

POSITIVE RESULTS IN EFFICACY TEST WITH FLAVOCIDE™ AGAINST ANOTHER MAJOR AGRICULTURAL PEST

- Efficacy test shows Flavocide™ controls key broadacre and horticultural insect pest
- Control of susceptible and highly resistant strains of Green peach aphid demonstrated
- Bio-Gene has now delivered positive data against five major crop pests

Bio-Gene Technology Limited (ASX: BGT, "Bio-Gene" or "the Company") is pleased to announce the positive results of another successful Flavocide™ laboratory study, this time against serious crop pest the Green peach aphid (GPA; *Myzus persicae*). An estimated A\$31 billion is spent on insecticides globally*, with much of this directed towards control of sucking pests such as GPA.

In the laboratory bioassay against the GPA, Flavocide™ was shown to:

- be effective against both susceptible and resistant populations of GPA;
- outperform Pirimicarb (a commonly used insecticide) in control of a highly resistant strain of the pest;
- further confirm a different Mode of Action to other insecticides, specifically carbamates and synthetic pyrethroids;
- offer potential as an aphid control product in a wide range of broadacre and horticulture crops.

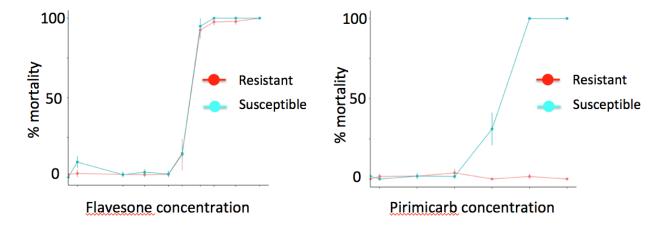


Figure 1. Comparison of results between Flavocide™ and Pirimicarb

Figure 1 demonstrates the results achieved under the laboratory test. Importantly, when Flavocide™ is used it was shown to work on both resistant and susceptible strains of GPA with the same effect under the same dose rates. By comparison Pirimicarb, a commonly used insecticide, demonstrated control of the susceptible strain but failed to demonstrate any significant activity against the resistant adult strain of GPA at any of the dose rates tested.

GPA is found globally and is considered by many to be the most important vector of plant viruses throughout the world. It is known for transmitting more than 100 virus diseases of plants in some 30 different plant families. Chemical control is now proving difficult with widespread resistance developed to most insecticide classes. GPA causes significant economic losses in important food and oilseed crops, including in Australia where it is a common pest of several broadacre crops (canola and grain legumes), broad leaf pastures and horticultural crops.

^{*} Kynetec Market Research, 2016



These initial GPA results continue to expand the Company's exciting portfolio of results within the crop protection vertical. Importantly, results yielded thus far have all been against major crop pests including the Redlegged earth mite, Brown planthopper, Russian wheat aphid and the Lesser grain borer. Most of these pests are highly resistant to commonly used insecticides, and therefore crop protection continues to become an important focus for Bio-Gene in pursuing further commercial partnerships.

The laboratory bioassay with Flavocide™, a liquid formulation containing flavesone (one of the Company's lead compounds) was performed by Australian-based contract research organisation **cesar** using a strain of GPA known to be resistant to both carbamates and synthetic pyrethroids.

Bio-Gene CEO Richard Jagger commented: "These are positive and encouraging results that demonstrate the potential of Flavocide™ to control another major crop pest. GPA has been increasingly difficult to control, largely due to its resistance to most insecticides available for use. The unique mode of action of Flavocide™ offers the opportunity to control these resistant strains, where other chemistry is failing."

"GPA attack a variety of crops through direct feeding damage and transmitting plant viruses," noted Dr. Paul Umina, Director at **cesar**. "Insecticides provide the main basis for controlling this pest yet increasing resistance to several chemistry classes in this species has led to a demand for alternatives. These significant results certainly justify the continuation of further detailed studies designed to replicate field conditions in a controlled environment."

Mr. Jagger commented: "Bio-Gene have engaged **cesar** to progress the studies involving GPA into semi-field environments aimed at demonstrating how Flavocide™ could contribute to the practical and effective management of this major crop pest and create additional compelling data with the intention of attracting commercial interest from companies that operate within this market."

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About Bio-Gene Technology Ltd

Bio-Gene is an Australian AgTech development company enabling the next generation of novel insecticides to address the global problems of insecticide resistance and toxicity. Its novel platform technology is based on a naturally occurring class of chemicals known as beta-triketones.

Beta-triketone compounds have demonstrated insecticidal activity (e.g. kill or knock down insects) via a novel mode of action in testing performed to date. This platform may provide multiple potential new solutions for insecticide manufacturers in applications across animal health and crop protection, as well as in public health, and in consumer applications.

The Company's aim is to develop and commercialise a broad portfolio of targeted insect control and management solutions.

About cesar

cesar is an independent research organisation committed to a sustainable future by providing world leading science, technology and research into agricultural pest control and wildlife conservation.