8 March 2022

Calix receives regulatory approval for its safe, environmentally-friendly crop protection product BOOSTER-Mag in Australia

Sydney, Australia | 8 March 2022 – Australian environmental technology company Calix Limited (ASX: CXL) ("Calix" or "the Company") is pleased to announce it has received Australian Pesticides and Veterinary Medicines Authority ("APVMA") approval for its safe, environmentally-friendly crop protection product, BOOSTER-Mag.

Highlights:

- In January 2020, Calix submitted an application to the APVMA seeking registration for BOOSTER-Mag 609 SC as a non-lethal insecticide for the suppression of two-spotted mite (*Tetranychus urticae*) in tomatoes and cucurbits (field and protected crops).
- APVMA concluded its review this month and has approved the application.
- BOOSTER-Mag can now be supplied or sold and used safely according to the label directions by farmers (using the issue of product registration number #89101).
- BOOSTER-Mag aims to reduce farmer input costs and produce food more safely and sustainably.
- The initial registration has been approved without restriction on crop residue, reflecting intrinsic BOOSTER-Mag safety.
- Large-scale field trials indicate that regular foliar application of BOOSTER-Mag can allow for a material reduction in the use of conventional pesticides without compromising crop yield or yield quality.
- The initial label registration creates a Bioactive materials platform; establishing product safety and paves the way for expedited approval for use in more crops and more applications.

The registration of BOOSTER-Mag is the culmination of six years of scientifically rigorous product and application development and is a major milestone for Calix and its Biotech business. BOOSTER-Mag is the first registration of a magnesium hydroxide insecticide in the world.

This initial registration validates that the unique form of Calix materials can be safely applied to suppress a highly destructive crop pest. With suppression efficacy also apparent on additional crop pests and a variety of crop diseases, the initial registration provides a solid basis to expand the addressable market.

BOOSTER-Mag description / history

Calix's core calcination technology enables the production of unique materials characterised by their high porosity and reactivity. Due to the intrinsic safety of produced materials, Calix has focused on the production of highly porous magnesium oxide and magnesium hydroxide

products which are bioactive – early laboratory studies indicated that materials were capable of supressing common and highly destructive crop diseases.

BOOSTER-Mag is a suspension concentrate ("SC") of bioactive magnesium hydroxide, developed as a foliar treatment to supress a variety of crop insect pests and diseases. Large-scale field trials have indicated that regular foliar application of BOOSTER-Mag reduces farmer reliance on conventional pesticides without compromising crop yield or yield quality.

The BOOSTER-Mag value proposition can be summarised as a means to reduce farmer input costs and produce food more safely and sustainably.

With the support of grant funding through the AusIndustry Accelerated Commercialisation programme, Calix completed a six-year development and testing programme, culminating in the January 2020 submission of a technical dossier to the APVMA.

In June 2021, it was announced that the Australian Government's Manufacturing Modernisation Fund ("MMF") would support Calix to develop and transform its Biotech manufacturing capability at its Bacchus Marsh facility in Victoria through the award of a grant of $1.0m. The MMF grant is being used to transform the development of, and establish an advanced manufacturing capability for, bio-active materials for crop protection, marine coatings, and health and pharmaceutical applications.

International collaboration, supported by the Australian Government, with the Greek research organisation, CERTH, developed insights into the mode of action of BOOSTER-Mag on tomatoes by measuring the microbiological response of the sprayed plants. The published results[1] support a view that BOOSTER-Mag may have a broad range of applications in agriculture.

APVMA explained

In Australia, all agricultural and veterinary chemical products sold are required to be registered by the APVMA.

The APVMA acts as the Australian Government regulator of agricultural and veterinary ("Agvet") chemical products.

The registration process involves scientifically evaluating the safety and effectiveness of a product in order to protect the health and safety of people, animals, plants and the environment.

The APVMA regulates Agvet products up to, and including, the point of retail sale. Once approved by the APVMA, a product can be sold for the sole purposes and uses as stated on the product's label.

[1] Microorganisms **2021**, 9, 1217. https://doi.org/10.3390/microorganisms9061217 https://www.mdpi.com/journal/microorganisms

Market size and need

The initial label in Australia allows BOOSTER-Mag to be applied for the suppression of two spotted mite in tomato and cucurbit crops, which present an addressable market opportunity estimated at 16,000 ha in Australia. Both tomato and cucurbit crops are vulnerable to insect pests and disease and, as such, conventional pesticides are critical.

In addition, BOOSTER-Mag is part of several larger field trials overseas where other types of crops and applications (e.g. anti-fungi) are being evaluated.

Next Steps

Calix is developing commercial relationships with specialist global crop protection companies with the expertise and capability to fully utilise Calix's material bioactivity. BOOSTER-Mag field trials are currently underway to support initial market entry and extend the BOOSTER-Mag label, allowing for its use in major crops in Australia and internationally and increasing the addressable market, which conservatively is estimated at 500,000 ha.

This announcement has been authorised for release to the ASX by:-

Phil Hodgson
Managing Director and CEO
Calix Limited
9-11 Bridge Street
Pymble
NSW 2073
Ph +61 2 8199 7400

About Calix

Calix is a team of dedicated people who are urgently developing great businesses, leveraging our patented technology, that deliver positive global impact.

The core technology is being used to develop more environmentally-friendly solutions for water treatment, CO_2 mitigation, biotechnology, advanced batteries, and more sustainable mineral and chemical processing.

Calix develops its technology via a global network of research and development collaborations, including governments, research institutes and universities, some of world's largest companies, and a growing customer base and distributor network for its commercialised products and processes.

Because there's only one Earth – Mars is for Quitters.

Website: https://www.calix.global/
Twitter: @CalixLimited
YouTube: CalixLimited

For more information:

Phil Hodgson
Managing Director and CEO
phodgson@calix.com.au
+61 2 8199 7400

Darren Charles
CFO and Company Secretary
dcharles@calix.com.au
+61 2 8199 7400

Simon Hinsley
Investor Relations
simon@nwrcommunications.com.au
+61 401 809 653