Understanding the Hemp Landscape Part II.

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The endocannabinoid system (ECS) is the largest neurotransmitter system in the body. It has direct or indirect influences on nearly every cell and system within the vertebrate body. Its primary function is to promote and maintain cellular homeostasis. The phytocannabinoids, found within cannabis, have profound effects on the ECS within vertebrates.

There are approximately 480 biologically active components found in the hemp plant; over 120 cannabinoids currently identified. Cannabidiol (CBD) is found in highest concentrations. Terpenes, flavonoids, amino acids, essential fatty acids, vitamins, minerals, proteins all working together, entourage effect, to potentiate the action and influences of cannabinoids.

The ECS supports homeostasis within the body:

- Nerve support
- Movement coordination support
- Immune system support
- Energy support
- Cell life-cycle support
- Reproduction support
- Circulatory system support
- Bone development support

The ECS simplistically consists of 2 primary receptors: CB1 (nervous system) and CB2 (immune system); 2 primary endocannabinoids: Anandamide (internal “THC”) and 2-AG (internal CBD; primary enzyme: Fatty Acid Amide Hydrolase).

Providing our bodies with an external source of cannabinoids via full spectrum hemp oils can potentiate the action of ECS within our bodies. Cannabinoids are potent pro anxiolytics, mood stabilizing effects, potent promoters of anti inflammatory mediators, are neuroprotective, potent promoters of anti pain pathways, promote insulin regulatory functions, promote vessel elasticity, etc.

When deciding on hemp oils for possible supplementation:

- Ease of administration
- USDA sourced certified organic
- Certificate of analysis
- Extraction method (CO2)
- Water soluble
- Full spectrum hemp
- Bioavailability profile

Suggested dosing of full spectrum hemp in dogs/cats:

1. Micro dosing: 0.1-0.5 mg/kg BID
   - Low: mild issues such as mild discomfort, anxiety
- Mid: moderate discomfort, milder epilepsy, difficult behavior issues, restlessness
- High: severe discomfort, neurodegenerative, difficult epilepsy

2. Macro dosing: 1-5 mg/kg BID
- Refractory epilepsy, severe discomfort, +/- anti neoplastic

Suggested dosing of full spectrum hemp in horses:
1. 25 mg SID to BID: anxiety, behavior, laminitis
2. 50 mg SID to BID: Metabolic syndrome

Suggested dosing of full spectrum hemp in birds: 0.25 to 0.5 mg/kg PO SID to BID, seizures, feather picking, “madly hormonal”, etc.

Possible indications in veterinary medicine:
- Anxiety
- Aggression
- Fear
- OCD type behavior
- PTSS
- Seizures/Seizure like events
- Pain
- Tremors and movement disorders
- Inappropriate marking
- Weakness
- May help lower other traditional medications doses
- Smoother anesthesia recovery
- Lessen anxiety with tracheal collapse, lar par, COMS, thunderstorm/gunshot/fireworks phobias, etc.
- Lessen nail trim, grooming, and hospital handling or anxiety issues
- House hold aggression

All industrial hemp products are “off label” use and the Food and Drug Administration has not evaluated this product or statements thereof and this product is not intended to diagnose, treat, cure or prevent any disease.

References available upon request: jjsynapse78@gmail.com