseng and it'll be really dark out, and we're like, "Is this legit?"



Lizzie Peabody: Because, ginseng is so highly regulated, it finds itself in a lot of shadiness, even after it's left the forest. In 2015, a US Fish and Wildlife agent went undercover as a ginseng dealer in Pennsylvania. In his report, he wrote quote, "Ginseng is used like currency for payments for just about anything, drugs, firearms, you name it."

Lesley Stark: I think all of us involved in this are concerned.

Lizzie Peabody: This is Lesley Stark, stopper of ginseng shadiness. That's not actually her job title, but that's basically what she does.

Lesley Stark: I'm the Program Manager for the North Carolina Plant Conservation Program.

Lizzie Peabody: Lesley's job is to outsmart poachers who want to steal wild ginseng plants from North Carolina's public lands. She has a pretty nifty method for thwarting these illegal ginseng diggers.

Lesley Stark: It's really complicated, that's possibly the best term for it. It's a multifaceted system for permanently staining ginseng roots.

Lizzie Peabody: The uncomplicated version is that Lesley finds roots in the wild and dyes them, like the exploding ink pack in all the bank heist films, but without the explosion.

Lesley Stark: You find a ginseng plant growing in native soil, and with your fingers or tools, you will excavate the root. Then we use a multi-step process I'm not going to describe in full detail, because it would probably compromise future cases on how exactly this works.

Lizzie Peabody: It's a secret.

Lesley Stark: It's a secret.

Lizzie Peabody: Okay.

Lesley Stark: We apply these different materials to the root itself, to the skin of the root, and then we simply rebury it and walk away.

Lizzie Peabody: Over time, the dye becomes invisible so the person digging it illegally, won't see it. When they try to sell it to a dealer, the dealer has a device that can scan for the ink. If the dealer finds a dyed root, they know they're standing face-to-face with a poacher.

Lesley Stark: Our dealers are our first line of defense, outside of observing an actual illegal harvest in that moment, this is the next step where this illicit activity could be detected.

Lizzie Peabody: The dyes also make it easier to prosecute poachers in court. Otherwise, there would be no way to prove the roots were dug illegally.

Lesley Stark: Court cases that are actively using this marking technique, have had a near 100% conviction rate.

Lizzie Peabody: Wow.

Lesley Stark: It really stands up well.

Lizzie Peabody: In a court of law, that's brilliant. Dying roots and limiting the amount of ginseng that can be harvested are great ways to protect what's left in the wild, but it doesn't help to restore what's already been dug up. That's where Ed Daniels comes back into the story.

Ed Daniels: A lot of juveniles in here, the small ginseng as you can see.

Lizzie Peabody: Yeah, these tiny little guys.

Ed Daniels: Yeah. Here's one, here's one.

Lizzie Peabody: We're back on Ed's farm. Which, if you remember, doesn't really look like a farm at all. It just looks like a forest. I see. This is all...because this looks accidental, but it's all...

Ed Daniels: Yeah, I made all this.

Lizzie Peabody: Ed's growing ginseng in as natural a setting as possible, he spreads wild ginseng seeds onto the forest floor and let's nature do the rest. By growing plants like this, Ed is hoping to ease demand on the truly wild ginseng.

Ed Daniels: I could dig this root up and show you there's no difference in the roots that's coming out of the wild.

Lizzie Peabody: Ed's also part of a growing number of ginseng hunters turned ginseng stewards. He says he took too much wild ginseng when he was younger and now, he wants to give back. That involves more than just sowing seeds.

Ed Daniels: I use this as our teaching area.

Lizzie Peabody: Ed regularly invites nearby schools to bring students to his farm. Within these fertile young minds, Ed plants ideals of working in harmony with mother nature. He teaches children how to grow and harvest ginseng sustainably. The single most important lesson, leave the root in the ground, instead pick the leaves.

Ed Daniels: The tops are what we want to get people into and it's big medicine. It has the same value as the root. It's just, everybody's always dug the root.

Lizzie Peabody: Really?

Ed Daniels: Yeah.

Lizzie Peabody: Huh. There's really no need to dig as many roots as...

Ed Daniels: That's what we're trying to teach, to be more sustainable.

Lizzie Peabody: Research shows that ginseng leaves and berries have the same medicinal powers as the roots. Yeah, you need more leaves to equal a root, but they grow back every year. When you dig a root it's gone forever and Ed is hoping future generations will understand

the trade-off. He wants to see wild American ginseng stick around for a long time to come. As medicine, a source of income and a vital part of the ecosystem. But, as with many natural resources, there's a tension between protecting it and profiting from it. Do you see a time when wild American ginseng could be sustainable in the environment?

Ed Daniels: Hmm. I'd like say yes, I think it's going to be here for a while yet, but it's getting dug out.

Jun Wen: I think a ginseng, this plant, if we do not protect them. They will become extinct. Like in China, you can no longer find a single wild plant.

Lizzie Peabody: Unlike in Asia, there's still wild ginseng left in American forests, it's not too late to protect and conserve it. With smart stewardship, wild American ginseng, and the communities who depend on it can thrive for millennia to come.

Jun Wen: We need to conserve these valuable resources, so not only our generation can enjoy these resources. Our children, the future generations can continue to benefit from these important resources.

[MUSIC]

Lizzie Peabody: You've been listening to Sidedoor, a podcast from the Smithsonian with support from PRX.

[MUSIC]

Lizzie Peabody: To learn more about wild American ginseng, check out our newsletter. You can subscribe at [si.edu/sidedoor](http://si.edu/sidedoor). You can also see some photos from our hunting adventures with Jun, and our visit to Ed and Carole's farm. We'll also share a link to Folk Life's ongoing project American ginseng, local knowledge global roots.

[MUSIC]

Lizzie Peabody: For helping with this episode, we want to thank Ed and Carole Daniels, Betty Belanus, Arlene Reiniger, Jun Wen, Siobhan Starrs, and Lesley Stark.

[MUSIC]

Lizzie Peabody: Our podcast team is James Morrison, Natalie Boyd, Ann Conanan, Caitlin Schafer, Tami O'Neill, Jess Sadeq, Lara Koch, and Sharon Bryant. Episode artwork is by Dave Leonard, extra support from Jason and Genevieve at PRX. Our show is mixed by Tarek Fouda. Our theme song and episode music are by Breakmaster Cylinder.

[MUSIC]

Lizzie Peabody: If you want to sponsor our show, please email: [sponsorship@prx.org](mailto:sponsorship@prx.org).

## Sidedoor S7 Ep. 3 King of the Herbs Final Transcription

[MUSIC]

Lizzie Peabody: I'm your host, Lizzie Peabody, thanks for listening.

[MUSIC]

Lizzie Peabody: Before I forget, you mentioned a man root. What is a man root?

Ed Daniels: It has the characteristics of a man. You can see the shoulders, the head, the arms, the legs and especially the male penis.

Lizzie Peabody: Really?

Ed Daniels: Yes.

Lizzie Peabody: It has to have a penis?

Ed Daniels: Yes, that's the true man root.

Lizzie Peabody: Are there any women roots?

Ed Daniels: Probably a lot more than the men. They're not as valued. Sorry.

Lizzie Peabody: Man, even a small vegetable sculpture of a man is worth more than a sculpture of a woman.

Ed Daniels: I did not say that, I'm just telling you about the man root.