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EPISODE NAME: Pruning Fruit Trees: A Hands-on Demonstration

Today on Across the Fence we will be talking about fruit trees. This should be informative and useful if you're already growing fruit trees just beginning to thinking about growing these or just interested in learning how growers manager orchards. I'm Leonard Perry with UVM extension and with me today from the department of plant and soil sciences at the University of Vermont Terry Bradshaw welcome Terry. Thanks for sharing a little bit of time. I understand you wear many hats when it comes to fruit trees?

Terry.: I do I do not only am I a research specialist with the apple team at the University of Vermont am also the director of the UVM Horticulture Research Center which incidentally has a suite of summer courses this summer which includes a tree fruit production course which I will be teaching so that this kind of exciting as far as what’s going on this summer. I'm also the President of the Vermont Tree Fruit Growers Association which is the industry grow organization for apple growers in the state.

Perry.: Is this the best time of year to prune fruit trees?

Terry.: This really is one of the best times of the year. Any time in the winter or early spring trees are dormant and you can see we're doing in the tree and the tree will have a chance to heal over quickly when it resumes growth in the later spring.

Perry.: Well we're out here with a little bit of snow with a lot of tools tell us about what you brought today what will you be using?

Terry.: that brought my standard suite of tools. One important thing when you're pruning fruit trees is to use higher quality professional tools and make your cuts cleanly and sharply. Sharpening the tools is critical but also starting off with a good set of tools is important. Probably the most important tool is a good set of Loppers. You make the majority of your cuts with a set of Loppers.. You're cutting branches anywhere from three quarters of an inch up to an inch inch and 1/4 and this can really make a lot of cuts efficiently and quickly.

Leonard.: So that's a good big version of hand pruners

Terry.: That is. I typically during dormant pruning do not carry hand pruners because most of the cuts are a little bit too big for hand pruners. Can be sore on the wrist and so I do most of our work with this.
Leonard.: But a small tree or in the summer?

Terry.: absolutely. Probably the next most important tool is a good saw you can use folding or one of these saws which is a fix blade. As long as that it is a good high quality saw that will allow you to get in there and make nice clean cuts. This is easily our next most used a tool.

Leonard.: I found one thing about the saws good quality will make a cut much much quicker.

Terry.: Absolutely. None of these tools are particularly cheap on their own but they really can save you time and effort. And strain on your body into wrist if you have something that can make a good clean cut. Another important tool especially if you get into larger trees is a pole Pruner. There are a lot of different types and the market. This is a professional model. You can really make a lot of cuts the pie without having to resort to comment on ladders. Most of the trees in people's backyards tend to be over 10 feet high sometimes 20 feet are more so as much as you can do from the ground with a good poll based tool is best. Another really nice tool to have and this would come at the end of the suite of tools you would buy would be a good poll saw. This is a good professional landscape quality pole saw with an extendible poll that lets you get really high up in the trees and make nice clean cuts. This is a very aggressive blade that can make nice clean cuts and really make fast work of the tree.

Leonard.: I have one of those boots literally half the size. A little less aggressive but I guess for professional that is what you would want.

Terry.: That if you're getting into really big trees or you have a lot of cuts to do than a power prove to be the way to go which is basically a chainsaw. You have got to have enough trees to justify getting one of these but they really can be a lot more efficient and a fine you can actually make cleaner cuts with these then you can with some of the other items. And you can really move a lot faster but that's really getting into professional territory.

Leonard.: Thick you need some safety training and know you're doing when you get into the Power Equipment like that.

Terry.: Absolutely helmets and shields and while we talk about the safety equipment one thing that I always wear when pruning and small trees that apparently scored some glasses. These are actually impact resistant safety glasses. Those branches when they poke you in the eye can do a number on you.

Leonard.: Yeah I think that can't be overestimated. The fact that a good pair spend a little extra your eyesight is worth it to get those impact resistant classes. It looks like you have some gloves down there too.

Terry.: We do a good pair of gloves I like deerskin cloves but there's a whole lot of other ones out there. You will get scratched up you will get your knuckles scuffed up. A good pair of gloves is certainly goes a long way with any type of gardening work.

Leonard.: A tell you what let's put those on and go look at a tree.

Terry.: Sounds good.
Leonard.: Well terry we have some overgrown apple trees behind the studios here. Before we take a look of this one are there some trees that are beyond hope?

Terry.: That is pretty common tick specially an old farmhouse orchards were you have trees that might be 80 your hundred years old are even some that are fairly young but have just gone by. If you have a dead trunk if you have a hollow trunk or a lot of deadwood you can probably easily tell when a tree has gone too far but if it's a very important RE that is something that your grandparents planted or important variety you can certainly keep the live wood on it and keep tree going but don't expect it to last very long.

Leonard.: so when we took at one of these trees that are totally overgrown like this one here what is our goal?

Terry.: The goal is to get sunlight into the tree that's the main reason for pruning. You want to keep the structure of the tree you want to allow the tree to have wood that would support the crop but really want some light to get down into the areas of the tree that are trying to produce fruit on. So you want to thin the tree out and create what I call windows into the tree that's from leaking get down into there with.

Leonard.: Okay let's see how you create one of those windows.

Terry.: On the street I'm going to point out a couple cuts that are fairly important for growing. The first one refers to the stubs. You often see the stubs where people have mowed around trees to get along more under them and just come out on Saturday morning in whack a branch off. These stubs horticulturally are not good for the tree. They allow an area for disease to get in because the tree cannot heal itself off. Another thing you get when you have stubs is a lot of excess growth that conform on the base of those stubs. Not only do you have an unhealthy piece but these could turn into vigorous shoots and you have both an unhealthy sight and a vigorous growth were you don't want it so you take those are too. Typically we would remove any stubs any clean stubs cut back to another shoot so that you have a nice clean a growing point. That's a good cut to your Loppers for. Another item you want to look at is branches that are piling on top of each other. Either rubbing together with one on top of another. This comes back to the sunlight issue, this is a good time to put the safety glasses on. When we have branches that are piling on top of each other obviously the branches below the main one cannot get the sunlight and you also have a lot of rubbing which can to serve the branches. In this situation we have about five branches right on top of each other. Some of the best cuts you can make is to make a single cut that will remove the whole branch rather to make a lot of smaller cuts. So I'm going to use my saw now and remove this branch here has very little fruiting wood has got the ugly stub on the ends and is underneath this one. So we'll just remove this whole section and open that part of the tree a little bit. We still have multiple branches piled up on top of one another so at this point I would choose. You can select any three pruners will prove three different ways so you can pick and choose what you want but you just don't want them piling up so I would probably take this branch off and maybe this one and allow the other branches to breathe a little bit with these windows that we're cutting in. Another thing we like to remove from the trees is really vigorous upright growing wood and you can see this on this branch coming out of the end you have a couple of growing points. You want to have a vigorous growing point that you don't want to have multiples because you get this witch's broom growth on the outside sorrow take this off.

Leonard.: Two leave one bridge going up there?
Terry.: This branch is not completely vertical it's still fairly horizontal. Horizontal branches are what actually form fruit on trees

Leonard.: So that's what you want horizontal.

Terry.: Absolutely whereas this one here was quite vertical.

Leonard.: Would you bring it back to all are just leave it.

Terry.: Never my theory is either you take a branch out or you leave it in if you cut branches back too much you're going to stimulate growth on the end of the branch and create these witches brooms. That goes back to leaving these old stubs I say either leave it alone or take it out. I try to take out whole branches if possible.

Leonard.: Well terry I have another branch over here I want to ask you about. This branch looks dead its snaps and there's no living buds on it.

Terry.: You're right Leonard. You often find deadwood in these trees and it's very important to get this wood out it only spread disease and obviously cannot help the tree all so just cut it cleanly right back to living tissue. You can tell if it's living tissue by using your fingernail and flick the bark if you see green underneath there. So to see these dead branches cut them right out a nice healthy spot. With those dead branches of the way we can see up a little bit better what the structure of the tree is. Another important thing that you want to get out is to remove the real vigorous upright verticals that are in the center of the tree. I'm looking mostly in here. There's a handful of them up there. This is also a way that you can lower the height of the tree without making drastic haircuts that produce a lot of vigorous upright growth from the tree. If you choose just a few of these up bright vertical branches and completely remove them from the tree you can reduce the height of the tree and reduce the density of growth up and there. So I'm going to cut this limb out.

Leonard.: Terry I have one more tree I want to ask you about.

Terry.: Let's go.

Leonard.: This is a pear tree and are there any differences from the apples that we should be aware of?

Terry.: There are there very similar trees but one important thing to watch for in common pears and apples get this is well but not nearly as severely or as often that there's a disease called fire blight which you can see right here worry have the shriveled stem and leave the stay on through the winter. You want to remove that from the tree anywhere that you see it it's a systemic bacteria that can really in fact and eventually kill the tree.

Leonard.: don't just leave out on the ground but dispose of it.

Terry.: Yes as best as you can.

Leonard.: Another thing I've noticed about this tree is that it is quite tall. Is that a problem?
Terry.: I don't know if it's a problem but is definitely characteristic of pear trees. They tend to have a lot of vertical growth and it's important to encourage horizontal growth as much as possible. What you often have is very vigorous branches that grow high get fruit droop over and then break off so it's important to cut back to moderately growing branches so you do not have those real vigorous ones and to encourage as much horizontal growth in the tree as possible.

Leonard.: So basically take out some of those upright smaller branches and then you might even get in to those central branches that go right up top like a spire take them right out fairly low them.

Terry.: Absolutely take them fairly low and try to bring them back to a nice strong what we call a scaffold lamb which is the framework of the tree. A strong limb heads out horizontally that can actually support the fruit those over whole ones like I say just droop over.

Leonard.: Some people might have plums cherries or other fruits are there any differences for those?

Terry.: There are some differences although the principles are really the same in terms of you really want to get a framework of the tree for sunlight to get in there. Probably the one most important difference would be some stone fruits the cherries in plums and especially peaches are often train to what is called an open center where you open up the middle of the tree to allow sunlight all the way down. And that's because the fruit buds on those branches require almost full sunlight to form and if you have any shading whatsoever you'll have what is called wind wood which is branches that do not have a need for boats on them so you want to clear out up the crowd of those trees and open them up as opposed to use apple trees or pear trees were you have a central leader which is one central trunk the continues up through the tree until it reaches as desired height.

Leonard.: So the bottom line appears to be open these trees up with some light in.

Terry.: You want a bird to fly through the tree without touching its wings.

Leonard.: I think that something good to remember so thanks so much for spending some time with us today I know you are very busy so we'll let you get on your way.

For more information on the summer course that terry is teaching on fruit reproduction please visit the website on your screen. Students enrolling in the scores will learn principles and practices of commercial fruit production with emphasis paid to economic and environmental sustainability. This class will be held from June 15 through July 9. For more information about fruit trees and other gardening topics please visit my web site: www.perrysperennials.info. There you'll find a link for frequently asked questions tips for the home gardener and videos for getting your garden ready for the growing seasons. For the University of Vermont extension I'm Leonard Perry with Across the Fence.

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