



# ThorneVet Hemp Tincture

Organic Full-Spectrum Hemp Extract

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**An extract containing all of the naturally-occurring compounds found in the hemp plant**

**Contains 20 milligrams of naturally occurring CBD per dropperful**

ThorneVet Hemp Tincture uses the purest hemp oil possible – grown in the Pacific Northwest and certified organic – to support overall health and well-being by helping to moderate the animal's response to stress and tension, pain and discomfort, GI distress, and skin conditions.

**Two sizes: 1-ounce (30 dropperfuls) and 2-ounce (60 dropperfuls) bottles**

## **Key Nutritional Support Features:**

- | Moderates situational responses to stress, tension, and anxiousness
- | Increases mobility by down-regulating the inflammatory response that causes discomfort
- | Supports better digestion and reduces digestive issues
- | Promotes a healthy cardiovascular system by enhancing circulation

# ThorneVet Hemp Tincture – Special Nutrients

## ThorneVet Hemp Tincture Benefits the Endocannabinoid System

**Endocannabinoids** are cannabinoids made by the body. **Phytocannabinoids** are cannabinoids made by plants. **ThorneVet Hemp Tincture** is a full-spectrum extract of **phytocannabinoids** derived from the hemp plant. **Endocannabinoids** work synergistically and are more effective when they are found together than when they are isolated. Thus, a full-spectrum extract, rather than a single-ingredient or a broad-spectrum extract, exerts optimal benefits in an animal's body because it takes advantage of the “entourage effect” – the synergy derived from an extract that contains all the naturally occurring constituents of the original plant.

**ThorneVet Hemp Tincture** contains all the naturally-occurring **phytocannabinoids** in the hemp plant. Blended in a base of nutritionally-rich, organic, medium-chain triglyceride coconut oil, the full-spectrum extract nourishes the body's **endocannabinoid system** – or **ECS**. The **ECS** – whose importance has only recently been realized – is now recognized as one of the body's most important systems. It is now believed that one of the beneficial mechanisms of action of **phytocannabinoids** is to increase the availability of the animal's own **endocannabinoids** by increasing their activity within the body.

What does the **ECS** do? The **ECS** is the animal's primary regulatory system. It acts like an internal balancing mechanism, constantly keeping multiple body functions in a state of equilibrium. The animal makes its own cannabinoids – **endocannabinoids** – that moderate physiological processes throughout the entire body. The affinity of the **phytocannabinoids** in a hemp oil extract for the receptors in the animal's **endocannabinoid** system becomes an integral part of the homeostatic mechanism that operates in tissues throughout the body. Instead of blocking or disrupting the body's reactions, **phytocannabinoids** assist in restoring normalcy using existing endogenous pathways. As such, the **phytocannabinoids** in a hemp oil extract can have a wide-ranging effect on everything from the nervous system, the digestive system, and the cardiovascular system, to the body's overall inflammatory response.

## ThorneVet Hemp Tincture Reduces Discomfort, Alleviates Anxiety, and Moderates Skin Allergies

**ThorneVet Hemp Tincture** contains **phytocannabinoids** that support many of the same mechanisms of action in an animal's body that natural **endocannabinoids** do. When absorbed by the body, these **phytocannabinoids** increase the **ECS's** ability to promote balanced responses throughout the body.

It is believed that the naturally-occurring hundreds of cannabinoids and terpenes in a full-spectrum hemp oil extract are responsible for the beneficial analgesic-like effect of down-regulating discomfort in an animal's joints. The mechanism of action involved is reducing the production of the inflammatory molecules and immune cells that are linked to joint discomfort.

Likewise, it is believed that some of these same **endocannabinoids** up-regulate the serotonin receptors in an animal's central nervous system. It is the up-regulating of serotonin's activity level that is associated with a full-spectrum hemp oil extract's sedating-like benefit for alleviating anxiousness, inducing calmness and relaxation, and improving sleep quality.

The **phytocannabinoids** in a hemp oil extract can have a beneficial impact in skin conditions. Up-regulation of the cannabinoid receptors has been documented in the skin of dogs suffering from skin allergies. This beneficial action is consistent with the known role of cannabinoid receptors in modulating adverse skin conditions in other species.

## ThorneVet Hemp Tincture Benefits Cardiovascular Health

Numerous animal studies have shown that the **phytocannabinoids** in a hemp oil extract can induce vasorelaxation, or opening of the arteries, resulting in better blood flow throughout the body. In addition, the amino acid **L-arginine** is present in hemp oil, and multiple clinical studies have shown **L-arginine** contributes to a healthy cardiovascular system by converting to nitric oxide in the body which, in turn, induces blood vessels to relax. Because the **phytocannabinoids** in a full-spectrum hemp oil extract also help maintain normal inflammatory responses throughout the body, including in the circulatory system, the circulatory system's function is benefited, and optimal blood flow and cardiovascular health is promoted accordingly.

## ThorneVet Hemp Tincture Benefits Digestion

There are a number of benefits associated with using a hemp oil extract to support proper digestion. One of the most important benefits of a hemp oil extract is its immune system modulating property. Because a hemp oil extract helps maintain a balanced inflammatory response in the intestinal tract, it promotes better digestion and reduces digestive issues. A hemp oil extract helps relax the intestinal tract and reduce spasms. This, in turn, provides relief from common digestive issues like cramps, bloating, and diarrhea. Fewer intestinal spasms also promotes better intestinal regularity.

Research indicates that being deficient in natural **endocannabinoids** is linked to a variety of adverse gastrointestinal conditions. Thus, regular ingestion of a hemp oil extract helps to correct an **endocannabinoid** deficiency by preventing their breakdown and prolonging their action. When the deficiency is corrected, an animal struggling with symptoms associated with a gastrointestinal issue often finds relief.

Many animals who suffer from poor digestion also suffer from a condition known as intestinal permeability, or leaky gut. The digestive tract is lined with a barrier of epithelial cells. Tight junction proteins hold these cells together and control what is allowed to pass through the epithelial cells. When the gut is functioning properly, these tight junction proteins allow nutrients to pass through and keep harmful substances out. If the gut is inflamed and the tight junctions become permeable, then they begin to let harmful substances in, which leads to poor digestion. Because of its ability to help maintain a normal inflammatory response in the gut, **ThorneVet Hemp Tincture** helps heal the gut and seals the tight junctions allowing only nutrients to pass through.

## ThorneVet Hemp Tincture is Organically Grown and Processed

The hemp used to make **ThorneVet Hemp Tincture** is grown, harvested, and extracted in the Pacific Northwest. Our supplier harvests the organically grown hemp from the fields and stages it for extraction by drying, packaging, and storing it away from light and the elements in an on-site facility.

ThorneVet Hemp Tincture is processed using a cold ethanol extraction process. The ethanol used in the extraction process is plant-derived, and thus it can be certified organic (many other hemp plant solvent options are synthetic or difficult to procure organically). Therefore, every step of the extraction process is certified organic. The primary objective of the extraction process is to separate the active plant compounds from the rest of the plant material, such as the stems and leaves, to achieve a refined and concentrated full-spectrum oil.

Ethanol is an ideal solvent for extracting hemp because the polarity of ethanol can be modulated by temperature. When chilled to minus 40 degrees Centigrade, ethanol has a higher affinity for the non-polar, fat-soluble compounds in hemp – the cannabinoids and terpenes – and a lower affinity for the polar, water-soluble compounds, such as chlorophyll and plant proteins and sugars. According to the U.S. Food and Drug Administration, cold ethanol extraction is one of the safest methods for pharmaceutical and food grade processes.

In the cold ethanol extraction process, the harvested hemp is immersed in chilled ethanol within a closed-loop centrifugation system, dissolving the target compounds into an extract solution and leaving behind unwanted compounds with the biomass. After the cold ethanol extraction is complete, a series of filtration steps are applied to remove plant particulate, lipids, and waxes, after which all traceable amounts of ethanol are evaporated from the extract, resulting in a full-spectrum oil consisting of the desired cannabinoids and terpenes. The oil is then concentrated by various distillation and isolation methods, which increases the extract's cannabinoid potency (i.e., more cannabinoids per milliliter).

The full-spectrum extract is then distilled and blended with organic, fractionated medium-chain triglyceride coconut oil. This carrier oil is known for its optimal bioavailability, further contributing to the efficacy of **ThorneVet Hemp Tincture**. In most cases, absorption in the body occurs within 20 minutes to two hours.

## ThorneVet Hemp Tincture Benefits Overall Health, Well-Being, and Quality of Life

Some of the naturally beneficial **cannabinoids** and **terpenes** in **ThorneVet Hemp Tincture** include **beta-caryophyllene**, **cannabigerol**, **cannabidiol (CBD)**, and **tetrahydrocannabinol (THC)**. The **THC** content in **ThorneVet Hemp Tincture** is certified to be less than 0.3 percent so it has no psychoactive effect.

**ThorneVet Hemp Tincture** can be added to a pet's food or it can be administered orally. It is safe to administer every 6-10 hours based on the **Suggested Serving Size**. The bottle's dropper is graduated in one-quarter-milliliter measurements so dosing can be easily determined based on an animal's weight. The **Suggested Serving Size** can be increased or decreased depending on the animal's needs.

The primary objective for the therapeutic use of **ThorneVet Hemp Tincture** is to benefit a companion animal's overall health, well-being, and quality of life.



### ThorneVet Hemp Tincture Full-Spectrum Extract

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#### SUGGESTED SERVING SIZE:

<15 pounds: 0.25 mLs  
15-30 pounds: 0.25-0.5 mLs  
30-60 pounds: 0.5-1.0 mLs  
>60 pounds: 1.0 mL or more

#### DIRECTIONS FOR USE:

Add the tincture to your pet's food or administer orally. Administer every 6-10 hours based on the Suggested Serving Size. Increase or decrease the serving size depending on your pet's needs.

### PRODUCT FACTS

30 Dropperfuls per bottle

#### Active Ingredients:

Organic Full-Spectrum Hemp Extract

\*An extract containing all compounds found naturally occurring in the plant including, but not limited to, terpenes, cannabinoids and THC, where the cultivar's THC level is grown or diluted to be less than 0.3%.

\*\*20 mg CBD/mL

**Inactive Ingredients:** organic coconut medium-chain triglyceride oil.

As a member (since 2002) of the National Animal Supplement Council (NASC), ThorneVet complies with NASC's "Labeling and Testing Requirements for Hemp Products," which includes obtaining independent test results from a qualified analytical laboratory that confirms the product meets its specifications.

V920-T / 30 mL

V921-T / 60 mL



**THORNEVET**

**GLUTEN FREE**



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