

Hemp Pollination Testimony

Thank you for having me here today, it is a great honor to get to provide testimony to this committee. My name is Michael Johnson. I am the owner and operator of an outdoor cannabis farm called Gratitude Farms, located in Williams, and I am the General Manager of an OMMP dispensary in Talent, called Talent Health Club.

I came to speak to you today about the concerns regarding cross pollination from industrial hemp crops, to medical marijuana farms.

Personally, I have been farming outdoor medical marijuana for 8 years. I approach this subject from that perspective. I want to be clear from the beginning...that I am a huge supporter of industrial hemp cultivation, and I believe hemp has amazing potential in the years to come in our great state.

Industrial Hemp and Medical cannabis are simply two different varieties of the same plant, Cannabis Sativa. Industrial hemp is grown for fiber or seed, and has very low levels of THC. Marijuana, or psychoactive cannabis, on the other hand, is grown for its flowers and leafy material, and contains much higher concentrations of THC.

Cannabis Sativa is a plant that is dioecious, meaning it has both male and female plants. When you plant a cannabis seed, you don't know which one you are going to get, male or female. On my farm, like most medical marijuana farms, you work hard to keep all of the males out of the garden, and focus 100% of productive space to growing female plants. Preventing pollen from coming into contact with the female flowers is critical to creating premium quality cannabis. If any grower were to have a medical crop become pollinated and full of seeds, its value both medicinally and economically would be greatly reduced.

When growing Industrial hemp, on the other hand, male and female plants grow together, packed tightly, with little differentiation between the two. Pollination, and seed creation, is an integral part of the cultivation method. Males reach full maturity, drop their pollen, and let the wind do the rest.

Industrial hemp pollen is very small, is produced in high quantities, and is able to travel significant distances. Research from Canada, and European countries has shown that, conservatively, hemp pollen can travel distances of 5-12 km, or 3-7.5 miles. Other studies show how Spanish meteorologists track cannabis pollen counts from ++pollen that travels from Morocco over the Mediterranean Sea into southern Spain, a distance of over 30 miles.

It is easy to see, that hemp and marijuana are not the best of neighbors. One grown for seed, one that must remain seedless. With this situation, we have to be very sensitive to how we introduce hemp growing into Oregon.

From a medicinal perspective, we have cause for concern on two fronts, actually. In the case of hemp pollen cross pollinating someone's medical crop, you have simple degradation of the medicine, where their medicine is low quality, low potency, and of little commercial value. And then there is the problem of contaminated genetics. See, growers like myself have been breeding specific strains of medical marijuana for many years. This has been a combined approach of focusing on genetic varieties that tend to thrive in our micro climate, as well as focusing on genetics that have specific medicinal

benefit for one or more of our patients. This has taken many years, great care, and lots of hard work. Each year, many growers keep a male plant or two, segregated, often kept in an enclosed greenhouse or other enclosure. Using gloves, plastic baggies, and a small paintbrush, we are able to take a small amount of pollen from the segregated male, pollinate a tiny branch on one of our female plants, and create specific seed based on specific genetics, so that we may have seed for the next years planting. If hemp pollen were to pollinate my crop, the genetic line that was so carefully stewarded, would be ruined, and we would be back to the drawing board. Our patients would be left without their annual supply of medicine, and we would be left without viable seed for the coming year.

When pressed on the concern of cross pollination, hemp advocates often talk about how the maturation timeline for hemp and marijuana don't coincide, and therefore hemp poses little risk. They will tell you that industrial hemp releases pollen in mid July, and outdoor marijuana doesn't begin flowering until early August, and finishes in early to middle of October. This is a vast oversimplification, and fails to take into account current marijuana cultivation practices. In fact, Marijuana is flowering 365 days a year in SW Oregon. With new agricultural techniques, utilizing greenhouse environments, farmers are able to harvest crops in February, April, July, literally year round. Not to mention the indoor growers, who flower continuously year round, and risk hemp pollen coming indoors through vents and air ducts, or on clothing of the farmer himself.

It's not hard to see, that seedless marijuana and hemp do not belong together. Both have a place in our economy and in our state, this is true. However, we have to be very careful about how we regulate their production, for the sake of everyone involved.

The other principle concern with introducing hemp into the ecosystem, is the concept of invasive species. Hemp, once introduced, will establish itself into non cultivated areas. I know this first hand, as I was raised in the Midwest, where hemp cultivation was encouraged by the U.S. government to support WWII war efforts. Even though it's been over half a century since hemp has been farmed, there remain tall hemp plants along every country road, in fallow fields, in irrigation ditches, any where it can hang on. Growing wild and free, these "weeds" sprout on their own, they mature at will, and they send hemp pollen out across the great plains. Today, seedless marijuana cultivation, outdoors, would be literally impossible in these parts, and this describes a large swath of the middle of our country.

With the reality that I just described, it's easy to see how special of a situation we have here in Oregon. A clean, virgin, pollen free environment that is capable of producing the highest quality seedless marijuana in the world. That is something very special.... and something that now needs our protection....

Ironically, the first hemp license in Oregon was awarded to a farmer who intends to plant 25 acres of hemp smack dab in the middle of the Applegate Valley, one of the most densely populated medical marijuana growing communities in all of Oregon, renowned for its perfect climate for outdoor marijuana production. Ironical as it may be...and believe me, the irony is not lost on me....this is an issue that needs our attention very quickly. For hemp cultivation is to begin this spring, and as it stands, we have a scary comingling that is about to happen, with consequences unknown, and liabilities unassigned.

I take this as an invitation. An invitation for us to address this problem now, before we let the genie out the bottle, and before it's too late. We have the opportunity to regulate these two agricultural production methods, so that neither jeopardizes the other. We can do our part to see that these

emerge as flourishing industries in their own right, and become a model for other states to follow. Comingling hemp and marijuana production is simply not an option. Too much loss, too little benefit. By creating exclusive agricultural zones, designed to protect these two industries, we can ensure protection for all parties involved.

I sincerely thank you for the opportunity to share this knowledge with the committee, and I thank you for your consideration.

