

## Vegetarian Lutein Beadlets

### OmniActive rolls out vegetarian beadlet lutein

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Mumbai-based OmniActive Health Technologies has put together formidable portfolio of US and Indian patents for commercialisation of a full range of lutein based products in different forms, and has already made major international breakthroughs for this ingredient under the Lutemax™ brand name.

While studies clearly established the benefits of lutein in both its chemical forms-as lutein ester or free form lutein, no single company had the technology or the patents to make both forms for addressing the diverse needs of the market. Further, international manufacturers routinely stabilised dry forms of lutein for tablets and capsule supplements using gelatin of animal origin. Technological developments were needed to drive the lutein market forward. This is where OmniActive stepped in with the next-generation patent-pending beadletting technology using a completely vegetarian delivery system, and offer both forms of lutein completely backed by patented novel technology. OmniActive's spokesperson said that with its backward integration in place it is for the first time a complete choice from a single manufacturing source with complete control on every element of the supply chain from marigold seeds to our contract farms through to every finished batch of Lutemax® vegetarian beadlets and oil suspensions will be offered globally.

OmniActive's believes that lutein shows much promise as a food supplement ingredient and is a widely acclaimed raw material for the nutraceutical industry. With clear evidence of the benefits and the safety of lutein in dietary supplementation, OmniActive forecasts that more products in the form of interesting formulations for foods and snacks are very likely to emerge and significantly expand the current size of the market globally.

Lutein, an extract of the marigold flower, belongs to a large class of natural plant-derived colours called carotenoids. There are over 600 carotenoids found abundantly in fruits, leafy vegetables and green plants and many of these have been associated with vital nutritional benefits in our diet. As our bodies cannot produce carotenoids, these have to be obtained from a healthy diet based on plant foods, or from supplements containing these carotenoids.

Until the turn of the century, lutein was just one in the crowd. Subsequent studies found a unique feature of lutein (and its isomer Zeaxanthin) is their concentrated presence in specific eye tissues such the macula and the retina. In 1994, a Harvard study, supported by the National Eye Institute (Bethesda, MD, USA) linked the consumption of carotenoid rich foods with reduced risks of Age related Macular Degeneration (AMD) - an eye disorder which may progress to a 'hole' developing in the retina leading to possibly partial/total loss of vision.

Then other studies followed which clearly established the fact that individuals with a lutein deficient diet were at the highest risk for AMD, and that diets associated with higher lutein content were associated with significantly lower AMD risk. Recent studies have established beyond doubt the biological mechanisms by which lutein in our food or in nutritional supplements ends up having a beneficial effect on eye health.

It was generally believed that a varied diet rich in fruits and vegetables provide sufficient quantity of carotenoids that the body needs. However many diets are unbalanced and deficient in fresh fruits and vegetables. Most people don't get enough lutein in their diet, hence the rise in lutein supplements. RDA data in the US recommends 3.7 mg, American diets provide barely 0.7mg lutein daily.

Various studies in the US have also revealed that 60% of the population there are unlikely to eat the recommended 9-13 servings of fresh fruits and vegetables every day. The WHO/FAO Joint Experts Committee on food additives stated that lutein and its structural isomer zeaxanthin are safe for human consumption even at maximum intake levels of 90-150 mg daily for most adults.