

The miracle of the blessed seed



Immune health

It can now be stated with much certainty that human life in the aftermath of the pandemic will have changed forever with a shift in priorities for the better. One such priority is immune health. A survey conducted by Innova Insights shows that as a result of the pandemic, 54% of global consumers have spent time educating themselves on ingredients that can boost their immune health.¹

As interest in proactive healthcare is growing among consumers, immune health will continue to remain in focus even in the post-COVID era with a strong inclination toward herbal and botanical ingredients. Of the many natural immunity boosting ingredients, black seed or black cumin (*Nigella sativa*) has generated immense attention among scientists.

The black seed oil market size that was over USD 15 million in 2018 is expected to reach at 25 million USD by 2026, growing at a CAGR of 8.5%.² 2020 witnessed an estimated 37% increase from 2019 in the launch of dietary supplements containing black seed.¹



Nigella Sativa- The seed of blessing

Nigella sativa has been used traditionally in different parts of the world to treat various human conditions pertaining to respiratory system, digestive system, liver, and immune function. It has been found to be medicinally effective against cancer, diabetes, inflammatory conditions, and various infections caused by bacteria, fungi, parasites, and viruses. The seeds of *N. sativa* have been reported to contain several bioactive compounds the most important one among these being thymoquinone (TQ). It possesses antihistaminic, antioxidative and immunomodulator properties that can help treat a wide range of health conditions. Optimum performance of the immune system requires functioning of both the innate immunity and adaptive immunity. Innate immunity is non-specific that acts against all microbes the same way and does not involve specific recognition of a pathogen. It consists of non-specific cells, (such as natural killer cells). Adaptive immunity

on the other hand is based on specific responses to specific antigens and is comprised of antibody-mediated immunity where B cells secrete antigen specific antibodies, and cell-mediated which has helper T (CD4) cells and cytolytic T (CD8) cells. Helper T cells are responsible for devising an immune response, whereas cytolytic T cells are the killer cells that travel to sites of infection and lyse infected cells. Together, they are critical for eliminating infections. A study found that the majority of subjects treated with *N. sativa* oil for 4 weeks showed a 55% increase in CD4 to CD8 T cells ratio, and a 30% increase in natural killer cell function, suggesting that *N. sativa* can enhance immune responses in human if administered on an ongoing basis.³

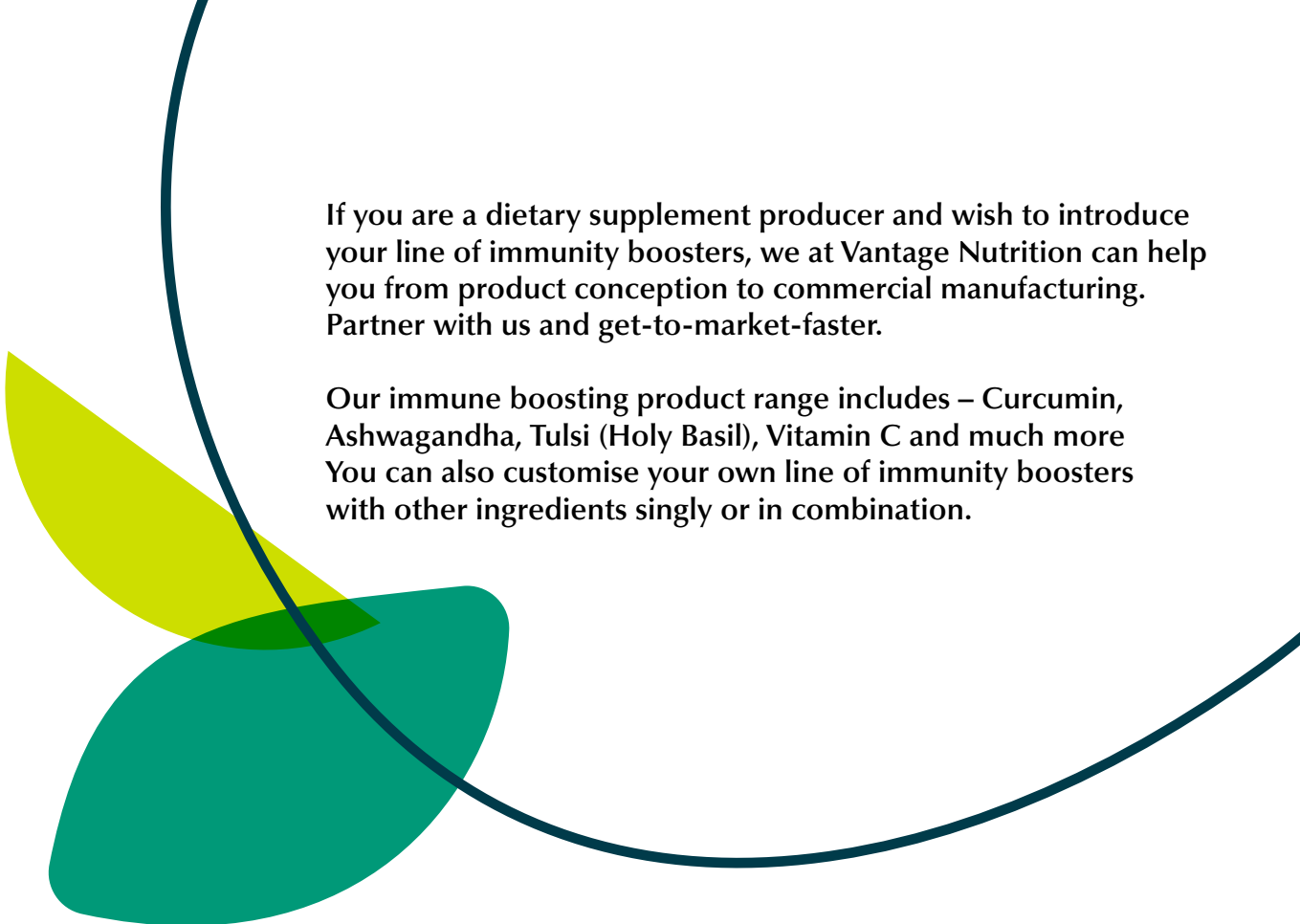
The antioxidant properties of *N. sativa* help it to scavenge free radicals making it a potential anti-inflammatory agent.

The time to act is now

As consumers globally are seeking immunity enhancing and boosting solutions for protecting their immune health, it is important that nutraceutical companies respond responsibly and consider it an opportunity to innovate in this space.

References

1. Innova Database: Innova Consumer Survey 2020. Average of UK, US, Spain, France, Brazil, India, Germany, Mexico, China and Indonesia
2. Global Market Insights; Black Seed Oil Market Share 2019-2025 Industry Trends Growth Report
3. Salem M. L. (2005). Immunomodulatory and therapeutic properties of the *Nigella sativa* L. seed. *International Immunopharmacology*, 5(13-14), 1749-1770. <https://doi.org/10.1016/j.intimp.2005.06.008>



If you are a dietary supplement producer and wish to introduce your line of immunity boosters, we at Vantage Nutrition can help you from product conception to commercial manufacturing. Partner with us and get-to-market-faster.

Our immune boosting product range includes – Curcumin, Ashwagandha, Tulsi (Holy Basil), Vitamin C and much more. You can also customise your own line of immunity boosters with other ingredients singly or in combination.

The Vantage advantage

End-to-end offerings



Right from product development to commercialization, we do it all. Our core offerings include product designing, feasibility assessment, formulation and development, stability studies, regulatory assistance, and commercial-scale manufacturing.

Liquid-filled hard capsules



These capsules are a perfect solution for encapsulating a natural active ingredient or a combination of such ingredients that often pose significant formulation challenges in a single dosage form. A vegetarian variant of this capsule is also available.

Speed-to-market



Our state-of-the-art manufacturing facility, well-equipped for liquid filling of hard capsules, coupled with our expertise in this area make it possible to scale-up quickly, which helps us to respond to rising market demand suitably and translates to shorter time-to-market.

Concept to counter service



Our concept-to-counter service is a one-of-a-kind offering that meticulously focuses on consumer needs. We partner with our customers to help them create products that are consistent with the latest trends and offer strong differentiation for their brands.