

I work on campus for UK's forestry extension team um my role right now is I coordinate a high school forestry program I was the invasive PL Outreach programmer so anyways we'll be talking about the importance of native plants now I know you all are the experts in here on gardening you all are the experts on horticulture you may or may not be super familiar with Ky's native plants I'll talk a little bit about that as well um this is a very broad subject of millions of plant species in the state um I'm going to cover just a few kind of do an overview of the importance of native plants for different for plants for animals and for us and then I'm going to give you all some resources at the end that will help you with your native plant gardening and if someone can't hear me or the microphone gets here

like all right so of course you need to start out by defining what even is native plant when we're talking about native plants we're talking about a plant that is originally from that area now in the United States we typically use the timeline of it was here pre- European settlement now of course there were Native Americans in Kentucky moving plants around before that but that's just typically the timeline we use and when we're saying something is native it's best to follow it with native to so all of these plants are native to Kentucky all of the plus I'm going to be talking about today um some of them have bigger ranges they might be native to the southeastern United States they might be native to the Midwest but all of them that we're talking about today are native to count the second part is that it has its Niche and if you're not familiar with that word it just means its role all of you all have your roles in your ecosystems your parents your teachers your employees you all have your Niche and so do native plants and I'll talk a little bit more about that all right so there are native plants to Kentucky but Kentucky is divided into Eco regions anyone ever heard the word Eco region so if you split it up I'm glad a lot of you have heard of it already but for those of you who haven't if you split the word Eco region up it's an ecosystem in the region it's a region with an ecosystem and typically people divide Kentucky into five Eco regions and what it means is just in that area the ecosystem is typically this way the plants are typically this way the animals are this way the Harding stones are this way of course it can be divided even further than five um so we are in the Jackson Purchase region some people also say we're in the Mississippi and e ment region just how you're dividing it up but when we're talking about native plants there are some plants that are native to the entire State and there are some plants that are native to specific regions so we got native to Western Kentucky is the Bal cypress tree you're going to see it in other parts of the state sometimes typically it's planted been planted there but it is native to the Jackson Purchase Mississippi and Plateau region shorts Golden Rod is native to the um inner blue grass region so again some of them are native to the whole state some of them are native to specific regions this is important because you're going to have plants grow better in your garden if they're from

this e versus the Appalachian plateau and here is what ky's land cover types we saw the Eco regions and here's the ecosystems on this map so the the dark green is Forest over half of Kentucky is covered in forest of course we've got a lot of urbanized areas and crop lands now we do still have some wetlands and some prairies um so this is what KY look looks like just to kind of help you get an IDE of what plants are native to that region and why here's the different ecosystems this is what Kentucky looks like 200 years ago so this is even better to visualize why a plant might be Ned to a certain area you can see again half of Kentucky is forested that's pretty much the same there was a lot more Prairie and there was a lot more Wetland the reason that there's less of it of course is because building populations but also a lack of disturbance like fires and big mammals running um so in this area it was historically Oak Hickory Savannah which um you can still see in a lot of parts especially where people are doing prescribed fire here but that just means there's big oak trees and hickory trees and there's big mammals running through them so there wasn't a lot of understory up in Northern Kentucky you've got more like Maple Beach as you kind of get more North but that all goes to say there's different ecosystem types um but most of Kentucky was forested we a of prairie that we're lacking or two um and it's good to plant Prairie species because we can kind of bring some of that back all right so that's what a native plant is it's native to Kentucky it might be native to a certain e region as well so next up we're going to talk about the niche the role of native plants and would any of you in here consider yourself a people person I would I'm an extension professional I'm sure Mary and Savannah would as well there people person we're going to talk about some plants native plants are plants right what I mean I want to do a disclaimer um this is a horticulture program you all are most of you are gardeners you work with a lot of non-native plants right and there is nothing wrong with non-native plants this is your little disclaimer this presentation is about native plants so that's what we're going to be focusing on I am not saying that non-native plants are bad in fact we use them in our gardening I ate some corn on the CP earlier that is a non-native plant to Kentucky a lot of our crops are non-native a lot of our garden species are non-native that's totally fine we they have their purpose they have their beauty they add Beauty to our lives that's all great now I told you I was going to talk about invasive species I can't get through a presentation without it there are non-native plants that are causing harm and non-native plants that are causing harm for those of you who are here last year um are called in species so this is English ivy this was taken um in a hiking area near BST it is an invasive plant and you all can see why it completely overtakes the area and while some plants of course are he person plants they're plants invasive species are the opposite they're kind of the bullies of the Plant World they are taking over they are pushing other plants out of their Niche so those are the non-native plants that are causing different reasons if you want more info on that ask me later but that's my just little disclaimer that saying not all native plants are bad in fact non-native plants are bad in fact

a lot of them are good there are some bad ones but just didn't want to put make it seem like I was against non-native PLS I love to back to native plants though this is what a prairie would look like in Bluegrass region that's where I took it this was a demonstration plot you can see um it's got purples and yellows which scientifically in your eye your eye sees them together and they always grow together in nature because they use different pollinators so we've got some yellow C flowers in ebal I forgot to say this I'm few slides in with your bingo card I'm going to try and remember to say the plant species that are on the screen if you see them mark them off on your bingo card and then obviously shout shout Bingo when you get a full row if I forget so we've got yellow Co flowers and we've got B balm or wild B we've got some other ones in there as well but those are two of the dominant ones this is what a native Prairie looks like you can see it's got a lot of diversity but I want you to notice about this is how they're growing together we saw the picture of English ivy and it's the only thing there right here's the native Prairie and the plants are working together so why do native plants work so well together and why do we need to focus on planting them well like I said they've been in the region for a long time so these plants have been growing together and working together for thousands of years or more so they know how to interact sort of like me and my I've got five siblings so I we know how to interact with each other we know how to compete we know how to get what we need but we know how to grow together um when you meet someone for the first time maybe you've got a coworker that you know how to grow with and compete with um naturally but native plants they've been growing together for a long time so they know how to grow together because of that they are their Community you each have your roles in your community that you all work together to build your community up that's how native plants work as well so although there's a bunch of them growing in the same spot they are working together for a common goal which is keeping the ecosystem balanced along with that they keep system balance so native plants are important to have for other native plants right and of course you all don't me me to tell you this but they are then important for animals for wildlife has anyone in here readed braing sweet graphs if you need a new book to read this year for your New Year's resolution goals that's a good one but braing sweet grass so rmer she is the author of braiding sweet grass um she is a horiculture professor I can't remember where but this is one of my favorite quotes from her the breath of plants gives life to animals and the breath of animals gives life to plants so just as much as native plants work with other native plants they're also are working together with other native animals um as I'm going through the next few slides I'm going to have you all each take one of these you're either going to get a plant or an animal take one and pass it to the person next to you

so each person gets one I should have enough for everyone but if not um buddy up with a person next to you who has

one so again um we all learn this in elementary school but native plants provide food and they provide shelter poor native wildlife and insects all of the animals in the ecosystem

we could even have an ecosystem without the native plants because they are harnessing the energy from the Sun and they're providing it to the wildlife as well non-native plants do not provide the same um resources as native PL so here's your basic food chain that you all probably had to draw in in elementary school but again native plants take the energy from the Sun herbivores eat the native plants that might be an insect it might be a small animal it might be a big animal and something eats the herbivore and something eats the something that's e and then you've got your ecosystem balanced has anyone heard the word biodiversity probably have before what I want to talk about with biodiversity is that these are all animals in Kentucky um without high biodiversity the ecosystem is imbalanced so if you're not familiar with the word biodiversity it just means how many different living things are in the ecosystem it's important to have high biodiversity with native plants and native animals because it keeps the ecosystem more resilient for example you all have heard of chestnut light wiping out almost to Extinction all of the chestnuts in Kentucky and Beyond now that is devastating because they have their role in the ecosystem now can you imagine if the chest light knocked out the Oaks and the hickories and all of the other plants if we had forests made up entirely of chestnut trees it would have been even worse right so it's good that we've got a high biodiversity because while we did take a loss from that we've got other trees who can kind of fill in that Gap that kind of makes sense so the high biodiversity of plants you got a high biodiversity of animals every single animal we see either is using the plant directly if it's eating it or using it for or it might be using it indirectly regardless some animal species especially when we're talking about insects the and second branch of the food chain the food web some of them need a specific native plant to survive um some of them might use a wide range of them but regardless all of them are used in the native place the point I want has anyone ever been to the Woodlands nature station I'm sure you have um I used to work there so a lot of my pictures are from there and if you've been there you've probably met Shannon one of the naturalists who's in charge of the gardens as well Shannon introduced me to bumblebees did you know there were different species of bumblebees I didn't there are bumblebees that need specific flowers and there is flowers that need specific bumblebees I'm going to show you a few examples because I got really excited about it when iar this does anyone know this plant yep it's the purple passion flower

I've got a little video I've got a lot of videos of these after sh this to me I I'll play it again but you'll notice the passion flowers that ANS where the pollen is it's really high up from the rest of the flower so the carpenter bee is the only be big enough for it to rub its back to pollinate it so the other bees can go in there and get the nectar but they want the carpenter bees because it's rubbing it back and then it goes to the next flower and pollinates it this one's really funny so this doesn't know this it's a shrub close it's Rose turtle head so this is Rose turtle head um and the carpenter bees cannot fit in the little flowers they're kind of like a little sleeping bag and I say that because the males will actually sleep in there at night so when you go out in the morning you'll see a bunch of Bumblebee butts just sticking out but the carpender bees can't fit in there can they so the rose turtle head needs smaller bees like eastern bumblebee to be in there the eastern bumblebee needs it live I know it's really cute

isn't made do

that does anyone know this plant this is one of my favorites you can even hear it a little bit this is shrubby St John's for it's one of my favorites when you walk outside when it's in full bloom it's almost definite how many bees are on it and we actually found often found an endangered Bumblebee the American bumblebee on the stby St John's

W you hear this is virgin's power and here's another I think this is

Easter excuse me it's virgin power

Bingo you got Bingo I've got a prize for you at the end

wonderful does anyone know this

plant yep it's Partridge be so this is another as you can tell by the name um birds that just Quil e it bumblebees pollinated as well so I showed you a whole bunch of different bumblebees and their plants that they need just to show you that even with one group of

insects the Bumblebees look how many different native plants are needed to sustain them and look how many different bumblebee species are needed to sustain the DAT PLS what is that this is Partridge PE it's Partridge PE it's really zoomed up close so it's kind of hard to tell but a gr one and if you need a big area to cover it's a good one for

it all right so does everyone have a plant or an animal or do you have a friend that has a plant or an animal um if you don't find someone who has one um and we're going to play PL animal match up so what I want you all to do we all have either a plant or an animal and I want you to find your counterpart so if you have a plant and you find the animal that needs you now some of these are specific there for example might be a butterfly that needs a specific plant for its entire life cycle some of them you might think all this animal you can use a bunch of different plants that's to see if you can find your and I'll tell

yes got point

want to get up and move or would you rather just call out your or

animal

ahead wild grasses do you have an animal that you

think use wild

grasses sparrows

does anyone have a sparrow species it's really tiny font but I did like all of them oh it's written on there it's written there

Yar someone's got sparrow bird I have a Cedar Wax Wing but not that who has the sparrow species somebody has a sparrow you got it you got the white White Crown Sparrow Crown Sparrow there's your match

beer all right who's got the next plant sunflower

sunflower gold if you have an animal that you think sunflower raise your

hand not that one either think you know a finchy bird you got goldfish goldf do use it but

Birds blue gross beak the blue gross beak uses the sunflower all right good

job who's got the next one spice push spice psh this one might be pretty

EAS that was easy one was it all right what's the next one I have Oak you have an oak

tree there go got the purple passion flow you got the purple passion flow I'm looking for a carpenter

bee aapple tree have Rosy Maple moth you got the rosie Maple moth

New England Aster New England Aster who uses a New England Aster a lot of

things I heard someone say it Goldfinch he's got the gold finch gold finch has used and other finches like Master small especially in win time we have left snake oh this one's this one's a tricky one is

it oh that's a papa Mo it's the Papa M

it

button any cillar they think might use a button

push it's a good guess who else has a

caterpillar which one do you have what she just said the copium h y the we don't have that
you don't have it who is

thep got it awesome so that's the one that uses button push else we I heard someone said
that toel worm what what tree does that go

with about a birch Birches you have Birches who thinks they have an animal that goes with

Birches

know it's a bird give that

birch

trees who's got the chicken I want to find what this bird goes to you got the chicken chicken
e e birch trees all right who who thinks they have a plant that goes with the Cedar Wax me
I'll give you a hint they eat berries in the winter yep you got it you are s right next to each
other yep and black cherries are actually

wild who's left yes paaw paaw this is a fun one now this animal needs paaw

trees so it's an insect a zebra swallow tail a zebra swallow tail they need Papa trees zebra swallow tail that's a bir butterfly it's got a anyone

else I think someone has a blue J now this blue J that one's tricky we had two oak trees the blue J also goes with an oak tree did we get to everyone is there anyone else Bob White qu they're on the ground so what kind of place do you think they would be that's maybe like a ground anyone have big blue stem yes they need grasses like bunch of grasses like big blue especially when they're babies High I think that was almost everyone anyone missing the

counterpart wonderful okay so you all found it let me I just key

so as you all can see these are you all had different native plants other than the Oaks there's two of those they all went with a different animal and some of those animals need that specific species to survive and so if it goes away what's going to happen to the animal thank you all for play all right so we talked about native plants needing native plants and we talked about PL native animals needing native plants now what about us a lot you all are gardeners in here right we need native plants too why do we need native plants we've got another bone flower and we've got hydrangia you all already knew that one though we need native plants for landscaping that's what a lot of us are interested in so that's what I'm going to be talking about a little bit more we also need native plants for our mental and physical health you like go hiking Beauty it's more fun to look at a bunch of different species than just Bush just Bush honey right we need native plants for our food we need native plants for our medicine and we also use it for art does anyone make any sort of plant art too any factors in here all right has anyone heard of Doug talami this is name you probably want to know if you're going to think about Native Plant Landscaping so Doug Tom he's actually an enologist he created this you might have seen some of his books before like the nature of Oaks or breaking nature home he has this initiative called homegrown National Park and remember how we looked at the map of Kentucky 200 years ago versus now we can see the EOS systems have been fragmented a lot and his initiative is to try and get those puzzle pieces that are our yards that are our Farms that our Woodlands back to native plants to kind of each be a puzzle piece for the larger ecosystem puzzle so I will send Mary and Savannah these resources and they can send them out to you um but these are

the resources that you're going to want to look for when you're thinking about Native C so
homr National Park is a great website you can look up your Keystone plants your important
most important plants you could think of in the area um for Kentucky for this region you can
look up container friendly plants or not container friendly PLS depending on what um your
goal is and that can show you how to help the wildlife in your area most so homegrown
National Park and again I'll send these some you something them out to you now this is for
Lexington but you can alter it for this area as well Lexington has what's called plant by
numbers the city put this out it's a really cool website so I'm going to show just a couple of
examples of it just to kind of show you what it is but if you are starting fresh or adding to
your garden it gives you some options for native plants that you can put in your garden and
also um where to put so it it gives you options like full sun symmetrical asymmetrical
partial shade full shade so this is a really useful one so here's the example of the full

shade is anyone part of or interact with the Kentucky native plant societ we are good they
got their big event of the year coming up in April their Wildfire Weekend I'm going to I'll see
you there for the Kentucky Native Plant Society I highly recommend um even signing up for
their newsletter you get to learn a lot about Native plint news and research that's going on
in the state it's made up of um their board is made up of professionals and different
organizations who have some sort of data PL knowledge and the president is from is Jeff
Nelson Jeff Nelson he's a great guy they've got some really good resources resources on
Landscaping with me the plants and then if you have not seen this website before this is my
favorite go-to to actually where am I going to buy my native plants this is the website that I'll
show you so this is the Kentucky native plants project and you can find one closest to your
county we all are from County but you can find one close to you find online and this is
helpful because you can find native ples that are near go region as

well all right so does anyone have any questions about like resources or you are we're
looking for something else hoping to know another resource that I can potentially help with
with landscaping and again I'll send these to Mary she can send them out to you as well but
those are my favorite sources to native PLS um into also PL your garden as well so I want to
do one last thing with you all um we talked about we talked about landscaping and how
they can add Beauty to our Gardens another thing is how they're actually affecting us
personally our mental and physical health um so I know a lot of you I think you all have pins
you all have at least the back of a bingo card or some sort of piece of paper I want you to
show two pictures of plants at a time they're all native plants I'll say what they are I want
you to come up with the first feeling that it evokes for each of the pictures on the screen so

I'm going to show you a picture you write down if you don't have a pen you can just think about it what feeling these plants bring to you we're going to go through different seasons relaxation relaxation go ahead and write down and we can share we all down thank you so we've got we're going to start with winter cuz we're almost out of it we've got Renton we've got

coralberry y getting your bingos now write down what each of these plants when you're looking at them makes you feel and this is not graded you can write down anything you want Coral it's a bit tricky to see but it's got

so I heard someone say relaxation what are some other words that these what other feelings are these PL evoking for

you else hope hope what was yours again Southeast Kentucky Y how do you know where I took pict anyone else word thank

you to me yeah thank you okay we've got three more seasons so I have you all good again we'll move on to spring we've got Mountain Dog hob I actually took that picture in North Carolina I took so I'm cheating with this one but you can find them in eastern we've got Mountain Dog hob on the left I have no idea why it's called that and Mountain on the right write down the feelings that these are making you feel or the thought that they're

provoking dog hob again I don't know why

it's all right what kind of feelings are these for

fragrance

fragrance anyone liking these better than the last

slide seen we'll move on to Summertime we've got New England asers and then I think you won again and then we've got Green Brier are we do

a we' got the first one I've only got one priz but you can keep going

right all right what kind of thoughts and feelings are

these is green a plant that of yes I should so The Greener we got two plants in that picture I tried to trick you we've got green it's the berries and like almost heart shap leaves

the all right we've got one season left we've got fall we've got Golden Rod that is gone to seed and then we've got SU

Majestic what other feelings you [Music]

have anyone else share

Y bird watching these are two animals that use

sux all right thank you all for going through that as well than got your thoughts and feelings on what is it Tuesday night the point that I want to try and make with these is that who what was everyone's favorite season of plants of these pictures spring I showed you some really beautiful plants for the spring that's when a lot of plants are the prettiest is in the spring and the summer these are all native plants and they all have their Niche we're not going to cultivate all of them is anyone going to cultivate green Bryer no does Green Brier have its place Cedar Waxman have to eat berries in the winter other birs dear they need the green fry so the point I'm trying to make with this is that these might positive or NE feelings when we see them some of them will go in our garden and we can do our part to beautify our garden beautify our life improve our own life because we get to walk outside and see them we get to improve the lives of pollinators we get to improve the lives of wild life when we

plant plants some of them we're just going to go outside and appreciate when we're in the woods and we're going to support conservation efforts to keep these plants around I'm not saying you have to plant GRE in case don't.

So I'll go ahead and end on this quote Again by Doug T he's the one that had the Homegrown National Park so it's a little small so I'll read it because life is fueled by the energy captured from the Sun by plants it will be the plants that we use in our Gardens that determine what nature will be like in 10 20 and 50 years from now so each one of you can make a difference again when you're planting these native plants in your yard I showed you those resources I'll send them to Mary you got the booklet right there with some native plant options as well each of you when you plant even if it's just a container of bom or Slender Mountain Min or something like that when you plant these plants you're determining the future for your own future and also for the generations to come um so thank you all again for letting me come talk today if you have any questions please.