JOHNSON

This is Getting Dirty in Your Garden, brought to you by North Carolina State Extension Master Gardener Volunteers. I am your host, Harold Johnson, and I’m a Master Gardener in Durham County.

JOHNSON

Imagine a headline that reads, "Native plants overtake our landscapes!" That's not about to happen but we can return many more native flowers, shrubs and trees to our private and public landscapes and in the process benefit our world in so many ways.

Recently I interviewed Chris Liloia, curator of the North Carolina native habitat gardens at the North Carolina Botanical Garden in Chapel Hill. We talked about our many native pollinators and their need for native plants to perpetuate the pollinators' life cycles.

Continuing the theme of returning more of our landscapes to native plant environments, today you'll hear my conversation with Heather Summer. Heather is the Program Coordinator for the North Carolina Botanical Garden Seed Program. If you aren't familiar with the Botanical Garden's Seed Program you'll learn of the coordinated efforts of the Botanical Garden and Garden Clubs of North Carolina to distribute a variety of native plant seeds.

If my conversation with Heather sparks your interest in the Botanical Garden's Seed Program, be sure to visit the Garden's website for more information on obtaining your native plant seeds and as always, the Getting Dirty in Your Garden website will include a link to the North Carolina Botanical Garden website.

We’re looking at the ***North Carolina Botanical Garden University of North Carolina at Chapel Hill, 2016 Southeastern Native Plant Seed List*** and you are the coordinator of the program.

SUMMER
I am

JOHNSON

This program has been going on for a while, but I think y’all are getting some special attention since this is the 50th Anniversary of the Botanical Garden.

SUMMER

Correct, yes! This is our 50th Anniversary, and the seed program has formally been around since the late 70’s. The general idea of conservation through propagation is sort of the basis of the seed program, and the seed lists and the wildflower of the year program. That idea has been around pretty much since the beginning of the gardens. It was one of the ideas that was developed by early staff, early on in the history of the gardens in the late 60’s and early 70’s. The seed list is just sort of a product of those ideas and that thought in the early days.

JOHNSON

Because the garden represents some sections of North Carolina and the biodiversity of that section, so I assume that you have seeds from each of those areas—the Coastal, the Piedmont, Mountains.

SUMMER
Correct! The seed list that we are looking at here that we do every year—the majority of the seed that is on the seed list is collected from here at the gardens. And here at the gardens we have display gardens and we also have habitat gardens. So we have a habitat garden for the Piedmont, a habitat garden for the Coastal Plain and Sandhills, and then we have a Mountain Habitat garden. I collect seed from all of those habitat gardens, so it does represent pretty much all of the habitats of North Carolina. We don’t have a “beach” or a “dune” habitat here. Maybe in the future, I don’t really know; but that’s the only habitat that we don’t have represented at the gardens.

JOHNSON

You manage to have the carnivorous plants represented and that’s pretty close to the beach.

SUMMER

That’s true—yeah. We have a great carnivorous plant collection here that I collect seed from as well. I also do seed collection offsite, on occasion. There might be something that I’m collecting that we don’t have in the gardens, but it might occur in Orange County or somewhere close by that I collect the seed of.

JOHNSON

Alright—the seed program—so do y’all collect seeds from areas within the garden as well as you might also go outside of the garden to collect seeds? Now what? What do you do with them?

SUMMER

Correct. So, the seed that I collect has multiple fates. Most of the seed that I’m collecting either goes toward this member seed list that we publish every year or the Wildflower of the Year Program, which is another aspect of the program. I would say probably 75-80% of the seed that I collect; I’m collecting for those two projects, there. I also collect seed just for general garden use, propagation and storage. We do store a lot of our seeds for future propagation use. I don’t do long-term storage, and by long-term I say, like ten years or more. I’m typically collecting seed for the horticulture staff to use in the greenhouse and propagation or to put out in the landscapes. The conservation department does more of the long-term seed banking and the seed storage of the more rare species. All of the seeds that I’m collecting are either going to be used in our seed program for distribution to the public or for horticultural use here at the gardens.

JOHNSON

Tell me about the range of seeds that you offer each year. Is it the same or does it vary?

SUMMER

It varies. There are some species that I like to put on the list every year—some of the really popular ones like: cardinal flower, columbine, sundrops, some of the really more popular ones that people are always asking about—people always want—some of the ones that are s little bit more easy to grow. I would say that in any given year there are about 30 of the species that you’re going to see on the seed list every year, 20-30. Then we will rotate in some that haven’t been on the list for three or four years. Then every year I try to put at least a dozen new species that we’ve never had on the list before, just to give the long-term members that have been getting their seeds every year, just to give them something different, new and exciting to look forward to every year.

JOHNSON

Long-term members and their seeds—how do you get to have access to this seed bank that you’re talking about?

SUMMER

So the seed list is published every year and it comes out typically in early February—this year it was a little bit delayed. We send it out to all of our members that are located within the southeast. We have a seed distribution policy here at the gardens where we are only distributing our seeds to a 12-state region in the southeast. We don’t distribute our seeds west of the Mississippi, and then north of—I think the line is Delaware/Maryland, so we don’t send our seed to the northeast. This is just based on the fact that some of the species that are native here might actually be considered “weedy” or “invasive” in other parts of the country. We are a conservation garden, so we promote native species and we like to encourage people in other parts of the country to appreciate and utilize their own native species in their gardens and not try to grow something from North Carolina out in California or in south Florida where a lot of times it’s not even going to grow. And even if that species does occur in other parts of the country, the seed that I’m collecting is from plants that have grown in North Carolina and are adapted to North Carolina growing conditions, so the same species—even though the range might occur in California or south Florida—the growing conditions are so dramatically different that they are probably not going to do that well over there if they are adapted to our conditions over here. If I get a request from someone that is outside of that 12-state region, I’ll try to work with them to figure out a more local source for them of their seed. That being said, anybody who is a member of the North Carolina Botanical Garden and they live in this 12-state region in the Southeast, they will get this seed list mailed to them at the beginning of the year. All of the members can get up to eight free packets of seed each year. There is a little order form in the seed list with a list of all the species they can order. They can select their packets and send in a self-addressed envelope with their order form and I will get their requests and I will fill it for them and mail their seeds back to them or they can come and pick them up if they would rather.

JOHNSON

Wow! Eight seeds from eight different plants?

SUMMER

Correct! Yes, and they could even request—if they just wanted four species—they could request two packets of those four. It’s eight packets regardless of which species. I have even had some people request eight packets of just one species.

JOHNSON

Dense planting!

SUMMER

Yes! Yes!

JOHNSON

You also have a plant of the year.

SUMMER

We do! As part of the seed program, we have a program called the Wildflower of the Year program. This program is done in cooperation with the Garden Club of North Carolina. This program was started back in the early 80’s. I believe 1982 was the first year we had the Wildflower of the Year program. This is just another way to encourage home gardeners to use native species in their gardens. We select one species that we like to feature as this Wildflower of the Year and we distribute packets of seed of that species to anybody—you don’t have to be a member of the gardens—it’s anybody who wants the seed. But again, it is limited to this 12-state region in the Southeast. Anybody who wants a packet of our Wildflower of the Year can mail in a self-addressed stamped envelope with their request and get their free seeds in the mail, or they can come here if they are located here in Chapel Hill, they can come to the gardens and we have the packets available in our education center.

JOHNSON

I’ve got mine because I’m a member of the botanical garden and didn’t have to ask for them—they came in the mail!

SUMMER

You will also see them if you go to garden club meetings or conferences. They are usually distributed within them—the packets—at those meetings or conferences. You might see them at special events. We have got our big spring plant sale and festival coming up and I’m sure we’ll have a stack of them at one of the tables. Yes, there’s many ways you can get those.

JOHNSON

I’m always tempted by lots of the plants that are on sale at the member plant sale and then the following day, the public plant sale—lots of wonderful, wonderful plants! I’ve gotten my start on sarracenia, cardinal flower from here!

SUMMER

The seed list is sort of like a catalog of fun and interesting native plants that you can use in your garden—kind of like browsing the plant sale.

JOHNSON

I see that there is a great help in the information around the seeds that are available and that is whether they need stratification, they need cold period, they need scoring, whatever.

SUMMER

Yes, something a lot of people don’t realize is that a lot of our native plant species here in the Southeast require some sort of treatment before they will germinate. The majority of them require a period of something called stratification. It’s typically a period of cold, moist stratification. If you think about these plants out in the wild, it’s a way for them to not germinate too early. They go through this period of cold, moist—which is essentially is the winter. Then they germinate in the spring. A lot of people think that these seeds are going to germinate as quickly as like a tomato seed or something like that, and it’s a little bit more complicated than that. People really need to have patience when they are dealing with these native seeds because a lot of them do require this period of cold moist stratification. You can overcome this by doing them in your refrigerator. There are instructions on how to do this in the seed list. You can get the seeds started a lot sooner than if you were just throwing them out in your garden. If you do that, they might take a year or sometimes even two years to germinate. Then there are some species that don’t require stratification that don’t require stratification. Some of the smaller seeds—like cardinal flower doesn’t require stratification. It will come up within a couple of weeks. But yes, the seed list has all of the information on the species that are in the list, whether they require stratification or there are some species that have a really hard seed coat. I’m thinking of some of the legumes, in particular. You can think of peas in your garden, a lot of times you have to soak those before you plant them. It’s sort of the same thing. You need to nick the seed with a razor blade or some sand paper—just nick that seed coat so that water can get in there and they can germinate. There’s a code for that in the seed list, as well. It tells you exactly how to do that.

JOHNSON

I’ve been fascinated as I learn that there are some seeds that need heat—fire. That always seemed counterintuitive.

SUMMER

It does—it does. That’s just another strategy that some species have to overcome their dormancy and germinate at just the right time. Particularly in the Sandhills habitat, you think about what a fire does. It clears out all of the ground cover and sort of creates these little micro-sites that are perfect for germination by clearing out competition. A lot of the species down there might have seeds that need fire to either simulate the physical germination of the seed or to clear out the area to provide these perfect sites for germination. None of the seeds that I put on the seed list require fire to germinate, so you don’t have to light your seeds on fire! (Laughter)

JOHNSON

I’ve noticed that, Heather, to get ***this*** many seeds available for all of these people, you’ve got to have a little help!

SUMMER

I do have help! We have a great group of volunteers that works with us every week. They help with cleaning of the seeds and packaging of the seeds. You can imagine that I’m collecting the seeds pretty much all year. There’s really not a time that I’m not collecting seeds, with the exception of maybe December and January. There’s almost always something setting seed year round. So I’m collecting seed year round. I’ll stick it in the Totten Center and let it dry out a little bit and then we have this crew of volunteers that comes in on Wednesday mornings and helps me clean all this seed. It’s a pretty big task to clean bags and bags of seed. I like to get the seed as clean as possible before I distribute it to the public. I don’t want them to have to deal with a bunch of junk in their seeds. So, yeah, we work in there Wednesday mornings and once it’s clean they help me package the seeds in the nifty little envelopes that we use and they stick the little labels on the seed packs. It’s a great help. It would be nearly possible to do without the volunteers.

JOHNSON

Because you distribute thousands of packets of seeds…

SUMMER

Thousands of packets of seeds, yeah! I would estimate with the seed lists, on average probably 2500 a year, seed packs go out. With the Wildflower of the Year, it can be anywhere from 3,000 to 4,000. Last year we did Fire-pink as the wildflower of the year and it was incredibly popular. I sent out about 4200-4300 seed packets throughout the year. It was a great response! It’s a lot of work—a lot of envelopes and a lot of glue sticks are used with the packaging up all the seeds.

JOHNSON

I referred to the seeds for flowers, but I see that you have a much more diverse list of seeds available than just flowers.

SUMMER

Yeah, I try to put an assortment of species on the list. I usually try and include a couple of species of grasses, a couple of vine species, and at least a few trees or shrubs. The trees or shrubs are a little bit trickier is because the thing I am limited by is the size of seeds. I don’t want to put large seeded things on the seed list because they are harder to mail. I need to make sure the seeds are small enough that they are not going to get crushed in the mail. If you have ever ordered seeds, you will notice that your seeds will come packaged between double-wrap and that is to help to protect the seeds from the post office and their machinery. But I also try and make sure the post office stamps it by hand instead of running it through their machines so they don’t crush the seeds. So, some of the trees or shrubs that might be on here—last year I had black gum and those seeds were pretty big. But that’s about the biggest seeds I would put on the seed list. This year viburnum is on there, and they are actually fairly flat, so they mail pretty well, but, yeah, it is pretty much limited by the size of the seed and how well it’s going to mail. Another thing is that I get questions about seeds of the spring ephemerals—like trout lily seeds, trillium seeds—things like that and those are never going to be put on the seed list because they need to be sown right away. They don’t store well and even though I’m not storing these for a long time, if I’m collecting them in the spring and the seed list doesn’t come out until February, that’s still several months they are going to need to be stored. Those kinds of seeds really need to be sown fresh, right away for them to germinate and be viable. Unfortunately, members are never going to be able to get spring ephemeral wildflower seeds from the seed list.

JOHNSON

They may be able to get them here?

SUMMER

Yes, we do grow them; we sell them, so you can come check out our daily plant sale. There should be some—particularly bloodroot—things like that at our spring plant sale as well in May. Yeah, we do sale them; we do offer them to the public as plants, just not seeds.

JOHNSON

And the spring plant sale is?

SUMMER

…May 21, from 4:00 until 8:00 and you don’t have to be a member to attend. It’s open to the public.

JOHNSON

I have it one my calendar.

SUMMER

(Laughter) It should be a fun thing!

JOHNSON

A few of the seeds that are available this year that might trigger interest from folks who are listening to the program…

SUMMER

We have butterfly milkweed on the seed list this year. That’s something that we don’t always have on the seed list, but when we do have it, it’s very popular. It’s the orange milkweed that is fairly easy to grow, fairly drought tolerant once you get it established. It’s interesting because some years it just does not produce a lot of viable seed. So there are some years and I have absolutely no seed of it, whatsoever and people are always asking for it. Last year was a really good year for it. The conditions were just right. We had more butterflies last year than we have had in the past few years, so I was able to get enough seeds to put on the seed list this year. That’s a really neat one to have on there. I have Venus flytrap on the seed list this year. It’s one that’s a little bit more complicated to germinate. Another thing that I should mention is that I like to include—most of the things I include on the seed list are fairly easy to germinate—even though they need a cold moist stratification period, they are still fairly straight forward. Every so often I’ll put something on there that is for the advanced gardener, I guess you could say, that’s a little bit more tricky to germinate. Venus flytrap would be one. You need to have just the right conditions trying to germinate it in moist sphagnum.

JOHNSON

That reminds me that it’s so important that we start these plants that are endangered from seeds that you are providing, versus collecting in the wild.

SUMMER

Correct! That’s one of the reasons why we have the seed program, is to encourage people to grow them from seed or to ensure that where they are getting them from or growing them sustainably and not going out and digging them from the wild. That’s one of the reasons the seed list was started—just to encourage people to propagate their own species and not go out and dig them from the woods. Another one I’m thinking of that I like to include sometimes—and I don’t think it is on the list this year—is Carolina lily, which is our state wild flower. It’s one that requires a warm, moist stratification period followed by a cold moist stratification period, so it’s fairly tricky to get it going if you don’t know how to do it, but for the experienced gardener that’s been doing this for a long time, it’s a fun challenge. I have a mountain mint on the list this year—a pycnanthemum tenuifolium—which is a great pollinator plant. I also like to include a decent amount of pollinator plants on the list every year. I know that’s sort of the thing right now is to plant for the native pollinators, so it’s important to have a lot of options for people that are looking to plant butterfly and pollinator gardens, as well. And I will also try to include the previous year’s Wildflower of the Year on the seed list. So this year I have Fire-pink on the seed list, which was last year’s Wildflower of the Year, so that if someone, for whatever reason didn’t get their seed—their Wildflower of the Year seed—last year, they can find it on the seed list this year. Next year, I will put rattlesnake-master on the seed list, which is the current Wildflower of the Year. I have atamasco lily on the seed list this year. That’s a wonderful one that’s been a previous wildflower of the year. It’s very easy to germinate. You stick it in a flat, doesn’t need stratification. It will germinate within two weeks; it will come up. That’s a great one that’s fun to have on there.

JOHNSON

Oh, yeah! I have my scarlet rose-mallow that I got here. Love it! We just call it “Big Red”!

SUMMER

“Big Red”, yeah that’s a great one as well! Last year I had the white-flowered variety of that one on the list which is interesting. We have a lot of that in the landscapes here. That’s one that requires the seeds to be soaked before you sow them. It doesn’t require the cold moist stratification, but you do need to soak the seeds before you sow them. The common names—we list the common names on the seed list, but we think in terms of scientific names here, so you might see a common name that is different from the common name that you know that species or that you grew up hearing for that one.

JOHNSON

There are so many native plants that can take the place of the ones that have been hybridized that still give you plenty of color!

SUMMER

A lot of times the native species are a better choice over these cultivars because a lot of times the cultivars have been bred for us and the way they look.

JOHNSON

Yes, for the flower!

SUMMER

And not for the insects and the pollinators and the critters that depend on these species for food.

JOHNSON

Thinking about the monarda is coming—rainbow of colors—but I’m not sure all insects recognize that that’s a…

SUMMER

Right, and there have been some studies done on cultivars versus native species and the attractiveness to pollinators and if they have as much nectar as the native species. I think it’s sort of a new area of research that people are starting to look at now that people are interested in planting natives in the garden.

JOHNSON

Others just don’t produce what’s needed.

SUMMER

I also just want to mention real quickly that another thing that we do as part of our seed program is anytime there is a researcher or professor that’s working on a particular species and they are looking for seed, they will contact me and ask if I have seed of this particular species that they are looking for. I have been working with this woman up at the College of William and Mary who’s been doing some milkweed research; I have been sending her seeds, as well. If there are grad students working on projects, we’ll provide seed to them. I also provide to local native nurseries for them to use in their production. It’s not just our use and our members; it’s also part of our mission is to support native plant conservation throughout the Southeast by helping people find the seeds they need. We’re doing that.

JOHNSON

Heather, we’ve got a lot of information! I hope that you will find some folks contact you because they heard on our podcast or read on our website about the native seed program at the University of North Carolina Botanical Garden.

SUMMER

Yeah! That would be great! If anybody is interested in becoming a member, they can visit our website or you can send me an email. I’m happy to provide my email address and you can contact me directly. The seed list is a great way to start your gardening with natives, if you haven’t tried it yet.

JOHNSON

Watch the ***Getting Dirty in Your Garden*** website for the next interview in a series emphasizing the use and really need, of planting more native flowers, shrubs and trees.

JOHNSON
You have been listening to “Getting Dirty in Your Garden” brought to you by North Carolina State Extension Master Gardeners. You may find this and future episodes on our website: gettingdirtyinyourgarden.org. Until next time, why not go out and get dirty in your garden?