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Partnership In Israel Cultivates Combining Cannabis And Mushrooms For Supplements

by Eileen Francis

VMS firm Ambrosia-SupHerb partners with cannabis product developer Tikun-Olam to create Israel's first cannabis and mushroom supplement line.

Two Israel businesses are combining their research and development teams to combine in one product two ingredients with sales among the fastest growing in the nutrition space, hemp/cannabis and mushrooms.

Vitamin, mineral and supplement firm Ambrosia-SupHerb Ltd. is partnering with hemp and cannabis product developer Tikun-Olam Cannbit Pharmaceuticals Ltd. to create Israel's first dietary supplement line made with low-delta-9 tetrahydrocannabinol (THC) and mushroom .

The partnership comprises a joint pilot for R&D to develop products. The companies are applying to Israel's Medical Cannabis Unit for approval for the R&D, according to their 19 August announcement.

In addition to partnering in R&D, Tel Aviv-based Tikun-Olam will invest 4.98% of its shares in Ambrosia-SupHerb through a material private placement for approximately NIS 12m (\$3.64m), at a share price of NIS 5.26 (\$1.64).

R&D teams from both companies will work on combining components of cannabis and mushrooms with additional nutritional ingredients including vitamins, minerals, amino acids and plants.

"We view the combined power of empirical research and extraction expertise that we have along with the product development and shipping abilities of SupHerb in the nutritional supplement market in Israel and worldwide as perfect synergy," said Tikun-Olam general manager Avinoam Sapir.

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TIKUN-OLAM'S PRODUCT LINES INCLUDE ITS AVIDEKEL BRAND "HIGH-CBD, LOW-THC" BODY BUTTER, ABOVE, AND TINCTURE, BELOW.

Source: Source: Tikun-Olam

Mushrooms' Popularity Sprouting

One driver for the agreement, Sapir noted, is that while the use of mushrooms in nutritional supplements is common in the Far East where it originated, it's "experiencing accelerated growth that is estimated at hundreds of millions of dollars" on sales in the US and Europe.

US supplement firms are capitalizing on consumer demand for mushroom supplements, particularly as interest in immune-health benefits jumped during the COVID-19 pandemic.

In April, Gaia Herbs Inc. launched six mushroom capsules that help support whole-body health and maintain wellness. The blends include Reishi and Cordyceps mushrooms designed to help maintain overall lung and respiratory health as well as an immune blend with traditional mushrooms that help maintain immune and overall health. (Also see "For New Mushroom Supplement Line, Gaia Herbs Goes To Oldest Source For Ingredients" - HBW Insight, 1 Apr, 2021.)

In 2020, the Food and Drug Administration approved Oakshire Naturals LP's proposal to allow using vitamin D2 mushroom powder in food and dietary supplements; the approval came less than three months after the firm received clearance from the European Union for a similar proposal. (Also see "US Plant-Sourced Food Additive Options For Vitamin D2 Expand To Mushroom Powder" - HBW Insight, 10 Jul, 2020.)

'High-CBD, Low-THC' Formulations Tested And Ready

Another driver for the partnership is the exploding market in Israel and other parts of the world for hemp- and/or cannabis-derived cannabidiol (CBD) and other cannabinoids in food, supplements and topicals promoted to provide myriad health and cognitive benefits.

On its website, Tikun-Olam describes the "two types of CBD cannabis products" it makes and sells: "high-



Source: Tikun-Olam

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CBD, low-THC cannabis that has minimal psychoactive effects and 1:1 CBD to THC where each cannabinoid is found in equal amounts."

Defining low-THC content in Israel as hemp is defined in the US, containing no more than 0.3% THC, the firm firm also says, "In general, high-CBD cannabis will not give you a euphoric feeling but will decrease anxiety and increase positive emotions."

Tikun-Olam's high-CBD, low-THC research includes a clinical double-blind study of a treatment for Crohn's disease using its Avidekel strain. The results showed "almost all patients achieved significant improvement in quality of life and 45% of patients achieved full remission," it says.

Additionally, using its Avidekel strain, Tikun Olam developed treatment plans for pediatric drug-resistant epilepsy patients and found "significant reduction of symptoms for" all 200 children with neurological disorders in a trial.

In the US, the FDA has approved synthetic 99% CBD extracted from hemp and cannabis plants as the active ingredient in an Rx drug indicated for a rare form of pediatric epilepsy. The agency also has approved synthetic cannabis-based ingredients for drugs used for treatment of nausea and vomiting associated with cancer chemotherapy or treatment of anorexia associated with weight loss in patients with AIDS. (Also see "*'Inactive' Label Doesn't Make Cannabinoids Less Active Or Clear Their Use In OTC Drugs In US*" - HBW Insight, 22 Mar, 2021.)

CBD and other hemp-derived ingredients officials are unlawful for use in non-drug products subject to the FDA's oversight, however, through enforcement discretion it is allowing sales of cannabinoid-containing food, supplement and topical products that are marketed and manufactured in compliance with all other relevant regulations.

Similar to the US, CBD is in a legal gray zone in Israel with sales of CBD products technically only allowed in pharmacies. However, Israel's government is reportedly expected soon to decriminalize cannabis and allow CBD to be used in food and supplements.

In the European Union, food products including supplements containing CBD remain widely available despite the European Commission ruling that the products require authorization as novel foods before they can be sold. ([#ARS151678])

Under the Novel Foods Regulation (EU) 2015/2283, member states are required to set out rules on penalties for selling authorized products "and should take all measures necessary to ensure that they are implemented." However, in practice member states continue to differ in approaches to enforcing the regulation.

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Ambrosia-SupHerb Adds SoftGel Technology

Ambrosia-SupHerb develops vitamins, digestive health, weight loss, cognitive health, probiotics, energy boosters and muscle, bone and joint health supplements.

The Netanya-based firm says its recently became the first business in Israel with technology and capability to manufacture softgel capsules, an ability it acquired only recently.

"The soft capsule technology enables the production of capsules in one piece, completely sealed, trapping inside the capsule liquid or semi liquid substances, as opposed to hard shell capsules made of two halves, trapping within them only powdered substances," it says.

Softgel capability caters to consumers' "growing awareness of the fact that gelatin is an animal product and referring to a product with casing produced from animal products as 'natural' is problematic," Ambrosia-SupHerb says.

Additionally, demand for softgel is driven by a rapid growth of vegetarianism and by increased acceptance of the products among religious populations including Jewish people, Muslims and Hindus, the firm says.



AMBROSIA-SUPHERB MARKETS MUSHROOM INGREDIENT SUPPLEMENTS INCLUDING ITS CORDYCEPS 360 PRODUCT. Source: Ambrosia-SupHerb

Softgel market growth recently led US firm Catalent Inc. to pay \$1bn for Bettera Holdings LLC, which includes Bettera Brands LLC, a developer of gummies, soft chews and lozenges in the nutritional supplement market. (Also see "<u>Catalent Looks To Firm Up Soft-Format Product Manufacturing, Acquires Bettera For \$1Bn</u>" - HBW Insight, 31 Aug, 2021.)