Lizzie Peabody: Hello, Sidedoorables! It's May, which means tis the season when many are donning their gardening gloves, brandishing pruning shears and heading outside to take on the lawn. So we thought we'd share one of our favorite episodes from the Sidedoor library, all about the roots of our American love for lawns. With some practical tips thrown in as well. We'll be back in two weeks with a brand new episode for you, but in the meantime, pop in those earbuds while you're weeding - and enjoy.

[MUSIC]

Lizzie Peabody: This is Sidedoor, a podcast from The Smithsonian with support from PRX. I'm Lizzie Peabody. It's a beautiful morning for a stroll in the grass and not just any grass. In front of me is the Capitol Building. Behind me is the Washington Monument. And in between it's just huge swaths of green, like a big, green, soft carpet. It's the kind of grass that makes you want to kick off your shoes. That's me wiggling my toes. The smell of fresh cooked grass in summertime takes me right back to childhood. Summer evenings when it stayed light after dinner, and I could go outside with my brothers and play. We'd come back in all sweaty and itchy from tumbling around in the grass of our yard. Here, on America's front yard, you'll find people all summer long snapping photos, tossing frisbees, playing kickball, reading, sunbathing. And in spite of all the wear and tear it gets, the National Mall is the poster child for the All-American lawn. All the same green, all the same height, not a weed in sight. Soft, fuzzy, a little bit damp. It's nice, but what does it take to make a lawn that looks so perfect? I knew just who to ask about this because just a few paces away, you go past the carousel, past this little fountain next to the castle, and through the gates of the Haupt Garden, tucked behind the Smithsonian castle is Jeff. Hey, Jeff.

Jeff Schneider: Hey. How are you?

Lizzie Peabody: Jeff Schneider is the deputy director of Smithsonian Gardens, but I have also heard him called the Turf King. And one of the many patches of grass Jeff reigns over is the Parterre, a lawn so flawless, it is officially too perfect to walk on, but you can stand in front of it.

Jeff Schneider: Everyone wants to stand in front of the Parterre, get a picture of their family with the castle in the background. So that is our Kodak moment for visitors here at the Smithsonian.

Lizzie Peabody: But a picture-perfect lawn requires a lot of work. First, there's mowing and edging.

Jeff Schneider: Aerating, which is punching holes.

Lizzie Peabody: Over seeding.

Jeff Schneider: Then we follow that up with lawn fertilizer.

Lizzie Peabody: To help the grass grow and herbicides to keep the wrong stuff from growing,

Jeff Schneider: Mainly broadleaf weeds.

Lizzie Peabody: Of course. Then there's regular watering, and then because of the moisture. Jeff Schneider: And then we do, do a few fungicide treatments throughout the summer.

Lizzie Peabody: Jeff estimates it takes about 90 hours of work and 72,000 gallons of water to keep the Parterre green year-round. And this patch of lawn is only about as big as a basketball court. But the Parterre is like its own work of art. Its value lies in how it makes you feel.

Jeff Schneider: To me, it kind of gives me a cooling effect and a relaxing effect just from the carpet of green.

Lizzie Peabody: Yeah. And it looks straight out of a painting.

Jeff Schneider: Well, thank you. I'll take that as a compliment.

Lizzie Peabody: Yes. Americans do a lot for the love of the lawn. Lawns extend from Maine to California to Florida, including many places where grass would never naturally grow. And each year Americans spend 20 trillion gallons of water on lawn care. Turf grass is one of America's largest crops, but it doesn't feed us. So why do we go to all this trouble for something that doesn't make sense economically or ecologically? This time on Sidedoor, we go digging into the past to find out how the aesthetic of the perfect lawn became so deeply rooted in the American psyche and what our lawns say about us historically and today. That's coming up, after the break.

[MUSIC]

Lizzie Peabody: When I think of the classic American lawn, this is the image that comes to mind. A boxy little house with a front walkway, maybe some flowers along it, and in front a tidy square of trim green grass. This image is so baked into my brain. It doesn't even feel like a choice. It feels like a default setting.

Cindy Brown: It is a default setting.

Lizzie Peabody: This is Cindy Brown, Manager of Collections, Education and Access at Smithsonian Gardens.

Cindy Brown: And we often do things that we have no idea why we still do them. What made us start doing that to begin with?

Lizzie Peabody: When we trace the origins of the American lawn, we quickly find it's not originally American.

Cindy Brown: Well, it came from Europe. In England and Scotland, lawns were seen as an elite part of your estate.

Lizzie Peabody: In Europe, grassy lawns were a status symbol among the nobles and aristocrats of the 17th century because they were intentionally impractical.

Cindy Brown: Think about it. You had money to be able to spend on something that really didn't do anything for you.

Lizzie Peabody: To have a lawn was essentially to say, I have enough food that I don't need this space for a garden.

Cindy Brown: Right.

Lizzie Peabody: And I have enough money that I can pay someone to take care of it just because like I live a life of abundance.

Cindy Brown: Exactly. This lawn was purely a statement on you, your status in society.

Lizzie Peabody: Along with the British, the lawn hopped the Atlantic, and even the American Revolution didn't stop it from taking root among this new country's elite.

Cindy Brown: If you are trying to emulate what you think the rich and the powerful are doing, wouldn't you copy how their estates look?

Lizzie Peabody: George Washington and Thomas Jefferson were like, "Keep your monarchy, but we'll take the green, green grass please and thank you."

Cindy Brown: So, if you go to Monticello or you go to Mount Vernon, you are going to see lawns. You're going to see that green swath that sets off the perfect abode.

Lizzie Peabody: Just like in Europe, only the privileged could afford lawns because of all the time and work they took. And who did the work?

Cindy Brown: The enslaved people were the ones that would have to tend the lawns and use scythes to cut it by hand.

Lizzie Peabody: So, in the early days of our nation, you'd really only see lawns at the homes of wealthy landowners and slaveholders. But that started to change in the mid 1800s when trolleys and streetcar made it easier to travel into and out of cities. The growing middle class started to build homes on bigger plots of land and what came to be called the streetcar suburbs. Paint a picture for me, like I don't have a good mental image for the Victorian era suburban lawn.

Cindy Brown: Go look up Andrew Jackson Downing.

Lizzie Peabody: Andrew Jackson Downing was a horticulturist, author and is widely considered to be the father of American landscape design. He'd probably be better known today if he hadn't died young in a steamboat accident. But for Downing, landscaping was about more than projecting a certain image. It was about character. He believed a house's architecture and surroundings could affect the tastes and morals of its owners. He wrote, "When smiling lawns and tasteful cottages begin to embellish the country, we know that order and culture are established."

Cindy Brown: In fact, he even wrote books to show you, if you had this size property, what could you do. If you had this style of house, what could you do. I think of him as early Martha Stewart because he did, he put out books and all his designs included grass. So, if you're going to be the in people you're going to follow along with that.

Lizzie Peabody: Downing envisioned yards that imitated nature, but improved on it. Exotic trees to replace native ones, rare flowers to replace common ones. And he wrote, "Smooth turf instead of wild meadow, be speaking the presence of a tasteful and enlightened mind." And who doesn't want to be tasteful and enlightened? Even Victorian era suburbanites had Joneses to keep up with, and they needed their lawns to reflect their innermost virtue and intellect. And that required tools. What did it take to care for lawns at that time? Because there were no lawnmowers and there were no hoses. So how did they do that?

Cindy Brown: Well, actually, they did start to have lawnmowers and hoses very good, because lawnmowers, the early lawnmowers started in the early 1800s.

Lizzie Peabody: In 1830, an Englishman patented the first mechanical lawnmower. It looked kind of like a low-slung grocery cart made of cast iron. In other words, very heavy.

Cindy Brown: And from 1830 onward, they just kept making improvements upon the lawnmowers.

Joyce Connelly: There was any number of designs out there of lawnmowers. They were even, I think, dog drawn mowers.

Lizzie Peabody: Oh my Gosh.

Joyce Connelly: So, people were coming up with all kinds of ideas in terms of making their lives easier.

Lizzie Peabody: This is Joyce Connelly. She's a museum specialist at the Smithsonian Archives of American Gardens. She handed me an advertisement from 1897. Wow. Peter Henderson & Co, New York, Lawn Essential. That shows a man in a bowler hat sitting on what looks like a sleigh. Doesn't it look kind of like a sleigh?

Joyce Connelly: It does, yes.

Lizzie Peabody: It reads, "the Coldwell improved horse lawnmower. We guarantee this to be the best and most perfect horse lawnmower manufactured." The man is holding a whip and in front of him is a white stallion. The fine print states, oh, "The new attachment for instantly raising the knives when traveling along roads in stony places is very convenient." Wow. \$60. As equipment got better and better lawns became increasingly affordable for more people. These tools were advertised in seed catalogs and advances in color printing technology made dreamy landscapes look even more enticing than ever.

Joyce Connelly: The seed catalogs were beautifully illustrated. This was before color photography, obviously, and the illustrations were colorful and homey. They really drew you in. It was almost Eden-esque, what they were selling.

Lizzie Peabody: One ad from 1910 shows a woman in an extravagant hat and floor length white skirts pushing a dainty mower. There are no grass clippings on her dress. There's no like grass stains at the edge of her hem. Like this is clearly a fictional depiction of a person mowing a lawn.

Joyce Connelly: Absolutely. The seed companies were also responsible for pushing the idea of lawns, and there was money to be made. So, between equipment and seed supplies, it was very important.

Lizzie Peabody: By the early 1900s, sprinklers became widely available as well. Cindy Brown: Because that amazing amount of growth really does take a lot of water and a lot of nutrients to be able to make it grow. Our native grasses are not the same. They grow and then they stop, and then that's it.

Lizzie Peabody: Cindy Brown says these turf grasses, like the concept of the lawn, were imported from the damper cooler climates of Northern Europe. They needed help surviving in most of the US. We had to adapt the environment to match the look we wanted.

Cindy Brown: Exactly.

Lizzie Peabody: But pretty soon innovation would begin to change the grass itself, thanks to...

Cindy Brown: Games. Games did it.

Lizzie Peabody: You know, horseshoes, badminton, croquet, and most importantly...

Cindy Brown: The biggest game of them all. Golf.

Lizzie Peabody: Golf.

Cindy Brown: In the 1920s, we had a golfing craze. It was the thing to do. It affected what we planted, how that turf was grown, because golf is really hard on turf. I mean, getting hit by that little stick and running around and people with-

Lizzie Peabody: It's called a club.

Cindy Brown: A club. So, the USDA at the time created a tougher grass to be able to be planted on golf course.

Lizzie Peabody: Wait a minute. The US Department of Agriculture?

Cindy Brown: Agriculture, yes.

Lizzie Peabody: The USDA worked with the US Golf Association to develop hybrid grasses that would stay green almost all year long. That is with the right chemical products to support them. When we come back, how envy, prosperity and wartime bombs brought the American lawn to explosive new heights. After the break. We're back and we're talking about the roots of the American lawn. A concept imported from Europe around the time of the Revolutionary War, but it was another war that made the perfect suburban lawn quintessentially American. What does World War have to do with growing grass?

Abeer Saha: That's a really neat question, surprisingly much.

Lizzie Peabody: Abeer Saha is the curator of agriculture and engineering at the Smithsonian's National Museum of American History. He says the thing that links war with grass is nitrogen.

Abeer Saha: The primary ingredient in both explosives and nitrogen fertilizers is ammonia fixed nitrogen.

Lizzie Peabody: During World War I, factories were making a lot of bombs. After the war, these factories were repurposed.

Abeer Saha: Instead of just letting all this equipment and technology sit idled, instead of producing explosives, now you can produce fertilizer for your front yard.

Lizzie Peabody: You might say there was a fertilizer explosion. A lot of bomb making factories became fertilizer factories. And following World War II, there was a new market for this fertilizer.

Abeer Saha: Veterans returning after World War II took advantage of government policies like the GI Bill to not just return to school, but also to buy homes.

Lizzie Peabody: In the 10 years between 1946 and 1956, more Americans purchased homes than in the previous 150 years. New suburban communities grew up almost overnight. Speaker 6: Five years ago, this was a vast checkerboard of potato farms on New York's Long Island. Today, a community of 60,000 persons living in 15,000 homes all built by one firm. This is Levittown.

Lizzie Peabody: Beginning in 1947, the housing developer, Levitt & Sons, mass manufactured whole neighborhoods of houses.

Abeer Saha: Levitt towns begin to spring up first in places like Long Island and then throughout the country. And what they are is essentially mass manufactured homes and housing complexes.

Speaker 6: Why not mass produce the elements that go to make up a house, just as the auto industry does with the parts that go into a new car?

Lizzie Peabody: A Levittown house could be built in a day and every single house had a lawn.

Abeer Saha: And because the Levitts decided that every house needs to have a lawn, you now are starting to create a pattern in all the other housing developers that come after.

Lizzie Peabody: But the Levitts, like many other housing developers at the time, would not sell homes to African American families. So, the image they created of the new American suburb was a white one. And with the help of the new National Highway system, these white suburban enclaves sprouted up across the country and with them this vision of the model lawn.

Abeer Saha: The value of the home begins to get tied with how beautiful it looks on the outside, which means a bright green front yard.

Lizzie Peabody: Just as Americans in the Victorian era had signaled their moral virtues and cultured taste through the plantings and their yards, Americans in the 1950s were signaling too. Rows of perfectly trimmed front lawns gave the impression of a united, well kept, homogenous community, all white with all green lawns.

Abeer Saha: And you're also starting to see the rise of a culture of conformity, right? It's the Cold War. No one wants to be labeled a communist. And in order to be a patriotic American, you need to be like all your neighbors.

Lizzie Peabody: Americans knew that the tallest blade of grass is the first to be cut. And in the era of the red scare, it could be dangerous to stand out.

Abeer Saha: So, you have Americans wanting to tow the line and sort of participate in the American dream. And what does that look like? That looks like a barbecue on your beautiful green front yard.

Lizzie Peabody: Your lawn said something about who you were, whether you belonged. Abeer Saha: Citizenship. Yeah. What it means to have a lawn became equated with what it means to be American.

Lizzie Peabody: Americans had something to prove with their lawns and a whole industry rose to the occasion to satisfy that need.

Speaker 7: Weeds are our common enemy plaguing the homeowner, ruining golf courses and our tempers.

Lizzie Peabody: This is a 1947 ad for one of Dow Chemical's new herbicides. In addition to the synthetic fertilizers that promised explosive growth, new chemical herbicides could target specific weeds without killing grass, making the first all grass or monoculture lawns possible.

Speaker 7: The sprayed plants are dead. Those which were protected are of course thriving nicely.

Lizzie Peabody: A growing suite of home improvement magazines drove home the idea that the suburban homeowner master of his domain was just one product away from a golf course worthy lawn. That would be the envy of all his neighbors.

Abeer Saha: And so, you're beginning to see the industry push for a certain kind of lawn, and then consumers, homeowners imbibing that ethos and making it their own, really owning it.

Lizzie Peabody: The force is set in motion over a century ago, cultivated by industry, advertising and social convention continue to act on us. Today, lawn care is a \$60 billion industry that all grass, all green, all American lawn is more attainable than ever. Thanks to a whole arsenal of tools designed to keep our lawns on life support.

Sylvia Schmeichel: We joke that they're chemically dependent. Traditional lawns are chemically dependent.

Lizzie Peabody: This is Sylvia Schmeichel, lead horticulturist at the Smithsonian's National Museum of Natural History.

Sylvia Schmeichel: They need a lot of fertilizer. They need a lot of water. That means they need a lot of mowing. So that means you need a lot of fuel. And then you have other diseases and pests that you're trying to get rid of if you want that perfect pristine lawn.

Lizzie Peabody: We now know that many of the fertilizers and pesticides developed in the post-war era are harmful to humans and wildlife. Excess chemicals run into waterways, damaging ecosystems and killing millions of fish and birds each year.

Sylvia Schmeichel: And so, I think it's important to remember what you put on your site doesn't necessarily stay on your site, and it has impacts to your greater natural world. Lizzie Peabody: Sylvia says, the more perfect your lawn looks by industry standards, the worse it likely is for the environment. In a world facing climate change, it's worth asking what a perfect looking lawn actually says about us today. First of all, I want to roll in this. I haven't rolled in a lawn in a while, in front of the National Museum of Natural History, Sylvia is showing me a different kind of lawn.

Sylvia Schmeichel: Is it pretty comfortable to sit on?

Lizzie Peabody: Let's see. My butt is wet, but yes. This is a pollinator lawn. If the traditional American lawn is a velvet carpet, then this is a shag rug. What does it take to make a pollinator lawn?

Sylvia Schmeichel: So, the difference is that we have a higher... What's called a higher threshold for species of plants other than turf grass.

Lizzie Peabody: Oh, okay.

Sylvia Schmeichel: So, if we find clover, that's okay. We leave the clover. We know that it provides nectar to the pollinators.

Lizzie Peabody: The pollinator lawn is better for bees and wasps and requires a lot less work than an all-grass lawn. It needs less water, less fertilizer, less mowing, and the mix of plant species supports beneficial insects, which means no pesticides. So basically, like you're giving me permission to have a lazy lawn.

Sylvia Schmeichel: Yes. Permission to procrastinate granted.

Lizzie Peabody: But what if procrastination is not an option? What if it is your job to maintain a perfect looking lawn? Back on the pristine monoculture Parterre, Jeff Schneider, the Turf King himself, has some tips. So, there are ways to have a beautiful grassy lawn and minimize the impact to the environment. What do you advise for homeowners that you're putting into practice here?

Jeff Schneider: Sure. So about 10 years ago, we switched from synthetic fertilizers to an organic based fertilizer. So, I would certainly suggest that to the homeowner now, that that adds a little bit of cost, but we feel that it's worth it. But also, about 10 years ago, we moved away from gas powered equipment in the garden and specifically for lawn care.

Lizzie Peabody: Today, Jeff's team uses battery powered mowers and tremors using solar charging stations in the garden.

Jeff Schneider: So, we are not only off of the dependency of gasoline, but we're also off the electrical grid.

Lizzie Peabody: But even if you can't build a solar charging station for your battery run lawn equipment, there are other ways to minimize your lawn footprint.

Jeff Schneider: Big thing, mow your grass as tall as you can. If you have a cool season grass, that goes a long way to reducing the amount of water that you need. The other thing I would mention is we irrigate here, but that doesn't mean you have to irrigate at home.

Lizzie Peabody: Jeff says you don't have to water. It is fine to let your grass go brown.

Jeff Schneider: Just because it turns brown doesn't mean that it's dead. It just means that it's gone to sleep for awhile and it'll come back.

Lizzie Peabody: I didn't realize that. I figured if it was brown, it was gone.

Jeff Schneider: No.

Lizzie Peabody: But your best bet of all is to go with plants that would naturally grow in the region where you live, which depending on where that is, might not be grass at all. Letting go of the idea of the perfect lawn goes against generations of messaging we've received as Americans, that our lawns reflect who we are and what we value. But it's worth taking a look at where those ideas come from and whether we want to carry them forward. As Abeer Saha says, every single yard is a piece of a bigger puzzle.

Abeer Saha: Anything happening at such a large scale is going to have some negative impacts. And in this case, your lawn isn't feeding the world. So, what is your lawn doing that justifies the costs associated with it?

Lizzie Peabody: The American lawn has always been about more than just grass. It's a space we create, where we can play, eat, lounge around with friends, pets, and family. We define what that space looks like. It's a choice, and it's okay to choose imperfection.

Sylvia Schmeichel: The idea of not having a perfect lawn, it's okay to be imperfect, and it doesn't mean that you are a bad citizen or there goes the neighborhood type of situation. It's a thoughtful reconsidering of what the idea of a lawn is.

Lizzie Peabody: Maybe being an engaged citizen today means having a lawn that doesn't look like everyone else's.

Sylvia Schmeichel: Right. It doesn't look like your grandfather's lawn or your dad's lawn. It's a new way of rebelling, right? The modern rebel has clover in their lawn.

Lizzie Peabody: Forget the sex, drugs, rock and roll, plant some clover.

Sylvia Schmeichel: Resist the monoculture. [MUSIC]

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

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Lizzie Peabody: If you're wondering more about how to make the most of your lawn, we have more tips and tricks from Smithsonian Gardens horticulturists in our newsletter. We'll also include ways to search for your nearest cooperative extension service. Jeff, the turf king, Schneider says, cooperative extension agencies are the best place to go for the latest research specific to your growing region.

Jeff Schneider: They are the experts. I would suggest to anyone that they go and read up at those sources instead of relying on commercials and sales pitches on fertilizers and other things.

[MUSIC]

Lizzie Peabody: And if you're interested in a pollinator friendly lawn, but worried about what your neighbors might think, Sylvia Schmeichel has advice.

Sylvia Schmeichel: One, having conversations with your neighbors. If they're like, "Hey, what's going on?" You're like, "Well, I'm doing this on purpose." Keeping clean edges. So, it does look like it's maintained.

Lizzie Peabody: Intentional.

Sylvia Schmeichel: And sometimes putting a sign up that say, "Look, this is a native habitat. This is a pollinator friendly lawn."

Lizzie Peabody: Sylvia Schmeichel says right now - in May - it's especially important to mow your grass higher, at 4-6" (or not at all - if you're participating in the No Mow May campaign!). This allows nectar-rich flowering species to actually flower, and feed the newly emerged hungry native bees.

That's all in our newsletter. You can subscribe at si.edu/sidedoor.

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Lizzie Peabody: Special thanks, this episode to Cindy Brown, Jeff Schneider, Sylvia Schmeichel, Joyce Connelly, Kelly Crawford, James Gagliardi, and the rest of the wonderful crew at Smithsonian Gardens. Thanks also to Abeer Saha and Valeska Hilbig at the National Museum of American History.

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

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Lizzie Peabody: If you want to sponsor our show, please email sponsorship@prx.org.

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Lizzie Peabody: I'm your host, Lizzie Peabody. Thank you for listening and go let your lawn belong.

Cindy Brown: Conformity, that of height and how easy it was to be able to do the game of golf on it.

Lizzie Peabody: Do the game of golf.

Cindy Brown: So, they copied golf, the game of golf.

Lizzie Peabody: I just love, "Do the game of golf." That's like something I would say as a non-golfer.

Cindy Brown: Doing the game. And there was other games too. So...