
UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 6-K

**REPORT OF FOREIGN PRIVATE ISSUER
PURSUANT TO RULE 13a-16 OR 15d-16 OF
THE SECURITIES EXCHANGE ACT OF 1934**

For the month of **October 2022**

Commission File Number: **001-36187**

EVOGENE LTD.

(Translation of Registrant's Name into English)

**13 Gad Feinstein Street, Park Rehovot, Rehovot
P.O.B 4173, Ness Ziona, 7414002, Israel**
(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.

Form 20-F ☒ Form 40-F ☐

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1): ____

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7): ____

CONTENTS

Lavie Bio Submits its First Novel Bio-fungicide to the U.S. Environmental Protection Agency for Regulatory Approval

On October 12, 2022, Lavie Bio Ltd., a subsidiary of Evogene Ltd., or Evogene, announced submitting the registration package for LAV.311, its novel bio-fungicide targeting fruit rots and powdery mildews, to the United States Environmental Protection Agency.

A copy of the press release is furnished as [Exhibit 99.1](#) to this Report of Foreign Private Issuer on Form 6-K, or this Form 6-K, and is incorporated herein by reference.

This Report of Foreign Private Issuer on Form 6-K is incorporated by reference into the registration statements on Form F-3 (File No. 333-253300) and on Form S-8 (File Nos. 333-193788, 333-201443, 333-203856 and 333-259215) of Evogene, filed with the Securities and Exchange Commission, to be a part thereof from the date on which this report is submitted, to the extent not superseded by documents or reports subsequently filed or furnished.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

EVOGENE LTD.
(Registrant)

Date: October 12, 2022

By: /s/ Yaron Eldad
Yaron Eldad
Chief Financial Officer



Lavie Bio Advances its Novel Bio-fungicide Program and Applies to the U.S. EPA for Regulatory Approval

LAV.311 is targeting fruit rots and powdery mildews fungal diseases

Rehovot, Israel – October 12, 2022 — Lavie Bio Ltd., a subsidiary of Evogene Ltd. (Nasdaq: EVGN, TASE: EVGN), and a leading ag-biological company focusing on improving food quality, sustainability, and agriculture productivity through the introduction of microbiome-based products, today announced submitting the registration package for LAV.311, its novel bio-fungicide targeting fruit rots and powdery mildews, to the United States Environmental Protection Agency (EPA).

The annual expenditure in the U.S. alone on chemical fungicide crop protection is estimated by Lavie Bio at \$2 billion. Foliage and fruit fungal diseases, such as fruit rots and powdery mildews, cause significant yield loss and produce-quality reduction, impacting growers' profitability, and requiring regular fungicide application throughout the growing season. However, over time, the availability of chemical fungicide products for growers declines due to an increase in disease resistance and regulatory use restrictions, resulting in an increased need for novel and sustainable solution such as ag-biologicals.

Over the past three years, LAV.311 has consistently demonstrated control of fruit rots and powdery mildew in grapes, strawberries, cucurbits, and fruiting vegetables, in over 30 trials conducted in the U.S., Europe and Israel. LAV.311 is based on a novel bacteria that is naturally present in nature, which was selected by Evogene's *MicroBoost AI*. This enables flexibility of product use and integration into customized and existing fungicide application programs. Furthermore, it meets an Integrated Pest Management (IPM) approach, of reduced use of synthesized chemistry, based on more sustainable materials.

Commented Guri Oron, CEO of Lavie Bio: "We are pleased to have reached this key product milestone and we are targeting the 2024 growing season for the commercial launch of this product. We have high expectations for our unique bio-fungicide offering and this is a strong step closer toward commercialization."

Mr. Ofer Haviv, Chairman of Lavie Bio and President & CEO of Evogene, stated: "I am excited to see the strong advances that continue to be made within Lavie Bio's product pipeline. Thrivus™, our bio-inoculant, was commercialized earlier this year, and LAV.311, our bio-fungicide has now advanced to the regulatory stage. Lavie Bio's product pipeline presents a valuable opportunity for implementing sustainable farming practices in tune with nature, using microbes already present in the environment. Our recent pipeline advancements to the pre-commercial and commercial stages demonstrate the power and unique capabilities of Lavie Bio's technology platform."

About Lavie Bio's Product LAV.311

LAV.311 is a water dispersible granule (WDG) based on *Pseudomonas coeleptorum*. This strain has multiple modes of action, combining preventative, competitive and plant induced resistance modes of action against key fruit rot and foliar diseases.

About Lavie Bio Ltd.

Lavie Bio, a subsidiary of Evogene Ltd., aims to improve food quality, sustainability, and agriculture productivity through the introduction of microbiome-based ag-biological products. Lavie Bio utilizes a proprietary computational predictive platform, the BDD platform, harnessing the power of big data and advanced informatics, for the discovery, optimization and development of bio-stimulant and bio-pesticide products.

For more information, please visit www.lavie-bio.com.

About Evogene Ltd.:

Evogene (Nasdaq: EVGN, TASE: EVGN) is a computational biology company aiming to revolutionize the development of life-science based products by utilizing cutting edge technologies to increase probability of success while reducing development time and cost. Evogene established three unique technological engines - MicroBoost AI, ChemPass AI and GeneRator AI – leveraging Big Data and Artificial Intelligence and incorporating deep multidisciplinary understanding in life sciences. Each technological engine is focused on the discovery and development of products based on one of the following core components: microbes (MicroBoost AI), small molecules (ChemPass AI), and genetic elements (GeneRator AI). Evogene uses its technological engines to develop products through subsidiaries and with strategic partners. Currently, Evogene's main subsidiaries utilize the technological engines to develop human microbiome-based therapeutics by Biomica Ltd., medical cannabis products by Canonic Ltd., ag-chemicals by AgPlenus Ltd. and ag-biologicals by Lavie Bio Ltd.

Forward Looking Statements

This press release contains "forward-looking statements" relating to future events. These statements may be identified by words such as "may", "could", "expects", "intends", "anticipates", "plans", "believes", "scheduled", "estimates" or words of similar meaning. For example, Lavie Bio and Evogene are using forward-looking statements in this press release when they discuss the results of the registration process of LAV.311, the annual expenditure in the U.S. on chemical fungicide crop protection, the timing of commercial launch of LAV.311, the success of LAV.311 with control of fruit rots and powdery mildew and Lavie Bio's product pipeline. Such statements are based on current expectations, estimates, projections and assumptions, describe opinions about future events, involve certain risks and uncertainties which are difficult to predict and are not guarantees of future performance. Therefore, actual future results, performance or achievements of Evogene and its subsidiaries may differ materially from what is expressed or implied by such forward-looking statements due to a variety of factors, many of which are beyond the control of Evogene and its subsidiaries, including, without limitation, those risk factors contained in Evogene's reports filed with the applicable securities authorities. Evogene and its subsidiaries disclaim any obligation or commitment to update these forward-looking statements to reflect future events or developments or changes in expectations, estimates, projections.

Investor Relations Contact

Kenny Green
E: kenny.green@evogene.com
T: +1 212 378 8040
