



Cultivating Cannabis

Transcript – Pruning, Sexing & Companion Plants

Welcome back to Cultivating Cannabis. This is Module Five: Pruning, Sexing & Companion Plants.

Stephanie Syson: Alright Nate, thanks for coming back to talk about pruning and sexing. So, one of the interesting things about this plant, like we talked before, is the fact that there are male and females. So, we're gonna talk a little bit about that, but first, as these plants are developing and moving through their vegetative state, how do you feel about pruning? Do you let your plants just kind of go or do you like to prune them?

Nate: I do, I prune pretty heavily. I find that -- essentially, the pruning that I'm doing is an effort to concentrate the plant's energy. So, there'll be a lot of -- say this is a branch and there's a lot of new growth sites. And say that I take some of them away, instead it'll focus this energy up the branch to a couple where -- so, basically what happens is you get what's called larf where you get these under-developed, inward stories that never get the light that they need and never get the nutrition that they need and only take some of the light and nutrition from the other potential growth sites that you intentionally aims towards. So yeah, I prune pretty heavily.

Stephanie Syson: So, like again, like a tomato -- if I was growing a tomato where it had enough water and nutrients and sun and all those things, it tends to grow very big.

Nate: Sure.

Stephanie Syson: Like in this greenhouse, there's these huge 10 ft. tall tomato plants that'll just get wider and wider and wider. And while they are producing tomatoes without pruning, they produce a lot of very tiny tomatoes and if I want more fruit set and bigger development, I can prune that to be a little more lean and have that vegetative depth. Is that the same?

Nate: Same perspective, same philosophy. We're just dealing with buds instead.

Stephanie Syson: Instead of tomatoes.

Nate: If you want bigger, juicier buds, prune.

Stephanie Syson: Okay and what about pruning for -- another reason I would prune plants especially ones that are more prone to fungal issues --

Nate: Sure.

Stephanie Syson: -- is to increase airflow and light penetration.

Nate: Absolutely.

Stephanie Syson: Is that the similar for the cannabis plant?

Nate: Absolutely, yeah. Yeah, totally. Yeah and also any other sort of pest that could show up, you know? Some people have mite issues in their area or something like that. The more kinda messy a plant is, the more potential habitat there is for pests.

Stephanie Syson: Okay and what about training or trellising plants? Do you find that cannabis plants stand up on their own or do you think that they need a little bit of help or that's valuable for them?

Nate: I think most of the time it's valuable. Again, very strain specific. Some plants are more -- like the more Indica side of things, they're more short and squat; little kinda --

Stephanie Syson: Little tough guys?

Nate: Little tough guys so they need a little bit less support. Sativa's tend to be long and lanky and generally speaking, once a plant gets deep into flower, it can start to add a lot of weight to its branches. And it's very common for branches to just break under the weight, so it would behoove you most of the time to bring in some trellising, some sort of support.

Stephanie Syson: Okay and these are definitely small-scale home growers --

Nate: Sure, they have the stakes

Stephanie Syson: -- we have the time, resources to take care of eight plants very, very well, in an optimal way.

Nate: Totally.

Stephanie Syson: Okay, so you're a big fan of both pruning and trellising if the plant seems like it might --

Nate: Yeah and they'll usually tell you, hey I need a little help here, you know.

Stephanie Syson: Awesome.

Nate: And as you continue on, you'll start to know when that's gonna happen.

Stephanie Syson: Okay and so to get back to the topic of the male flowers and the sexing of the plants, about when do we need to start looking out? What are some signs that the plant is going to be going into flower soon so that we can keep an eye out for these males if we didn't get clones or we don't have feminized seed?

Nate: Generally speaking, any females that you have or like at least a female will start to show first. Just kinda like people, girls mature faster or something like that and what'll happen is -- so, they'll start to develop what's called a calyx. And it looks almost kinda like a vulva and then these tiny little, they're called pistols, but look like tiny little hairs will come out. And it'll start with just maybe two or three of 'em and that's like pre-flower. That's like okay, this girl's getting ready to flip and then eventually that will start to -- then much, much more pistols will show up and she'll start to go fully expressive as a flower. If you're growing outdoors, generally like August, September, you know that's gonna happen.

Stephanie Syson: Okay.

Nate: Again, it's strain specific depending on where you're getting your plants from, I would try to get as much information as you can about how long it takes to finish and when it likes to flip and some experienced growers will know that information if they a relationship with a specific strain of cannabis, but if not, it's just about paying attention; about like something you say a lot, the best fertilizers is the gardener --

Stephanie Syson: Gardner's shadow.

Nate: -- yeah, gardener's shadow.

Stephanie Syson: So, be in your garden, keep your eyes peeled, appreciate your plants and look at them everyday and you probably won't be caught by surprise. In relation to males, if a home grower wants to save seed from his cannabis, his or her cannabis plants like they save seed from their other vegetables and they're trying to cultivate and hold those genetics, how many males does it take or how far away do they need to be or any information you have about --

Nate: Sure.

Stephanie Syson: -- actually breeding plants?

Nate: Yeah, breeding is a whole nother wormhole. There's a vast amount of information that comes with it. Essentially a single male can pollinate a massive garden, like an entire industrial indoor warehouse if he wanted, by a single male. The pollen has been known to fly like 500 miles in the wind; it's pretty wild. It's a light pollen, it really likes to get around. So, if you want to do some breeding, know for one, it's likely that you might get a few more seeds than you were hoping for, you know, or maybe not.

Stephanie Syson: Right.

Nate: Just know it's realistic that if you allow a male to go expressive, you might just pollinate everything.

Stephanie Syson: And does the pollination change the medicinal constituents of the plant? Like does it reduce THC or does it just make the plant seedy? Does it reduce yield? Does it change the chemistry?

Nate: I can't speak to the chemistry, but it can reduce your yield and it can get like almost like a corncob, like so infested full of seeds that it becomes like -- specifically if people like to ingest like smoking or something like that, it makes it really kind of a pain in the backside to get rid of all those seeds so that you can enjoy the flower. I don't -- you know, my gut would say medicinally it probably doesn't change the value and I think there's likely some medicinal value in the seeds themselves. There's certainly nutritional value.

Stephanie Syson: Sure.

Nate: It's mostly like just a thing in the cannabis world that people don't like seeds in their bud.

Stephanie Syson: Right. And with the pollen traveling up to 500 miles or certainly pretty wide, if you're going to save seed, you should probably check with your neighbors who are growing --

Nate: That's true.

Stephanie Syson: -- cannabis plants before you make some people maybe not so happy.

Nate: Yeah, yeah. I've seen some people get very, very upset about their crop getting pollinated when they weren't hoping for it to, but if you are going to try some breeding, if you are going to try some pollination, what most people do is they get it as far away as they possibly can and they'll collect a small amount of pollen. You can harvest the pollen sacs before they actually open and they'll have pollen inside, so you can do that very carefully and then like go inside and gently break it open and collect the pollen. And people, what they'll generally do is they'll take a tiny little paintbrush and they'll dip it in that pollen and they'll paint it onto a couple very specific -- you want to paint it on the pistils which are the little hairs that are coming up and then they'll like put a paper bag over it.

Stephanie Syson: Okay.

Nate: And the plant will still get plenty of energy from the other branches that it has, but they'll just cut that one off so the pollen doesn't spill. It's definitely not sure-fire. It can backfire.

Stephanie Syson: But a little bit more control?

Nate: It's a lot more control, yeah.

Stephanie Syson: Okay. Great. Well, thanks Nate and we hope that the sex and pruning talk was really exiting for all of you at home.

Nate: Whoohoo.

Stephanie Syson: Thanks to Nate for joining us and discussing pruning, trellising and sexing. We're just gonna go over a few slides to go into a little bit more detail and show some photos of those topics. So, pruning, why are we pruning? As Nate said, that pruning helps to concentrate the plant's energy and focus it on a few really, really well developed, beautiful, big buds as opposed to just growing and growing and growing all this leaf and trying to produce lots of little buds. In addition, by pruning and allowing more air to move through our plants, we're decreasing the humidity and thus decreasing the disease and pest issues that our plants can suffer from when there's all that dense foliage all stuck together where little bugs can hide and where the humidity gets really high. And funguses and things really love those dark, wet places, so pruning allows a lot more air to flow through and thus preventing a lot of those issues from ever coming up for us. In addition, it increases the light penetration into the inner part of the plant which one, allows more light for the leaves and the parts of the plant that we don't prune off. In addition, the light helps to decrease disease issues like funguses. So, pruning our cannabis plants is very similar to how we prune our tomato plants and if anyone at home has grown tomatoes before, a lot of times they'll just grow and grow and grow. And if we prune them, they start to want to push out those tomatoes a little bit more actively.

So, this is a great photo because it shows some very young cannabis plants and you can already see at the bottom that they have started to be pruned. Those bottom leaves are being pruned off and then in the background, you can see four or five of these larger plants in gallon pots that are continuing to be pruned on the lower levels. So, like a lot of our regular vegetable plants in the garden, when we water or when it rains, the soil splash back on the leaves can also be a source of funguses and molds and diseases and things like that. So, one thing it's doing is helping to limit the splash back from the soil as well as just really keeping that nice and open canopy and making sure the plant's not wasting a ton of energy on these lower leaves and these lower sections that aren't gonna produce the buds and flowers that we are seeking. There's a little closer look at how the structure has been opened up a bit. It looks like how you would prune a peach tree or something.

So, a few more tips on pruning and this goes with lots of different plants, not just cannabis. Try not to tear the leaves away, instead we're gonna use scissors or a sharp knife or pruners; something that we can get a nice clean cut so we're not stressing the plant out and ripping off the leaves or the limbs that we don't want. We want to make sure we water our plants after pruning. Pruning is sometimes a stressful thing for plants and plants tend to like a little bit more to drink when they're stressed out. It's those tiny buds at the bottom of the plant that look like maybe they would make some nice buds or flowers, but they usually don't and they don't really get that big, so we'd like to get rid of those in order to allow the plant to focus on the upper bud's development. Any kind of sickly or dead leaves, you can go ahead and take those off. There's no need for those to be on the plant. All this being said, it is really highly recommended that our new growers wait a season to start doing their pruning. You'll get a better idea of how this plant wants to grow on its own, what a fully developed cannabis plant looks like; it's really beautiful to get to know the plant that way at first before you start really getting in there and messing with it too much. Or something I like to do, because pruning is great and can be really valuable, if we have six or seven plants, take one or two or three and prune them or prune them in different ways and then leave the others to grow naturally. And compare the growth and production and see how you feel moving forward into crops in future years.

So, trellising can be for our Sativa varieties as Nate mentioned because the Sativas, again, are those taller, lankier cannabis plants. Especially if you're growing outside in areas that have really, really high winds. Also, if you decided to go with clones, if you can remember, we talked about how clones don't produce as deep of a taproot, so they're gonna be a little more tender from wind and things like that, so they really appreciate some assistance in their structure. They can also be really help to trellis in the later flowering stages cause the branches on some of these varieties can get very, very heavy, which could break off the branches or something like that, so like to hold those up if they're looking like they're hanging down, needing some support. As Nate had mentioned you'll, year after year or plant after plant through the season, you'll really be able to see if the plant is looking like it could use some extra support from you. Cages, stakes, sticks, all kinds of different trellising materials exist out there. It really just depends on your site and what you would like to use the best. Here's an example of a cage that's around a beautiful cannabis plant that's heavily, heavily laden with big, big flowers.

So just to review the sexing a little bit for our female plants. The females usually show signs of maturity earlier than the males. Our different strains are gonna mature at different times, so go back to the person that you bought your seed from or your clones from and see what they know about the variety that you're growing and figure out if there's a timeline that they've noticed within that variety. There's probably a lot of other information that they have about growing that variety that might be really interesting and valuable to you, so getting the story of your plants is always fun and super helpful. Remember to keep a very vigilant eye. You can be out there one day and the very next day males start showing up or the female flowers start showing up, so you really want to keep an eye on things and pay attention to your plants. This is a beautiful closeup picture of what the female is looking like as she's just starting to develop her buds and flowers, really beautiful.

So, to review our males. It only takes one male to pollinate an entire field of females, so they have a ton of pollen. The pollen can travel very, very far on the wind. Our pollinated plants can become extremely seedy; the females will become very seedy if they have been pollinated. So, our buds are gonna have tons of seeds in them, potentially making them difficult to use for smoking or something like that. So, if you're not intentionally looking for seeds or to breed, it might be better to keep the males out of there. And as Nate had mentioned, cannabis growers can get very, very upset if there is a male left to pollinate their farm or their garden cause the majority of cannabis growers are not looking for pollination. They're not looking for seed and so they're paying high attention to make sure that there are no males in their systems and I would imagine if you have one near you, that grower would appreciate you being vigilant on that as well or get out there and talk to your neighbors and see how they're feeling about you thinking keeping males if you are. This is a nice photo of a male. These are our pollen sacs that are developing which will open up and spread pollen all around your town. Here's another photo of that.

So, I did just want to throw a few more details in the end of this module on companion plants. So, I love diversity in my gardens, in all my gardens. I love having lot of different herbs and flowering plants that one, are very beautiful but also attract a wide array of beneficial insects. And we're gonna go more specifically into beneficial insects in the next module on pests and diseases, but this is a good space to talk about our umbellifer flowers; our alyssums, our yarrow, our angelica, our lovage. These are all wonderful plants that bring in and nurture our wonderful beneficial insects like ladybugs and lacewings and things like that. I also really, really enjoy motherwort. It's a beautiful, flowering, medicinal herb that needs barely any assistance at all once you get her going and she'll be there for years. She's a perennial and just attracts tons of bees and pollinators and things like that. So great one to have around. As far as understory plants go, I also really like to grow lots of plants together in the same space so long as they compliment each other and don't compete. So these are some of the crops that we have grown with our cannabis crops in them, around them, all kind of mixed up to cover the ground, to limit weeds, as well as like the clover that's listed here to add nitrogen or the holy basil which attracts beneficial insects, but is also this beautiful, medicinal herb. Lots of different options for you, but plants love other plants. So, play around a little bit and see which plants in your system your cannabis likes to grow with.

Diversity equals resilience in all things. I'm gonna leave this slideshow on this beautiful note. This is one of our cannabis plants, a hemp plant in the field just growing in so much diversity and health; in and amongst sunflowers and clovers and there's even some pigweed in there and some other medicinal plants and vegetables and a variety of other things. So, this section of the farm is just diverse and alive and there's insects going in and out. And just a really beautiful example of how cannabis and lots of plants love to grow together in company with their other plant friends. Please make sure to see our resources document for this module. There's a ton more information and photos of males and females at different stages and pruning techniques and different trellising options that are available to you. So, try a few different things and have a great time with this.

Congratulations. You've just completed module five. You're more than halfway through your Cultivating Cannabis course. Our next module covers the fun topic of pests and diseases. We'll see you there.