

Directions for use

Serving	Perimeter: 47.5 g daily for a 1,000 lb horse, divided between the AM and PM feedings. Perimeter MAX: 56.6 g daily for a 1,000 lb horse, divided between the AM and PM feedings. Feed with or after a meal.
Loading	2 servings daily (one AM, one PM) for the first 14 days, continuing up to 4 weeks.
Maintenance	1 serving daily, split AM/PM.
Body weight	Adjust proportionally, e.g. ½ serving for a 500 lb pony, 1½ servings for a 1,500 lb draft.
Measure	Weigh on a digital scale (included in the Intro Kit) or use the enclosed scoop.
Storage	Keep lid tightly closed. Store cool and dry, away from direct light. Leave the desiccant pack in the tub; do not eat.



Quality by design. Science behind every ingredient.

Our aim is straightforward: to bring evidence-informed nutritional support to equine practitioners, helping them take a more considered, whole-horse approach to immune health.

We believe that the quality of a nutritional supplement begins long before the finished product comes together. Our approach starts with purposeful ingredient selection, informed by published scientific research and an understanding of the physiological processes we aim to support. We consider not only the identity of each ingredient, but also its source, specification, form and inclusion level within the finished formulation.

We place particular importance on ingredient purity, consistency and traceability, working with established ingredient suppliers and experienced manufacturing partners.

Every formulation decision serves a clear purpose: to bring together complementary ingredients in a considered, transparent, and practical solution for the horse.

Because scientific integrity and product quality should be fundamental, not optional.



A different standard for equine care.

Improve Equine was founded by Sara Kirkwood, a Navy veteran with more than 30 years in engineering and technology. She applies systems design to the products and processes horsemanship has always relied on, then updates them with current science and equine behavioral research, creating an experience for horses and their people that matches, or better, what is possible today.

That means nutritional products for horses should be formulated with the same seriousness practitioners bring to every other aspect of equine health: purposeful ingredients, meaningful inclusion levels, transparent formulation and a willingness to show the science behind our decisions.



SCAN HERE

Learn more about Perimeter | Perimeter MAX and Improve Equine.

- Explore the formulations, ingredient science and product information
- See the complete references and supporting research
- Download this sheet as a PDF

improveequine.com/perimeter

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Six ingredients.
Multiple pathways.
One considered approach to equine immune health.

Evidence-informed nutritional support, developed with the horse's needs and the veterinary profession's expectations in mind.



Lorlei, the horse this formula was developed for

A science-led approach to supporting equine immune response

Seasonal pollens, barn dust, molds, and biting insects are unavoidable parts of a horse's environment. For susceptible horses, exposure to these everyday allergens can trigger an exaggerated immune response, affecting skin and respiratory health, comfort, and performance. Supporting normal immune function in these horses requires more than a single-ingredient approach.

Perimeter and Perimeter MAX have been developed with this in mind. Combining six carefully selected functional ingredients, each chosen for its potential role in supporting different aspects of the normal immune and inflammatory response, these innovative formulations take a multi-pathway approach to supplement support. We base ingredient selection on published scientific research, focusing on quality, bioavailability, and meaningful inclusion levels.

How Perimeter and Perimeter MAX Help Support Normal IgE-Mediated Allergic Response

Six active ingredients working together to support immune balance

1 Sensitization

First contact

- Allergen exposure (pollen, barn dust, mold spores or insects) is taken up by immune cells in the body.
- IL-4 signaling drives IgE production, which coats mast cells.

Where the actives work

Spirulina
May help support normal IgE-signaling and immune response.

2 Trigger

The alarm is set

- On re-exposure, the allergen cross-links IgE on mast cells.
- The cell is primed to release its mediators.

Where the actives work

Quercetin
May help stabilize mast cells and modulate their reactivity.

3 Degranulation

The release

- The mast cell releases histamine (from granules), and synthesizes prostaglandins and leukotrienes (from activation), along with inflammatory cytokines.

Where the actives work

Vitamin C
Support normal histamine levels and airway antioxidant defenses.

Bromelain
May help support normal inflammatory signaling and immune-cell response.

4 Inflammatory Response

The flare-up

- Neutrophils and eosinophils move in and sustain the response.
- Oxidative stress builds in the airway lining.

Where the actives work

Algal DHA (omega-3)
Support healthy airway function and a normal inflammatory response.

MSM
Antioxidant support; may help protect cells from oxidative stress.

The Science Behind the Formulation

A considered combination of complementary ingredients

Perimeter and Perimeter MAX combine ingredients with complementary roles in supporting normal immune function, mast-cell activity, antioxidant defenses and respiratory health. Rather than relying on a single ingredient or mechanism, the formulation takes a multi-pathway approach informed by available published research.

Each ingredient has been selected with a specific functional rationale, considering the available research, its intended contribution to the formulation, and practical considerations for daily equine supplementation.

Perimeter began with Lorilei. *The original formula was developed for our founder's own mare, under the ongoing care of her veterinarian, and refined in consultation with a PhD equine nutritionist.*

The numbered badges 1 2 3 4 match the four stages of the allergic response on the cover.



Spirulina (*Arthrospira platensis*)

1

Spirulina is rich in the naturally occurring pigment-protein phycocyanin. Studies on its effects on immune signaling and mast-cell activity show modulation of IL-4 production and inhibition of mast-cell histamine release supporting for its role in a balanced immune response. [Refs. 4–6]



Quercetin (*Sophora japonica*)

2

Quercetin is a well-studied flavonoid directly relevant to mast-cell physiology. In experimental human mast-cell models, quercetin inhibited IgE-mediated release of histamine, prostaglandin D₂ and leukotrienes and modulated inflammatory cytokine release. These actions make quercetin a logical cornerstone of a nutritional strategy designed to help maintain normal mast-cell reactivity. [Refs. 9, 12]



Vitamin C (*as calcium ascorbate*)

3

Vitamin C is not only an antioxidant source known to protect the lungs from oxidative damage; research has also shown an association between vitamin C supplementation and lower circulating histamine levels. Equine studies have shown that lung fluid levels are depleted in horses with airway inflammation and that oral supplementation can raise those levels. Within Perimeter and Perimeter MAX, vitamin C supports normal histamine balance and antioxidant defenses. [Refs. 16–18]



Algal DHA (omega-3)

4

DHA is a long-chain omega-3 fatty acid incorporated into cell membranes and involved in normal inflammatory regulation. Equine research supports the nutritional use of omega-3 fatty acids as part of respiratory management, including research in horses with chronic lower-airway inflammatory disease. Perimeter uses an algal source of DHA to support a normal inflammatory response. [Refs. 1–3]



MSM (OptiMSM®)

4

MSM provides a complementary antioxidant component to the formulation. In horses, MSM supplementation has been studied for its effects on biomarkers associated with oxidative stress following exercise. OptiMSM® was selected as a purified, distilled source of MSM to support antioxidant defenses and normal inflammatory processes. [Ref. 20]



Bromelain (*pineapple stem*)

3

Bromelain provides a natural mix of enzymes that can influence the immune system. Studies using allergy models show it can affect eosinophil movement, the presence of inflammatory cells, and cytokine signaling. Additionally, research in humans shows that when taken orally, bromelain has biological effects, suggesting its potential to support a healthy inflammatory response. [Refs. B1–B4]

One formulation philosophy. Two levels of nutritional support.

Perimeter

Perimeter provides the foundational six-ingredient formulation for daily nutritional support of horses whose immune systems are regularly challenged by environmental allergens such as pollens, dust, molds and biting insects. It is designed for ongoing support of normal immune function, mast-cell activity, antioxidant defenses and inflammatory balance.



When might Perimeter be considered?

For horses requiring consistent, daily nutritional support during periods of environmental challenge or as part of an ongoing approach to maintaining normal immune and respiratory health.

Perimeter MAX

Perimeter MAX follows the same six-ingredient, multi-pathway strategy while providing higher levels of three selected actives: quercetin, vitamin C and bromelain. It was developed for situations in which the veterinarian or horse owner wants a more intensive level of nutritional support while retaining the same core formulation approach.



When might Perimeter MAX be considered?

When a more intensive level of nutritional support is desired, MAX increases the inclusion levels of quercetin, vitamin C and bromelain while maintaining the same complementary foundation of spirulina, DHA and OptiMSM®.

Active ingredient levels per serving

Active ingredient		Perimeter (47.5 g serving)	Perimeter MAX (56.6 g serving)
	Spirulina (<i>Arthrospira platensis</i>)	120,000 mg	20,000 mg
	MSM (OptiMSM®)	410,000 mg	10,000 mg
	Quercetin (<i>Sophora japonica</i> flower bud)	25,000 mg	10,000 mg
	Vitamin C (as calcium ascorbate)	35,000 mg	7,500 mg
	DHA (from dried algae)	42,000 mg	2,000 mg
	Bromelain (pineapple stem)	31,000 mg	2,000 mg
Serving		47.5 g	56.6 g

Inactive ingredients: Mixed tocopherols and rosemary extract (to preserve freshness), sunflower lecithin, ascorbic acid.



Available as

30-serving tubs of **Perimeter** and **Perimeter MAX**, or the Perimeter Intro Kit. Veterinary practice pricing is available; ask us for details.

30
daily servings per tub

3.2 lb | 3.8 lb
Perimeter | MAX net weight

Intro Kit
2 tubs, digital scale and airtight canister

IMPORTANT INFORMATION

Perimeter and Perimeter MAX are nutritional supplements for horses. They are not intended to diagnose, treat, cure, or prevent any disease. Consult your veterinarian before use, including for pregnant or lactating mares, horses with a medical condition, and horses receiving medication. Competing horses: check the rules of your governing body before use. For animal use only. Keep out of reach of children. Distributed by Improve Equine Inc., Land O' Lakes, FL.