

Trees in the Fall

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SPEAKERS

Speaker 3, Christa Hartsook, Dr. Jeff Iles

C Christa Hartsook 00:00

Hello, and welcome to the Small Farms Podcast, a production of the Small Farms Program at Iowa State University Extension and Outreach. Our podcast covers the opportunities and challenges associated with rural life. In this episode I visit with Dr. Jeff Iles, Professor and Chair of the Department of Horticulture for Iowa State University. I'm Christa Hartsook, Small Farms Program Coordinator, and we hope you enjoy the show. Jeff, welcome. Thanks for being on.

D Dr. Jeff Iles 00:20

Great to be here, Christa. Thanks for the invitation.

C Christa Hartsook 00:21

All right, so we're talking trees today. I'm curious if fall is a good time to plant trees or are we getting too close to the winter months?

D Dr. Jeff Iles 00:28

Yeah, well, I think you've got to define your terms. I think fall is a great time to plant. Fall begins sometime in mid to late August and extends until probably the end of October, you can extend the season slightly on either end. But it all depends on whether we have an early winter, than that could be a problem for trees planted in November. But in general, fall is a great time and the reason for that typically centers on soil conditions. In the spring, it could be pretty sloppy out there - wet, damp, moist, and soils are hard to work. But in the fall, the soils are generally easier to work, they're a little drier, we typically get better rainfall than what we've gotten this year. But also remember that when you plant something in the fall, the temperatures in the soil are conducive to root growth. That's extremely important. If we plant something we want root growth, and we wanted to happen fast. Sure, that makes a lot of sense. Are there certain species then Jeff that do better if they're planted in the fall? You know,

I think we're pretty lucky and a lot of the species that we use in Iowa can be planted in the fall with a few exceptions. Anything that's marginally hardy, I would probably hold off until spring. We know that plants like Magnolia are better installed in the spring, Japanese Maples, things of that nature. But you know, with a lot of the newer technologies that we have, in fact, a lot of the trees we grow and purchase from the garden centers are grown in pots or containers, it's pretty easy to take them out of their pots and put them in the ground almost any time of the year. I would really focus in on those plants that are just marginal for our area, and that's a cautionary tale in and of itself, you might want to be careful with planting things that aren't quite adapted to our winters or summer. But I but I steer away from those that are a little sensitive.

C Christa Hartsook 02:46

Sure. Jeff, could you give us kind of a basic establishment guide? So we've got a tree, we're ready to put it into the ground, what do we need to think of or what are kind of some best practices for really establishing that tree well?

D Dr. Jeff Iles 03:00

Christa, you use a great word establishment, and what that means is a reconstitution of a roots system. Remember, a lot of these trees and shrubs were grown in a field somewhere, they had all kinds of room to grow and some of them were harvested from the soil, the roots chopped off, and put in a pot. So the job for us when we plant anything, is to reconstitute that root system, in fact, make it as easy as we can for roots to grow. So one of the best ways to do that is to exaggerate or dig an extra wide for large planting pool with soil that it's loose right around the root system, which makes it easier for roots to grow into that backfill area. We're concentrating on width not necessarily depth. We can get ourselves in all kinds of problems by planting things too deeply, especially in a poorly drained soil. So a good wide planting mold is always a good idea, especially in poorly drained or compacted soil. And then making sure that the tree or shrub goes into the ground at the right depth. That's a bit of a challenge. Without video or without pictures to show the audience, it's hard to describe that. But generally speaking, we want to make sure that the top of the root system is at grade, if we begin to bury roots or begin to bury parts of the trunk too deeply in the soil, then all kinds of bad things happen. Maybe not right away, but down the road. So proper width, proper depth, is critically important for getting your trees and shrubs off to the right start.

C Christa Hartsook 04:38

Jeff, we mentioned a little bit earlier that it has been very dry here. I would imagine you're going to have a greater emphasis then on watering, especially in the year like this year before we head into winter months?

D Dr. Jeff Iles 04:49

Yeah, it is the magic pill, right? I mean people want to throw fertilizer at newly planted trees and all kinds of magic elixirs, but it's really water that can make or break a planting. And so a thorough watering after installation, and then periodically until the ground either gets too cold

thorough watering after installation, and then periodically until the ground either gets too cold or freezes up. So if we plant something this fall, we might be watering right up until early to mid-November, because remember root growth is happening right now. The million dollar question is how often and how much to water? And that is an extremely hard question to answer. Because it varies depending on soil type, it varies depending on moisture levels, there's just all kinds of variables. Generally speaking, a container grown plant will require more water than perhaps evolving burlap. So maybe this time of the year, I'm watering two to three times a week after installation. How much to apply at any one time, you know, three to four gallons of water per watering is probably a good measure. Again, don't ignore the plant. All too often plants go into the ground and they're not watered properly. And it just gets them off to the wrong start. In fact, it could impose stress, which then shows up down the road as branches dying back or complete plant failure. You can overwater, there is that chance, but if you've planted something properly and in the right spot, then hopefully overwatering won't be a concern. But every year Iowa is different. You know, we've had wet years, 2010 was an exceptionally wet year. We've had a couple of dry years now and so telling folks how to water plants is a real crapshoot sometimes.

C Christa Hartsook 06:32

Sure, sure. Jeff, are there any other tips or tricks or things we need to think about going into the winter months? You know, do these brand new trees established in our landscape need any additional care?

D Dr. Jeff Iles 06:46

Yeah, I always worry about animal predation. If you live in an area of the state, and I can't think of too many areas that are immune to this, that have high rabbit populations or deer populations, you have to take some measures to protect those trees and shrubs from animal predation. I don't put a whole lot of stock in repellents, because you just never know when they've lost their effectiveness. So I'm a big fan of exclusion, whether that be chicken wire around my new shrub, or chest high chicken wire around my new tree to keep the deer away. I think it's extremely important that we take heed of that. So besides that, I don't know I mean, hopefully you've chosen the right tree or shrub to exist through an Iowa winter. I didn't really hit that all that hard right at the beginning, but when you're making your plant material choices, you want to make sure that wherever you live in the state of Iowa, or the Midwest, that you've chosen trees and shrubs that will put up with whatever the conditions that will come their way. You know, in central Iowa, we can have minus 20 degrees in the winter. So whatever you choose had better be able to survive those temperatures.

C Christa Hartsook 07:54

Absolutely. Jeff if we kind of turn our attention a little bit more to some of our more established trees. I know traditionally spring is kind of a good time to do some pruning. But is there any kind of pruning or anything we need to do to establish trees in the fall?

D Dr. Jeff Iles 08:10

Yeah, the pruning question is a good one, Christa because this time of year, my advice is to do very little pruning at all. I'm much more a fan of summer pruning, or dormant season pruning. So the dormant season might begin sometime in February or March you know January's okay, but it's awfully darn cold. And I worry about my own safety. So February and March are good dormant season times to prune. April when plants are beginning to bud and leaf out, I tend to put the pruning shears down then because the bark is full of water and it's really easy for that bark to chip and tear, so I don't prune much in April but late spring and early summer are also good times to prune. Now all that said, if you've got a problem that's dangerous if you've got a tree that needs a limb removed, or if you've had some some plant damage because of high wind or some other event then of course you would address those immediately. But in a perfect world, I'm more of a big fan of pruning in the dormant season and in the summer. Of course there is that one glaring exception, and that's oaks. We don't prune oaks during the growing season at all. We leave that to the dormant season because of a disease called oak wilt. And the last thing we want to do is open up oaks to the chance of infection from the disease oak wilt.

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Christa Hartsook 09:30

Absolutely. Jeff, you briefly mentioned fertilizer and how individuals maybe want to throw fertilizer at brand new trees. Do we need to fertilize trees in general whether they be brand new or are more established trees?

D

Dr. Jeff Iles 09:44

You know there's nothing wrong with fertilization, but an old colleague of mine once told me that the only valid reason to fertilize is if you can demonstrate mineral element deficiency. And so yeah, if you have a deficiency that has been proven by a soil test then by all means correct it. But I think all too often we throw fertilizer on the ground just because it's the right thing to do, or we feel it's the right thing to do. And many times it's wasteful. Many times we're applying elements that either run off in soil moisture or never get to the root system. I'm thinking of phosphorus and potassium in general. So generally, when I think of fertilizing woody plants, I'm thinking of nitrogen. That can be applied in the spring or fall of the year, but you might not need it, especially young plants. I see a lot of folks using root starters and fertilizers on young plants, and really, that's the last thing you want. Because remember, you've got to reduce root system in many cases. And the last thing you want to do is force a lot of top growth when you've got a small root system, and fertilizer will do that. So generally speaking, I fertilize maybe one year after the plants been in the ground, and usually something put on the soil surface, especially with nitrogen is an effective way to fertilize. Older trees are a different story altogether. You know, if I'm a 40 year old oak tree, I pretty much have life figured out or at least I hope so, and there's really very little we can do to help that plant. Even providing moisture is hard to do on a on the older plant when you consider its root system and the extent of that roots system. A special case that I often hear about is when trees like Pin Oak turn yellow, or red maple turn yellow. And that's a mineral element deficiency that can be corrected. But you've got to be specific in what you're applying. In the case of Oak, generally, it's iron, it's deficient. And so if you're going to try to correct an iron deficiency, you would of course supply iron. In the case of maple, many times it's the mineral element manganese that's deficient, it'll cause the same kind of symptom on Maple, that yellowing or chlorotic foliage, but it's the element manganese that has to be applied. So be very specific in how you address these kinds

of issues. But fertilization is the one that people usually zero in on, and an annual fertilization for young trees is probably a good idea. But before you throw fertilizer in the soil, make sure that it's actually necessary.

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Christa Hartsook 12:10

That's a really good point, Jeff, thanks. Are there specific pests or diseases that we maybe need to scout for specifically in the fall?

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Dr. Jeff Iles 12:17

Yeah, the good news about fall is that things are winding down. So a lot of our insect pests are finally going away. I'm thinking of Japanese Beetle now which had a good year, it's an obnoxious insect pest that causes damage to our turfgrass plants. It also causes damage to over 300 species of woody ornamentals, and it's a problem from Fourth of July to the end of August. Right now, it's pretty much gone. It'll probably come back next year and we can address it then, but there isn't much we can do for it now. So the good news is, the insect pests that we deal with are pretty much in the rearview mirror. But one of the best ways to guard against insect and disease problems is to keep your plants healthy. So it's all about plant health, stronger plants are better able to fend off insect and disease problems. I guess the winter months are useful from this aspect, in that I love trees. I mean, it's it's what I do. But trees are big, and they're heavy, and they sometimes drop limbs, for example. And so when the leaves are gone, that's a really good time to take an assessment of the strength and health of your trees, especially those that are near your home. Dead branches in the canopy of a tree are never a good, for trees with bad architecture next to your home, always draw my attention. So if you don't feel good about assessing your own trees, then have an arborist come out and make an assessment of those mature trees on your property. I think it's money well spent.

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Christa Hartsook 13:48

Absolutely. Jeff is fall a good time for removal of maybe more of our weed trees that you'll see around? We get a lot of maple seeds that just sprout or I'm thinking of mulberry trees, that people might want to take some time and remove.

D

Dr. Jeff Iles 14:04

Yeah, fall is a good time because you'll apply an herbicide and that's how a lot of these trees have to be removed from the landscape after you've cut them back. You would cut them back to a stump and then apply a non-selective herbicide to kill off a root system and doing that now is very effective. In fact, it's a great time to try to take care of a lot of those weed species. You mentioned a couple of Mulberry, but you know buckthorn and honeysuckle there's all kinds of invasive weedy pests that can be effectively controlled this time of year. And we have some huge problems especially in our woodlands with some of these plants. So yeah, this is a great time to do that.

C

Christa Hartsook 14:46

Okay, Jeff, what else do we need to be thinking about in terms of our trees?

D

Dr. Jeff Iles 14:50

We kind of glossed over proper place for trees and shrubs. We see this mistake made over and over again. But remember that the little tree you put in the ground, when it's five years old will grow into a large tree, hopefully someday. And so be careful with how close you plant out to your foundation, to your garage, to a play structure, think long term. Now in many cases, those of us that plant the tree might not be around to see it come to full fruition, but we need to respect those that do come out. So for example, if I've got a shade tree that's going to grow 50 feet across, someday, I'm going to want to come at least 25 feet away from the foundation when planting. I'm not a huge fan of having branches growing out over my house. Now, as far as spacing out in the landscape, remember, trees don't always abide by optimal spacing in nature, that many times they grow pretty close to one another. So I don't get as exercised about spacing out in the landscape. But when it comes to having those trees up next to my home, then I do pay more attention. We've all seen the Colorado spruce or the white fir planted five foot off the foundation and down the road, it begins to crowd. So spacing, proper sight placement is always at the top of mind for me when I'm adding trees to my yard, although I over planted my yard to a ridiculous degree. So maybe I have no room to talk. Well, that's why they make chain saws, right?

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Christa Hartsook 16:24

There you go. Jeff, I did think of another question too. You know, we do have a lot of the tour ash trees out there. What do we need to be thinking about in terms of mitigation strategies for emerald ash borer? You know, down the line, should we be removing any ash trees at a certain point? Do you wait until there is an infestation? What do you recommend?

D

Dr. Jeff Iles 16:47

Yeah, emerald ash borer was a game changer. Use an overused phrase started in southeastern Michigan in 2002 eventually ended up here in Iowa. And except for the northwestern part of the state, emerald ash borer is here, it's causing damage. In fact, the damage is quite noticeable now. So there's nothing more dangerous than a dead ash in your landscape. So if emerald ash borer has infested and killed an ash tree, get it out of the landscape as quickly as you can. And again, that's a job for a trained arborist. That's not a job for the average homeowner, the insect will be with us for a long, long time, if not forever. And so if you have a high value ash on your property that you want to protect, you can do that. But you have to use insecticides, preventatively. And usually, those insecticides that are done that are performed or injected by professionals will give you a two year window of efficacy. There's some folks that are talking about three years, but again, the label says, make your applications every other year. And if you do that, and if you do that religiously, then then you can protect a high value ash tree. But you can't protect every ash in the landscape, and the ashes we're talking about are the native ash, white, green, black and blue ash are four species that we use in the state and all are susceptible to the emerald ash borer. So you can protect them, but how many you want to protect is really a financial decision. But again, we can't protect every ash tree and the damage

this insect has caused us it's just amazing. From Michigan, to Iowa, to the south to the north, it's hard to go anywhere without seeing the damage caused by the emerald ash. So that's the reason that we talk a lot about diversity. We planted an awful lot of ash back in the 1970s 80s 90s, early 2000s. And this is the problem we've landed it, whenever you start using too many of one kind of plant. This is the danger you run. An analogous situation, of course, was the American element Dutch elders. So when we're coming back in with trees to replace ash with, we're looking at a broader palette to avoid the next next calamity and sure shooting, it's probably coming our way. We just don't know what it is yet,

C Christa Hartsook 19:04

Sure. Absolutely. Jeff, I know you're a tree guy. I know you've planted a lot in your own yard. Tell us one of your favorites and why.

D Dr. Jeff Iles 19:12

It's like the asking which of children is my favorite. You know there's so many great trees out there, and my next favorite is the next one that I run into at the garden center. But, you know, I've always had a fondness for trees that are in it for the long run. You know, in Iowa, we don't have trees that live a long time. I mean, we have some notable specimens that are a couple hundred years old. We don't have trees like the great redwoods and sequoias out in California. But even in Iowa, we have trees that live a long time and so white oak comes to the top of my mind when I think of great trees that are in it for the long haul or a stately burrow. We sometimes see some beach growing in the eastern part of the state. So I like those species, but there are new trees that come out all the time. And you don't have to be old and big to be valuable. I'm a big fan of crab apples because of their spring flowers. So there you go I can't list you just one, Christa.

C Christa Hartsook 20:13

Okay, we appreciate that. That means you're you're in a field that you enjoy and and it shows. So, that's good.

D Dr. Jeff Iles 20:21

I've enjoyed working at Iowa State and yeah, trees are my thing. So it's all good.

C Christa Hartsook 20:25

Awesome. Jeff, thanks for being on today. We appreciate it.

D Dr. Jeff Iles 20:28

Christa, thanks for the invite. Have a great fall!

C Christa Hartsook 20:31
You too

S Speaker 3 20:32
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