

**PICK YOUR PRODUCT: WHAT TO LOOK FOR WHEN PICKING A CBD RICH**

**HEMP PRODUCT AND WHY.**

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In today's world there are a plethora of cannabinoid-based products on the market that are sold as nutraceuticals rather than as pharmaceuticals. As we know pharmaceuticals have strict good manufacturing practices (GMP) that ensure that every tablet or pill has exactly what the buyer and veterinarian intended to treat with. For nutraceuticals this is very different and each European country has its own regulatory framework for sales of nutraceuticals including CBD rich hemp products which are increasing in the marketplace across the US and Europe, with an ever changing landscape in the European Union. In Spain, The current regulation which is very unsure at this point suggests that by EU standards a hemp based product must be registered as a food, hence should have some nutritional value. Hemp extracts often contain fatty acids, and polyphenols which allow it to be registered in many EU countries as a food or supplement commodity. The one caveat is that it must be below 0.2% delta 9 tetrahydrocannabinol (THC) in France or Germany while in the Czech republic the allowable limit of THC is 1%. This commodity designation allows it to be an ingestible form and any product less than 0.2% can also be sold as a topical as it currently stands.

This regulatory framework allows sale of product in general, but like any nutraceutical in the EU or USA there can be no marketing that it will actually cure or mitigate a disease condition so we will see language about it helping to "calm", "improve mobility", "for immune system health", or "for brain or neuronal health". These are not drug claims and allow owners to assume what indication it might be applicable to.

What is more important is understanding that there needs to be good quality control of products and this has been looked at in the US with about half of producers in a cohort of 29 oil products showing proper labeling etc. The real eye-opening issue is that products could have between 0-70 mg/ml of labeled cannabinoid leaving trepidation regarding quality control. (1) There are 7 things that an owner should be looking for on a certificate of analysis that looks at multiple areas of concern in hemp farming.(2)

**Cannabinoid content**

Of course, knowing the amount of CBD and other minor cannabinoids is an important part of the process to ensure that label claims are met for CBD content. This is also a good way to ensure that the THC content is below the regulatory requirement so you can confirm it is a hemp extract and not marijuana even though both are derived from various strains of Cannabis Sativa.

**Pesticide analysis**

Hemp farming can be done with or without pesticides. Although hemp is rather pest resistant as part of the function of cannabinoids, sometime fungicides are used to prevent molds and rusts. A good COA will have a list of 50 or so common pesticides used in farming, and it should pass for oral consumption. Remember that since hemp is often grown near other crops that the contamination may come from a neighboring crop rather than the hemp crop itself.

### **Heavy metals**

Hemp plants are naturally phytoremediators of soil and have been used in areas of mining contamination and other industrial contamination sites. The extensive root structure provides a wonderful mechanism for extracting minerals from the soil. Typical heavy metals that are examined are Arsenic, cadmium, mercury and lead. Lead contamination is the most common, however it must be noted that sometime the carrier oil is the culprit for contamination and not the hemp extract itself.

### **Microbiologics**

As with any farming there are a number of pathogens that can come from the environment particularly with organic fertilizing using manure. Although uncommon there is always a risk for pathogenic bacteria in extracts or more commonly in whole hemp products like pellets for ungulates. Salmonella, listeria and enteropathogenic E.coli strains are commonly tested for and should be negative for oral consumed products

### **Mycotoxins**

As hemp is known to harbor fungal organism and rusts, particularly in damp growing environments the testing for mycotoxins is commonly found as a must. Aflatoxins are the most common with ochratoxin being prevalent as well. Testing for these two are important while others like zearalenone and DON (vomitorin) appear less commonly since molds that produce these are less common in hemp crops

### **Solvents**

Since there are many products available and most of them are extracts from the plant which require solvents to concentrate the cannabinoids. Most companies utilize ethanol extracts, however other solvents or hydrocarbons can be used to extract the lipophilic cannabinoids in general. These are often tested for and should pass for oral consumption limits.

As you can see there is more to hemp supplements than just picking a product off the shelf. The CoA is important in choosing a reputable product. In the US the American Association of State Boards hemp guidelines point to the CoA as a critical piece of the puzzle and recommend veterinarians look into companies that have done safety testing, pharmacokinetics in the species of interest and most importantly ones with efficacy trials as the most reliable products.(3)

### **Cost reality:**

Considering the extreme difference in pricing for CBD products it is always prudent to look at a product and to determine what the price per mg would be for the product. Oil tinctures have been shown to vary from virtually no CBD to about 100 mg/mL depending on whether it is isolated CBD or whole plant extract CBD, with whole plant extracts being lower in general due to the THC limit being around 0.2% by weight in the product. A great example is the difference in a 60 ml bottle that has 10 mg/ml vs a bottle with 60 mg/mL. Assuming the dose is 2 mg/kg body weight the average labrador needs about 60 mg every 12 hours. In the 10 mg/mL bottle the Labrador would require about 6 ml twice a day which means that bottle will last just 5 days while the 60 mg per mL bottle would require 1 ml twice a day meaning it would last 30 days. Therefore, it is important to help owners navigate what appear to be legitimate products versus those that have little to no evidence that they can be dosed appropriately.

In the United States we have the national animal supplement council which is a voluntary organization that companies can join for a fee. This membership entails NASC auditing good manufacturing practices, allowing for spot checking of product to ensure it meets specifications, reporting into their adverse event

reporting system which ensures reliability of product. This also allows the company to use the NASC logo to provide “peace of mind” to the owner and veterinarian that it is a consistent product.

**Selected References:**

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- 3.) American Association of Veterinary State Boards; <https://www.aavsb.org/wp-content/uploads/2025/05/AAVSB-Guidance-Document-for-CBD-Use-on-Companion-Animals.pdf>; accessed July 25<sup>th</sup>, 2025.