Why Cold-Pressed, Extra Virgin Plant Oils Are A Good Choice For Pets

Please note that this article has been written specifically for those who are looking for a technical and academic deep dive into the biochemistry of cold-pressed, extra virgin plant oils that are high in omega-3 (flaxseed and canola oils). It covers the anti-inflammatory mechanisms of the omega-3 fatty acid ALA, among other things.

Executive Summary

A blend of cold pressed, extra virgin flaxseed and canola oils packs a dense matrix of phytochemicals that can participate in balancing the body's inherent response to inflammation and oxidative stress. The combination of these naturally occurring ingredients targets multiple physiological checkpoints that regulate tissue damage, repair and inflammation. This sophisticated matrix of phytochemicals includes:

- Omega-3 polyunsaturated fatty acid, Alpha-Linolenic Acid (ALA)
- Omega-9 monounsaturated fatty acid, Oleic Acid
- Peptides: Cyclolinopeptides & Oxylipins (Linosorbs)
- Phenolic acids and flavonoids: ferulic acid, p-coumaric acid, gallic acid, sinapic acid, sinapine, syringic acid, and canolol
- Phytosterols: beta-sitosterol, campesterol, stigmasterol and brassicasterol
- Tocopherols (vitamin E compounds): alpha-tocopherol, gamma-tocopherol, gamma-tocotrienol and Plastochromanol-8
- Carotenoids: lutein, and β-carotene
- Phospholipids: phosphatidylcholine, phosphatidylinositol, phosphatidylethanolamine and phosphatidic acid
- Squalane, a natural triterpenoid hydrocarbon antioxidant

Other than the omega-3 and omega-9 listed here, virtually all of the above beneficial phytochemicals are stripped from flaxseed oil and canola oil during conventional heat and chemical extraction and also during industrial refining processes. These are the methods used to produce crystal clear oils (which consumers prefer) that will be appropriate for high temperature cooking, like frying. This loss of anti-oxidant and anti-inflammatory constituents is prevented when oils are cold-pressed and unrefined (i.e. cold-pressed crude / extra virgin oils).

Incidentally, the lack of industrial refining is what makes crude and extra virgin oils appear cloudy at times, depending on the ambient temperature and the batch of oil. The clarity of unrefined oils can be cloudier when the ambient temperatures drop and can vary from batch to batch due to varying phospholipid content.

If phospholipids are not filtered out they contribute to the cloudiness and can form a sediment in some cases. These phospholipids are highly desirable from a health perspective, as they can supports brain health (e.g. memory and focus), support liver function, and maintains cell membranes in the body.

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Introduction:

This article takes a technical deep dive into the biochemistry of plant oils (particularly flaxseed oil and canola oil) and how they affect the physiology of humans, dogs and other animals that consume plants as a part of their diet.

This article has been written to provide supportive information for the pet products Valeonus Flex and Valeonus Soothe, which are proprietary blends of cold pressed, extra virgin flaxseed and canola oils combined with botanical flavour extracts to help dogs maintain **ease of movement**, joint **flexibility** and **comfort**, as well as a **healthy skin** and coat.

Valeonus represents an audacious and unique approach to supporting canine wellness. Whereas, the pet industry has been narrowly focused on supplementing fish oil based omega-3 fatty acids (EPA and DHA), we champion an entirely plant based approach that is firmly grounded in research and it WORKS.

The market is flooded with erroneous claims made by animal product companies and even professionals who perpetuate the outdated notion that plant oils cannot add significant value to dogs and other omnivores compared fish oil supplements, particularly for addressing inflammation.

They make this mistake because they do not take the time to thoroughly review the foundational biochemistry and the published research evidence themselves and they do not update their knowledge. Instead they simply repeat what others say. **Here we want to set the record straight!**

Why choose plant-based oils over marine based oils for pet supplements?

1. **Sustainability and Environmental Impact**

The environmental perspective:
From an environmental perspective, plant-based supplementary oils like extra-virgin flaxseed oil and extra-virgin canola oil are vastly superior to fish oil. Choosing plant oils reduces overfishing, prevents by-catch and lowers carbon footprints.

Relieve Pressure on Oceans:
The global demand for fish oil drives intensive forage fishing (catching smaller fish like anchovies and menhaden solely to be rendered into oil). By shifting to plant sources, you actively help protect fragile marine ecosystems and maintain food security for ocean predators.

Prevents Destructive By-catch:
Harvesting fish for pet supplements results in heavy by-catch, meaning non-target marine animals (such as dolphins, turtles, and seabirds) are inadvertently caught and killed in the nets.

Lower Carbon Footprint:
Processing and extracting fish oil requires fuel-intensive industrial trawlers, offshore processing, and global transportation. Terrestrial crops, specifically canola and flax, have a significantly smaller environmental and greenhouse gas footprint compared to commercial marine fishing. Furthermore, Valeonus is made from locally sourced flaxseed oil and canola oil. We are proud to support local South African farmers.

2. **Zero Toxic Bioaccumulation:**

Fish oils frequently carry ocean-borne contaminants such as Polychlorinated biphenyls (PCBs), dioxins, and heavy metals, which require heavy industrial refining to remove. Many products are still found to be heavily contaminated with these toxins. Plant oils like flaxseed and canola are cultivated on land and if they are extracted by cold-pressing, these toxins can be avoided. This reduces your pet's exposure and your exposure to these harmful substances.

3. **Allergies and Digestion**

Seafood sensitivities: Dogs with fish or protein allergies tolerate plant oils better.

Sensitive stomachs: Some dogs digest plant-derived fats better than marine oils.

4. **Smell and Taste**

Less fishy odour: Plant oils lack the strong, unpleasant odour of fish oil, making food more appetizing for picky eaters.

Easier handling: Some owners prefer using supplements that do not leave a strong fish odour on their hands, in the kitchen or on the breath of their fur babies.

Flaxseed oil

Research shows that flaxseed oil is particularly effective at regulating inflammation in response to inflammatory triggers and diseases that are usually accompanied by inflammation.

Alpha-Linolenic Acid

Flaxseed Oil contains exceptionally high amounts of Alpha-Linolenic Acid (ALA), 50% - 60%. ALA is widely known as a precursor that humans and animals convert into the longer-chain omega-3s EPA and DHA inside their bodies. However, this conversion is not very efficient in humans, dogs and cats. But research confirms that un-converted ALA exerts direct, independent anti-inflammatory effects through distinct biochemical mechanisms. Here is how that is achieved:

1. ALA directly activates Peroxisome Proliferator-Activated Receptor gamma (PPAR-γ), a master regulator of inflammation, lipid metabolism, and glucose homeostasis. By binding directly to this receptor, ALA triggers a powerful cascade that shifts cells from a pro-inflammatory to an anti-inflammatory state.

2. ALA reduces the activation of Nuclear Factor-kappa B (NF-κB). This is helpful because NF-κB is a master driver of inflammation and inhibiting it downregulates inflammation.

3. Research studies have also demonstrated that ALA directly decreases aggressive inflammatory signalling molecules, specifically TNF-α, IL-1β, IL-6, and IL-8. This leads to a reduction in systemic inflammatory markers like C-reactive protein (CRP).

4. ALA regulates inflammation by reducing COX-2 (cyclooxygenase-2) and iNOS (inducible nitric oxide synthase) gene expression, which lowers inflammatory nitric oxide and prostaglandin production.

5. ALA directly boosts Interleukin-10 (IL-10) production. This is helpful because IL-10 is the body's primary anti-inflammatory cytokine.

6. ALA triggers a switch from the tissue-damaging M1 macrophage phenotype (which is pro-inflammatory) to the healing, regulatory M2 macrophage phenotype (which is anti-inflammatory). M2 macrophages clear up cellular debris and secrete tissue-repairing growth factors.

7. ALA also acts as an *indirect* activator of PPAR-γ through its own oxylipins metabolites, creating a two-wave anti-inflammatory effect. While the parent ALA binds directly to PPAR-γ, lipoxygenase (LOX) enzymes rapidly metabolise ALA into oxygenated metabolites called hydroxyoctadecatrienoic acids (9-HOTrE and 13-HOTrE). This is good because these oxylipin by-products are a better fit for PPAR-γ receptor with significantly higher affinity and stability than the parent ALA itself. This oxylipin-driven activation of the PPAR-γ receptor is what forces the aggressive M1 macrophages to stop their production of the inflammatory IL-1β and IL-6 cytokines, while boosting the secretion of the master healing cytokine, IL-10.

<u>Other natural constituents found in extra virgin flaxseed oil</u>

It is important to emphasize that flaxseed oil does not rely solely on alpha linolenic acid (ALA) to regulate inflammation and other processes in the body. ALA is just one component in a rich matrix of beneficial plant chemicals present in extra virgin flaxseed oil. These important constituents occur in much lower amounts and in some cases are completely absent in oils that have been subjected to heat and chemical extracting, processing and any level of refining. Supermarket flaxseed oil is not the same as crude and extra virgin flaxseed oil.

Cyclolinopeptides & Oxylipins (Linosorbs)

Cyclolinopeptides (CLBs), also referred to as Linosorbs, make up another group of potent inflammation modulators present only in cold pressed, extra virgin / crude (completely unrefined) flaxseed oil. Over 98% of natural cyclolinopeptides are completely destroyed during commercial, large-scale industrial oil refining of flaxseed oil. Standard industrial processing steps like acid degumming (often using phosphoric acid) and alkali refining strip the oil of its natural gum matrices, completely removing all active CLBs. Oils that are produced by cold-pressing and that remain completely unrefined retain their CLBs.

When crude flaxseed oil is stored, the native cyclolinopeptides (such as CLB or CLA) undergo a chemical change, which results in the production of newly structured compounds, most notably Cyclolinopeptide E (CLE) (also classified under the broader class of *linusorbs*). These oxidized cyclolinopeptides are responsible for the bitter taste characteristic of fresh, unrefined flax oil.

This oxidative conversion of cyclolinopeptides and the bitter taste that develops as a result is not an indication that the oil is spoilt, bad or rancid. The oxidation of cyclolinopeptides is not a form of degradation—it is a functional transformation. Commercial culinary flaxseed oils are subjected to aggressive refining processes to remove cyclolinopeptides in order to prevent this bitter taste from developing in the oil. However, beyond the consumer food market these bitter peptides are highly sought after for their unique protective and medical benefits.

Native CLBs are known for their inflammatory effects in the body. However, the oxidized variants show highly specific interactions with immune cell membranes, effectively calming overactive T-cell proliferation and modulating inflammatory cascades. This results in an additive anti-inflammatory effect in combination with the ALA in crude / extra-virgin flaxseed oil. Please take note the CLBs will not be present in culinary flaxseed oils.

Incidentally, cyclolinopeptide B (CLB) also protects ALA inside the flaxseed oil matrix by absorbing incoming molecular oxygen and free radicals before they can attack the fragile double bonds of the ALA.

We overcome this issue of the bitter taste in the Valeonus formulation through careful blending with botanical flavour extracts that radically reduce the bitter perception and synergize with the beneficial constituents in the flaxseed oil and the canola oil to improve the anti-inflammatory effect.

Beyond ALA and cyclolinopeptides, crude flaxseed oil contains a dense matrix of bioactive, health promoting constituents. Because unrefined, cold-pressed oil completely skips the aggressive chemical stripping of industrial refining, these secondary compounds remain fully intact and present. Together, these naturally occurring plant chemicals orchestrate their own significant anti-inflammatory, antioxidant, and chemopreventive (anti-cancer) effects.

1. Plastochromanol-8 (PC-8)

Plastochromanol-8 is a rare, structurally advanced vitamer belonging to the tocochromanol (Vitamin E) family. It is an exceptionally powerful lipid peroxyl radical scavenger that functions as the oil's primary internal shield by absorbing massive amounts of singlet oxygen. It also halts the cascade of lipid peroxidation in cell membranes within the body.

By protecting cell membrane lipids from oxidizing, PC-8 prevents the generation of oxidized cellular debris that triggers potent pro-inflammatory cascades (e.g. the NLRP3 inflammasome and NF-κB pathways).

2. Tocopherols (γ-Tocopherol and α-Tocopherol)

Crude flaxseed oil contains high native concentrations of tocopherols (i.e. vitamin E compounds), with gamma(γ)-tocopherol making up the vast majority. Unlike alpha-tocopherol (standard Vitamin E), γ-tocopherol possesses a unique un-methylated carbon that allows it to trap reactive nitrogen species (RNS). This means it directly detoxifies peroxynitrite—a highly destructive inflammatory radical.

γ-tocopherol has been shown to inhibit COX-2 activity independently of omega-3 pathways, effectively downregulating prostaglandin E2 (PGE_2), which is also a major driver of inflammation, tumour angiogenesis and tumour cell proliferation.

3. Phytosterols

Crude / Extra virgin flaxseed oil is a rich source of plant sterols (Beta-Sitosterol, Campesterol, and Stigmasterol), dominated by β-Sitosterol. Phytosterols stabilize the membranes of immune cells (like macrophages and T-cells). This blocks the physical clustering of pro-inflammatory receptors and

thereby reduces the release of inflammatory cytokines IL-6 and TNF-α. Beta-Sitosterol also directly interferes with cancer cell survival.

4. Phenolic Acids and Lipophilic Flavonoids

Producing flaxseed oil by cold-pressing (and therefore avoiding heat and chemical extraction processes) pulls small, highly potent quantities of lipophilic phenolic acids (such as ferulic acid, p-coumaric acid, and gallic acid) and trace flavonoids directly into the crude oil. These phenolics act as antioxidants, regulators of inflammation and anti-cancer agents in their own right.

5. Carotenoid Pigments

Crude, unrefined flaxseed oil is easily identified by its deep golden hue, which is created by native lutein, and β-carotene.

Lutein:

Lutein (a xanthophyll carotenoid) and beta-carotene (a carotene hydrocarbon) add a highly targeted, lipid-soluble protective layer to crude flaxseed and canola oil matrices.

Once absorbed into the body, they shield cells from damage and protect joints from the progression of both osteoarthritis (OA) and rheumatoid Arthritis (RA).

Fibroblast-like synoviocytes (FLS) are specialized cells in the lining of joints (i.e. in the synovium). They maintain joint health by producing lubricants, but they can turn aggressive and destroy cartilage in arthritis. During the pathogenesis of arthritis these cells multiply uncontrollably and invade nearby bone.

Studies have demonstrated that lutein inhibits MAPK and NF-κB signalling pathways inside these aggressive joint cells, directly reducing synovial overgrowth, bone erosion, and tissue destruction.

Lutein also activates the Nrf2 pathway, which is one of the master genetic switches for the body's internal antioxidant defence system. Once inside arthritic cartilage cells (namely chondrocytes), lutein prevents chondrocyte death and preserves critical cartilage-building proteins (like type II collagen and aggrecan) by downregulating caspase-3 activity and reducing the expression of destructive tissue enzymes (MMP-3 and MMP-13).

Lutein also lowers inflammatory cytokines IL-1β and IL-6 within synovial tissues and thereby stops the inflammatory suppression on PPAR-γ receptors. This ensures that sufficient PPAR-γ receptors are made available to bind to the ALA and oxylipins present in flaxseed oil.

Beta Carotene

Large-scale epidemiological research has revealed that higher blood levels of beta-carotene are associated with a decrease in the risk of developing Rheumatoid Arthritis. In addition to its direct effects, beta-carotene can convert itself into active Vitamin A (retinol) when required.

Beta carotene also contributes to stabilising ALA within extra virgin flaxseed oil due to the fact that it is a highly effective singlet oxygen quencher. It absorbs destructive energy from free radicals, completely neutralizing them before they can attack the fragile double bonds un-esterified ALA.

Absorption synergy

Carotenoids are notoriously difficult for the body to absorb when there are supplemented on their own. Raw lutein or beta-carotene crystals from over-the-counter supplements often pass through the digestive tract unabsorbed. Because lutein and beta-carotene are highly fat-soluble, they require a rich fat carrier to dissolve properly. When they are consumed naturally inside blend of crude flaxseed oil and crude canola oil, the abundant oleic acid and ALA automatically forces the formation of digestive mixed micelles. This lipid matrix increases the bioavailability of both carotenoids, ensuring they are cleanly transported through the gut lining or driven deeply across the skin barrier (if applied topically) to deliver their protective benefits directly to inflamed tissues.

Canola Oil

Crude canola oil boasts a highly dense, interconnected bioactive matrix that parallels the protective elements of crude flaxseed oil. While its alpha-linolenic acid (ALA) profile is lower than flaxseed oil, hovering around 8% to 14% compared to flaxseed's 50% to 60%, it is incredibly rich in the highly desirable omega-9 oleic acid (50% to 66%), creating a distinct fatty acid foundation.

Oleic Acid (Omega-9)

Oleic Acid possesses direct anti-inflammatory properties alongside other significant systemic health benefits (many of which will not be explored in this article). Oleic Acid acts as a highly active metabolic modifier that coordinates tissue healing and calms immune system overactivation.

Oleic acid targets cellular signalling switches. It blocks the activation of the NF-κB and MAPK (JNK/p38) pathways, which are typically triggered by pro-inflammatory stressors. Blocking these pathways downregulates the downstream secretion of aggressive, tissue-damaging cytokines, specifically TNF-α, IL-1β, and IL-6, as well as COX-2, and PGE2.

Studies demonstrate that oleic acid directly activates the STAT3 transcription factor. This drives cells to increase their production of IL-10, the body's master anti-inflammatory signalling protein. This downregulates overactive Toll-Like Receptor (TLR) responses.

Oleic Acid consumption increases Leukotriene A3 levels, which acts as a direct inhibitor of Leukotriene B4 (LTB4), one of the most destructive pro-inflammatory lipid signals in arthritic joint destruction.

Oleic acid physically binds to and blocks the inflammatory cytokine TNF-α and the pain receptor TRPV1. This dual action breaks the feedback loop where localized tissue inflammation directly amplifies pain hypersensitivity.

Incidentally, olive oil boasts a comparably high level of oleic acid compared to canola oil. However, olive oil contains almost no omega-3 fatty acids (under 1%) and a relatively high saturated fat content (roughly 14%). Canola oil, on the other hand, has the lowest saturated fat content of any commercial oil (around 7%) and the second highest omega-3 content (up to 14%) of all commercial plant oils, second to flaxseed oil.

To learn more about the benefits of ALA please return to the flaxseed oil section above that deals with ALA (see page 2). That section applies to canola oil too, as the biochemistry and function of ALA is identical for both flaxseed oil and canola oil.

Canola Oil Polyphenols

Crude canola oil does not contain cyclolinopeptides, which are unique to the *Linaceae* (flax) family. The *Brassicaceae* family (including canola) relies heavily on a phenolic strategy to protect its lipids.

While flaxseed oil relies on ferulic and gallic acids, crude canola oil is naturally packed with sinapine and sinapic acid. Its phenolic footprint is dominated by sinapic acid (up to 85%) and its thermal metabolite, canolol (2,6-dimethoxy-4-vinylphenol). Crude canola oil also contains trace amounts of syringic acid.

While they exist in a dynamic balance inside crude, cold-pressed canola oil, sinapine (the choline ester of sinapic acid), free sinapic acid and syringic acid function through distinct pathways to neutralize oxidative stress, suppress tissue inflammation, and interfere with cancer progression.

Sinapic acid

When absorbed into cells, sinapic acid it targets multiple genetic master-switches simultaneously. It directly binds to and inhibits secretory phospholipase A2 (sPLA2-IIA), which blocks the well known inflammatory arachidonic acid cascade and the downstream inflammatory prostaglandins, thromboxanes, and leukotrienes.

Similar to the plant phenolics found in flax, sinapic acid regulates inflammation by interacting with the pro-inflammatory transcription factor NF-κB, the NLRP3 inflammasome, and the caspase-1 loop to reduce the production of highly destructive cytokines like IL-1β and IL-18.

While it acts as a traditional antioxidant in healthy tissue, inside cancer cells sinapic acid exhibits a unique twist. Here it acts as a localized pro-oxidant, generating targeted surges of oxidative stress that fracture cancer DNA. This triggers a sequence of events that drives the cancer cells into sudden, programmed death (referred to as apoptosis).

Sinapine

Sinapine is the choline ester form of sinapic acid, but it behaves completely differently inside cellular microenvironments than its free-acid counterpart.

Unlike raw sinapic acid, sinapine can readily cross mitochondrial membranes. Once nested inside the inner mitochondrial matrix, it acts as a direct, localized shield against mitochondrial oxidative stress. Here it directly scavenges reactive oxygen species (ROS) at their birth site (the electron transport chain), preventing the mitochondrial DNA fracturing that drives cellular aging and tissue decay.

Canolol

Canolol acts as a powerful anti-inflammatory and anti-mutagen (i.e. cancer prevention) by downregulating COX-2 and iNOS. Canolol also protects the stability of canola oil. In crude cold-pressed canola oil sinapic acid also act as a long-term canolol reservoir. As the oil ages naturally or faces gentle friction and body heat during topical application, the sinapic acid undergoes slow decarboxylation to canolol. This continuously generates fresh canolol to amplify the oil's overall anti-cancer and anti-inflammatory properties.

Other secondary constituents in canola oil

Similar to flaxseed oil, crude canola oil contains excellent native levels of Plastochromanol-8 and Tocopherols (typically 500–1000 mg/kg).

In terms of Tocopherols (the group of natural compounds that make up the major forms of vitamin E), canola oil features a highly balanced ratio of alpha(α)-tocopherol and gamma(γ)-tocopherol. While α-tocopherol provides traditional Vitamin E activity, the γ-tocopherol acts as a trap for reactive nitrogen species (RNS), reducing vascular nitric oxide inflammation.

Crude canola oil also features one of the highest phytosterol contents of any consumer vegetable oil. Its phytosterol profile is heavily dominated by beta-sitosterol, alongside campesterol and brassicasterol (a sterol unique to the *Brassicaceae* family). Beta-sitosterol and brassicasterol physically integrate into the cell membranes of immune cells, structurally stabilizing them to disrupt the physical assembly of pro-inflammatory receptor clusters.

Carotinoid Pigments

Just like crude flaxseed oil, crude canola oil is also rich in lutein and beta-carotene. To learn more about the important roles that lutein, beta-carotene**,** Plastochromanol-8**,** alpha(α)-tocopherol, gamma(γ)-tocopherol and beta-sitosterol play in the oil itself and in supporting health please review these sections for flaxseed oil above (pages 3 – 5), as their biochemistry and function are the same for flaxseed oil and canola oil.

Conclusion

A blend of cold pressed, extra virgin flaxseed and canola oils packs a dense matrix of phytochemicals to participate in balancing the body's inherent response to inflammation and oxidative stress. The combination of these naturally occurring ingredients targets multiple physiological checkpoints that regulate tissue damage, repair and inflammation. This sophisticated matrix of phytochemicals includes:

- Omega-3 polyunsaturated fatty acid, Alpha-Linolenic Acid (ALA)
- Omega-9 monounsaturated fatty acid, Oleic Acid

- Peptides: Cyclolinopeptides & Oxylipins (Linosorbs)
- Phenolic acids and flavonoids: ferulic acid, p-coumaric acid, gallic acid, sinapic acid, sinapine, syringic acid, and canolol
- Phytosterols: beta-sitosterol, campesterol, stigmasterol and brassicasterol
- Tocopherols (vitamin E compounds): alpha-tocopherol, gamma-tocopherol, gamma-tocotrienol and Plastochromanol-8 (PC-8)
- Carotenoids: lutein, and β-carotene
- Phospholipids: phosphatidylcholine, phosphatidylinositol, phosphatidylethanolamine and phosphatidic acid
- Squalane, a natural triterpenoid hydrocarbon antioxidant

Cloudy appearance

All of the information regarding flaxseed oil and canola oil shared in this article apply almost exclusively to crude / extra virgin oils produced by cold pressing. Chemically extracted, heat extracted and refined oils, like those commonly sold in supermarkets for everyday cooking, have had many of these anti-oxidant and anti-inflammatory constituents stripped out in order to produce crystal clear oils (which consumers prefer) that will be appropriate for high temperature cooking, like frying.

This is why crude and extra virgin oils are not as clear as refined oils. They can appear quite cloudy at times, depending on the ambient temperature (colder temperatures can temporarily turn unrefined oils more cloudy) and the batch of oil. Unrefined oils can vary from batch to batch in their phospholipid content.

Crude and extra virgin oils for both canola and flaxseed contain phospholipids (phosphatidylcholine, phosphatidylinositol, phosphatidylethanolamine and phosphatidic acid) to varying degrees. These phospholipids can supports brain health (especially memory and focus), support liver function, and maintains cell membranes in the body. If these phospholipids are not removed from the oils they contribute to the cloudiness of the oils, as well as a sediment.

Valeonus Flex and Valeonus Soothe

Valeonus Flex and Valeonus Soothe are unique blends composed of cold-pressed, extra virgin flaxseed and canola oils. After reading this article, it should be clear why each of these blends (Valeonus Flex and Valeonus Soothe do differ in their formulations) are so special for supporting the health and wellbeing of dogs. Blending crude, cold-pressed flaxseed oil and crude, cold-pressed canola oil creates complex botanical matrices and multi-tiered therapeutic catalysts. They deploy multiple distinct classes of bioactive compounds that are naturally present in these unrefined oils. These bioactive compounds protect each other inside the oils and simultaneously regulate inflammation at different cellular checkpoints inside the body.

Botanical flavour extracts

Valeonus Flex and Valeonus Soothe are both further enriched by the addition of our proprietary blends of botanical flavour extract. These special ingredients radically reduce the bitter perception of the oxylipins naturally present in the flaxseed oil component and synergize with the various beneficial constituents in both the flaxseed oil and the canola oil.

Valeonus Flex is more potent than Valeonus Soothe in order to provide stronger relief for dogs that need this and to ensure that animals weighing more than 30kg receive sufficient support. Valeonus Soothe and Valeonus Flex taste different. Your dog may prefer the taste of one formulation over the other.

Valeonus is <u>not</u> appropriate for cats. Cats do develop wear and tear in their joints, just like other animals do and they do experience pain and inflammation due to various reasons over and above age related challenges in the musculoskeletal systems.

They definitely deserve receiving pain relief, whatever the cause of the pain may be. However, unlike dogs, humans, horses and other animals that consume plants as food, cats are obligate carnivores and therefore are not as efficient at metabolizing botanical extracts. These ingredients can therefore build up in their bodies over time (due to how slowly they metabolize plant-based chemicals) and in some cases this may cause them harm. We are in the process of developing a product formulated specifically for cats to ensure that they too can experience more comfort and relief. In the meantime we ask you not to give Valeonus to cats. Thank you.

To learn more about Valeonus:
https://valeonus.co.za